

Prof. K.V. Bhanu Murthy*
Dr. Manoj Kumar Sinha**

ABSTRACT

With globalisation, there has been a phenomenal rise in Foreign Direct Investment (FDI). Since this is likely to lead to an international relocation of production and consequent generation of income and employment. This would lead to international specialisation of production and is likely to maximize of global welfare. This would however, be hampered if the distribution of FDI in terms of outflows are not rationally allocated. We use set of new indices, including Growth Indices (in absolute and proportion terms) with respect to base year i.e. 1990, The period of study is 1990-2009. These indices are prepared to study and examine trends and distribution patterns of global FDI among developed, developing and transitional countries, both in terms of flow and stock.

FDI has been increased many times with respect to base year 1990 in each group countries. In absolute term, annual growth rate of international FDI is 12 percent in terms of flows and stock. Developed and developing countries are following growth pattern of international FDI follow countries. In percent term, growth index of developed countries has been declined in all four cases. However, decline is larger in case of inflows. Growth index has increased in all four cases for developing and transitional countries.

Keywords: Foreign Direct Investment, Inflow, Outflow, Growth Rate
JEL classification: F21; F23;

INTRODUCTION

FDI stands for international relocation of production. Production needs factors of production. The assumption is that developing and transitional economies have the potential for economic growth because they have adequate factor of production albeit the complementary factor namely, capital. FDI represents the complementary factors of production. It is therefore felt that the breakthrough in the growth of developing economies is possible only if the complementary factor is made available. The opening of the global economy, "the setting up of WTO laying down of the rules of the level playing field" and subsequent changes in the world economy are expected to bring about a rational distribution of the most scarces complementary resource, namely, capital in the form of the FDI. Unlike portfolio investment,

FDI brings along with it managerial and technological resources.

Plan of the Study

In Section 1 is discussing about introduction. Section 2 explains about data source and methodology. Section 3 gives the literature review. The following Section contains all the results and analysis. The last section is about conclusions and final analysis.

DATA AND RESEARCH METHODOLOGY

Data Source

We have collected online data for our study mainly from UNCTAD (United Nations Conference on Trade and Development). We have constructed a data set of 53 common countries include developed and developing countries for FDI for periods 1990-2009 in

*Department of Commerce, Delhi School of Economics, University of Delhi, Delhi 110007, E-mail: bhanumurthykv@yahoo.com

**Asst. Prof., Department of Commerce, PGDAV College, University of Delhi, Delhi- 110065, E-mail: mkdsesinha@yahoo.co.in

terms of inflows, inward stock, outflows and outward stock.

Research Methodology

Growth Index

Growth Index of FDI means growth of FDI with respect to base year FDI

$$GIFDI = FDI_t / FDI_b * 100$$

GIFDI = Growth index of FDI

FDI_t = FDI at t year

FDI_b = FDI at base year

Base year = 1990

t = 1990, 1991, 1992....., 2009.

Semi-Log Growth Equation: Rate of Growth

We use a set of semi-log growth equations to measure rate of growth over different periods. Time factor represents policy and general factors that influence FDI. This enables measurement of rate of growth (RoG) through time series analysis during 1990 to 2009. Rate of growth is measured for each countries group over time. Adjusted R square measures influence of time on FDI. P-value represents the level of significance. The growth equation is

$$FDI = ea + bT$$

Taking log of both sides and adding error term (or semi-log growth equation).

$$\text{Log}(FDI) = a + bT + ut$$

'a' represents intercept

'b' represents annual exponential growth rate.

'u' represents error term

'T' = 1990, 1991,....., 2009

LITERATURE REVIEW

Jha (2003) points out that unless FDI makes its own contributions towards technology progress, productivity spillovers and a consolidation of niche export markets, it may be considered as a part of the level of general investment in the economy. FDI needs certain types of domestic policy support in order to flourish. This paper emphasizes the view that an enlightened FDI policy, both at the national and the states level, is to be seen as part of a general policy of enhancing investment in this economy under condition of sustained production efficiency.

Kumar (2003) - This paper has overviewed the evolution of Indian government's attitude towards

FDI, examined the trends and patterns in FDI inflows during the 1990s and has considered its impact on a few parameters of development in a comparative East Asian perspective. The paper finds a good correspondence between industrial growth rate in a year and the FDI inflows in the following year. The industrial growth seems to signal to the foreign investors about the prospects of the economy. Therefore, it appears that policy liberalization may be a necessary but not a sufficient condition for FDI inflows.

Rao and Murthy (2006) : This paper has overviewed the state-wise distribution of foreign direct investments in the post liberalisation period. It may be said that states in the western and southern regions attracted much of the approved FDI. Even if some of the backward states attracted foreign investment proposals based on their natural resources. However the manufacturing FDI would not go to the relatively backward states except in case of extractive activities and those based on natural resources. Overall, it does appear that, in line with experience elsewhere, FDI has shown a preference for developed states. The two factors combined may accentuate the differences between the developed and backward states. The backward states may neither be in a position to offer the incentives to offset disadvantages and even if they do, the net benefit for their economies is not guaranteed. States have to improve the overall investment climate to be able to attract investment, whether domestic or foreign.

RESULTS AND ANALYSIS

Trends of FDI in Absolute Term

International FDI inflow had been consistently increasing during 1990-2000 in absolute term. This period is considered as an era of globalisation and liberalisation. Multilateral institution WTO also came into effect during this period. International inflow has increased around seven times in 2000 with respect 1990. FDI inflow in developed and developing countries also followed international trend during this period. In case of transitional countries, inflow had been consistently increased till 1997. Inflow to transitional countries declined during 1998-2000. However international FDI declined during 2001-2003. Developed and developing countries also followed same trend during this period. However inflow to transitional countries increased during this period. This may be due to

substitution effect. It means that during declined period FDI inflow is switched over to transitional countries from developed and developing countries for higher returns. During 2004-2007, international FDI inflow increased so as in case of developed, developing and transitional countries also. International FDI inflow declined during 2008-2009 due to global financial crisis, so as also in case of developed countries. However impact of global financial crisis has been seen in developing and transitional countries in 2009. FDI inflow to developing and transitional countries started to decline in 2009.

FDI Inflows

For the reasons given above the year 2009 will be avoided in this analysis. International FDI inflow has increased more than 900 percentage points in

2007 with respect to base year 1990. FDI inflow in developed countries has increased more than 700 percentage points in 2007. However the growth index of developing countries has so up by more than 1600 and that of transitional countries 160000 percentage points (Table 1). High growth index of these countries implies that FDI inflow has been relocating international productive resources from developed to developing and transitional countries. However, majority of FDI inflow is concentrated in a few developed countries.

Figure 1 gives clear picture FDI inflows during 1990-2009. FDI flow to developed countries has almost been exactly followed international trend. It means that international pattern of FDI inflow is affected by the pattern of FDI inflow to developed countries.

Table 1: FDI Inflow (of absolute term) - Indices and Trends

Year	FDI in millions \$				Base year =1990			
	World	Developed Countries	Developing Countries	Transitional Countries	World	Developed Countries	Developing Countries	Transitional Countries
1990	207697	172526	35096	75	100	100	100	100
1991	154009	114035	39770	204	74	66	113	271
1992	165973	111141	53167	1664	80	64	151	2213
1993	223454	143451	76835	3169	108	83	219	4214
1994	256112	150560	103502	2050	123	87	295	2726
1995	342544	222488	115943	4113	165	129	330	5469
1996	388998	236035	147078	5885	187	137	419	7826
1997	486476	285404	190724	10348	234	165	543	13760
1998	707185	508421	190730	8035	340	295	543	10685
1999	1087500	850969	228079	8452	524	493	650	11240
2000	1401466	1137976	256465	7025	675	660	731	9342
2001	825280	601070	214696	9514	397	348	612	12652
2002	628114	440778	176063	11273	302	255	502	14991
2003	565739	361917	183912	19910	272	210	524	26476
2004	732397	410067	291919	30411	353	238	832	40440
2005	985796	624565	330130	31101	475	362	941	41357
2006	1459133	970098	434366	54669	703	562	1238	72698
2007	2099973	1444075	564930	90968	1011	837	1610	120968
2008	1770873	1018273	630013	122588	853	590	1795	163016
2009	1114189	565892	478349	69948	536	328	1363	93016

Source: www.unctad.org

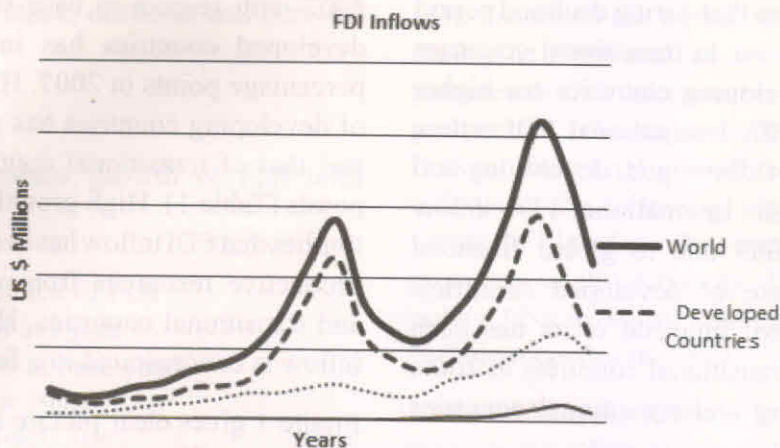


Figure 1: Trends of FDI Inflows (of absolute terms)

FDI Inward Stock

FDI stock is an accumulated FDI inflow over periods. FDI stock of all four groups has been consistently increased except in 2008 (Table 2). FDI stock decreased in 2008 due to global financial crisis. However growth index of all four groups is not same. FDI stock is growing at faster rate in developing and transitional countries than globally and in developed countries. However, more than two-third stock is concentrated in developed countries.

Table 2: FDI Inward Stock (in absolute terms) - Indices and Trends

Year	FDI inward Stock in millions \$				Base year = 1990			
	World	Developed Countries	Developing Countries	Transitional Countries	World	Developed Countries	Developing Countries	Transitional Countries
1990	2081782	1555605	524526	1652	100	100	100	100
1991	2347366	1781709	563470	2188	113	115	107	132
1992	2429159	1807153	621501	505	117	116	118	31
1993	2631511	1928248	700709	2554	126	124	134	155
1994	2844455	2072491	765142	6822	137	133	146	413
1995	3381329	2521480	848381	11468	162	162	162	694
1996	3873724	2871458	984911	17355	186	185	188	1051
1997	4452998	3306762	1116617	29618	214	213	213	1793
1998	5547221	4276649	1237481	33091	266	275	236	2004
1999	6757556	5138281	1576352	42923	325	330	301	2599
2000	7442548	5653181	1728455	60911	358	363	330	3688
2001	7468968	5592839	1788058	88071	359	360	341	5333
2002	7519080	5652416	1751064	115600	361	363	334	6999
2003	9372829	7216030	2002338	154461	450	464	382	9352
2004	11055515	8525518	2331079	198918	531	548	444	12044
2005	11524869	8535776	2713628	275465	554	549	517	16679
2006	14275734	10526119	3352264	397351	686	677	639	24059
2007	17990069	12858740	4452645	678684	864	827	849	41093
2008	15491182	10851276	4213666	426240	744	698	803	25808
2009	17743408	12352514	4893490	497404	852	794	933	30117

Source: www.unctad.org

FDI Inward Stock

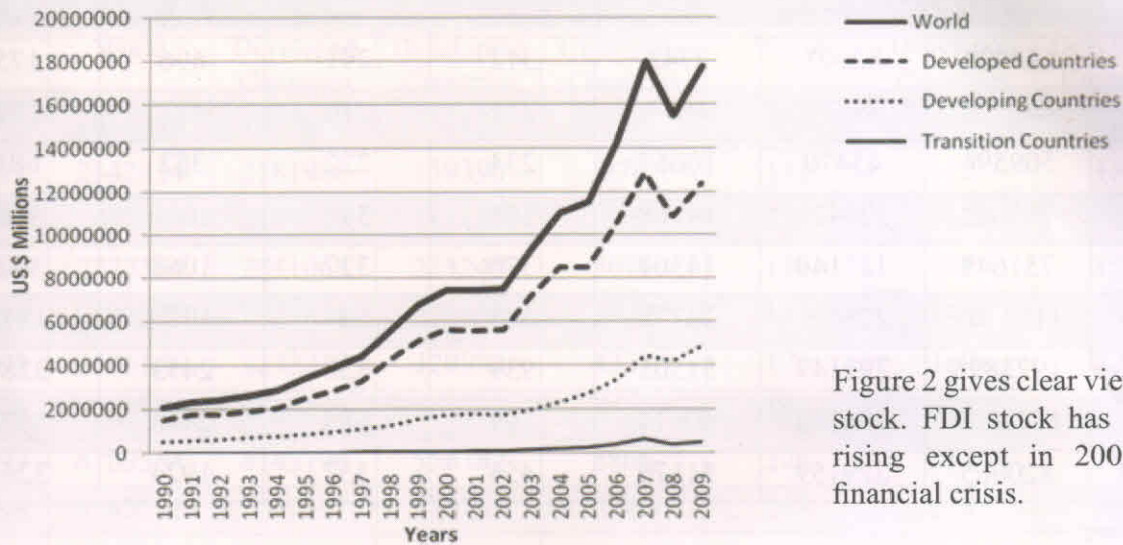


Figure 2 gives clear view of trends of FDI stock. FDI stock has been consistently rising except in 2008 due to global financial crisis.

Figure 2: Trends of FDI Inward Stock (of absolute term)

FDI Outflows

Magnitude of International and developed countries FDI outflow has increased every year with respect to base year except in 1991-1993. Outflow from transitional countries in first half periods, is in nature of transient outflow and has no pattern but in second half, outflow has been consistently rising. However outflow from developing countries has increased in every subsequent year with respect to base year. In terms of growth index, outflow from all four groups has increased. However FDI outflow from developing and developed countries has higher growth than international and developed countries outflow. FDI outflow from developing and transitional countries has been increasing due competition and globalisation. Due to globalisation, liberalisation and competition, developed countries' dominance and control over global productive resources has been decreased from 95 percent in 1990 to 75 percent in 2009 (Table 3).

Table 3: FDI Outflow (in absolute terms) - Indices and Trends

Year	FDI in millions \$				Base year = 1990			
	World	Developed Countries	Developing Countries	Transitional Countries	World	Developed Countries	Developing Countries	Transitional Countries
1990	241474	229565	11908	0	100	100	100	-
1991	198036	184550	13486	0	82	80	113	-
1992	202716	177912	23238	1566	84	77	195	100
1993	242573	202187	39341	1044	100	88	330	67
1994	286889	239036	47533	320	119	104	399	20
1995	362585	306890	55070	624	150	134	462	40
1996	396457	331415	64094	948	164	144	538	61
1997	476083	398863	73796	3424	197	174	620	219
1998	682285	630223	50664	1398	283	275	425	89

1999	1076822	1005869	68662	2291	446	438	577	146
2000	1232888	1094727	134966	3195	511	477	1133	204
2001	753077	667431	82903	2742	312	291	696	175
2002	537095	482772	49670	4654	222	210	417	297
2003	565732	509596	45470	10667	234	222	382	681
2004	920253	785662	120423	14168	381	342	1011	905
2005	893093	751649	127140	14304	370	327	1068	913
2006	1410574	1158105	228691	23778	584	504	1920	1518
2007	2267547	1923895	292147	51505	939	838	2453	3289
2008	1928799	1571899	296286	60614	799	685	2488	3871
2009	1100993	820665	229159	51170	456	357	1924	3268

Source: www.unctad.org

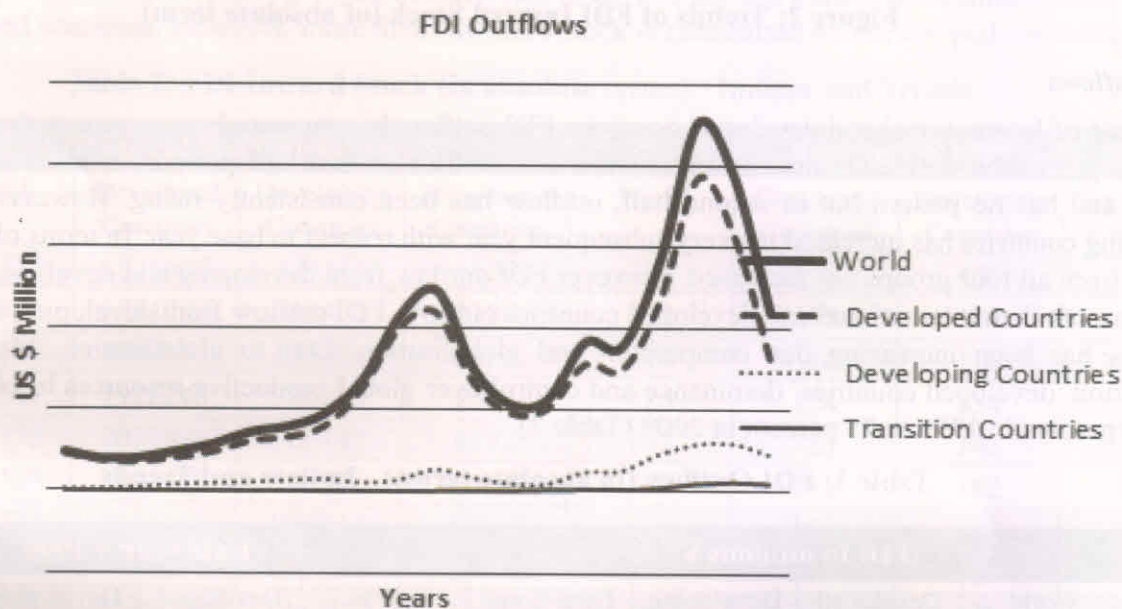


Figure 3: Trends of FDI Outflows (of absolute term)

Figure 3 clearly shows that global and developed countries outflow are very closely moving. The gap between international line and developed countries line is low. This gap indicates FDI outflow from developing and transitional countries. It means that developing and transitional countries have less control of international productive capital and resources.

FDI Outward Stock

FDI outward stock is an accumulated FDI outflow over periods. FDI stock in all four cases has increased quantitatively in every subsequent year with respect to 1990. Growth rate of stock is high in case of developing and transitional countries. However magnitude of FDI stock is much higher in case of developed countries. Therefore, around 85 percent of international productive capitals and resources is owned and controlled by developed countries, in spite of a twenty year period of a globalised and competitive world (Table 4).

Table 4: FDI Outward Stock (in absolute terms) - Indices and Trends

Year	FDI in millions \$				Base year = 1990			
	World	Developed Countries	Developing Countries	Transitional Countries	World	Developed Countries	Developing Countries	Transitional Countries
1990	2086818	1941086	145172	560	100	100	100	100
1991	2342354	2181986	159390	978	112	112	110	175
1992	2382994	2197178	185144	672	114	113	128	120
1993	2777384	2551068	223245	3071	133	131	154	548
1994	3103388	2823845	276033	3509	149	145	190	627
1995	3606556	3272237	329982	4337	173	169	227	774
1996	4089866	3700451	383989	5427	196	191	265	969
1997	4709384	4143796	556782	8806	226	213	384	1572
1998	5587758	5000997	576702	10059	268	258	397	1796
1999	6761225	6020250	730338	10637	324	310	503	1899
2000	7967460	7083493	862628	21340	382	365	594	3810
2001	7684655	6779883	859324	45448	368	349	592	8114
2002	7764291	6832723	866440	65129	372	352	597	11628
2003	9866859	8824273	947726	94860	473	455	653	16936
2004	11639506	10411778	1116318	111410	558	536	769	19891
2005	12416839	10956437	1308372	152030	595	564	901	27143
2006	15661006	13682244	1755952	222810	750	705	1210	39780
2007	19313981	16506514	2420321	387146	926	850	1667	69121
2008	16206795	13585857	2393251	227687	777	700	1649	40651
2009	18982118	16010825	2691484	279808	910	825	1854	49957

Source: www.unctad.org

Figure 4: Trends of FDI Outward Stock (of absolute term)

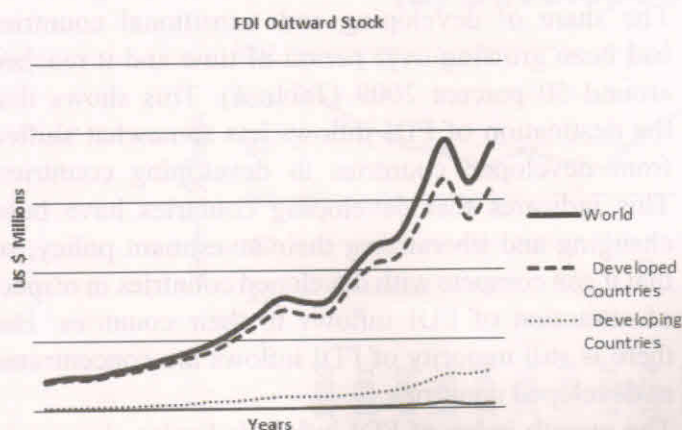


Figure 4 gives a pictorial view of FDI outward stock controlled by different country groupings.

Initially world line and developed countries line are overlapping with each other. It means most of FDI stock has owned and controlled by a few developed countries only during first half of 1990s. Due to globalisation, competition and presence of WTO, the gap between these two line has been consistently but at slow rate increasing. This gap is filled by developing and transitional countries. It indicates these countries ownership and control have been consistently rising but at very slow rate. However, more than four-fifth of international stock is controlled and dominated by a few developed countries.

We use a set of semi-log growth equations to measure rate of growth over different periods.

Table 5: International FDI Patterns in absolute term during 1990-2009

	World	Developed Countries	Developing Countries	Transitional Countries
FDI Inflows				
Adjusted R Square	0.79	0.68	0.89	0.85
Coefficients	0.12	0.11	0.13	0.30
P-value	0.00	0.00	0.00	0.00
FDI Inward Stock				
Adjusted R Square	0.99	0.98	0.99	0.93
Coefficients	0.12	0.12	0.12	0.35
P-value	0.00	0.00	0.00	0.00
FDI Outflows				
Adjusted R Square	0.80	0.76	0.79	0.87
Coefficients	0.11	0.11	0.14	0.28
P-value	0.00	0.00	0.00	0.00
FDI Outwards Stock				
Adjusted R Square	0.99	0.98	0.98	0.97
Coefficients	0.12	0.12	0.15	0.35
P-value	0.00	0.00	0.00	0.00

Regression statistics of FDI in absolute terms, interestingly, shows that rate of growth are positive and highly statistically significant in each case of all four groups. International FDI inflow is increasing at 12 percent per annum during 1990-2009. The growth rate of inflow for developed, developing and transitional countries are 11 percent, 13 percent and 30 percent respectively. In case of FDI inward stock, the stock of developed and developing countries is rising at same rate as that of international stock rising. However growth rate of transitional countries is 30 percent which is higher in all four cases (Table 5).

In case of FDI outflow, international and developed countries outflow are growing at 11 percent. Growth rate of developed countries is 14 percent which somewhat higher than international trend. However, outflow from transitional countries is growing at much faster rate which is 28 percent per annum. In case of FDI outward stock, growth pattern in all cases is the same as in the case of outflow, only the growth rate is different (Table 5).

Trends of FDI in Proportionate Term

With globalisation and WTO, FDI flows and stock has been increased many times of absolute term for each

country groups over last two decades. We are here examining the change in geography of FDI flows and stock in proportionate terms for each country grouping.

FDI Inflows

In 1990, most of the FDI inflows were directed towards developed countries. More than 80 percent FDI inflows were concentrated in developed countries and less than 20 percent FDI inflows were directed towards developing countries. Presence of FDI inflows in transitional countries was almost insignificant. The share of developing and transitional countries had been growing over period of time and it reached around 50 percent 2009 (Table 6). This shows that the destination of FDI inflows has somewhat shifted from developed countries to developing countries. This indicates that developing countries have been changing and liberalizing their investment policy, so that it can compete with developed countries in respect of attraction of FDI inflows in their countries. But there is still majority of FDI inflows are concentrated in developed countries.

The growth index of FDI inflow indicates changes in FDI inflow over time with respect FDI inflow in a base year. FDI inflow in developed countries is decreased to

61.14 percentage points in 2009 with respect to base year 1990. FDI inflow in developing countries is increased more than 150 percentage points. Growth of FDI inflow in transitional countries has increased more than 20000 percent point (Table 6). It means growth of FDI inflow in transitional countries is high.

Table 6: FDI Inflows (of percentage term) - Indices and Trends

Year	Percentage share			Base Year=1990		
	Developed Countries	Developing Countries	Transitional Countries	Developed Countries	Developing Countries	Transitional Countries
1990	83.07	16.9	0.03	100.00	100.00	100.00
1991	74.04	25.82	0.14	89.13	152.78	466.67
1992	66.96	32.03	1.01	80.61	189.53	3366.67
1993	64.2	34.38	1.42	77.28	203.43	4733.33
1994	58.79	40.41	0.8	70.77	239.11	2666.67
1995	64.95	33.85	1.2	78.19	200.30	4000.00
1996	60.68	37.81	1.51	73.05	223.73	5033.33
1997	58.67	39.21	2.12	70.63	232.01	7066.67
1998	71.89	26.97	1.14	86.54	159.59	3800.00
1999	78.25	20.97	0.78	94.20	124.08	2600.00
2000	81.2	18.3	0.5	97.75	108.28	1666.67
2001	72.83	26.01	1.16	87.67	153.91	3866.67
2002	70.17	28.03	1.8	84.47	165.86	6000.00
2003	63.97	32.51	3.52	77.01	192.37	11733.33
2004	55.99	39.86	4.15	67.40	235.86	13833.33
2005	63.36	33.49	3.15	76.27	198.17	10500.00
2006	66.48	29.77	3.75	80.03	176.15	12500.00
2007	68.77	26.9	4.33	82.79	159.17	14433.33
2008	57.5	35.58	6.92	69.22	210.53	23066.67
2009	50.79	42.93	6.28	61.14	254.02	20933.33

Source: www.unctad.org

(a) Developed Countries

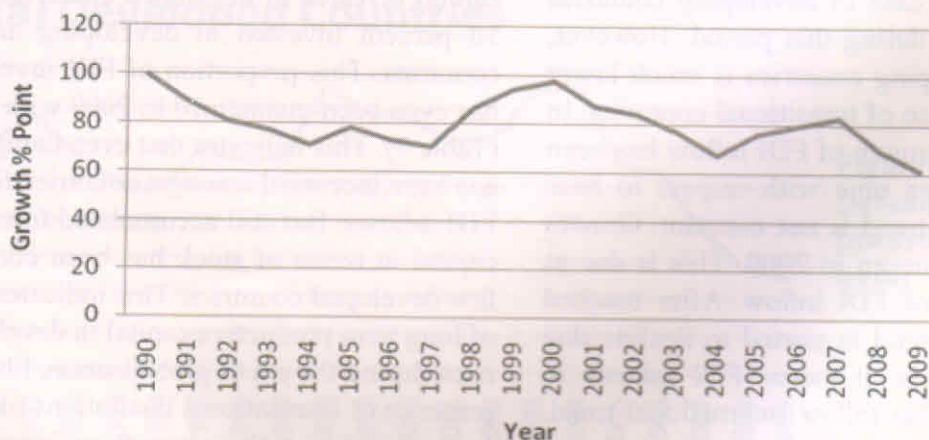


Figure 5a: Growth Index of Developed Countries FDI Inflows (of percentage term)

(b) Developing Countries

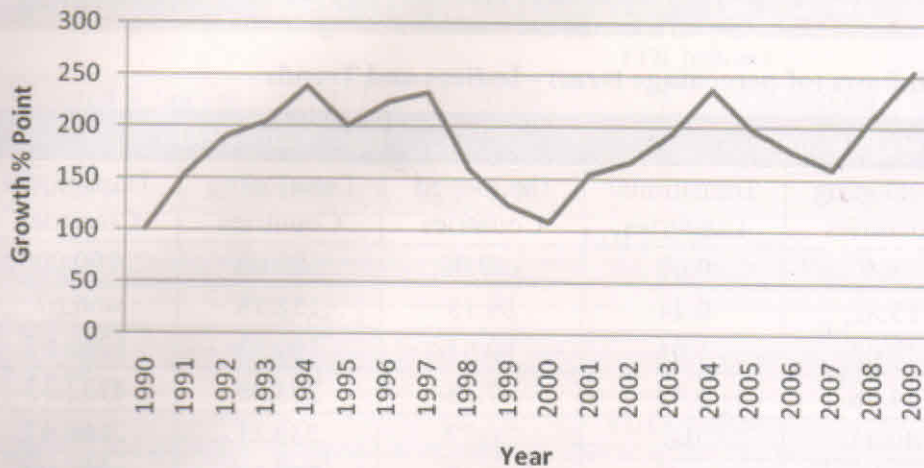


Figure 5b: Growth Index of Developing Countries FDI Inflows (of percentage term)

(c) Transitional Countries

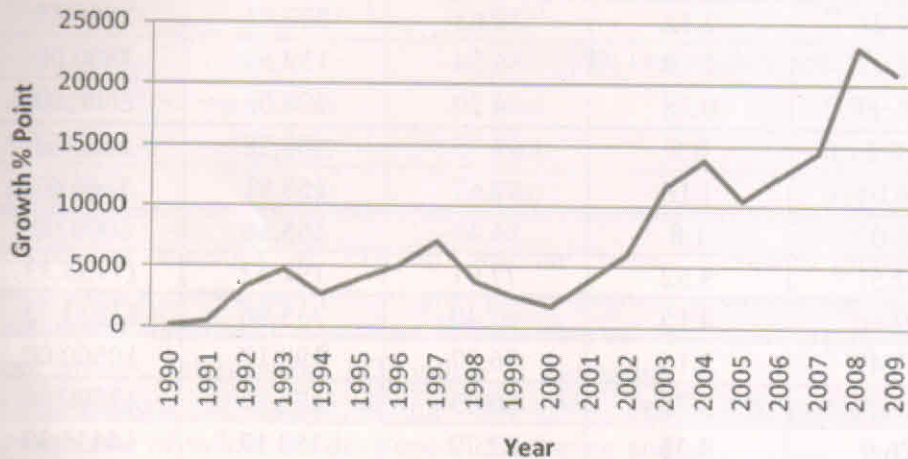


Figure 5c: Growth Index of Transitional Countries FDI Inflows (of percentage term)

Figure 5 clearly shows growth FDI inflows with respect to base year. In case of developed countries, growth of FDI inflow has decreased almost by 40 percentage points. The line chart of developed countries has been declining. The growth of FDI inflow has been increased over time in case of developing countries with wide fluctuations during this period. However, growth trend in developing countries is much lower than growth trend in case of transitional countries. In transitional countries, growth of FDI inflow has been increased manifold over time with respect to base year. However growth trend is not constant. Growth of FDI reached to minimum in 2000. This is due to international declined of FDI inflow. After reached peak in 2008 growth trend is started to decline due to global financial crisis. It means FDI inflows in transitional countries also follow international trend. Higher growth trend in transitional countries is due to negligible FDI inflow in base year.

FDI Inward Stock

FDI inward stock is the accumulation of FDI inflows over a period of time. So that FDI inward stock is generally follow the trends of FDI inflows. In 1990, more than 70 percent accumulated productive capital invested in developed countries and less than 30 percent invested in developing and transitional countries. This proportion of FDI investment pattern has even been maintained in 2009 with slight changes (Table 7). This indicates that even though competition has been increased amongst countries for attraction of FDI inflows. But still accumulated foreign productive capital in terms of stock has been concentrated in a few developed countries. This indicates concentration of long term productive capital in developed countries even during the era of globalisation, liberalisation and presence of international institutions like WTO. In terms of growth index, there is variation of FDI stock, in general, on year to year basis with respect

to base year due to changes of FDI inflows on year to year basis. There is almost seven percent point decline of stock in developed countries. Around 9.5 percentage points increase in case of developing countries (Table 7). Growth Index is very large in case of transitional countries due to very low FDI stock in the base year. It means that a very slight increase in stock in subsequent year leads to a high increase in growth.

Table 7: FDI Inward Stock (of percentage term) - Indices and Trends

Year	Percentage share			Base Year=1990		
	Developed Countries	Developing Countries	Transitional Countries	Developed Countries	Developing Countries	Transitional Countries
1990	74.72	25.2	0.08	100.00	100.00	100.00
1991	75.9	24	0.1	101.58	95.24	125.00
1992	74.39	25.59	0.02	99.56	101.55	25.00
1993	73.28	26.63	0.09	98.07	105.67	112.50
1994	72.86	26.9	0.24	97.51	106.75	300.00
1995	74.57	25.09	0.34	99.80	99.56	425.00
1996	74.13	25.43	0.44	99.21	100.91	550.00
1997	74.26	25.08	0.66	99.38	99.52	825.00
1998	77.1	22.31	0.59	103.19	88.53	737.50
1999	76.04	23.33	0.63	101.77	92.58	787.50
2000	75.96	23.22	0.82	101.66	92.14	1025.00
2001	74.88	23.94	1.18	100.21	95.00	1475.00
2002	75.17	23.29	1.54	100.60	92.42	1925.00
2003	76.99	21.36	1.65	103.04	84.76	2062.50
2004	77.12	21.09	1.79	103.21	83.69	2237.50
2005	74.06	23.55	2.39	99.12	93.45	2987.50
2006	73.73	23.48	2.79	98.68	93.17	3487.50
2007	71.48	24.75	3.77	95.66	98.21	4712.50
2008	70.05	27.2	2.75	93.75	107.94	3437.50
2009	69.62	27.58	2.8	93.17	109.44	3500.00

Source: www.unctad.org

(a) Developed Countries

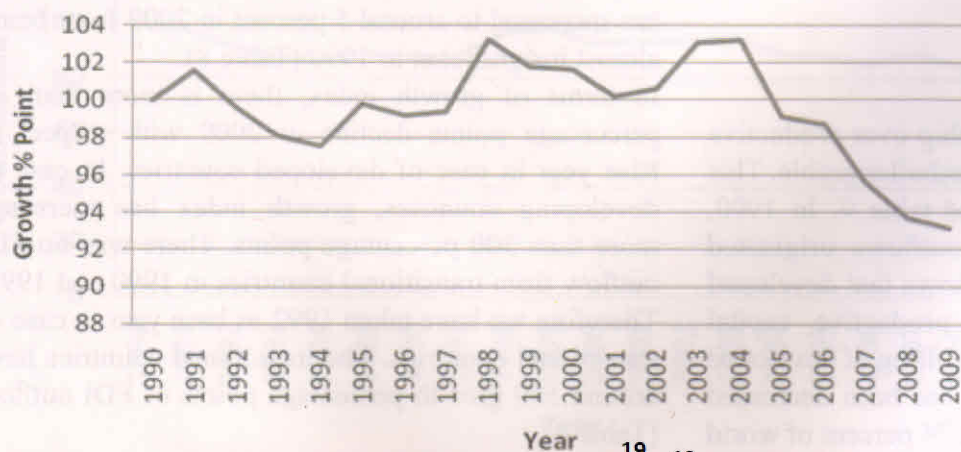


Figure 6a: Growth Index of Developed Countries FDI Inward Stock (of percentage term)

(b) Developing Countries

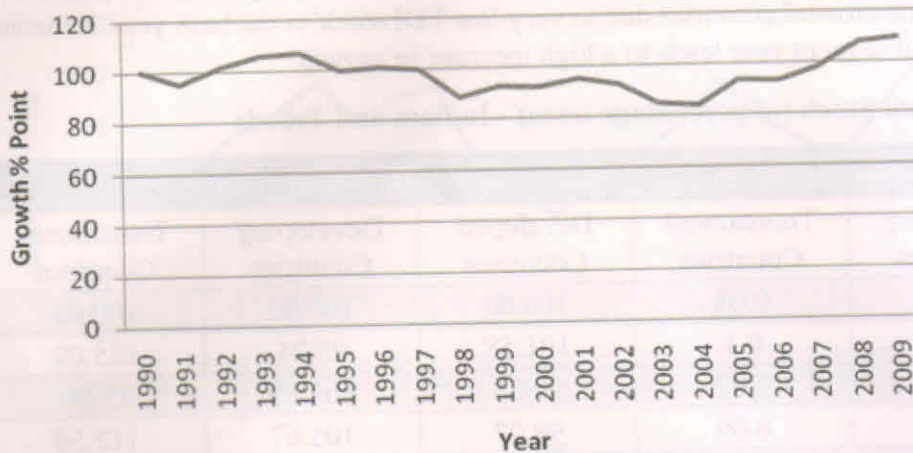


Figure 6b: Growth Index of Developing Countries FDI Inward Stock (of percentage term)

(c) Transitional Countries

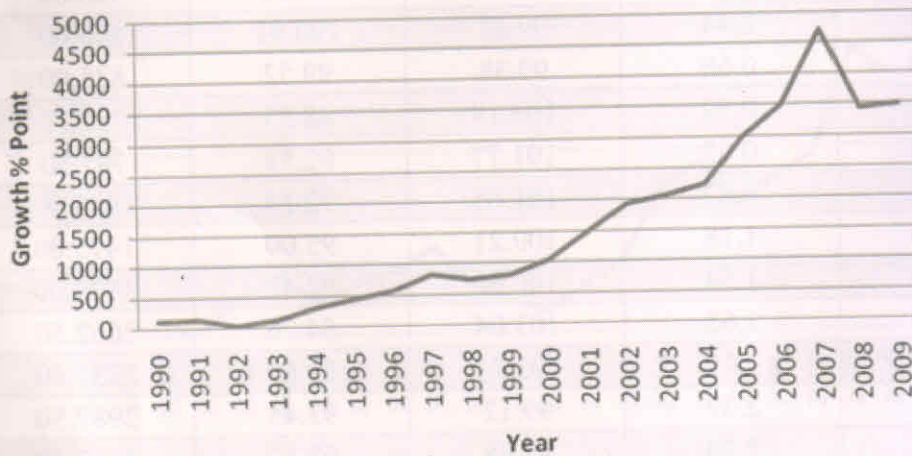


Figure 6c: Growth Index of Transitional Countries FDI Inward Stock (of percentage term)

Figure 6 gives a pictorial view of growth index. The line graph of developed countries is declining. This indicates that growth of FDI stock has been slowly decreased and reached to 93 percent point with respect to base year. In case of transitional countries, magnitude of FDI stock is not large. However, growth is high in recent years because increase of FDI flow with respect to base year.

FDI Outflows

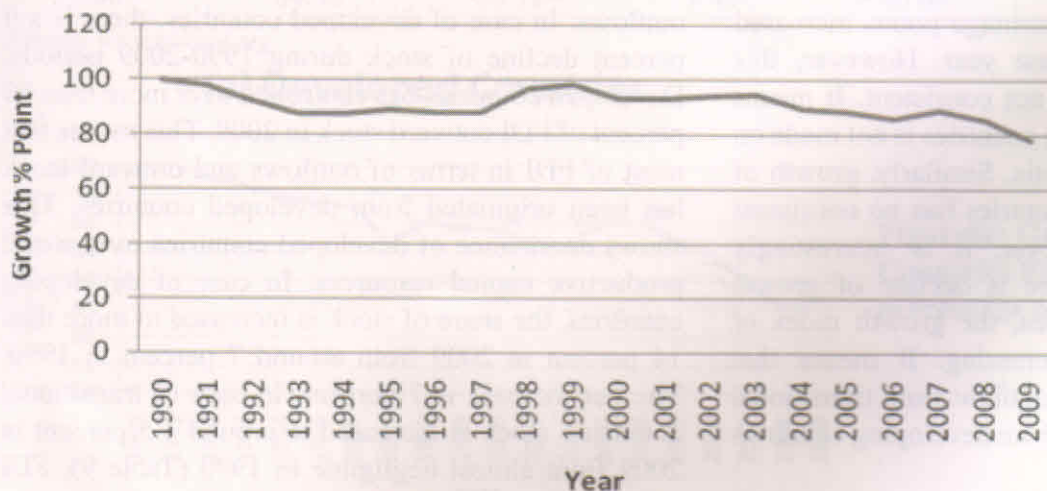
Developed countries have ownership over productive capital resources. This is almost unchallengeable. This is also reflected from table 8 and table 9. In 1990, more than 95 percent of FDI outflows originated from developed countries. This shows that developed countries had controlled over productive capital resources. This proportion of controlling of developed countries over productive capital has been decreased over periods. However, more than 74 percent of world

productive capital is still owned and controlled by developed countries in 2009. Developing countries own and control less than 5 percent the world's foreign capital in 1990. Due to globalisation and competition, developing countries have been owning and controlling more capital, which is just more than 20 percent in 2009. The share of transitional countries has increased to around 5 percent in 2009 from being almost insignificant in 1990 (Table 8).

In terms of growth index, there is more than 21 percentage points decline in 2009 with respect to base year in case of developed countries. In case of developing countries, growth index has increased more than 300 percentage points. There was no FDI outflow from transitional countries in 1990 and 1991. Therefore we have taken 1992 as base year in case of transitional countries. The transitional countries have around 500 growth percentage points of FDI outflow (Table 8).

Table 8: FDI Outflows (of percentage term) - Indices and Trends

Year	Percentage share			Base Year=1990		
	Developed Countries	Developing Countries	Transitional Countries	Developed Countries	Developing Countries	Transitional Countries
1990	95.07	4.93	0.00	100.00	100.00	-
1991	93.19	6.81	0.00	98.02	138.13	-
1992	87.76	11.46	0.78	92.31	232.45	100.00
1993	83.35	16.22	0.43	87.67	329.01	55.13
1994	83.32	16.57	0.11	87.64	336.11	14.10
1995	84.64	15.19	0.17	89.03	308.11	21.79
1996	83.59	16.17	0.24	87.92	327.99	30.77
1997	83.78	15.5	0.72	88.12	314.40	92.31
1998	92.37	7.43	0.20	97.16	150.71	25.64
1999	93.41	6.38	0.21	98.25	129.41	26.92
2000	88.79	10.95	0.26	93.39	222.11	33.33
2001	88.63	11.01	0.36	93.23	223.33	46.15
2002	89.89	9.25	0.86	94.55	187.63	110.26
2003	90.08	8.04	1.88	94.75	163.08	241.03
2004	85.37	13.09	1.54	89.80	265.52	197.44
2005	84.16	14.24	1.60	88.52	288.84	205.13
2006	82.1	16.21	1.69	86.36	328.80	216.67
2007	84.84	12.88	2.28	89.24	261.26	292.31
2008	81.5	15.36	3.14	85.73	311.56	402.56
2009	74.54	20.81	4.65	78.41	422.11	596.15

Source: www.unctad.org**(a) Developed Countries****Figure 7a: Growth Index of Developed Countries FDI Outflows (of percentage term)**

(b) Developing Countries

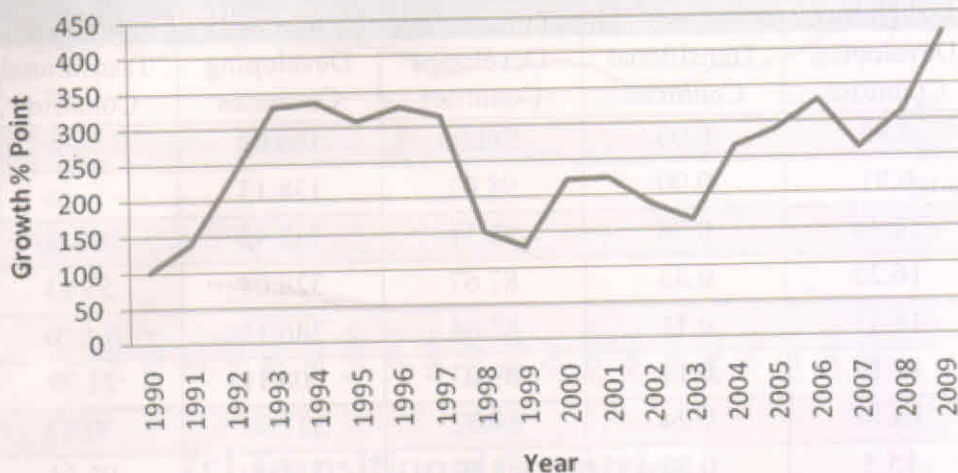


Figure 7b: Growth Index of Developing Countries FDI Outflows (of percentage term)

(c) Transitional Countries

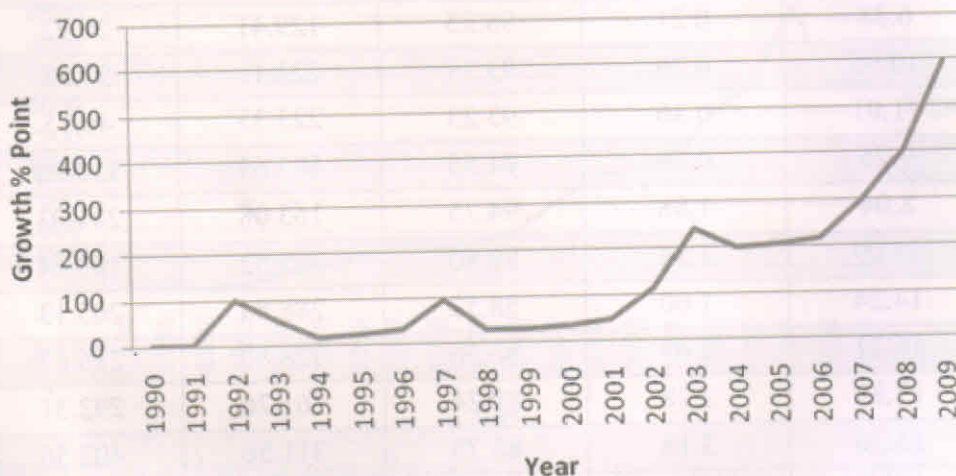


Figure 7c: Growth Index of Transitional Countries FDI Outflows (of percentage term)

This is the line graph of growth index of FDI outflows (Figure 7). In case of developed countries, growth index shows the share of FDI outflow has been consistently declined over period of time. But the decline rate is low. On the other hand, in case of developing countries there is a more than 300 percentage points increased in 2009 with respect to base year. However, this increase in growth index is not consistent. It means FDI outflow from developing countries is not made on consistent and permanent basis. Similarly, growth of outflow from transitional countries has no consistent and regular pattern. However, it is interestingly showing that whenever there is decline of growth index of developing countries, the growth index of transitional countries is increasing. It means that there is substitution of FDI outflow from transitional countries whenever outflow from developing countries decline.

FDI Outward Stock

FDI outward stock is an accumulated FDI outflow over periods. It is permanent productive capital. FDI outward stock has followed the same pattern of controlling over productive capital as revealed by FDI outflows. In case of developed countries, there is a 9 percent decline of stock during 1990-2009 periods. Developed countries has controlled over more than 80 percent of FDI outward stock in 2009. This means that most of FDI in terms of outflows and outward stock has been originated from developed countries. This shows dominance of developed countries over world productive capital resources. In case of developing countries, the share of stock is increased to more than 14 percent in 2009 from around 7 percent in 1990. The net increase is 7 percent. In case of transitional countries, stock is increased to around 1.5 percent in 2009 from almost negligible in 1990 (Table 9). FDI

outward stock is not one year feature. It is a result of FDI outflow on consistent basis over a long period. As we have already seen that FDI outflow from developing and transitional countries is not on consistent basis. FDI outflow from these countries is on transient basis only. Therefore, the share of FDI outward stock of these countries is low. And world productive capital is controlled and dominated by developed countries. In terms of growth index, there is a 9 percentage points decline in case of developed countries. In case of developing and transitional countries, growth index is increased to more than 100 percentage points and 7250 percentage points respectively (Table 9).

Table 9: FDI Outward Stock (of percentage term) - Indices and Trends

Year	Percentage share			Base Year=100		
	Developed Countries	Developing Countries	Transitional Countries	Developed Countries	Developing Countries	Transitional Countries
1990	93.02	6.96	0.02	100.00	100.00	100.00
1991	93.15	6.8	0.05	100.14	97.70	250.00
1992	92.2	7.77	0.03	99.12	111.64	150.00
1993	91.85	8.04	0.11	98.74	115.52	550.00
1994	90.99	8.89	0.12	97.82	127.73	600.00
1995	90.73	9.15	0.12	97.54	131.47	600.00
1996	90.48	9.39	0.13	97.27	134.91	650.00
1997	87.99	11.82	0.19	94.59	169.83	950.00
1998	89.5	10.32	0.18	96.22	148.28	900.00
1999	89.04	10.8	0.16	95.72	155.17	800.00
2000	88.91	10.83	0.26	95.58	155.60	1300.00
2001	88.23	11.18	0.59	94.85	160.63	2950.00
2002	88	11.16	0.84	94.60	160.34	4200.00
2003	89.43	9.61	0.96	96.14	138.07	4800.00
2004	89.45	9.59	0.96	96.16	137.79	4800.00
2005	88.24	10.54	1.22	94.86	151.44	6100.00
2006	87.37	11.21	1.42	93.93	161.06	7100.00
2007	85.46	12.53	2.01	91.87	180.03	10050.00
2008	83.83	14.77	1.4	90.12	212.21	7000.00
2009	84.35	14.18	1.47	90.68	203.74	7350.00

Source: www.unctad.org

(a) Developed Countries

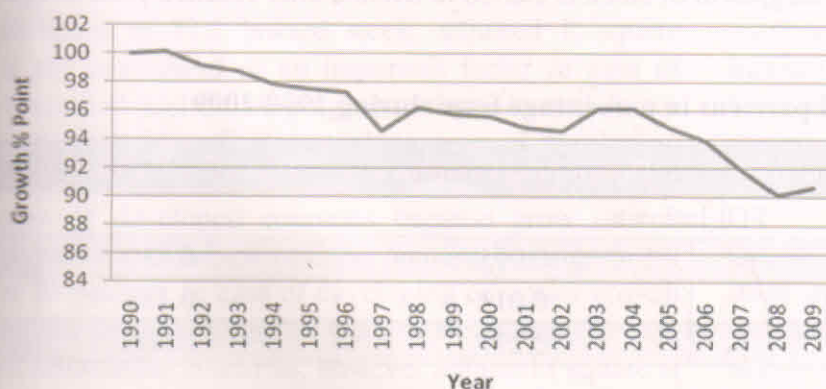


Figure 8a: Growth Index of Developed Countries FDI Outward Stock (of percentage term)

(b) Developing Countries

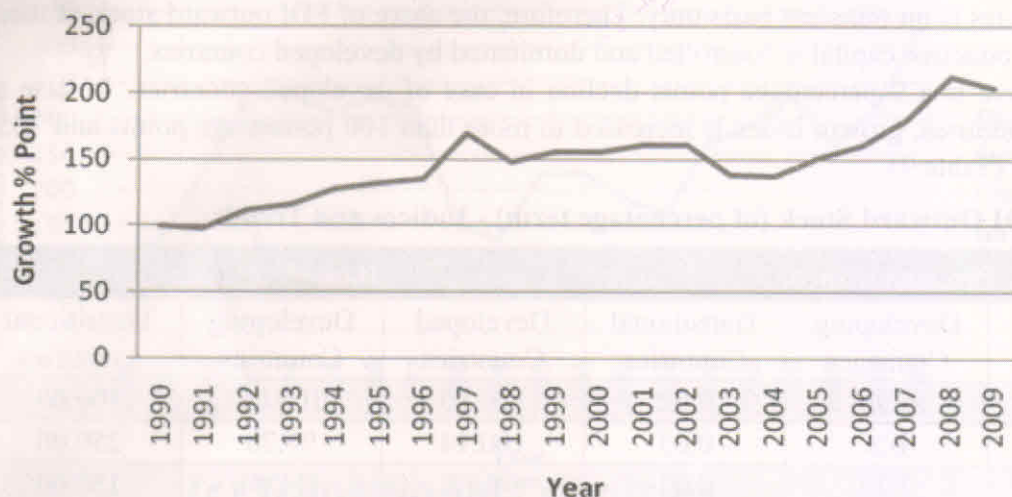


Figure 8b: Growth Index of Developing Countries FDI Outward Stock (of percentage term)

(c) Transitional Countries

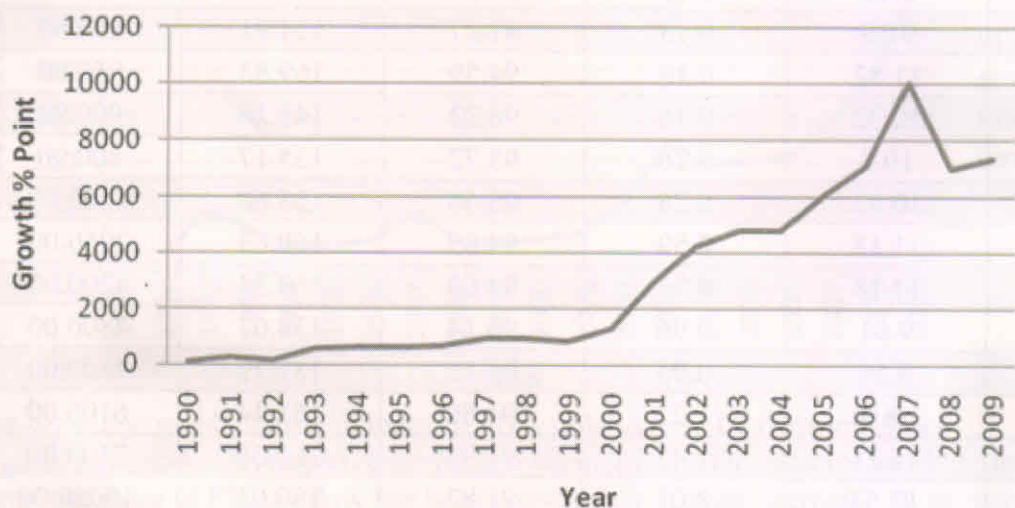


Figure 8c: Growth Index of Transitional Countries FDI Outward Stock (of percentage term)

Figure 8 gives pictorial view of the growth index. The line graph of developed countries is clearly showing that FDI outward stock is slowly declining. In case of developing countries, growth of FDI stock has been slowly increasing and reached to more than 200 percentage point in 2009 with respect to base year. In case of transitional countries, magnitude of FDI stock is not large. However, growth is high in recent years because the increase of the flow with respect to the base year. However, growth of stock is started to decline after reached peak in 2007 in case of transitional countries.

Table 10: International FDI patterns in percentage term during 1990-2009

	Developed Countries	Developing Countries	Transitional Countries
FDI Inflows			
Adjusted R Square	0.126	0.015	0.630
Coefficients	-0.009	0.011	0.173
P-value	0.069	0.271	0.000

FDI Inward Stock

Adjusted R Square	0.105	-0.029	0.868
Coefficients	-0.002	-0.002	0.228
P-value	0.090	0.502	0.000

FDI Outflows

Adjusted R Square	0.222	0.106	0.616
Coefficients	-0.005	0.026	0.168
P-value	0.021	0.088	0.000

FDI Outward Stock

Adjusted R Square	0.828	0.737	0.937
Coefficients	-0.005	0.031	0.228
P-value	0.000	0.000	0.000

In terms of FDI inflow, developed countries have adjusted R square 12.6 percent. It indicates policies and general factors affect FDI inflow in developed countries to the extent of 12.6 percent only. Growth rate is less than one percent but negative and statistically significant at 10 percent. It means every year FDI inflow in developed countries is decreasing but at very slow rate. Developing countries has adjusted R square 1.5 percent. It means policies do not matter much for FDI inflow in developing countries. Growth rate is 1.1 percent and positive but not statistically significant. Transitional countries have adjusted R square 63 percent. It implies that general factors and policies are considered as an important factor for FDI inflow in transitional countries. These countries are in a transition phase and liberalising their foreign investment policies. Rate of growth is 17.3 percent, positive and highly statistically significant. It means FDI inflow in transitional countries is growing at a rate of 17.3 percent per annum. However in terms of magnitude, inflow is not very large in these countries (Table 10).

In terms of FDI inward stock, adjusted R square is not considered as an important factor in case of developed and developing countries. General factor has negatively affected stock in case of developing countries. Stock is decreasing at very slow rate in case of developed countries because growth rate is negative and 0.2 percent per annum but significant at 10 percent. In case of developing countries growth rate is low and negative but not significant. In case of transitional countries, however adjusted R square is

86.8 percent and considered as an important variable. Stock is increasing at the rate of 22.8 percent per annum and statistically significant (Table 4.10). For transitional countries policies and liberalisation have very important variable for FDI in terms of inflow and stock because these countries are switching to open and liberalised countries from being closed one. Once a country is liberalised and opened for foreign investment then these policies do not matter much for further attraction of FDI as we have seen in case of developed and developing countries.

In terms of FDI outflow, for developed countries, adjusted R square is 22.2 percent. The growth rate is half percent and negative but significant. It means FDI outflow also as in case inflow and inward stock is decreasing at slow rate from developed countries. Adjusted R square is 10.6 percent and rate of growth is 2.6 percent per annum and significant at 10 percent in case of developing countries. In case of transitional countries, adjusted R square is 61.6 percent and growth rate is 16.8 percent and significant (Table 10). It implies that due to globalisation and competition FDI outflow from developing and transitional countries is increasing over a period of time. These countries have been also owning and controlling world productive capital. However, FDI outflow has been dominated and controlled by few developed countries.

Growth rate is significant in case of FDI outward stock in all cases. Growth rate is positive in case of developing and transitional countries but it is negative in case of developed countries. It means that outward

stock is decreasing slowly from developed countries and is increasing in developing and transitional countries. However, stock is growing at faster rate in case of transitional countries.

The net result of all four indicators is that the share of developed countries is declining at a very slow rate, although these are statistically significant. The share of transitional countries is growing at high rate and also statistically significant in all four cases. However, for developing countries FDI outflow and outward stock are growing slowly and also significant. But in case of inflow growth rate is positive but not significant. And in case of inward stock growth rate is negative but not significant.

CONCLUSION

Growth index indicates the increase of FDI in subsequent year with respect to base year. In absolute term, FDI has been increased many times with respect to base year 1990 in each group countries. Annual growth rate of international FDI is 12 percent in terms of flows and stock. Developed and developing countries are following growth pattern of international FDI follow countries. However rate of growth is high in case of transitional countries.

In percent term, growth index of developed countries has been declined in all four cases. However, decline is larger in case of inflows. Growth index has increased in all four cases for developing and transitional countries. Annual decline rate of developed countries is slow i.e. less than one percent in all four cases. Growth rate is positive in case of developing and transitional countries. FDI flow and stock have been increasing internationally in magnitude. However, share of developed countries has been slowly declining.

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