



GROWTH TRENDS OF FOREIGN DIRECT INVESTMENT IN INDIA: A SECTOR-WISE ANALYSIS

Meera Kumari

Asst. Professor, Dept of Economics, Ranchi Women's College, Ranchi

India is the second most populous country and the largest democracy in the world. The far reaching and sweeping economic reforms undertaken since 1991 have unleashed the enormous growth potential of the economy. There has been a rapid yet calibrated move towards deregulation and liberalization which has resulted in India becoming a favourite destination for foreign investment.

FDI is seen as a means to supplement domestic investment for achieving a higher level of economic growth and development. FDI benefits domestic industry and also the consumers by providing opportunities for technological up gradation, access to global managerial skills, optimal utilization of human and natural resources, making Indian industry internationally competitive, opening up export markets, providing backward and forward linkages and providing access to international quality goods and services.

INTRODUCTION

India was one of the most popular destinations of traders and business people from all over the world, while the rest of the world was being ravaged by wars. India peacefully struggled to attain its freedom and became the largest democracy in the world in 1947. More than six decades later, India has integrated herself with the rest of the world.¹ Now Indian economy is a globalized economy with her doors opened for the entry of goods and services along with the capital and technological knowhow. Government of India took all possible measures to attract foreign direct investment as well as portfolio investment. The FDI Policy has been constantly reviewed and necessary steps have been taken to make India a most favourable destination for FDI. There are several reasons for foreign investors to invest in India. They are:

- (i) Third largest reservoir of skilled manpower in the world.
- (ii) Large and diversified infrastructure spread across the country.
- (iii) Abundance of natural resources and self-sufficiency in agriculture.
- (iv) Package of fiscal incentives for foreign investors.
- (v) Large and rapidly growing consumer market.
- (vi) Democratic government with independent judiciary.
- (vii) English as the preferred business language.
- (viii) Developed commercial banking network of over 63,000 branches supported by a number of national and state level financial institutions.
- (ix) Vibrant capital market consisting of 23 stock exchanges with over, 9,400 listed companies.
- (x) Congenial foreign investment environment that provides freedom of entry, investment, location, choice of technology, import and export.
- (xi) Easy access to market of Bangladesh, Bhutan, Maldives, Nepal, Pakistan and Sri Lanka.

All investment, foreign and domestic is made under the expectation of future profits. The economy benefits if economic policies foster competition, create a well-functioning modern regulatory system and discourage artificial monopolies created by the government through entry barriers. A recognition and understanding of these facts can result in a more positive attitude towards FDI.

TREND OF FOREIGN DIRECT INVESTMENT IN INDIA IN POST-REFORM ERA

India's economic policy reforms, adopted at the backdrop of historical economic crises of 1990-91 and some notable changes in global economic set-up, have changed the whole structure of Indian economy since 1991. Among other things, the reforms have evolved in opening the economy, making it more competitive, getting the government out of the huge mode of regulation, empowering the states to take more responsibility for economic management and creating a kind of competition among the states for foreign investors. Since July 1991, the Government has consistently pursued the policy of attracting larger volumes of foreign investment to augment the resource availability in infrastructure and other critical areas of the economy. A number of policy measures were taken to attract both direct and portfolio investment from foreign investor individual, corporate identities and Firms. The liberalization measures embodied in the new economic policy were followed in later years by a series of measures further liberalizing the inward looking policy regime towards FDI. A new foreign investment policy was put in place which stipulated three tiers for approving proposals for FDI viz. : (a) RBI's automatic approval system; (b) Secretariat for industrial approvals (SIAs) for proposals falling outside the powers delegated to RBI, and (c) Foreign investment promotion board (FIPB), specially created body to invite, negotiate and facilitate FDI.

Annual inflow of foreign investment in India show the comparative position of FDI and portfolio investment in India. In 1990-91, FDI inflow was US \$ 97 million as compared to portfolio investment of only US \$ 6 million. While the FDI increased to US \$ 129 million, the portfolio investment decreased to US \$ 4 million during 1991-92. However, after 1992-93, Portfolio Investment saw an increase in quantum and reached at US \$ 3824 million in 1994-95 as compared to US \$ 1314 million as FDI.

The year 1998-99 was remarkable due to the fact that Portfolio Investment saw a sudden drop and turned negative. FDI also decreased in the year but remained positive. However, since 1999-2000, both portfolio investment and FDI have continuously been increasing. In 2001-02 both these stood at US \$ 6130 million and US \$ 2021 million respectively. Highest inflow was recorded during 2007-08 both in FDI and Portfolio investment which stood at US \$ 34362 million and US \$ 29395 million respectively. Year 2008-09 witnessed historic economic recession in the world and in India too. BSE sensex decreased sharply and recorded below 10000 from the highest level of 21000. As a result portfolio investment witnessed outflow and it was US \$ 13855 million in 2008-09. Pace of growth of inflow of FDI and portfolio investment showed almost similar trends during 1990-91 to 2007-08. Both grew at a slow pace up to 2002-03 and increased thereafter. Higher trends were witnessed up to 2007-08 when both FDI and portfolio investment reached their peaks. The sharp decline in portfolio investment during 2008-09 was the result of global meltdown. Portfolio inflow was - US \$ 13855 million, however, net FDI inflows was US \$ 19758 million. Gross FDI inflows during the 2008-09 increased to over US \$ 25000 million. MNCs have taken advantage of the country's increasing prosperous consumer market. [The trends in FDI are being presented as growth model (semi log model, i.e. log-lin model) in the following manner :

asper time series data on FDI inflow in India during to 1991-09, the value in the semi-log model

$$\text{Total FDI inflow,} = 3.70086 + 0.11136t, t = (42.97) \quad (7.083)$$

$$: 0.8642 R^2 = 0.7468 \text{ df} = 17 \text{ r} = 29.22 \text{ per cent}$$

R (coefficient of correlation) is equal to 0.8642 this shows that the two variables total FDI inflow and time have a strong positive correlation.

R² (coefficient of determination) is equal to 0.7468, it implies that 74.68% of variations in the total FDI inflow can be explained by time.

a * is equal to 3.70086, it means if time = 0, then the value of total FDI inflow becomes 3.70086. Its t-test value is 42.97, which is more than the tabulate value of t, i.e. 2.110, hence, intercept term is significant at 5% level.

B* is equal to 0.11136/ It means the increment of

0.11136 in total FDI inflow is proportionate to the change in time per unit. Its t-test value is 7.083 which is greater than the tabulate value of t, i.e. 2.110. Hence, regressed coefficient is significant at 5 per cent level'

Thus, the value of r (growth rate) is equal to 29.22 cent. This means that the r (growth rate) measures the constant proportional or relative change in total FDI inflow for a given absolute change in time. Here r is equal to 29.22 per cent, this implies that if other factors remain the same, the growth of total FDI inflow in proportion to change in time will be 29.22 per cent.

Thus, it is clear that liberalised policies have given impetus FDI inflow in service sector during the last fifteen years. Trends in FDI inflow into service sector have been presented in semi-log linear regression trend model in the following facts: Analysis:

- (xii) R (coefficient of correlation) is equal to 0.9264, shows that the two variables FDI fS and time have a strong positive correlation.
- (xiii) R² (coefficient of determination) is equal to 0.85821, it implies that 85.82 per cent of variations in the FDI f can be explained by time.
- (xiv) a, is equal to 4.18668, it means if time = 0, then the value of FDI f becomes 4.18668. Its f-test value is 43.58, which is more than the tabulate value of t i.e. 2.447, hence, intercept term is significant at 5 per cent level.

^ is equal to 0.246996, it means the increment of 0.246996 in FDI f is proportionate to the change in time per unit. Its f-test value is 6.029 which is greater than the tabulate value of f, i.e. 2.447. Hence, regressed coefficient is significant at 5 per cent level.

^ r (growth rate) is equal to 76.60 per cent, this implies that if other factors remain the same, the growth of FDI in proportion to change in time will be 76.60 per cent.

Electrical Equipment (INCLS/W and ELEC.)

FDI inflows into Electrical Equipment's Industry that includes, Electronics and Computer Hardware in India has increased over the last few years due to the several incentives that have been provided by the Indian government. The increase in FDI inflows to electrical equipment industry in India has helped in the growth and expansion of the industry. During 1991 to 1999, the total FDI

inflow in the electrical equipment sector was 46424.75 million rupees which was 11.14 per cent of the total FDI inflow. Since 2000 there has been a steady rise in the volume of FDI inflow into this industry. In 2000 it was 12008.32 million rupees, i.e. 11.9 per cent of the total FDI inflow. This amount increased to 92494.42 million rupees in 2006, when it was 18.3 per cent of the total FDI in the country. On an average 17.67 per cent of FDI has gone to the electrical equipment sector during August 1991 to 2007. The electrical equipment's industry in India produces various kinds of products such as transformers, electrical motors, switchboard, furnaces, panels and aluminum conductors. Further the government of India has established Electronic Hardware Technology Parks in many cities of the country in order to increase FDI inflows to Electrical Equipment's Industry in the country. A log linear model similar to the model for services sector of FDI inflow to Electrical Equipment is presented below :

POWER

The huge size of the market in the power sector in India and high returns on investment are important factors in boosting FDI inflows to power. Power sector has remained a priority sector so far as the FDI is concerned. There are huge opportunities of FDI in power sector in India. Government of India as well as all the state governments have given all possible incentives to foreign investors in this sector, however the response of foreign investors has remained rather hike warm because of politicisation of tariff rates in this sector. 100 per cent FDI is allowed in the power sector under the automatic route in India with the exception of Atomic Energy. Important aspects of FDI in the power sector of India are :

- 100 per cent Foreign Direct Investment is allowed under automatic route in almost all the power sectors in India except the Atomic Energy.
- Power projects involving generation and distribution tasks are allowed in all types and sizes.
- As per the Electricity Act 2003, trading in power is activated.
- Duration of 30 years will be given as a renewable license period.
- Thermal power plants will get a return of 16 per cent on equity and will get 68.5 per cent Plant Load Factor (PLF).
- The import of equipment will be entitled to 20 per cent of import duty.
- Power generating projects will have a five year tax holiday with five more years which will have a deduction of 30 per cent taxable profits.

Petroleum And Natural Gas

100 per cent FDI is permitted under automatic route in Petroleum and Natural Gas. Petroleum and Natural Gas Industry account for 35 per cent share in the entire energy requirements in India; important initiatives have been taken by the India government to drive FDI inflows to Petroleum and Natural Gas in India.

Downstream industries like petrochemicals, fertilizers and plastics, etc. play a vital role in the oil industry in India. The total crude oil demand is estimated to be 116 Methylcyclopentadienyl Manganese Tricarbonyl (MMT) and the production of crude oil in domestic market has accounted for 33.4 Methylcyclopentadienyl Manganese Tricarbonyl (MMT). In the past three years, petroleum has

witnessed a growth of 7 per cent per year. The demand for Natural Gas has been estimated to be 150 Million Metric Standard Cubic Meter per Day (MMSCMD) in 2004 among which, the domestic market has accounted for only 81 MMSCMD. The Oil and Natural Gas Commission (ONGC) and Oil India Limited (OIL) are both public sector companies and have occupied around 83 per cent of the entire domestic production of Petroleum and Natural Gas. Government policy related to this sector has two important points:

- 100 per cent FDI is permitted under automatic route in* Petroleum and Natural Gas.
- The New Exploration Licensing Policy (NELP) has been introduced to ensure attractive financial and contract terms in order to explore coal bed methane (CBM) blocks.

Certain important aspects of the Petroleum and Natural Gas Industry that provide opportunities to foreign investors are :

R (coefficient of correlation) is equal to -0.1637, this shows that the two variables FDI Fuel and time have a negative correlation but the correlation is not strong R² (coefficient of determination) is equal to 0.0267, it implies that 2.67 per cent of variations in the can be explained by time.

Intercept is equal to 3.96711, it means if time = 0, then the value of FDI_{Fuel} becomes 3.96711. Its t-test value is 31.70, which is more than the tabulate value of t, i.e. 2.447, hence, intercept term is significant at the level of 5 per cent.

Regressed coefficient is equal to -.0216989, this again shows that the increment of -0.0216989 in FDI_{Fuel} is proportionate to the change in time per unit*. Its f-test value is (-) 0.407 which is less than the tabulate value of f, i.e. 2.447. Hence, Regressed coefficient is insignificant at 5 per cent level. This is again due to fluctuations in the FDI inflow in this sector over time.

r (growth rate) is equal to -4.87 per cent, this implies that if other factors remain the same, the growth of FDI_{Fuel} in proportion to change in time will be -4.87 per cent.

Chemicals (other Than Fertilizers)

FDI Inflows to chemicals industry in India has increased over the last few years due to the several incentives that have been provided by the government of India. This can be seen from the data given in Table 4.3. Chemical industry is the sixth industry as far as the total volume of FDI inflow is concerned. The average FDI inflow to this industry was 4.2 per cent out of the total during 1991 to 2007, i.e. 102688.35 million rupees. The increased FDI inflows to chemicals industry in India has helped in the growth and development of the sector. This in its turn has led to the improvement of the quality of the products from the industry. Growth trend analysis results that :

$$\log \text{FDI}_{\text{Ch}} = 3.78073 + 0.0823600t$$

$$.1:8(52.43) \quad (2.678)$$

$$R = +0.7379 \quad R^2 = 0.5444 \quad df = 6 \quad r = 20.88 \text{ percent}$$

R (coefficient of correlation) is equal to 0.7379, this shows that the two variables FDI_{Ch} and time have a positive strong correlation.

R² (coefficient of determination) is equal to 0.5444, it implies that 54.44 per cent of variations in the FDI_{Ch} can be explained by time.

Intercept (a_6) is equal to 3.78073, it means if time = 0, then the value of becomes 3.78073. Its f-test value is 52.43, which is more than the tabulate value of t, i.e. 2.447, hence, intercept term is significant at the level 5 per cent.

> Regressed coefficient is equal to 0.0823600, it means the increment of 0.0823600 in FDI_{Itch} is proportionate to the change in time per unit. Its t-test value is 2.678 which is greater than the tabulate value of f, i.e. 2.447. Hence, regressed coefficient is significant at the level 5 per cent.

>r (growth rate) is equal to 20.88 per cent, this implies that if other factors remain the same, the growth of i FDI_{Itch} in proportion to change in time will be 20.88 per cent.

Drugs And Pharmaceuticals

This is seventh industry as far as FDI inflows are concerned. FDI Inflows to Drugs and Pharmaceuticals Industry in India has grown over the last few years due to the several incentives that have been provided by the Indian government. The increase in FDI Inflows to Drugs and Pharmaceuticals Industry in India has helped in the growth of the sector.

The major domestic companies in the drugs and pharmaceuticals industry of India are Ranbaxy, Dr. Reddy's, and Cipla, etc. The major international companies having presence in the industry of drugs and pharmaceuticals in India are Johnson & Johnson, Novartis, Pfizer, and GlaxoSmithkline, etc.

The increase in FDI Inflows to Drugs and Pharmaceuticals industry in India has helped in the expansion, growth, and development of the industry. This in its turn has led to the improvement in the quality of the products from the drugs and pharmaceuticals industry. Growth trend analysis is presented here as under :

R (coefficient of correlation) is equal to 0.7715, this shows that the two variables FDI_{ItD&p} and time have a positive strong correlation.

R² (coefficient of determination) is equal to 0.5952, it implies that 59.52 per cent of variations in the FDI_{ItD&p} can be explained by time.

Intercept (a_1) is equal to 3.66367, it means if time = 0, then the value of FDI_{ItD&p} becomes 3.66367. Its t-test value is 44.60, which is more than the tabulate value of t, i.e. 2.447, hence, intercept term is significant at 5 per cent level.

Regressed coefficient (B1) is equal to 0.104064, it means the increment of 0.104064 in FDI_{ItD&p} is proportionate to the change in time per unit. Its f-test value is 2.971 which is greater than the tabulate value of t i.e. 2.447. Hence, regressed coefficient is significant at 5 per cent level, r (growth rate) is equal to 27.07 per cent, this implies that if other factors remain the same, the growth of FDI_{ItD&p} in proportion to change in time will be 27.07 per cent.

Metallurgical Industries

FDI Inflows to Metallurgical Industries in India has /registered significant growth over the last few years and this has given a major boost to the industries. The increase in FDI Inflows to Metallurgical Industries in India Government has been providing incentives to the foreign investment to make investments in the country.

The increase FDI to Metallurgical Industries in India has helped to bring in the latest technology to the industries. Further the increased FDI Inflows to Metallurgical Industries in India has

led to the development, expansion, and growth of the industries. All this has helped in improving the quality of the products of the metallurgical industries in India. Growth trend analysis of this industry reveals the following results.

R (coefficient of correlation) is equal to 0.9401, this shows that the two variables FDI_{ItMI} and time have a very strong positive correlation.

R² (coefficient of determination) is equal to 0.8837, it implies that 88.37 per cent of variations in the FDI^A can be explained by time.

Intercept is equal to 3.47415, it means if time = 0, then the value of FDI_{ItMI} becomes 3.47415. Its f-test value is 50.12, which is more than the tabulate value of t, i.e. 2.447, hence, intercept term is significant at level of 5 per cent.

Regressed coefficient (B8) is equal to 0.199695, it means the increment of 0.199695 in FDI_{ItMI} is proportionate to the change in time per unit. Its f-test value is 6.756 which is greater than the tabulate of t, 2.447. Hence, Regressed coefficient is significant at level of 5 per cent.

r (growth rate) 58.37 per cent, this implies that if other factors remain the same, the growth of FDITM in proportion to change in time will be 58.37 per cent.

FDI is seen as a means to supplement domestic investment for achieving a higher level of economic growth and development. FDI benefits domestic industry and also the consumers by providing opportunities for technological up gradation, access to global managerial skills, optimal utilization of human and natural resources, making Indian industry internationally competitive, opening up exportmarkets, providing backward and forward linkages and providing access to international quality goods and services.

The sectoral distribution of FDI in India approved as well as actual inflow is highly skewed. In general FDI flows remained to developed states and the share of different sectors in different states varies significantly.

REFERENCES

- www.indianindustryprofiles.com/invest_dest.htm. "India Investment Destination", (2003). Madras Consultancy Group, 3-B, K.G. Vallencia 57, I Main Road, Gandhi Nagar Adyar, Chennai, India.
- Gujarati, N. Damodar (2003), "Basic Econometrics", 4th Edition, McGraw Hill, p. 178.
- GOI (2009), Economic Survey, 2008-09, Ministry of Finance, New Delhi. Ibid.
- UNCTAD (2007), United Nation.