Chapter 1: Introduction

1.1 Background

The Malaysian government places a great deal of importance on the role of foreign direct investment (FDI) in the industrial development program. As early as in the 1960s, provisions of the Pioneer Industries Ordinance of 1958 and the Investment Incentives Act of 1968 showed the intention of the Malaysian government in attracting foreign direct investment in efforts to industrialise the economy. Despite the controversies regarding the impact of FDI or Transnational Corporations (TNC) on economic development in the host countries, the overall attitude toward FDI has been favourable among ASEAN countries as a whole including Malaysia. After the debt crisis hit developing countries in the early 1980s, the race toward attracting foreign direct investment became even more competitive among developing countries. This is due to the general perception that foreign direct investment leads to long term capital inflows thus boosting economic growth.

Malaysia has adopted a favourable attitude toward foreign direct investment. Since 1986, investment incentives have been restructured where new manufacturing investment projects are granted pioneer status and incentives regardless of the level of capital investment under the Promotion of Investment Act,1986. More emphasis were placed on export-oriented industries. Manufacturing investments producing for the export market are allowed a higher percentage of foreign equity. Realising the role of the manufacturing sector as the engine of growth of the Malaysian

economy and faced with the task of industrialising the economy, it is then important to analyse the impact of foreign direct investment on the growth of the manufacturing sector.

In the last two decades, the Malaysian economy has undergone a structural transformation whereby Malaysia changed from a primary producer-economy to a rapidly industrialising one (Ariff and Yokohama, 1992). As shown in Table 1 below, the share of manufacturing sector to the GDP has increased significantly over the years from 1975 to 1998. With 16.4% in GDP share in 1975, the sectors' growth has seen a tremendous increase of 70% to 27.9% in 1998. In contrast, the primary sector once the backbone of the economy has lost its significance in terms of contribution to GDP growth. For instance, in 1975, the share of the agriculture, forestry and fishing sector to the GDP was 27.7% but 23 years later, it has dropped to a relatively low level of 9.4% of GDP.

Table 1: Sectoral Share of Output (% of GDP), 1975-1998

Year	Agriculture, Forestry & Fishing	Mining and Quarrying	Manufacturing	Construction	Services*
1975	27.7	4.6	16.4	3.8	27.4
1980	22.9	10.1	19.6	4.6	26.1
1985	20.8	10.5	19.7	4.8	27.4
1990	18.7	9.8	26.9	3.6	27.8
1995	13.5	7.5	33.1	4.5	30.4
1996	12.7	7.2	34.2	4.7	31.2
1997	11.9	6.7	35.7	4.8	31.3
1998	9.4	8.1	27.9	4.0	36.4

Note: *Services not include government services and social services.
Source: Compiled from various years of Economic Report.

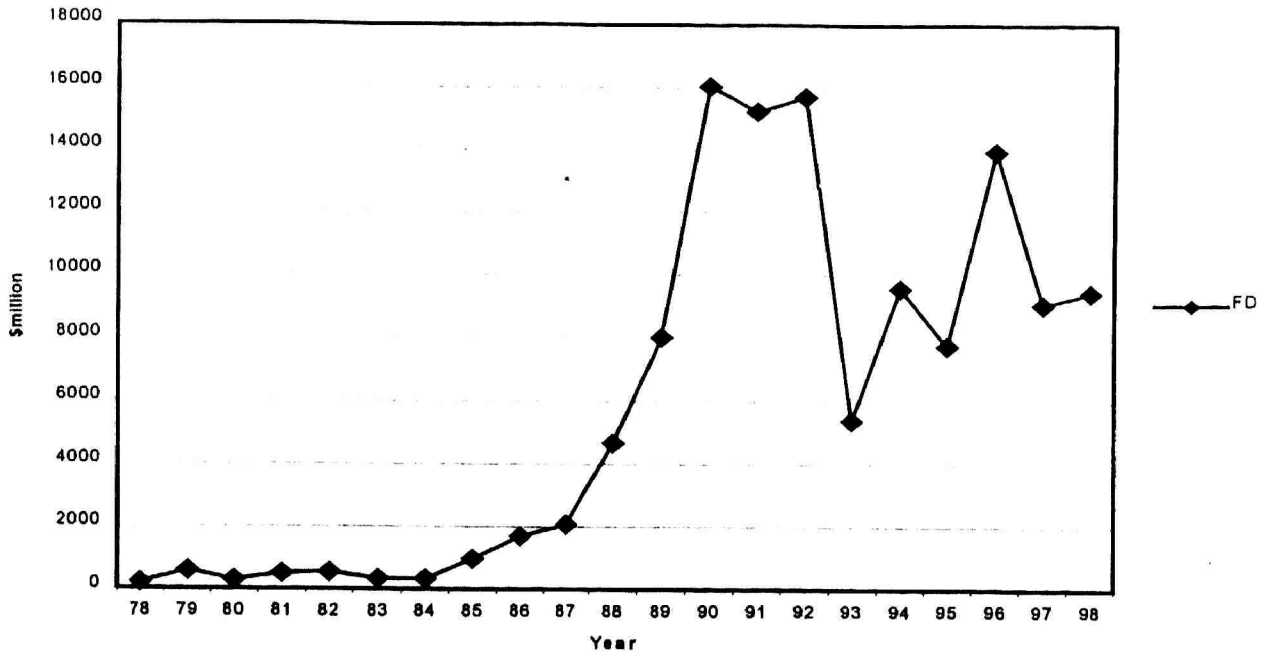
1.2 Patterns of FDI in Malaysia

The patterns of FDI in Malaysia reflect the world wide pattern of capital inflows, particularly foreign direct investment. According to the 1992 World Investment Report, during the 1980s, world wide FDI flows grew faster than world wide domestic investment and domestic output[1]. In the context of developing countries, by the end of 1980s, FDI had become the principal source of foreign capital for the majority of developing countries.

However, the share of developing countries in global FDI flows declined from around 30% in the early 1980s, to around 15% in the late 1980s (Jansen, 1993). The flows to the Asia countries have shown a relatively more stable trend than the overall global flows. It slowly but gradually increased over the years with significant acceleration since 1986. As Chart 1 shows, Malaysia fully participated in the world wide upsurge in FDI. After a dip in 1984, FDI flows represented by the FDI in approved industrial projects started to increase in 1985 and became very high from the year 1987 onwards. Since the mid 1980s, FDI flows to Malaysia have increased at a faster rate than those to the other ASEAN countries (Athukorala and Menon , 1996). In absolute volume terms, we found that from an initial constant value of RM230.9 million

[1] Although to a large extent, the rapid growth of FDI represents the growth of international mergers and acquisition, especially among the developed countries (World Investment Report, 1992).

Chart 1: Foreign Direct Investment in Approved Projects in Malaysia for the Years 1978-1998



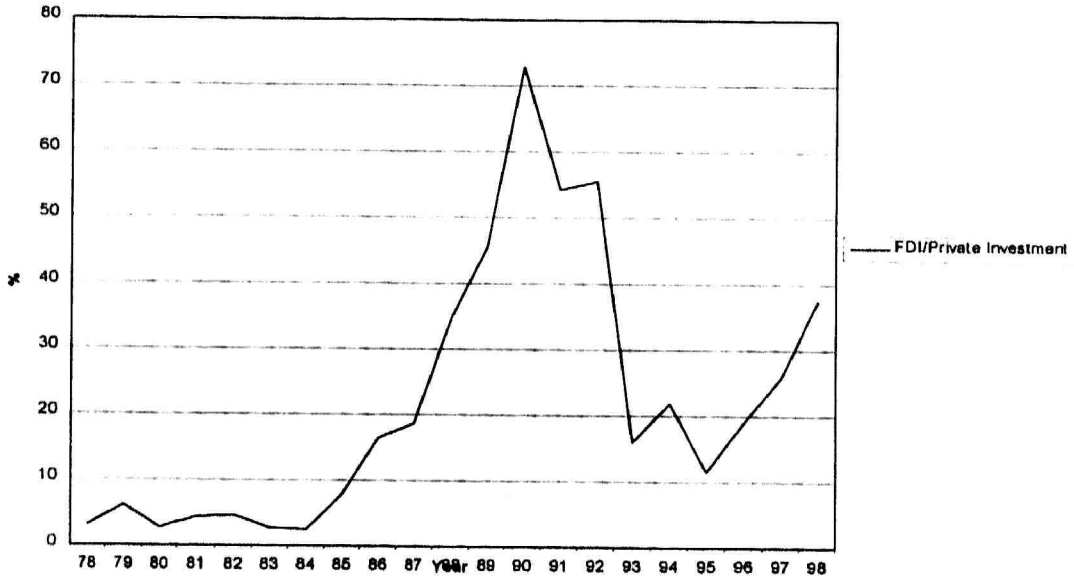
Source: Annual Economic Report, various years.

In 1978, there was a remarkable increase of a thousand fold to RM16026.4 million in 1990 which also represents the peak value over the years.

However, from the year 1990 onwards, FDI fluctuated and in 1993, it registered a value as low as RM5373.5 million. This was probably due to the recession of the world economy in the early years of 90s. The years 1997 and 1998 also registered rather low values of foreign direct investment flows which to an extent reflects the declining confidence of foreign investors. This is linked to the economic crisis facing Asian countries which commenced in the second half of 1997.

With the increase in FDI, the share of FDI in total private investment correspondingly increased[2]. As shown in Chart 2, in the years 1985 –1990 FDI funds as a percentage of private investment on fixed capital increased sharply from 13.7% in

Chart 2: FDI as % of Total Private Investment



Source: Annual Economic Report, various years.

in 1985 to 72.8% in 1990 and decreased in the years after that, recording a percentage of 37.5% in 1998.

[2] The private investment refers only to total private investment on fixed capital formation.

1.3 The Level of FDI

Table 2 shows that the accumulated inflows of FDI in the few years since 1985 are already 19 times of the total accumulated flows in the preceding 8 years since 1978. The average amount coming in per year was around 445.7 million ringgit in the period 1978-1985. For the years 1986-1992, this average amounted to 9962.2 million ringgit per year and for the recent years 1993-1998, this average rose up substantially to 11393.8 million ringgit.

The increase in FDI flows since 1985 can be related to the investor friendly investment act after 1986 which was relatively more open and welcoming compared with the years prior to 1986. For instance, the Promotion of Investment Act of 1986 which encouraged the inflows of FDI particularly in export oriented manufacturing. As discussed in the preceding section, Malaysia also has participated in the global trend of FDI flows in the second half of 1980s in which a noticeable growth of FDI is witnessed for Asian and ASEAN countries. For example, FDI amounted to 4.8 billion US dollar in 1989 compared with 1.2 billion US dollar in 1980 in the ASEAN region. In the early 1990s, FDI accounted for almost all of private flows to the region (Husain and Jun, 1992).

Table 2: Foreign Direct Investment in Approved Industrial Projects in Malaysia

	Accumulated Inflows in $million			Percentage Distribution			Average Amount per year in $million		
Industry	1978-1985	1986-1992	1993-1998	1978-1985	1986-1992	1993-1998	1978-1985	1986-1992	1993-1998
Food Manuacturing	244.1	2131.9	1173.4	6.8	3.1	1.7	30.5	304.6	195.6
Textiles	115.1	3271.3	3277.4	3.2	4.7	4.8	14.4	467.3	546.2
Paper,printing&publishing	168.5	1002.1	2639.3	4.7	1.4	3.9	21.1	143.2	439.9
Chemicals & chemical products	427.7	7169.9	11693.2	12	10.3	17.1	53.5	1024.3	1948.9
Petroleum & coal	275.2	18095.9	7608.8	7.7	25.9	11.1	34.4	2585.1	1268.1
Rubber & rubber products	131.4	1635.1	370.5	3.7	2.3	0.5	16.4	233.6	61.8
Non-metallic products	424.3	3064.9	3405.2	11.9	4.4	5.0	53	437.8	567.5
Basic Metal products	323.7	9837.1	3958.3	9.1	14.1	5.8	40.5	1405.3	659.7
Fabricated metal products	170.7	2777.4	2351.2	4.8	4.0	3.4	21.3	396.8	391.9
Electrical & electronic products	445.2	12169	23049.9	12.5	17.5	33.7	55.7	1738.4	3841.7
Transport equipment	311	799.1	2144.7	8.7	1.1	3.1	38.9	114.2	357.5
Others	527.8	7781.4	6690.2	14.9	11.2	9.9	66	1111.6	1115
Total	3564.7	69735.1	68362.1	100.0	100.0	100.0	445.7	9962.2	11393.8

Source: Annual Economic Report, various years.

The relative significance of the FDI inflows can also be expressed by the share of FDI in total private investment. Chart 2 shows the inflows of FDI as a percentage of private investment. The FDI/Private investment for the years prior to 1986 generally does not exceed 10%. However, this percentage increased tremendously after 1985, peaking in 1990 which registered a figure of 72.8% in total private investment in fixed capital. In fact, both the trend of FDI/Private investment and Foreign direct investment flows in approved industrial projects are broadly similar. The percentage dropped after 1990 but still above 10% of total private investment.

1.4 Origin of FDI

In Table 3 the FDI inflows are traced back to the countries of origin. The shifts between the 1978-1985 and 1986-1992 were substantial and sudden. This is especially the case for Asia NIEs (New Industrialising Economies), the share of these countries increased sharply from 18.7% in the period 1978-1986 to 33.8% in 1986-1992.

The sharp increase in the share of the Asia NIEs is due to the reason that in the period after 1985, about three quarters of total FDI originated from the East Asian region. The shares of the U.S.A and EU (European Union) have been drastically reduced (Jansen, 1993). Excluding Asian NIEs, the share of Japan is relatively large for the three period 1978-1985, 1986-1992 and 1993-1998 which registered 22.1%, 22% and 21.4% respectively.

Table 3: Inflows of Foreign Direct Investment in Malaysia by Investing Country

	Percentage Distribution(%)			Average amount per year ($ Mil)		
Country/Region	1978-1985	1986-1992	1993-1998	1978-1985	1986-1992	1993-1998
U.S.A	8.4	9.7	24.6	38	962	2718
Japan	22.1	22	21.4	100	2192	2360
Asian NIEs(a)	18.7	33.8	32.7	85	3368	3611
ASEAN(b)*	3.2	4.3	0.8	14	428	93
Australia	4.8	4	1.1	22	401	118
U.K	10.3	5.5	2.1	47	543	230
Germany**	3.0	1.2	4.5	14	121	497
Others♠	29.5	19.5	12.8	134	1945	1401
Total	100.0	100.0	100.0	454	9960	11028

Note: (a) NIEs include: Hongkong, South Korea, Singapore, Taiwan
(b) ASEAN include: Indonesia, Thailand, Philipines
*Figures from 1985 onwards not include Thailand
** Figures prior to 1991 refer to West Germany, while figures from 1991 onwards refer to the Federal Republic of Germany (Germany)
♠ Include West Asia countries, European Union, India, Thailand and other unspecified countries.
Source: MIDA

In the early 1980s, Japan was the largest single investor in terms of annual volume of inflows(Premachandra & Menon, 1995). As shown in Table 3, the average amount per year for the period 1978-1986 was 100 million ringgit, this increased sharply to 2,192 million ringgit and 2,360 million ringgit respectively for 1986-1992 and 1993-1998. Economists generally have the perception that the large and growing current account surpluses of Japan in the 1980s were associated with an increase in capital outflows from Japan (Healey, 1991). This is due to the relatively large amount of funds in Japan investors' hand resulting from the surpluses of current account.

There are two further explanations for the sharp increase in capital outflows of Japan and Asia NIEs since 1985. One is related to the realignment among the major currencies that occurred after the Plaza Agreement of 1985. The Japanese yen and the currencies of the Asia NIEs, started to appreciate with respect to the US dollar and the European currencies, this corresponds to an increase in the foreign reserve of these countries and thus increased their volume of investment in ASEAN countries.. Second explanation is that labour cost was rising in these countries resulting in the export oriented firms in Japan and Asia NIEs emphasising low cost production opportunities in South East Asia.

1.5 The Industry Allocation of FDI

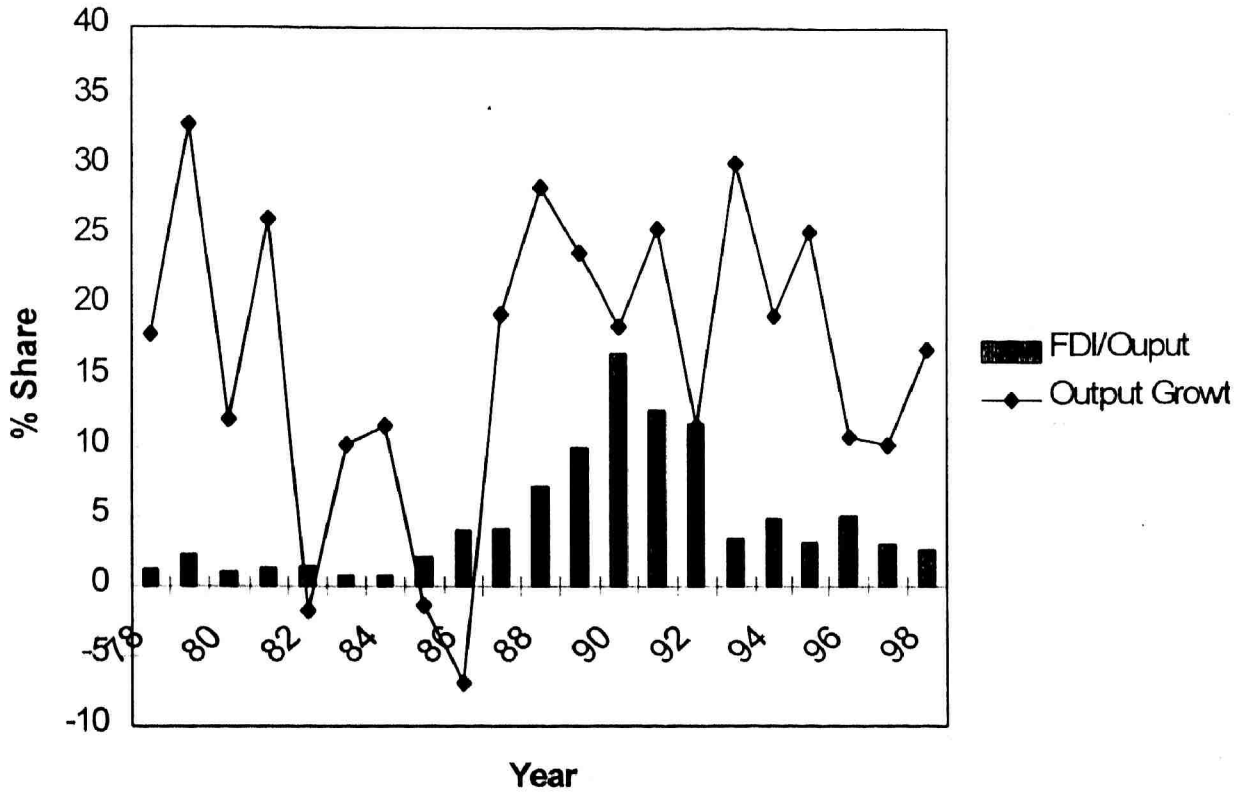
Due to the fact that the data for FDI in the service sector is not available, the comparison of FDI flows between the manufacturing and service sectors can not be

made. The world investment report 1992 indicated that the FDI for host countries has been consistently greater in manufacturing than in the service sector. However, this discrepancy may disappear or narrow during the 1990s (World Investment Report, 1992). The industry allocation of FDI in the manufacturing sector is shown in Table 2. Foreign investment is mostly targeted for the production of electrical goods and electronics where the share of electrical and electronic products remain large and significant for the three periods. The percentage share for this sector were 12.5%, 17.5% and 33.5% respectively. The involvement of foreign firms in electrical and electronics experienced different transition in which at the early stage, they were involved only in assembly operations in electrical goods and electronics and diffused technology consumer goods production. Recently FDI began flowing into the production of mature technology final products, that is product with complicated or higher standard of technology content such as radios, TVs, video recorder, camera and computers due to the increasing domestic demand and improvement in the quality of infrastructure in Malaysia (Premachandra & Menon, 1996).

1.6 FDI and Manufacturing Output Growth

Griffin (1970) argued that a greater dependence on foreign capital may decrease the efficiency of investment or increase the ICOR (Incremental Capital Output Ratio). However his argument may only stand true for aid inflows. It could also be argued that private capital inflows, and in particular FDI, would improve the ICOR and thus increase the economic growth rate of host countries.

Chart 3 :% Share of FDI to Manufacuring Output vs Manufacturing Output Growth



Source: Annual Economic Report, various years.

In the new brand models of "endogenous growth", growth differential between countries are explained not so much by the differences in the level of investment but by differences in the efficiency of these investments. The differences in the efficiency are incurred through "knowledge" and " human capital" (Barro, 1991). Therefore, in line with this argument one would expect a positive relationship between the level of FDI inflow and the rate of growth.

Chart 3 shows the % share of FDI to manufacturing output versus manufacturing output growth. Generally, there is a positive relationship between these

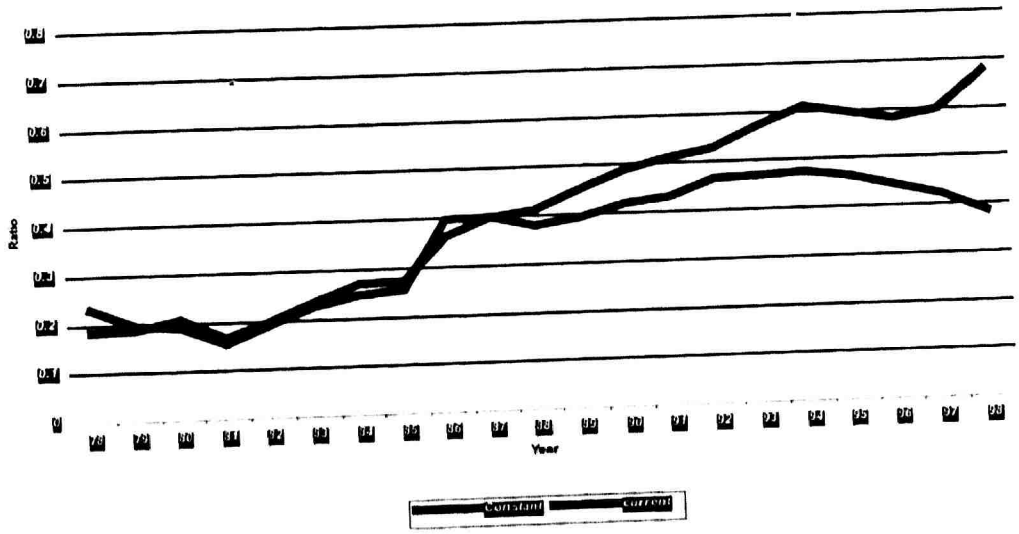
two except for the year 1982, 1985 and 1986 whereby output growth registered negative values of –1.7%, -1.4% and –6.9% respectively. The reason for this kind of extraordinary situation may be the recession in the early 1980s. However in the later chapters, we will try to investigate whether there is a link between the share of FDI to output and output growth using econometric model.

1.7 FDI and Manufacturing Exports

Recently, analysis of the macroeconomic impact of capital inflows indicates that "capital inflows will increase domestic demand and will lead to an increase in the relative price of non-traded (NT) goods" (Jansen, 1993). This will result in a cost increase in the traded sector and hence reduces exports. However, this may not be the case when the capital inflows are not dominated by aid, but by export-oriented FDI. Grounds for this opinion is built upon the fact that the increase in the relative price of non-traded goods will increase the supply of NT goods which is essential to the export drive, thus increases the volume of exports.

The impact of FDI on manufacturing export is moderately strong. In Chart 4, the ratio of manufacturing exports to output is presented both at current and constant (1987) prices. In the period 1978-1981, the export ratio declined and after 1981 it increased smoothly. An obvious increase in the export ratio is noticed since 1985, both at constant and at current prices. For instance, at constant prices the export ratio increased sharply from 0.256 in 1985 to 0.398 in 1986. The ratio at constant prices

Chart 4 : Manufacturing Exports/Manufacturing Output

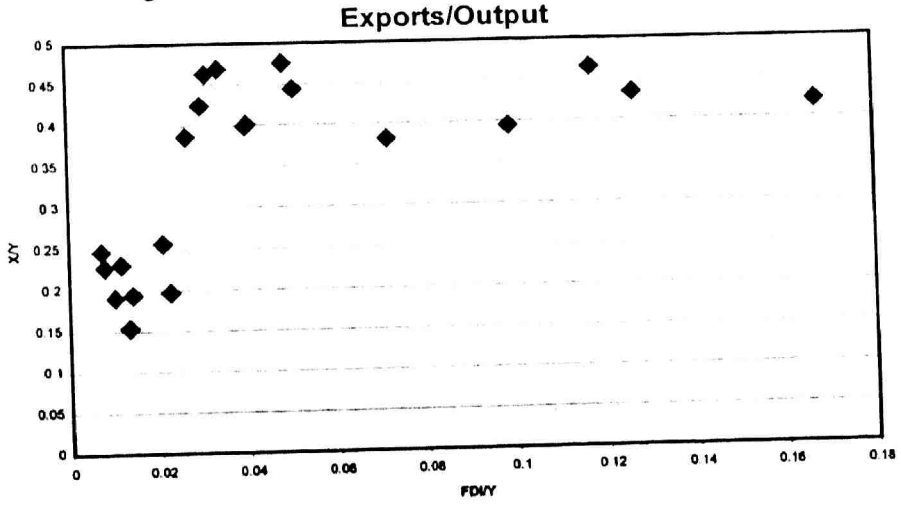


Source: Annual Economic Report, various years.

registered a moderate figure between 0.4 and 0.5 in the period 1987-1998. Whereas the ratio at current prices registered higher figures and were more volatile in the same period. The higher manufacturing export ratio in the years 1987-1998 was probably caused by relative price increases instead of real output growth.

The sudden increase in the export ratio started in 1985 , therefore it is likely to be related to the sharp rise in FDI flows. The proportion of FDI projects with an export orientation of 50% or above has increased from 23.5 per cent in 1985 to 84.4 per cent in 1988, before declining a little to 72.5 per cent in 1990 (Ariff and Yokohama, 1992). Other than that, in Table 2 it was noted that FDI was concentrated in sectors like Electrical Appliances and Chemical Products. These are also sectors with a relative strong export orientation.

Figure 1 : Scatter Diagram of FDI/OUtput vs Real Exports/Output



The scatter diagram in Figure 1 shows that the constant price exports/Output and the constant price FDI/Output does exhibit a relatively strong relationship with a correlation coefficient of 0.58.

1.8 FDI and Manufacturing Imports

Arguments over whether capital inflows would increase the import dependency remains inconclusive. FDI or multinational corporations contribute to import expansion of host countries through practices like direct intra-firm imports and other channels as well (World Investment Report,1992).

The manufacturing imports as ratio of output since 1978 is given in Chart 5 in both current and constant (1987) prices. It shows that both the current and constant

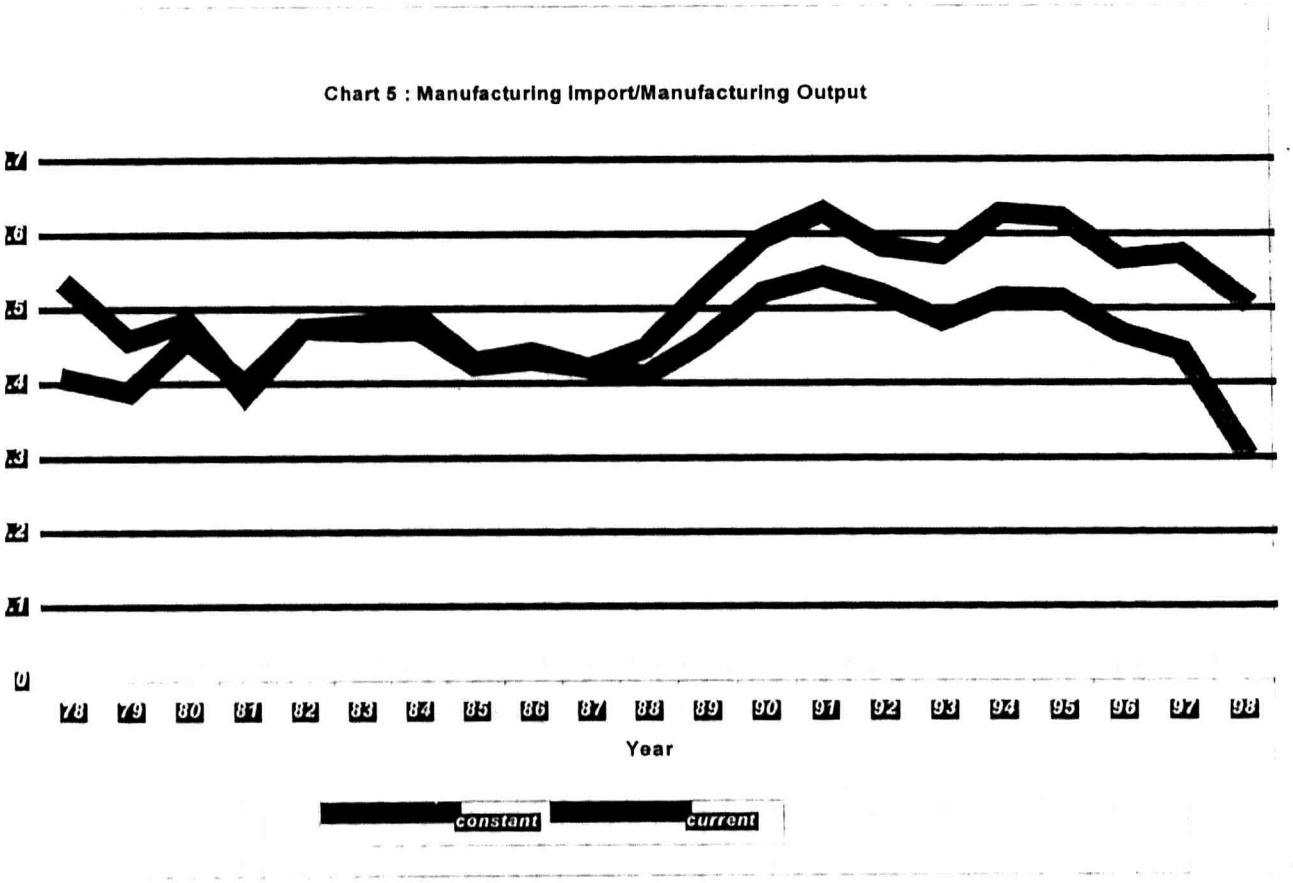
price import ratio fluctuated in the period 1978-1985 and stagnated at the level between 0.4 and 0.5 in the years 1985-1987. A significant break from the longer term trend occurred after 1987 where there was a rapid increase in the ratio for both current and constant prices until 1991. The value subsequently fluctuated and experienced a sharp decline after 1997. The sudden increase in the period 1987-1991 seems to be mainly caused by the high level of investment (including FDI) in the second half of 1980s. This was proven given that the total amount of private investment as well as the FDI as a ratio to total private investment increased substantially in this period, where total amount of private investment increased from RM11009 million in 1987 to RM 28064 million in 1991. Whereas, the FDI as a ratio to total private investment increased from 18.7% in 1987 to 54% in 1991, as shown in Chart 2.

Nevertheless, the scatter diagram between the constant price import/output and the constant price of FDI/Output does not produce a strong relationship with a correlation coefficient of only 0.35 (see figure 2). The link between imports and FDI will be looked into in greater detail through empirical analysis in the later chapters.

1.9 FDI and Manufacturing Employment

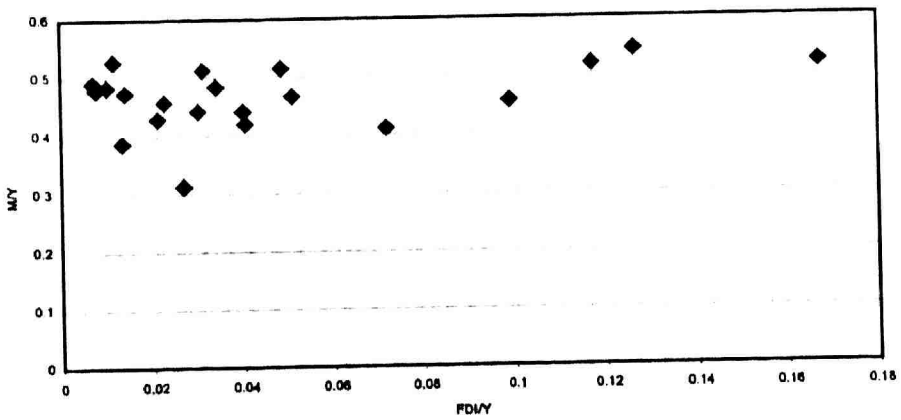
Chart 6 shows the % share of FDI to manufacturing output versus the growth rate of labour in the manufacturing sector. Generally, we notice a positive relationship between these two except for a few years when there is an increase in the % share of FDI to output, growth rate of labour decline significantly. For example, for the

year 1982 and 1985, growth rate of labour registered –10.2%, -4.5% respectively while % share of FDI to output increase from 1.35% in 1981 to 1.43% in 1982 and from 0.73% in 1984 to 2.12% in 1985. Studies revealed that FDI projects contribute to the increase of employment opportunities. For instance, total employment in the electronics industry increased from 78,000 in 1980 to 225,000 in 1992. The percentage of workers



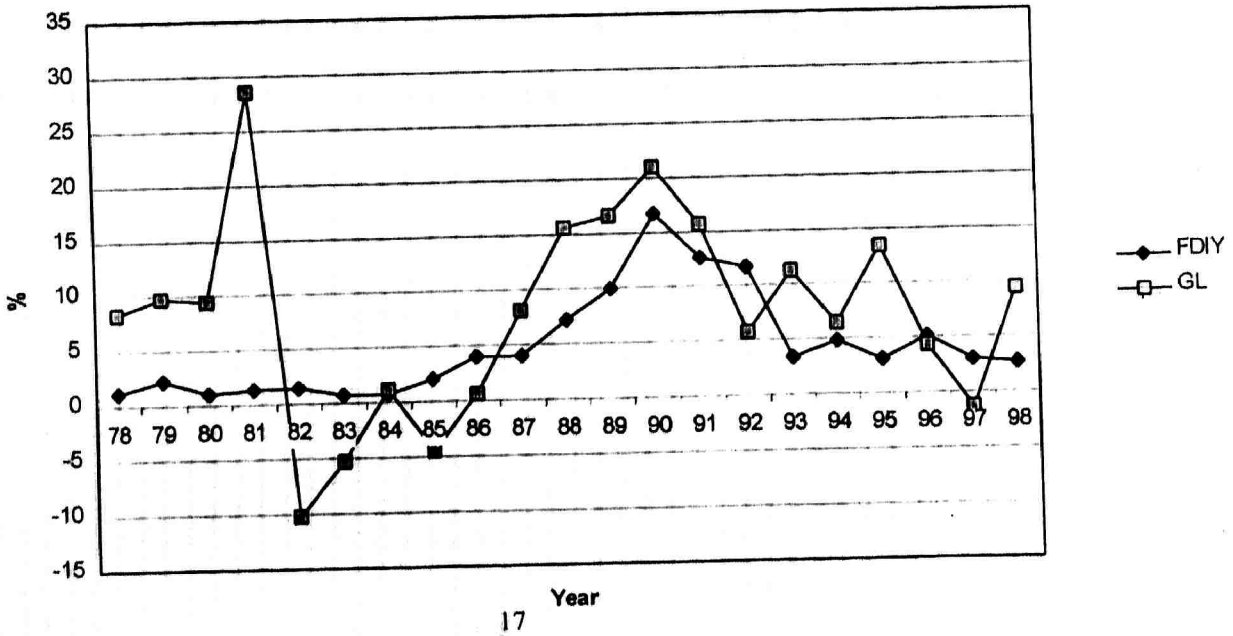
Source: Annual Economic Report, various years.

Figure 2: Scatter Diagram of FDI/Output vs Real Imports/Output



mployed in foreign firms increased from about 30% in 1983 to 42% in 1992 Premachandra & Menon, 1996).

Chart 6: % Share of FDI to the Manufacturing Output vs Growth Rate of Labour in the Manufacturing Sector



Source: Annual Economic Report, various years.

1.10 Objectives

Overall, our purpose is to evaluate past patterns of foreign direct investment in the manufacturing sector and determine its impact on the economy.

1. To analyse the trend and pattern of FDI in the manufacturing sector

This paper attempts to analyse the trend and pattern of FDI inflows in the manufacturing sector. The research should yield an overview of FDI movements over a period of 21 years.

2. To assess the impact of FDI on manufacturing output

Due to controversies concerning the impact of FDI on the host country's economy growth, this paper attempts to adopt an econometric approach as well as use graphical analysis to assess the impact of FDI on manufacturing growth in Malaysia.

3. **To assess the impact of FDI on manufacturing exports**

It is the purpose of this study to assess the impact of FDI on export growth of the manufacturing sector. Based on this analysis, a conclusion may be made if the FDI is export driven.

4. **To assess the impact of FDI on manufacturing imports**

The impact of FDI on imports would be looked into as well. Imports of goods especially raw materials and intermediate inputs are crucial elements in the production of manufacturing goods. However, the over dependence on imports would deteriorate the balance of payment deficit. Thus it is vital to assess the impact of FDI on imports in the manufacturing sector.

5. **To assess the impact of FDI on employment**

Employment generation in the manufacturing sector is also a factor which determines growth in the sector. The impact of FDI on the growth of labour in the manufacturing has to be assessed in order to capture the influence of FDI on growth and development.

1.11 Definition of Variable

The definition of foreign direct investment (FDI) is in accordance to that of MIDA (Malaysia Industrial Development Authority). It is referred to as "inflows as loans attributed to foreign investors, approved foreign equity in new projects and expansions of existing production capacities for the manufactures of additional products".