Chapter VI – Foreign Direct Investment in Vietnam: Determinants and Impacts on Economic Growth

Introduction

Chapters IV and V of this thesis have hypothesised that FDI is attracted to a country that has high economic growth, and that FDI could promote higher economic growth in the host country. The hypotheses are tested with a sample of four ASEAN countries - Indonesia, Malaysia, Thailand and Singapore. The empirical test finds that during 1975-1995 there was a two-way relationship between FDI and economic growth in these ASEAN countries, i.e. FDI promoted higher economic growth and was attracted by high growth rates of these economies. It also finds that the implementation of an Export-Oriented-Regime (EOR) strengthens this relationship and human capital development is a positive factor in the relationship.

Another member of the ASEAN, Vietnam, also experienced high rates of economic growth and rapid increases in FDI in the last decade. Since its Reform (Doi Moi) was launched in 1986, this country achieved remarkable economic success. The economy was growing at an average rate of 5.2% between 1988 and 2000, or 5.7% during the 1990s particularly, which is higher than many other countries in the region in the same period[1]. Vietnam also emerged as a large FDI recipient in the developing world in the 1990s. From having virtually no FDI before the Reform, in 1990, Vietnam was ranked 73rd and in 1995, 25th among developing countries in terms of FDI stock. In 1990, the stock of FDI was worth only 4% of the country's GDP. By 2000, the stock of FDI in Vietnam was 46% of its GDP[2].

[1] Based on a comparison of annual average growth rates of GDP per capita of Vietnam and Asian countries. See Appendix VI.1 for more details.

[2] If compared by the ratio of FDI stock to GDP, the rank of Vietnam would be much higher (see Appendix VI.2). The comparison is made with data from UNCTAD (2002).

This chapter studies the relationship between economic growth and FDI in Vietnam in terms of the framework sketched in Chapters IV and V. More particularly, it attempts to find out what attracted FDI to Vietnam and whether and how FDI promoted high economic growth in Vietnam. This chapter also considers the role of EOR and human capital in the relationship between economic growth and FDI in Vietnam. The experience of Vietnam is expected to be different from those of the four ASEAN countries because although this country followed the path of the ASEAN countries in promoting FDI and exports, human capital of the country is relatively low.

This chapter is structured as follows. Section 1 briefly discusses the background of the Vietnamese government's decision to promote FDI and the government policies towards FDI in Vietnam since 1986. Section 2 presents the trend and pattern of FDI in Vietnam. Section 3 assesses the factors in Vietnam that induced FDI. This section particularly attempts to find out whether high economic growth attracted FDI to Vietnam. Section 4 analyses how and to what extent FDI influenced economic growth in Vietnam. Section 5 examines the relationship between economic growth and FDI in Vietnam and the impacts of EOR and human capital in this relationship. Section 5 discusses policy implications and concludes the chapter.

1 - Policy Background

1.1 - Why Was FDI Promoted in Vietnam?

The reunification in 1975 marked the end of the war and also of the war-style economy in Vietnam. For the next ten years, from 1975 to 1985, the country faced serious macroeconomic problems. The economy performed poorly with low or even negative growth. Income per capita decreased while inflation rocketed. The economy relied heavily on agriculture, yet growth in food production could not catch up with

population growth[3]. Industrial production did not grow or grew at very low rates. In the midst of the economic crisis, the Fourth Party Congress in July 1979 of the Vietnamese Communist Party marked an important milestone. The party decided to launch economic reforms. Although several important policies were initiated such as the "three plan system", which allowed state-owned enterprises to buy and sell through free market transactions, the socialist-style centrally planned system largely remained[4]. It was not until 1986 that a series of more profound economic reforms, 'The Reform' (Doi Moi), were launched by the Sixth Party Congress. The most important change was the move toward the so-called "socialist-orientation market economy", where the market mechanism was recognised and encouraged to act as the fundamental basis of economic relationships, rather than state planning. An important element of the Reform was the implementation of the open door policy (Mo Cua), aiming at integrating Vietnam into the global economy. One key component of the open door policy is to promote FDI. The Foreign Investment Law was enacted in 1987 and the first joint-venture project was approved in 1988.

Various internal and external factors had influenced the decision of the Vietnamese government to promote FDI. Internally it was the economic crisis, which resulted from many years of war; the adoption of Soviet-style central planning; and several other factors[5]. The Party recognised that domestic forces alone might not be enough to solve the economic turmoil and to achieve its targets of economic development. With low domestic savings, the country had a serious shortage of capital to expand production. More importantly, the country was short of productive capacity, modern technologies and knowledge to operate the newly launched market-oriented economy. The Vietnamese government decided to promote FDI in order to expand and

[3] General Statistical Office (various issues). There is an extensive literature on the economic situation in Vietnam before the Reform, see for example Irvin (1995) and Fforde and de Vylder (1996)
[4] See Fforde and de Vylder (1996) and their references
[5] See Tran Van Hoa (1997)

improve production; boost exports and improve the country's competitiveness; improve agriculture; develop key industries, especially in energy and machinery, to provide import substitution; and improve transport and telecommunication[6]. FDI was thus seen not only as a source of capital and technology but also as a main factor to increase output and production and to transform the economic structure of Vietnam (Le Dang Doanh, 1997).

Externally, the collapse of the Soviet Union and Eastern European countries in the late 1980s affirmed the need for FDI because it brought dramatic changes in the financial status of Vietnam (Le Dang Doanh, 1997). As the Soviet Union and Eastern European countries had been the main loan and aid donors to Vietnam, the cessation of loans and aid from these countries[7], and the demand for foreign currency to repay loans led to serious budget deficits. These countries had also been major markets for Vietnamese exports and the loss of these traditional markets for Vietnamese exports worsened the situation (Le Dang Doanh, 1997). Nevertheless, the collapse of the Soviet Union and Eastern European countries also affected the decisions of the Vietnamese government in a different yet more influential way. Before the collapse, the Vietnamese government still seemed to expect that its economy would be dependent on the communist bloc. The principle in promoting FDI, which was based on the resolution of the Party, was to be fair with all investors but with priority (all other things being equal) being given to the Soviet Union and other socialist countries[8]. Although this principle was supposed to be applied before any long-term planning was made for the next ten to fifteen years, it suggests that had the collapse not happened, the attitude of the Vietnamese government towards FDI from non-communist countries would have

[6] The Instruction no. 163/CT of the Chairman of Vietnam's Council of Ministers on promoting FDI dated 12 June 1989. See Appendix VI.3 for a list of legal documents and other documents relating to FDI issued by the Vietnamese authority.

[7] According to Irvin (1995) in 1989 aid from the Soviet Union and Eastern Europe to Vietnam was mostly in the form of subsidised commodity imports, which was equivalent to 9% of GDP. See Le Dang Doanh (1997) for more details.

[8] The Instruction no. 163/CT of the Chairman of Vietnam's Council of Ministers on promoting FDI dated 12 June 1989

been different and the inflows of FDI to Vietnam would have been different in terms of volume, growth and source countries. The collapse of the Soviet Union and the Eastern European countries could be seen as a factor that not only ended the assistance but also ended the reliance of the Vietnamese government on these countries, and thus prompted the government's determination to promote FDI from countries other than the Soviet Union and the Eastern Europe.

Another important external factor influencing the decision to promote FDI in Vietnam perhaps is the successful story of China. It is argued widely that the transition of Vietnam to a market economy in many ways resembles that of China[9]. China started its economic reforms and the open door policy to FDI in 1979. The FDI regime was liberalised, aiming at attracting FDI to achieve the objectives of industrialisation and economic development. Until 1983 FDI was concentrated in Special Economic Zones (SEZs) in Guangdong and Fujian provinces. The main form of FDI allowed in China was joint ventures. At first wholly foreign-owned enterprises were permitted only in SEZs. Since 1984 wholly foreign-owned enterprises were allowed to set up outside SEZs. Also, in 1984 Hainan Island and fourteen coastal cities across ten provinces were opened to FDI. The response of investors was prompt. In 1984 the amount of FDI inflows doubled as compared with 1983[10]. By 1985, China attracted US$ 10,499 million, which was 3.4% of its GDP[11]. In Vietnam, the extensive reforms did not start until 1986. It seems that this period (1979-1986) served as waiting time for the Vietnamese government to observe and take lessons from its neighbour, which had similar initial circumstances to Vietnam, i.e. populous, heavily agriculture-based and centrally planned. China's overall economic performance, and the amount of FDI inflows that it attracted and its impacts on the economy provided the Vietnamese government with a positive experience about the open door policy and particularly FDI.

[9] See for example Irvin (1995)
[10] Chen Chunlai (1997c)
[11] Data from UNCTAD (2002)

This factor might be as equally influential as the collapse of the Soviet Union and Eastern Europe on the decision of the Vietnamese government to promote FDI.

1.2 - Government Policies Towards FDI

Although the 1987 Foreign Investment Law is the official document that marked the start of the FDI experience in Vietnam, the Vietnamese government had shown its interest in FDI long before that. The first legal document relating to foreign investment issued by the existing Vietnamese government was the Regulation on Foreign Investment in Vietnam issued in 1977. Nevertheless, this document did not have any particular impact and no FDI was attracted. According to Le Dang Doanh (1997) the failure of this regulation was because it received no support from the Soviet Union and Eastern Europe, and also because of several political events at the time such as the Chinese Border conflict and the Cambodia event.

The first FDI project in Vietnam in the form of a joint venture was in fact the result of the 1987 Foreign Investment Law. Since then government policies towards FDI in Vietnam have changed extensively. Nevertheless one thing that has been kept consistent throughout the years is the determination of the government to attract FDI and create a favourable environment for FDI. The new 1992 Constitution, the highest ranked legal document of Vietnam, clearly stated that FDI is encouraged in Vietnam, the lawful ownership right of foreign partners is protected; and firms with foreign capital will not be nationalised. In almost every year in the 1990s, the National Assembly included promoting FDI as one target in its resolution for the next year. Though changes in government policies have been made, this positive attitude towards FDI has always been in effect.

The main FDI regulation document was the 1987 Foreign Investment Law, which was amended twice in 1990 and 1992 and replaced by a new law in 1996. This 1996 Foreign Investment Law was later amended in 2000. Hundreds of other

documents have been issued to complete the legal framework for FDI in Vietnam. The essence of the 1987 Foreign Investment Law was: i) foreign investors were protected against nationalisation; ii) repatriation of income, profits and salaries was allowed; iii) capital goods and machineries imported as capital contribution were exempted from import duty; and iv) materials, parts and inputs imported to produce for exports were also exempted from import duty. These commitments remained unchanged in all later amended and new laws. This Foreign Investment Law is regarded as the most liberal among those of ASEAN countries (Booth and Vo, 1992)[12]. Since then several major changes have been made, showing that the government is committed to promoting and facilitating FDI. *First*, more forms of FDI have been recognised. The 1987 Law defined only three forms of FDI in Vietnam: business cooperation contracts, joint ventures and 100% foreign-capital enterprises. The 1992 amended Law extended the forms of FDI to include Export Processing Zones (EPZs), enterprises in EPZs and Build-Operate-Transfer (BOT) projects. The new 1996 Law added Build-Transfer-Operate (BTO) and Build-Transfer (BT) projects, Industrial Zones and enterprises in industrials zones. Also, the amended 1990 Law formally announced that Vietnamese firms in the private sector could have business cooperation with foreign individuals and entities. *Second*, the duration of a FDI project has been prolonged. The 1987 Law allowed the operation time for a joint venture or for 100% foreign-capital enterprises of no more than 20 years, with extension to 50 years if necessary. The new 1996 Law extended it up to 50 years, or even 70 years if necessary. *Third*, the ranges of profit tax decreased from 15-25% in the 1987 Law to 10-25% in the 1996 Law. *Fourth*, the government has attempted to simplify the administration procedure relating to FDI. Several legal documents have been issued with the aim of improving the procedure relating to

[12] As discussed below, although the Foreign Investment Law is liberal in its terms, the policy is not so liberal in practice.

planning, approving and implementing FDI[13]. Granting FDI licences has been decentralised. Since 1997 the City/Provincial Committees can grant FDI licences for some specific projects such as projects in the textiles, garments and footwear sector that export 80% of their products. Since 1999, the fee for approving FDI projects was abolished. Foreign firms no longer have to pay the fee when they apply for licences for FDI projects[14]. Since 1999 FDI firms that wish to export no longer need to submit their plans and wait for approval[15]. *Fifth*, some costs of doing business under the government's control such as the cost of electricity, telecommunication and water were reduced with the aim of promoting FDI[16].

The effects of these attempts by the government mentioned above are still controversial. Foreign observers and domestic newspapers have been concerned that the investment climate in Vietnam has been improved too slowly. Foreign investors still face too many problems in doing business in Vietnam such as high transaction costs, state monopolies of key industries and cumbersome bureaucracy[17]. The Party and the government seem to recognise these problems. A document stated that ongoing problems in promoting FDI are an incomplete, unclear and inconsistent legal framework, poor infrastructure, red tape, corruption, and weak human resources[18]. Although it could be argued that there are still problems with the investment climate in Vietnam and that the government has not done enough, these policies signal to foreign investors the commitment of a pro-FDI government.

Over the years the Vietnamese government has changed its targeted sources of FDI and the sectors in which it wishes to promote FDI. As mentioned above, in the late 1980s the priority (all other things being equal) was given to investors from the Soviet

[13] For example, Decree no. 191/CP dated 28 December 1994, the Instruction no. 11/1998/CT-TTG dated 16 March 1998
[14] Decision no. 59-1999/QD-BTC of the Ministry of Finance dated 26 May 1999
[15] Decision no. 1021/1999/QD-BTM of the Ministry of Trade dated 1 September 1999
[16] Decision no. 53/1999/QD-TTG of the Prime Minister on promoting FDI dated 26 March 1999
[17] Vietnam Investment Review and Vietnam Economy (various issues)
[18] Resolution no. 07-NG/TW of the Politburo dated 27 November 2001

Union and other socialist countries. Since then the targeted investors have changed quite dramatically. In the early 1990s, for the first time the Vietnamese government encouraged overseas Vietnamese to invest in Vietnam[19]. In a document issued in August 2001 the Vietnamese government stated that investors from all countries are welcome, especially investors with strong financial capabilities and who are bringing advanced technologies from developed countries[20]. Over nearly two decades, projects that are export-oriented, labour-intensive, or contribute to infrastructure development are still in the priority list. Nevertheless projects for implementing large economic plans, for producing for import substitution, or for bringing in foreign currency (such as tourism), which were encouraged in the 1987 Foreign Investment Law, are not in the priority list of the 1996 Law. Also the government no longer encourages projects that aimed at improving the productivity of the existing production units. New areas in the priority list of the 1996 Law include projects in agriculture, fishery and forestry; projects in remote and mountainous areas and areas that face difficult socio-economic problems; and projects that protect the environment, and carry out R&D. The 1987 Law encouraged any projects that use materials and resources available in Vietnam. The 1996 Law specifically stated that projects that process materials and use natural resources available in Vietnam *efficiently* are to be encouraged. This change in targeted projects suggests that i) the Vietnamese government is committed to its open door policy, ii) investors are treated equally, no priority being given because of the project's home country; and iii) FDI is promoted to fit with the economic plan of the Vietnamese government, i.e. to develop infrastructure, to promote exports based on its competitiveness in labour-intensive and agro-based products and to increase the local content of products. It seems that the Vietnamese government also considers FDI as a means to alleviate poverty and disparity across regions, because it is encouraging FDI

[19] Decree no. 29-CP of the government issued dated 27 May 1993.
[20] Resolution no. 09/2001/NG-CP of the government in August 2001

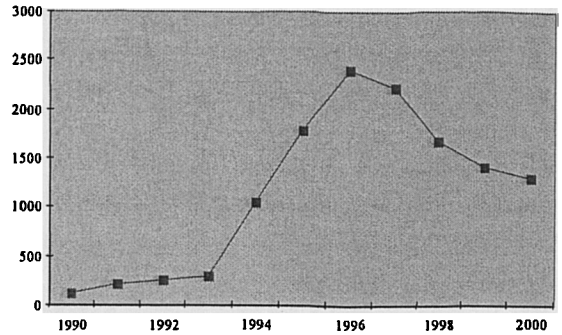
in remote, mountainous and underdeveloped areas, especially through tax and other incentives.

2 – The Trend and Pattern of FDI in Vietnam

2.1 - General Trend

Chart VI.1 shows that there have been three phases in the FDI experience of Vietnam. Phase 1 was from 1988 to 1993 when the inflows of FDI increased at a slow rate. In 1993, the inflows of FDI reached US$ 300 million, around 2.5 times higher than that of 1990. The second phase was between 1993 and 1996 when the inflows of FDI to Vietnam increased rapidly. At the peak time in 1996, Vietnam attracted nearly US$ 2.3 billion. This period also marked dramatic changes in Vietnamese international relations with the lifting of the US embargo in 1994 and Vietnam's membership of ASEAN[21] in 1995. Phase 3 was from 1997 up to 2000 when the inflows of FDI to Vietnam were decreasing quite sharply.

Chart VI.1 – Annual Inflows of FDI to Vietnam (1988-2000)



Source: FDI inflows at current US$ million calculated from ADB (various issues)

In the early years, joint ventures were the popular form of FDI activities. Vietnamese partners in most cases are state-owned enterprises (SOEs). Although the amended 1990 Law formally announced that Vietnamese firms in the private sector could cooperate with foreign individuals and entities, joint ventures between foreign partners and Vietnamese partners in the private sector are rare. The reason for this is

[21] The Association of South East Asian Nations

not only that foreign partners tend to rely on their SOEs for dealing with the authorities and for land use rights, but also because firms in the private sector are mostly financially and technologically incapable of taking part in a joint venture. Wholly foreign-owned firms became more popular in the 1990s, especially in Export Processing Zones and Industrial Zones.

Tables VI.1 and VI.2 show the trend of FDI inflows to Vietnam by sectoral activities. During 1988-2001, the total registered capital of projects with foreign capital was US$ 36.7 billion. However implemented capital was only US$ 16.5 billion, accounting for only 45% of the registered capital. Foreign partners contributed US$ 13.3 billion, accounting for 80% of the implemented capital. Vietnamese partners contributed 20% towards the implemented capital, mainly in the form of land use rights.

During 1988-2000 the sectoral distribution of FDI in Vietnam changed extensively[22]. A large proportion of FDI to Vietnam in the early years of the Foreign Investment Law was from big oil companies. Tourism and hotels also took a big share in the early years. From 1992 onwards FDI in construction, consumer goods, food processing, electronics and chemicals gained the leading position[23]. FDI in some industries such as automobiles started increasing from the mid 1990s. By 2001, heavy industry and construction took the highest shares of FDI to Vietnam, each category accounting for 18% of the total implemented capital. FDI in heavy industry mainly goes to automobiles, construction materials and other import-substituted products. Oil and gas and transport and telecommunication took equal shares of around 12% of FDI. Nearly US$ 2 billion was invested in light industries, accounting for 11% of total implemented capital. The main categories of light industries include processing industry, garments, textiles and footwear. The hotel and tourism industry attracted US$

[22] See Appendix VI.4
[23] Le Dang Doanh (1997)

1.1 billion, which is 7% of total investment. Vietnam also hosted FDI projects in food processing, agriculture, forestry, fishery, banking and finance, medical care and education and services. Overall the sectoral pattern of FDI in Vietnam is rather diversified, i.e. no single sector dominates the inflows of FDI.

The sectoral pattern of FDI inflows to Vietnam is different from those to other ASEAN countries. In Thailand, a large share of FDI goes into distribution, finance and real estate and FDI in manufacturing as a whole represents one third of total inflows, of which electronics is the main category. In Indonesia, FDI in manufacturing concentrates on resource-based activities such as chemicals and paper. In Malaysia, FDI in manufacturing concentrates on electronics (Thomsen, 1999).

Table VI.1 - FDI to Vietnam by Industry Activities (1988-2001) (I)

(in current million US dollars)

	Total Registered Investment	Total Implemented Investment	Implemented By VN Partners	Implemented By Foreign Partners
Heavy Industry	7,071	2,954	428	2,526
Oil and Petroleum	3,154	2,093	405	1,688
Infrastructure for Industrial Zones, Export Processing Zones	828	274	92	182
Light Industries	4,199	1,849	125	1,724
Food Processing	2,329	988	157	831
Agriculture and Forestry	2,005	945	122	823
Hotel, Tourism	3,538	1,146	351	795
Construction	9,069	3,035	840	2,195
Services	711	386	89	297
Transport and Telecommunication	2,572	2,028	606	1,422
Culture, Medical Care and Education	581	252	26	226
Fishery	162	79	10	69
Banking and Finance	553	521	42	479
Total	36,780	16,563	3,299	13,264

Source: Calculated from MPI (2001)

Table VI.2 shows the scale of projects[24], employment and degree of capital-intensive in each industry[25]. Among all industries that receive FDI in Vietnam, oil and petroleum have the largest scale and the most capital-intensive projects. On average the implemented capital of a project in oil and petroleum is US$ 72 million, the average capital per employee is nearly US$ 3 million. Projects in transport, telecommunication and infrastructure for industrial zones are also large scale and capital-intensive. Average capital per project in these industries is around US$ 20 million. Capital per employee in transport and telecommunication is around US$ 393,678. In infrastructure for industrial zones it is around US$ 245,967 per employee. Projects in hotels, tourism, construction and banking and finance are of similar scale, around US$ 10 million per project. Construction and banking and finance are more capital-intensive than hotels and tourism.

Projects in heavy industries, light industries, food processing, agriculture, forestry and fishery are of small scale. Average capital in heavy industries and in food processing is US$ 4 million and US$ 6.4 million per project, respectively. Projects in light industries, agriculture, forestry and fishery have average capital of less than US$ 3 million per project. Yet, employment in these industries, i.e. heavy industries, light industries, food processing, agriculture forestry and fishery, accounts for 85% of total employment in the FDI sector. FDI projects in light industries account for only 11% of total implemented capital but provide the most jobs in comparison with other industries. By 2001, more than 192,000 people worked in FDI firms in light industries, accounted for more than half of total employment created by the foreign sector. Projects in light industries are also the most labour-intensive with the average capital per worker of US$ 9,617, compared with nearly US$ 3 million in the most capital-intensive projects in industry, oil and gas.

[24] The scale of project is calculated as average implemented capital per project.
[25] The degree of capital-intensive is calculated as number of dollars of capital per employee.

Table VI.2 - FDI to Vietnam by Industry Activities (1988-2001) (II)

(in current US$ million)

	No. of Projects	Average Implemented Capital per Project	Employees *	Capital/Employee **
Heavy Industry	699	4.22	53,805	54,901
Oil and Petroleum	29	72.17	705	2,968,794
Infrastructure for Industrial Zones, Export Processing Zones	14	19.57	696	393,678
Light Industries	674	2.74	192,255	9,617
Food Processing	154	6.41	19,571	50,482
Agriculture and Forestry	334	2.82	32,279	29,276
Hotels, Tourism	126	9.09	17,308	66,212
Construction	323	9.39	16,369	185,411
Services	157	2.45	4,541	85,003
Transport and Telecommunication	94	21.57	8,245	245,967
Culture, Medical Care and Education	99	2.54	4,901	51,418
Fishery	51	1.54	5,244	15,064
Banking and Finance	48	10.85	2,218	234,896
Total	2,802	12.72	358,137	46,247

Source: Calculated from MPI (2001) and National Centre for Social Sciences and Humanities (2001)

* Number of employees

** Implemented Capital per Labour Employed (in US$)

2.2 - Geographical Distribution of FDI

Table VI.3 shows the geographical distribution of FDI in Vietnam. FDI inflows to Vietnam have concentrated in very few locations. Among 61 cities/provinces of Vietnam, ten cities/provinces have attracted 82% of all projects, accounting for 80.8% of total registered capital and 72% of implemented capital. Between them, Ho Chi Minh City and Hanoi receive 40% of total implemented capital. Big populations, however make the ratio of FDI per head in these cities not particularly higher than in other locations. The Southern provinces surrounding Ho Chi Minh City such as Binh Duong and Dong Nai are also favourite locations for FDI. The success of the Southern

area is largely attributed to the dynamic as well as business-oriented attitude of both local authorities and people.

Table VI.3 - Top Ten Locations in Vietnam in terms of FDI (1988-2001)

(in current US$ million and percentage in brackets)

City/Province	No. of Project	Registered Capital	Average Capital per Project	Implemented Capital	Foreign Investment Capital per head*
Ho Chi Minh City	963	9,838	10.2	4,739	1,941.7
		(26.7%)		*(26.4%)*	
Hanoi	375	7,734	20.6	2,823	3,032.2
		(21%)		*(15.7%)*	
Dong Nai	295	4,649	15.7	2,131	2,251.3
Binh Duong	416	2,369	5.7	1,061	2,766
Ba Ria – Vung Tau	68	1,438	21.1	397	1,621.9
Hai Phong	86	1,290	15	945	802.5
Lam Dong	48	844	17.6	86	851.7
Ha Tay	28	579	20.6	258	246.8
Hai Duong	24	491	20.5	128	290.5
Thanh Hoa	10	455	45.5	394	128
Ten Cities/Provinces	2,313	29,687	19.2	12,962	N/A
	(82.5%)	*(80.8 %)*		*(72.2%)*	
Total	2,802	36761	13.1	17,944	460.9
	(100%)	*(100%)*	*(100%)*	*(100%)*	

Source: Calculated from MPI (2001) and National Centre for Social Sciences and Humanities (2001)

* as of 2000, in US$

2.3 - Sources of FDI

Since 1988, investors from 59 countries/territories have invested in Vietnam. Nevertheless the sources of FDI inflows to Vietnam are quite concentrated. Table VI.4 shows the ten countries that are top investors in Vietnam, and which account for 79% of the country's total registered capital and 76% of total implemented capital. The top five countries are from East Asia including Japan and four East Asian NICs (Newly Industrialised Countries), which account for 58.8% of total implemented capital. Employment created by investors from Japan and the NICs accounts for 78% of total

employment in the FDI sector[26]. Compared with other countries in the region, this is similar to the FDI experience of Thailand and Malaysia, where FDI from Japan and East Asian NICs accounts for around 60% of total FDI. Only 50% of total FDI in Indonesia and 40% in the Philippines are from Japan and NICs[27]. One country in the list of top ten investors in Vietnam is British Virgin Islands, which probably invests in Vietnam for the tax havens' purpose.

Table VI.4 also shows that FDI projects from Taiwan, Japan, South Korea, and Hong Kong, are highly export-oriented. The ratios of exports to total sales revenue of projects from these countries range between 45.5% and 58.6%, higher than the average ratio for the top ten countries of 33.2%. Projects from these countries are of smaller scale than projects from other countries in the top ten but similar to the average of projects from all countries/territories. Projects from Taiwan, South Korea and Hong Kong have the lowest ratios of capital per employee. This is compatible with the notion that in the 1990s, the NICs in East Asia faced the problem of increasing wages, especially with unskilled labour. In their strategy to look for cheaper-labour-cost locations, companies from the NICs have moved to China and Vietnam to exploit cheap labour in these countries. Le Dang Doanh (1997) points out that the inflows of FDI from East Asia could also be explained by the favourable trade status that Vietnam enjoys while the NICs do not. Projects from these countries concentrate in garments, textiles and footwear for export to third countries or home countries, and tend to be labour-intensive.

Among the top ten countries investing in Vietnam, investors from Singapore, the Netherlands and Britain are relatively less export-oriented. The average ratio of exports to total sales revenue of projects from these countries is less than 10%. These projects however have high ratios of capital per employee; US$ 100,447 on average

[26] Calculated from MPI (2001)
[27] Thomsen (1999)

from Singaporean investors, US$ 181,309 from British investors, compared with US$ 50,000 as the average of projects from all countries/territories. Projects from Russia mainly concentrate on oil exploration and oil exports, thus these projects are capital intensive and have high export ratios.

Table VI.4 - Top Ten Home Countries/Territories of FDI to Vietnam (1988-2001)

(in current million US$ and percentage in brackets)

Countries/Territories	No. of Project	Registered Capital	Average Capital per Project	Implemented Capital	Export/ Revenue*	Capital/ Labour~
Singapore	237	6,606	27.9	2,019	9.6	100,447
Taiwan	676	4,806	7.1	2,409	45.5	32,712
Japan	312	3,984	12.7	2,661	48.7	73,553
South Korea	297	3,205	10.8	1,937	58.6	28,595
Hong Kong	214	2,854	13.3	1,530	50	18,563
British/Virgin Islands	115	1,800	15.6	872	15.5	107,928
The Netherlands	41	1,676	40.9	382	4.1	96,596
France	111	1,659	14.9	592	14.8	56,757
Russia	37	1,486	40.1	600	31.4	256,081
Britain	35	1,163	33.2	674	6.9	181,309
Ten Countries	2,075 *(74%)*	29,239 *(79.5%)*	21.6	13,676 *(76.2%)*	28.5	95,254
Total	2,802 *(100%)*	36,761 *(100%)*	13.1	17,944 *(100%)*	33.2	50,104

Source: Calculated from MPI (2001)

* Export as Percentage of Total Revenue

~ Implemented Capital per Labour Employed (in US$)

Besides Singapore, other ASEAN countries including Thailand, Malaysia, Indonesia, and the Philippines are also important investors in Vietnam. Table VI.5 shows that among ASEAN countries, FDI from Indonesia is the most export-oriented with an export ratio of 39%. Malaysian and Indonesian projects have the highest ratios of capital per worker among East NICs and ASEAN. As compared with the top ten, these are only lower than those of Russian and British projects. Projects from Thailand have similar ratio of capital per worker to projects from Japan. In terms of project scale,

or average implemented capital per project, projects from ASEAN countries have a similar scale to projects from Japan and NICs. Together, FDI from Japan, East Asian NICs and ASEAN countries accounts for nearly two third of total implemented FDI in Vietnam and provides 85% of total employment in the FDI sector.

Table VI.5 - FDI from East Asian and ASEAN Countries to Vietnam (1988-2001)

(in current million US dollars and percentage in brackets)

Countries/Territories	No. of Project	Registered Capital	Average Capital per Project	Implemented Capital	Export/ Revenue*	Capital/ Labour~
Japan	312	3,984	12.7	2,661	48.7	73,553
Singapore	237	6,606	27.9	2,019	9.6	100,447
Taiwan	676	4,806	7.1	2,409	45.5	32,712
South Korea	297	3,205	10.8	1,937	58.6	28,595
Hong Kong	214	2,854	13.3	1,530	50	18,563
Thailand	95	1,112	11.7	491	6.7	75,474
Malaysia	86	1,084	12.6	1,009	19	165,964
The Philippines	17	247	14.5	85	12.6	15,910
Indonesia	7	110	15.7	104	39	124,095
Ten Countries	1,941	24,008	12.6	12,245	28.9	63,531
	(69.3%)	*(65.3%)*		*(68.2%)*		
Total	2,802	36,761	13.1	17,944	33.2	50,104
	(100%)	*(100%)*		*(100%)*		

Source: Calculated from MPI (2001)

* Export as Percentage of Total Revenue

~ Implemented Capital per Labour Employed (in US$)

3 - What Attracts FDI to Vietnam?

The objective of this section is to account for the factors that attract FDI to Vietnam. This section also attempts to find out whether high economic growth in Vietnam has influenced its FDI. In accounting for the role of high economic growth in attracting FDI, this section uses the theoretical framework developed in Chapters IV and V. The framework suggests that high economic growth provides potential for growth of sales, which is important for domestic-market-oriented FDI. High economic

growth could also indicate a certain level of infrastructure development, which is cost beneficial for investors. Overall it signals a country's good development potential, thus enhancing the confidence of foreign investors.

This section finds that natural resources, especially oil and gas; growing purchasing power in a protected domestic market, cheap labour cost; lax labour regulation, a positive government attitude towards FDI; and the location of Vietnam are main factors that attract FDI to Vietnam. High economic growth is an important determinant of FDI that is targeting the domestic market because it increases the expected growth of sales and the ranges of products that FDI firms could sell to the domestic market. High economic growth in Vietnam is a positive determinant of FDI in most industries also because it has been attained by increases in infrastructure such as electricity, water, telephone and communication. Consistently high economic growth in Vietnam and the positive attitude of the government in the 1990s have successfully promoted a shift toward greater optimism among foreign investors and thus has induced FDI into the country. Although Vietnam has implemented EOR, the impact of EOR in attracting FDI into the country is not large because a large proportion of FDI to Vietnam is domestic-market-oriented.

3.1 - Natural Resources

Vietnam is rich in natural resources and a considerable amount of FDI flowing to Vietnam is natural-resource-seeking. This section focuses on two particular targets of foreign investors: Vietnam's offshore reserves of oil and gas that have attracted FDI in oil and gas exploration and production; and Vietnam's landscape, beaches and weather that have attracted FDI in the tourism industry.

Oil and gas exploration, refineries and production have taken an important place in long-term economic development programmes in Vietnam. Since the early years of the Reform the Vietnamese government has expected that exports of oil and oil-based

products would earn hard currency. Nevertheless, in the late 1980s, Vietnamese SOEs in the industry were financially and technologically incapable of doing so with their own resources. Consequently, FDI in this industry was permitted and particularly encouraged by the Vietnamese government[28]. In the early years of the Foreign Investment Law, FDI from big oil companies such as Total, BP, Enterprise and Shell to explore the offshore oil and gas reserves accounted for a large proportion of total FDI. Until 1994, the disbursement of FDI in this industry constituted for around 40% of total FDI inflows every year. During 1995-2000, the annual average of FDI inflows in this industry was around US$ 355 million although the share of FDI in the oil and gas industry as a percentage of total FDI decreased sharply due to increases in FDI in other industries[29]. The encouragement by the government, and more importantly the success of initial oil exploration projects, has accumulated a comparatively large stock of FDI in oil and gas industry. By 2001, there were 29 FDI projects in the oil and gas industry with implemented capital of more than US$ 2 billion.

Since the Reform started, Vietnam has become an attractive venue for foreign tourists. SOEs, which dominated the industry at the time, were operating in the old-style, i.e. they were dependent on government subsidies and were highly bureaucratic. The physical infrastructure and human resources of the industry were poor. The quality of service is far below international standards and Vietnamese SOEs cannot improve their quality with their limited resources. This creates big opportunities for FDI in tourism and hotels, which target the landscape, beach and hot weather in Vietnam. In the early stages of the Reform, tourism and FDI in tourism were promoted as the government encouraged activities that could bring hard currency[30]. Between 1988 and 1991, only US$ 10 million was invested in hotels and tourism. Since then FDI in this

[28] The Instruction no. 163/CT of the Chairman of Vietnam's Council of Ministers on promoting FDI dated 12 June 1989 stated that offshore natural resources were a subject for FDI activities.
[29] See Appendix VI.4 for details
[30] See for example the 1987 Foreign Investment Law

industry increased rapidly. At its peak in 1996 the inflow of FDI reached US$ 289 million[31]. Big investors in this field are from Hong Kong, Taiwan, Singapore and Japan. A large part of FDI in tourism went into constructions of hotels and resorts. In 1995, for example, 72% of FDI in tourism in Vietnam flowed into construction of hotels (Haley and Haley, 1997).

Although the natural resources of Vietnam are the main determinant of FDI in these industries, the high growth rate of the Vietnamese economy has played an important part in the rapid increase of FDI of this type. This is because since 1988 high economic growth in Vietnam has been accompanied by rapid developments in infrastructure. Between 1988 and 2000, the production of electricity increased nearly four times; the value of GDP in construction, transport and communication activities increased by more than fifty times[32]. Such improvements in infrastructure have facilitated the activities of FDI in oil and gas, and tourism, and enhance the country's attractiveness for FDI into these industries.

3.2 – The Domestic Market and its Growth

In many countries, the post-war period is marked by reconstruction and the redirection of production towards consumer goods, providing a strong impetus for investment[33]. In Vietnam such post-war reconstruction and consumer goods growth did not happen after 1975 due to various factors, including the border conflict with China and the Cambodia war. The launch of the Reform in 1986 could be regarded as a milestone for the start of the reconstruction and consumer goods growth that had been delayed for more than 10 years. Nevertheless by the time of the Reform, almost all industries were in a poor condition, using old technologies and operating in the style of Soviet heavy industry. The existing domestic productive capacity was already unable to meet existing demand, and was far from being able to serve the increasing demand of

[31] See Appendix VI.4
[32] See Appendixes VI.5 and VI.6
[33] See for example Chick (1983) about the American post-war period.

the new economic development era. There was domestic demand for a wide range of products, from toiletry products for household use to office buildings. A large proportion of FDI to Vietnam has been attracted by the growing purchasing power of the domestic market. Although GDP per capita in Vietnam is low (Table VI.6), this market is promising for domestic-market-oriented foreign investors because of low domestic productive capacity and the high potential of a growing market reflected by high growth rates of the economy. As Table VI.6 shows, in the 1980s the average annual growth rate of the Vietnamese economy was only 4.9%, lower than those of all other countries in the region, except the Philippines. In the 1990s however the average economic growth rate of Vietnam was 7.9%, higher than those of all other countries, except China.

Table VI.6 – Growth, Income Level and Country Risk of Vietnam in comparison with other Asian Countries (1988 - 2000)

	Real GDP Growth (%)		Real GDP per capita (US$)		Composite Risk Rating	
	1980-1989	1990-2000	1988-1990	1998-2000	1988-1990	1998-2000
Vietnam	**4.9***	**7.9**	**99**	**376**	**42.5**	**71.8**
China	10.8	10.3	355	795	59.5	73.5
Hong Kong	7.1	4.0	11,810	23,922	66	78.8
Indonesia	5.8	4.2	565	620	69.5	54.8
Malaysia	4.9	7.0	2,259	3,680	77.5	75.3
Philippines	0.5	3.3	696	970	41	66.5
Singapore	6.3	7.8	10,343	22,026	84	90.5
Taiwan	8.5	6.4	7,200	13,033	81.5	81.8
Thailand	7.0	4.2	1,353	1,914	68.5	72.8

Source: UNCTAD (2002), Annex table A.II.1 and A.II.2

* for the period 1985-1990

In Vietnam domestic-market-oriented FDI has largely gone into heavy industries, light industries, food processing, transport and telecommunication, construction and real estate. It should be noted that all the products for which FDI firms dominate production and outputs are the ones that have high rates of domestic

consumption such as cars, motorbikes, televisions and construction materials. Apart from the unfilled demand of the domestic market and its potential growth, the government's protection policy for import-substituting products is another positive determinant for domestic-market-oriented FDI. The protection policy has been implemented by high tariff barriers, for example on consumer goods, and by non-tariff barriers such as tight quotas on steel and cement. This not only protects products of state-owned enterprises but also of foreign firms. It has been estimated that more than 70% of FDI occurs in sectors with effective rates of protection above 50%[34]. This section focuses on the determinants of FDI into three industries that primarily serve the domestic market: consumer products, automobiles, construction and construction materials.

Consumer Products

As mentioned above the post-war reconstruction and redirection of production towards consumer goods did not occur in Vietnam after 1975. The socialist industrialisation model, which gave top priority to heavy industries rather than light industries, was still being implemented in Vietnam until 1986. Resources devoted to light industries were limited. SOEs in light industries operated with state subsidies. Production and distribution of goods were centrally planned. The private sector did not exist, thus there was no competition. Products were made with old-fashion technologies without considering consumer tastes. This system resulted in not only poor quality products but also serious shortages in consumer goods. The Open Door policy in the mid 1980s allowed Vietnamese consumers to experience "finely made" products such as toiletries and household appliances, either imported or smuggled from neighbouring countries. This source of products, small in quantity and high in price, was not enough to satisfy the increasing demands of the domestic market.

[34] CIE (1998)

The 1986 Reform considered production of consumer goods as one of three major economic programmes[35]. Since SOEs were unable to meet this increasing demand because of a shortage of resources, this large demand for more and better quality consumer goods was happily filled by foreign investors. The domestic market of Vietnam is attractive to foreign investors not only because of the large demand from consumers but also because Vietnamese customers particularly like products with foreign brands. While hostility toward foreign products might be found in some other developing countries, in Vietnam having "foreign-made" products is a pride and consumers tend to regard "foreign made" products as of high quality[36]. This attitude is certainly the result of years of having products made regardless of consumers' needs and tastes under the centrally planned system. A market where a bottle of shampoo is a luxury and a black and white television could attract half a street is certainly promising to investors. More importantly, an increasing fraction of consumers could afford such products but domestic producers could not supply and the government tried to limit imports.

Vietnam has hosted FDI from famous names in the field of consumer products such as Unilever, Sony, LG, Coca-Cola and Nestle. Some companies such as Unilever and Nestle have produced wide ranges of consumer products for the domestic market and attained large market shares. Unilever Vietnam, for instance, is a company that started its business in Vietnam in 1995 with a total investment of US$ 120 million. To date the company has five manufacturing sites. It sells home, personal and oral care products, beverages and foods mainly for the domestic market. This company has created a nation-wide distribution system of 350 distributors and more than 150,000 retailers. During 1995-2001 this company was profitable with an average annual

[35] The Fourth Five-Year Plan for 1986-1990.

[36] The attitude of Vietnamese customers toward foreign-branded products has grown so strong that recently the Vietnamese government introduced the campaign "Vietnamese use Vietnamese products" in an attempt to promote products made by domestic companies.

growth rate of 74%. The company has claimed that since starting its operation in Vietnam, it has gained market leadership in all categories where it competes. Its brands have developed a very strong local presence and have become household names and the first choice of Vietnamese consumers[37].

FDI into consumer goods industries that target the domestic market depends highly on the growth of Vietnamese economy. In the early years when Vietnam started its reforms, FDI in consumer products tended to target the unexploited domestic market of Vietnam. Over the years, FDI companies have captured the market of middle- and high-income consumers, especially in the urban areas, which have the highest and fastest growing purchasing power. These consumers are relatively more dynamic and their incomes tend to be closely related to the country's economic growth. Meanwhile domestic companies serve the needs of lower income consumers, especially in the rural areas. Distribution branches of products made by FDI companies in the consumer good industry have concentrated in high growth areas where people have high incomes such as Ha Noi, Ho Chi Minh City and Da Nang, rather than in low growth areas where people have low income such as Ha Tinh or Lao Cai[38].

Higher rates of economic growth can increase not only the expected growth of sales of FDI firms but also the ranges of products that they supply to the domestic market. That is, as the economy grows, domestic demand expands from basic demand for home and personal care to demand for more sophisticated and expensive products such as household electric appliances. This growing purchasing power of the domestic market has attracted FDI for the production of expensive consumer goods. In 2003

[37] For more details see Appendix VI.7

[38] The GDP annual growth rates between 1995 and 1998 of Ho Chi Minh City, Hanoi and Da Nang are 7.5%, 10.5% and 8.1% respectively. Meanwhile those of Ha Tinh and Lao Cai are 4.3% and 2.9%, respectively. The level of GDP per capita in 1998 of Ho Chi Minh City, Hanoi and Da Nang were US$ 933, US$ 705 and US$ 409 respectively. Meanwhile those of Ha Tinh and Lao Cai were US$ 156 and US$ 144, respectively (National Centre for Social Sciences and Humanities, 2001).

Canon invested US$ 76.7 million to produce digital cameras and colour printers, mainly targeting the domestic demand in Vietnam.

Automobiles

As mentioned above, high rates of economic growth in Vietnam have induced existing FDI firms to invest further to meet demand from consumers who enter their targeted group, and also has encouraged new investment that targets more sophisticated domestic demand. FDI in the automobile industry is an example of this sort of FDI. Until the mid 1990s, almost all motorbikes and cars in Vietnam were imported. Only a small proportion of the population could afford to have motorbikes and cars of privately-owned were few. The ranges of imported motorbikes and cars were also limited. Years of high economic growth had substantially increased the level of income, especially in the cities and to some extent in the rural areas[39]. Such new demand accompanied by high economic growth led to a rapid increase in FDI in the industry in the last half of the 1990s. This was strongly supported by the government's protection policy against imported cars and motorcycles. For example the duty tax rates for cars with less than 5 seats is 200%, for cars with more than 5 seats is 150% and for cars with 15-24 seats is 100%. The special consumption tax for all cars is 95%. Meanwhile a car assembled domestically is subject to only the special consumption tax of 95%. Car assemblers are also exempted from duty for imported capital goods and the tariff for imported parts and components is 20%.

To date, there are eleven foreign firms in car assembling and thirty foreign firms in motorcycles manufacturing in Vietnam, most of them assembling imported CKD (Complete Knock-Down) and IKD (Incomplete Knock-Down) parts and components. The output of FDI firms accounts for 92.8% of cars and 82.3%

[39] It should be noted that the domestic market of Vietnam could be under-estimated if one looks only at the country's average income per capita. There exists wide income disparity across cities/provinces and within cities/provinces. See also footnote 35.

motorcycles produced in Vietnam[40]. The growth rate of sales has increased rapidly. In 1999 only 663 cars assembled in Vietnam were sold. In 2000, 14,000 cars were sold at an average price of US$ 20,000 a car. The number of cars sold to private companies and individuals has increased rapidly. The buyers of motorcycles in the rural areas have also increased rapidly. It suggests that FDI in the automobile sector is attracted by an increasing demand from a group of customers, whose wealth is largely associated with high economic growth. In other words, only those consumers who gain from the high economic growth of the country, can afford a US$ 20,000 car or a US$ 2,000 motorcycle while the rest of the country has the average income per capita of US$ 300 per year[41].

Construction and Construction Materials

In the initial stage of the Reform, the domestic market for construction and construction materials had attracted a large amount of FDI to Vietnam. When Vietnam launched its Reform policy in 1986, existing facilities were in poor condition and seriously inadequate for the new era. Buildings and their facilities had been badly degraded due to the years of war (in the North) and lack of maintenance (in the North and South). The Reform policy and the incapability of SOEs, both financial and technological, had created a boom of FDI in construction, and construction machinery and materials. In the early period, FDI projects in construction focused on hotels. Later Vietnam received large inflows of FDI for the construction of offices, and other buildings and for construction materials such as cement, building aluminium, metals, building glass and ceramics. The domestic market of Vietnam for construction materials is attractive because of high demand and protection set by the government, especially for cement and steel. The outputs of FDI firms account for 45.5% of ceramics

[40] According to statistics from Vietnam Investment Review - July 2003.
[41] National Centre for Social Sciences and humanities (2001)

production for construction, 38.3% of steel output, and 30.8% of cement produced in Vietnam[42].

3.3 - Cheap Labour Costs and Lax Labour Regulations

One major location advantage of Vietnam is its cheap labour. The current level of the minimum wage set by the government in 1999 is VND 487,000, which is equivalent to US$ 35 at the exchange rate of 1999 but at the exchange rate of 2003 is equivalent to only US$ 31.5[43]. Vietnam has an abundant young labour force available at low cost. An estimated 1.4 million young people enter the labour force every year[44]. The Vietnamese labour force has a high adult literacy rate of above 90% (Table VI.7) and school enrolment rates are high. The combined enrolment rate for primary, secondary and tertiary education increased from 49% in 1992 to 67% in 1999. Such impressive statistics in literacy and mass education, unfortunately, are not accompanied by high level of skills. The Human Development Report 2001 states that the skills level of Vietnam's labour is relatively low by international standards. In 1998, unskilled labour accounted for 86.7% of Vietnam's total labour force[45]. This situation is the consequence of people's bias toward a university degree rather than toward an apprenticeship, lack of efficient vocational training and more importantly, lack of a national strategy for skill development. With cheap unskilled labour as its comparative advantage, Vietnam has received export-oriented FDI in labour-intensive industries such as garments, textiles, footwear, toys and handicrafts. These projects are mainly from Japan, Taiwan, Korea, and Hong Kong and are located in EPZs and industrial zones. Insufficiency in skilled labour force has deterred export-oriented FDI in more technology-intensive activities.

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[42] According to statistics from Vietnam Investment Review – July 2003.
[43] The Decision no. 708-1999/QD-BLDTBXH of the Ministry of Labour, Invalids and Social Affairs on the minimum wages for labour in enterprises with foreign capital dated 15 June 1999. The minimum wage was set at US$ 30 per month in 1992, and US$ 35 per month in 1996. The new 1999 level of the minimum wage in local currency terms tends to lower the minimum wage in foreign currency terms because the Vietnamese Dong (VND) has tended to depreciate.
[44] National Centre for Social Sciences and Humanities (2001)
[45] *ibid.*

Table VI.7 - Literacy and School Enrolment in Vietnam (1992-1999)

(in percentage)

	1992	1993	1994	1995	1997	1998	1999
Adult literacy (%)	91.9	92.5	93	93.7	91.9	92.9	93.1
Combined enrolment rate (%)	49	51	55	55	62	63	67

Source: National Centre of Social Sciences and Humanities (2001), Table 2.2

In addition to a low minimum wage level, lax and ineffective labour regulation reduces labour costs in Vietnam further. Although the minimum wage is set at a relatively low level in comparison with those in other countries in the region, many FDI firms pay their workers at even lower rates. Many firms do not sign labour contracts with workers, do not contribute to compulsory health and social insurance schemes and prolong the probation period. Some firms even set up illegal regulations about fines and charges on workers. Other benefits for workers such as overtime, sickness and maternity pay are largely ignored. There is no trade union in most FDI companies, or if there is, it does not have real bargaining power. Most strikes reported are due to violation of labour regulations, especially late payment and maltreatment[46]. The authorities seem unable to solve such problems. The inflows of labour-intensive FDI from Japan, Taiwan, Korea, and Hong Kong could be explained to a large extent by the situation in Vietnam, which is in contrast to the increasing trend in labour cost and the strict labour regulation in these countries[47].

The growth rate of the Vietnamese economy is not a decisive determinant of this export-oriented and unskilled-labour-intensive FDI. As mentioned above, this type of FDI is primarily concerned with cheap labour costs. The domestic market and its growth potential is not the target of this FDI, especially when the government treats goods produced in the EPZs, where a large number of export-oriented FDI projects are

[46] Vietnamese newspapers and international observers have extensively reported the violation of labour regulations in Vietnam by foreign investing companies. Evidence can be found in various sources such as the report of the Industrial Zones Committee of Binh Duong - see Appendix VI.8, the website of Lao Dong newspaper, www.laodong.com.vn, Nguoi Lao Dong newspaper, www.nld.com.vn, and website of Vietnam Labour Watch, http://www.saigon.com/~nike/report.html.

[47] There is evidence that lax labour regulation has attracted FDI to developing countries (see for example Lall, 1978, London and Ross, 1995), and Chapter II for more details.

located, as imported goods, i.e. they are subject to import duty. Also some foreign affiliates operating in Vietnam participate in the international production chains of their parent companies, and thus products made in Vietnam are intermediate products, rather than finished products. Nevertheless, high economic growth in Vietnam could facilitate the operation of this type of FDI and act as a positive determinant of FDI because high economic growth is associated with improvements in infrastructure[48].

3.4 – Government's Policies towards FDI

There are three main areas in which the policies towards FDI of the Vietnamese government affect FDI. First is the overall attitude of the government toward FDI, which includes the effort to decentralise and reduce bureaucracy in order to promote FDI. Second is the government's effort in improving and upgrading the infrastructure of the country and lastly is trade policy.

The positive attitude of the government towards FDI discussed in Section 2 has played an important part in attracting FDI to Vietnam. It is a signal for foreign investors that the Vietnamese government welcomes FDI, recognises the lawful right of FDI firms, and guarantees to protect FDI firms from the threat of nationalisation. In brief, it shows foreign investors that the Communist government attempts and continues to improve the investment environment in Vietnam. Since the issuance of the 1987 Foreign Investment Law, the government has carried out various measures to promote FDI[49]. Efforts have been made to decentralise and reduce bureaucracy, e.g. the one-door policy for FDI licence applications. This seems to be acknowledged by foreign investors and observers. Table VI.6 shows that the country risk rating has been improved greatly since the Reform. During 1988-1990, i.e. in the early years of the Reform, the composite risk rating of Vietnam was 42.5, which was much lower than those of other countries in the region. Ten years later, between 1998 and 2000, the

[48] See Section 3.1
[49] See Appendix VI.3 and Section 1.2.

rating of Vietnam increased to 71.8, not far from those of other countries and higher than those of Indonesia and the Philippines. The positive attitude of the government and consistently high economic growth in Vietnam in the 1990s have successfully promoted a shift of expectations toward greater optimism among foreign investors and thus induced FDI inflows into the country.

The positive attitude of the Vietnamese government and its attempt to decentralise the procedure of FDI licensing and promoting have resulted in competition across provinces/cities for a large share of FDI. Provincial/city authorities have offered various financial and fiscal incentives to attract foreign investors. An increasing number of provinces/cities have focused on simplifying administration procedures, improving infrastructure facilities, and offering financial and fiscal incentives. In Binh Duong, one of the provinces that have been regarded as the most open with the most favourable investment environment, infrastructure is newly built or upgraded both inside and outside industrial zones, including roads, water and electric supply. Other facilities such as the customs office, tax office and post office have also been built or upgraded. Binh Duong is also a pioneer in promoting non-state investment in infrastructure for industrial zones. Within the last few years, this province has carried out two "red-carpet campaigns" to promote FDI. Similar moves have been witnessed in many other provinces/cities such as Ho Chi Minh city, Hai Phong and Can Tho[50].

The Vietnamese government has also attempted to improve the country's infrastructure. The high economic growth of this country has been attained by rapid increases in electricity, telecommunications and infrastructure (Section 3.1). This allows the government to reduce such costs as electricity, water and telecommunications that foreign investors have to pay[51]. As these are important for

[50] See Appendix VI.8 and various issues of Vietnam Investment Reviews.
[51] Decision no. 53/1999/QD-TTG of the Prime Minister dated 26 March 1999.

almost all kinds of FDI, high economic growth could be regarded as a positive factor influencing FDI.

The trade policy of the Vietnamese government has played an important role in attracting FDI. Vietnam has pursued EOR by reducing import tariffs, and non-tariff barriers for technology and raw materials needed to produce for exports and by setting up several Export Processing Zones (EPZs). FDI projects that are export-oriented, especially those use materials available in Vietnam and are labour-intensive are particularly encouraged and given tax incentives. With these incentives Vietnam has attracted some labour-intensive export-oriented FDI mainly from Japan, Korea and Hong Kong. Although EOR is implemented in Vietnam, the domestic market of the country is largely protected. High tariffs, tight quotas and some other non-tariff barriers have been used to limit imports of various products. This protection policy is a key factor that attracts FDI to the highly protected domestic market of Vietnam, e.g. cars and motorcycles, household appliances and construction materials.

3.5 - The Location of Vietnam

Last but not least, the location of Vietnam is one vital factor that explains the inflows of FDI to Vietnam. As discussed above (section 2.3), around two thirds of total FDI in Vietnam is from Japan, East Asian NICs and ASEAN countries. Except Japan, all other countries are developing countries. As Ghymn (1980) points out, the determinants of FDI from developed countries and developing countries are different. Although FDI from developed and developing countries could be influenced by some similar factors, FDI from developing countries tends to look for regional ties and for economies of scale at regional level. Such "regional tie" strategies and the surge in intra-regional FDI within the Asian countries, especially Japan and NICs, either to capture new markets or to exploit cost advantages, could be attributed to the success of Vietnam in attracting FDI from Asian Countries. The geographical proximity of

Vietnam to these investors reduces transport costs and allows Vietnam to participate in regional production chains, in which multinational corporations choose to locate each stage of production according to the comparative advantage of each country. Unskilled-labour-intensive production could be carried out in Vietnam while more technology-intensive and skilled-intensive could be located elsewhere. Due to its location and history, Vietnam also shares cultural proximity with these countries. The Confucian ideology has existed in the region and in Vietnam for more than a thousand years and this factor contributes to the popularity of Vietnam for foreign investors from Asia.

4 - Impacts of FDI on Vietnamese Economic Growth

This section studies the impact of FDI on the economic growth of Vietnam. The analysis is based on the theoretical framework developed in Chapters IV and V, which postulates that FDI could contribute to economic growth by generating domestic consumption, domestic investment, exports and by improving productive capacity of the country. This section begins by studying the role of the FDI sector in the Vietnamese economy and comparing it with those of other sectors. Then it assesses the impacts of FDI on domestic consumption, domestic investment, exports and productive capacity.

4.1 - The Role of the FDI Sector in the Vietnamese Economy

After more than a decade of receiving FDI, by the start of the New Millennium the Vietnamese government proudly announced that a considerable amount of FDI had flowed into Vietnam and become an important part of the market-oriented socialist economy in Vietnam[52]. The role that the FDI sector plays in the Vietnamese economy could be seen from its contribution to GDP, industrial output and investment in comparion with those of the state and non-state domestic sectors.

[52] See various documents such as the Resolution of the 2001 Party Congress IX, the Resolution no. 07-NG/TW of the Politburo on 27 November 2001 and the Resolution no. 09/2001/NG-CP of the government on 28 August 2001.

The contribution to GDP of the FDI sector has increased over the years. In 1995 its share was only 6.5% of total GDP. In 1999 it increased to 10.2%. The growth of contribution to GDP of the FDI sector is also higher than that of the state and private sectors. Between 1996 and 1999 the contribution to GDP of the FDI sector grew at an annual average rate of 18%, compared with only 6.9% for the state sector and 5.1% for the non-state sector (Table VI.8).

Table VI.8 – Vietnam's GDP by Ownership

(In percentage)

	1995	1996	1999	Growth 1996-1999
Foreign Invested Sector	6.58	7.27	10.2	18.1
Domestic Sector	93.42	92.73	89.8	N/A
State Sector	37.54	38.13	49.3	6.9
Non-state Sector	55.88	54.6	40.5	5.1
Total	100	100	100	7.0

Source: General Statistics Office (various issues)

As the main activities of the FDI sector are industrial, this sector has participated in the structural change of the Vietnamese economy towards a higher share of industry and smaller share of agriculture in GDP. Between 1995 and 1999, the industrial output of the FDI sector more than doubled, much faster than those of the state and non-state sector. The share of the FDI sector in gross industrial output increased from 25% in 1995 to 35% in 1999. During the same period shares of both state and non-state sectors in gross industrial output decreased (Table VI.9).

The structure of industrial output in the three sectors is widely different. Food, beverages, cigarette and tobacco are the largest industrial activities in the state and non-state sectors, accounting for more than 30% of the total output of each sector. Electricity, gas and water supply, textiles and garments and non-metallic products are also important categories in the industrial activities of the state sector. For the non-state sector, the most important categories are textiles and garments and non-metallic products. In the FDI sector, oil and gas is the single largest activity. In 1995, the share

of output from oil and gas in the total industrial output of the FDI sector is around 42%. Although textiles and garments production is also an important activity in the FDI sector, it accounts for a lesser share in total output of the sector than electric and electronic products and motor vehicles[53].

Table VI.9 - Gross Output of Industry by Ownership (1995-1999)

(In Billion VND at 1994 prices)

	1995	1996	1997	1998	1999
Foreign Invested Sector	25,933	31,562	38,878	48,358	58,514
	(25%)	*(26.7%)*	*(28.9%)*	*(32%)*	*(34.7%)*
Domestic Sector	77,441.5	86,534.7	95,441.9	102,866	110,235
	(75%)	*(73.3%)*	*(71%)*	*(67.9%)*	*(65.3%)*
State	51,991	58,166	64,474	69,463	73,208
	(50.4%)	*(49.3%)*	*(48%)*	*(45.9%)*	*(43.4%)*
Non-state	25,451	28,369	31,068	33,403	37,027
	(24.6%)	*(24%)*	*(23%)*	*(22%)*	*(21.9%)*
Total	103,374	118,097	134,420	151,224	168,749
	(100%)	*(100%)*	*(100%)*	*(100%)*	*(100%)*

Source: General Statistical Office (various issues)

The FDI sector has dominated the production of many industries and products. The share of output of the FDI sector in total output is 100% in oil production, 100% in food seasoning products, 92.8% in cars, 83.7% in motorbikes, 84.6% in bikes, 89.5% in televisions, 50.1% in washing powder, 45.5% in ceramics for construction, 38.3% in steel and 30.8% in cement[54]. The structure of industrial output shows that the FDI sector not only contributes to increases in total industrial output but also develops the industries in which the state and non-state sectors do not have advantages, such as oil and gas, electronic goods, motor vehicles and other consumer goods.

The role of FDI in the Vietnamese economy can also be seen from its share in total investment of the country. Table VI.10 shows that the process of economic development in Vietnam has been fuelled by the inflows of FDI. The role of FDI is crucial in capital-intensive industries such as oil and gas, and heavy industry. While

[53] See Appendixes VI.9, VI.10 and VI.11

[54] According to statistics from Vietnam Investment Review - July 2003.

total investment in Vietnam increased rapidly, more than doubling from 1995 to 2001[55], increases in investment by the state sector and decreases in inflows of FDI made FDI become relatively less important than before. In 1995 FDI accounted for 30% of total investment. In 2001, this share decreased to 18%. The share of the non-state sector remained largely unchanged during this period (Table VI.10).

Table VI.10 - Total Investment by Ownership (1995-2001)

(In percentage)

	1995	1996	1997	1998	1999	2000	2001
Foreign Invested Sector	30.4	26	28	20.8	17.3	18.7	18.3
Domestic Sector	69.6	74	72	79.2	82.7	81.3	81.7
State Sector	42	49.1	49.4	55.5	58.7	57.5	58.1
Non-state Sector	27.6	24.9	22.6	23.7	24	23.8	23.6
Total	100	100	100	100	100	100	100

Source: Website of Vietnam Economic Times, www.vneconomy.com.vn

4.2 - Impacts of FDI on Domestic Consumption

The framework of the two-way relationship between FDI and economic growth in Chapter IV suggests that FDI could promote higher economic growth when it boosts domestic consumption. There are several channels through which FDI could boost domestic consumption. *First,* the operation of FDI in the host country creates employment and generates income. Assuming that higher income leads to higher consumption, FDI could raise domestic consumption through its impacts on employment and income. *Second,* FDI firms could have impact on consumer tastes and habits. With their knowledge in marketing and product development, FDI firms could introduce new products and consumption habits to consumers in the host country and thus boost domestic consumption.

Regarding the effect of FDI on employment and incomes, it is widely argued that FDI contributes to high economic growth in Vietnam by creating jobs; workers in FDI firms have much higher levels of salary than in firms of other sectors (see for

[55] See Appendix VI.12

example Le Dang Doanh, 1997). Such arguments however tend to overestimate the impact of FDI. Statistics show that the number of jobs directly created by the FDI sector is not substantial. Until 2001, only 358,137 people were employed in the foreign invested sector (Table VI.2). As total employment in 2001 was around 37.7 million[56], employment in the FDI sector accounted for less than 1% of total employment[57]. Despite the fact that FDI has concentrated in capital-intensive industries such as oil and gas, heavy industry, and hotels, which tend to require skilled labour and thus pay high salaries, few jobs are created in these industries. Light industries, which receive only 10% of total FDI, create more than 50% of employment in the foreign sector (Section 2.1). Except for some management and technical positions, the majority of jobs in this sector, especially in textiles, garments, footwear and toys, are unskilled and low paid. Although average salaries in the FDI sector are higher than those in the other sectors, table VI.11 shows that only those employed in high positions such as chief executives, managers and technicians are paid at significantly higher rates[58]. Workers, especially unskilled workers, in the FDI firms are paid only slightly higher than workers in other sectors.

Table VI.11 – Average Monthly Payment per Employee by Ownership in 2000

(in US$)

	Average Income	CEO	Managers	Engineers/ Technicians	Admin. Staff	Workers	
						Lowest	Highest
State-owned	88.3	132	85	63.5	47	25.8	81.7
Non-state	78	167.5	113.4	80	52.4	25.6	93
Foreign Invested	110	329	252.3	149	60.8	48.4	110

Source: calculated from a survey of 505 state, non-state and FDI firms by MOLISA and ILO (2002) with average exchange rate of 2000 from ADB (various issues)

[56] World Bank (2003).

[57] The shares of employment by the FDI sector in some industries are higher. For example in 2001 in the processing industry the FDI sector accounted for 7.3% of employment, in real estate business and consultative services it is 7.9% and in finance and banking it is 5.9% (see Chapter VII for more details).

[58] Another source of statistics shows wider gaps between wage rates of labour in FDI firms. See Appendix VI.13

As discussed above, the current regulation sets the minimum wage for unskilled labour in an FDI firm at VND 487,000 per month (equivalent to US$ 31) and some firms manage to pay even less than this rate. For example, in Binh Duong, the fourth-largest FDI recipient province in Vietnam, the average of wages and salaries of workers in industrial zones ranges between VND 490,000 and VND 700,000[59]. With this amount of money a worker could barely find shelter, food and daily necessities, having nothing left for other consumption or savings[60]. The FDI sector generates high income only for its skilled labour, which represents a small proportion of employment in the sector, and a very small proportion of the country's total employment.

The effect of FDI on employment and income is not limited only to jobs created within FDI firms. Jobs could also be created in firms that act as suppliers, distributors, transporters and any other ancillary industries for FDI firms. FDI in Vietnam could also have positive effects on employment when it spurs other investment, which in turn creates employment in such areas as infrastructure, electricity and other supporting services. Nevertheless to date there is no official statistics about employment indirectly generated by the FDI sector. Belser (2000) estimates indirect employment by FDI in Vietnam as around 1.5 times the number of employees directly hired by FDI firms, which is equivalent to around 500,000 jobs (direct employment is 358,000 jobs). Bui Anh Tuan (2000) estimates indirect employment as 1.97 times of direct employment. According to either estimate, total employment created by the FDI sector, directly and indirectly, is less than 3% of total employment in Vietnam. It should be noted that a large proportion of employment indirectly created by the FDI sector is in supporting

[59] Binh Duong Industrial Zones Committee (2001), see also Appendix VI.8

[60] It should be noted that a large proportion of workers in FDI firms are migrants from other provinces. A considerable part of their salaries and wages is to pay rent, making the income used for spending and savings even smaller. See for example the Report of the Vietnam Labour Watch about the salary and living conditions of workers in foreign invested companies in Vietnam, www.saigon.com/~nike/reports/report1.html

services such as distribution and transportation because local procurement of FDI firms in Vietnam is rather limited[61].

Overall the impact of FDI on employment, including direct or indirect employment, is not as large as has been claimed. Moreover only a small fraction of workers in the FDI sector receive high salaries and the majority of workers in the FDI sector are unskilled, receiving just slightly higher salaries than workers in the other sectors. Consequently the impact of FDI on domestic consumption via its impacts on employment and income might not be vast as it is claimed.

FDI in Vietnam greatly influences domestic consumption in a different manner. In the area of consumer goods, FDI in Vietnam boosts domestic consumption by affecting consumer tastes, introducing new products, and shaping the consumption habit of the Vietnamese customers. Affiliates of large multinational corporations have established strong images in the Vietnamese domestic market. Statistics show that FDI firms in various fields are dominant players in terms of outputs, sales and market shares in the domestic market. It should be noted that there is strong domestic demand for products in which FDI firms dominate production, such as automobiles (nearly 100%), seasoning (100%), and household electronic appliances (nearly 90%)[62]. Unilever Vietnam, for example, claims that it has developed a very strong local presence and gained market leadership in various products, ranging from home and personal care to food and beverages[63]. This is to a large extent because FDI firms carry out costly market surveys and advertising campaigns to introduce their products and promote new consumption habits. The operation of FDI in Vietnam has brought Vietnamese consumers a lot more choice and higher quality products than before and promoted a rapid emergence of a consumerist lifestyle. In brief, by affecting consumer tastes and

[61] See Section 4.4 and Chapter VII
[62] Vietnam Investment Review – July 2003
[63] See Appendix VI.7

habits, FDI has played a vital role in boosting domestic consumption in Vietnam, which in turn promotes economic growth.

4.3 - Impacts of FDI on Domestic Investment

In the early years of the Reform, FDI took a large share of total investment. Over the years the share of FDI in total investment decreased from 30% in 1995 to 18% in 2001 (Table VI.10). Meanwhile domestic investment, especially by the state sector, has taken the leading role. It increased by three times from VND 50,447 billion in 1995 to VND 133,500 billion in 2001[64]. FDI has played a part in the increase of domestic investment in the 1990s.

There is so far no comprehensive report on the impacts of FDI on domestic investment in Vietnam. The local sourcing strategy of FDI firms varies widely across industries. In industries that use materials and parts that are technology-intensive and skilled-labour products, FDI firms do not source locally. They tend to import most materials and parts and assemble them in Vietnam. In most cases FDI firms do not meet the local content requirements set by the government and the import ratios of FDI firms are high[65]. In the automobile industry for instance, most FDI firms import nearly 100% of their materials and parts in CKD and IKD form and assemble them in Vietnam. FDI firms have claimed that the lack of reliable local suppliers and of economy of scale are the main causes of low local content ratios. Some large foreign investors, especially Japanese, have induced further FDI from their main suppliers for investment in Vietnam in order to provide parts and materials. For example Toyota Motor Vietnam has spent much effort in acquiring parts domestically, mostly from other Japanese firms in Vietnam, and promoting car parts manufacturing in Vietnam[66]. In other industries, especially in export-oriented light industries, limited local procurement by some foreign affiliates is the result of the strategy of parent companies.

[64] See Appendix VI.12
[65] Vietnam Investment Review and Vietnam Economy (various issues)
[66] See Chapter VII for more details

Many FDI firms in light industries, especially those with investment from Hong Kong, Korea and Taiwan import materials and intermediate inputs as they do sub-contracting work, as part of an international production chain. In industries that require agro-based materials such as food processing and do not require technology-intensive parts, FDI firms procure domestically. In consumer goods, Unilever Vietnam is an example of an FDI firm that procures domestically. The strategy of this company is to establish a "symbiotic" partnership with local businesses in packaging and materials supply in order to improve cost effectiveness; obtain affordable products; be flexible in utilising capital resources; and respond quickly to local market changes. Unilever Vietnam claims that it has utilised a wide range of local materials for production and packaging and that local raw materials and packaging materials account for between 60% and 100% of total materials, respectively. Total business revenues of local companies that have business contracts with Unilever have reached US$34 million per annum[67]. Yamaha Motor Vietnam has 24 local suppliers and the local content ratio of their products is 40%. Honda Vietnam has decreased the prices of its products several times because of increases in local content. Some products of Honda Vietnam have 40% to 60% local contents.

The presence of FDI has also boosted domestic investment in distribution and transportation services to facilitate the operation of FDI firms. The activities of FDI firms require transportation services to move goods between manufacturing sites and ports, distributors and retailers. FDI firms that target the domestic market also set up distributor networks. Unilever Vietnam, for example, has created 350 distributors and 150,000 retailers[68]. Firms in the automobile industry such as Yamaha Motor Vietnam has 100 distributors, Ford Vietnam has 6, and Toyota Vietnam has 10[69].

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[67] See Appendix VI.7
[68] *Ibid.*
[69] See Chapter VII

The presence of FDI has induced domestic investment in products that FDI firms cannot source from abroad such as infrastructure, buildings, offices, electricity, water and telecommunication. In areas that are not state monopolies, domestic investment has been encouraged such as investment in infrastructure for industrial zones[70].

The impact of FDI on domestic investment, especially on private investment, depends largely on the development of the private sector. Although it is widely argued that firms in the private sector could be more dynamic and efficient than state-owned enterprises, the private sector did not become legal until the Enterprise Law of 1992. It was not until 2001 that the National Assembly for the first time recognised equal treatment for the private sector. Although it is claimed that Vietnam's economic rate of growth is constrained essentially by its low domestic savings rate (World Bank, 1993), a widely recognised view among scholars and practitioners is that a substantial proportion of domestic savings and investment go unreported and do not show up in the statistics (Riedel, 1995). It seems that the presence of FDI to some extent has pushed the government more toward recognising and promoting the development of the private sector and thus inducing domestic investment.

The presence of FDI in Vietnam however could affect domestic investment, especially in the state sector, in a negative manner. According to a document issued by the Prime Minister in 1999, the growth rates of industrial output and investment by state-owned enterprises had been decreasing since 1996. In the first 6 months of 1996 for example the growth rate of industrial output in the total economy was 10.5% while that of enterprises under the Ministry of Industry administration was only 4.3%. One of the main reasons cited was high competition between SOEs (which have out-of-date technologies, low quality products, low labour productivity, and high production costs),

[70] See Appendix VI.8

and FDI firms operating in Vietnam[71]. In many industries domestic firms, including private and state-owned, face intense competition from FDI firms. Although this has driven out of business many local firms, it also forces local firms to improve their competitiveness. Many Vietnamese firms in the industries where there is a strong presence of FDI have searched for new markets and invested in order to compete more efficiently. Vietnamese firms in home and personal care, for instance, have found new markets for their products, i.e. low-income consumers, especially in the rural areas. Vietnamese firms in food, soft drink and beverage industries produce traditional products rather than produce the same products that FDI firms produce. For example instead of producing carbonated drinks like Coca-Cola and Pepsi-Cola, many Vietnamese firms concentrate on traditional herbal teas and Soya drinks.

The evidence in this section shows that FDI could boost domestic investment in some industries that facilitate the operation of FDI firms such as infrastructure, telecommunication, distribution and transportation. In some industries that do not require technology-intensive parts and components, FDI firms raise domestic investment by firms that act as local suppliers for FDI firms. The impact of FDI firms on domestic investment in industries that require technology-intensive and skilled-labour-intensive parts and components, i.e. products that local firms cannot supply, is small. Impacts of FDI on domestic investment in the same industry might be mixed, i.e. it could have a negative impact when it drives local firms out of business, but it could also have a positive impact when local firms attempt to improve their competitiveness.

4.4 - Impacts of FDI on Exports

Since the Reform, the government of Vietnam has carried out various measures to encourage exports. The volume of Vietnam's exports has increased rapidly. In 1988 the value of exports by Vietnam was US$ 465 million; in 1999 it increased to US$ 11.5

[71] Decision no. 26/1999/CT-TTG of the Prime Minister on boosting the activities of State-owned enterprises dated 08 September 1999

billion[72]. Exports have played a crucial role in the process of economic growth in Vietnam. In the initial stage of the Reform, i.e. during 1988-1990, the value of total exports was worth 21.8% of GDP; during 1998-2000 it was worth 49.7% of GDP[73]. The surge of FDI, especially export-oriented FDI in the 1990s, has played an important role in this growth of exports. According to the report of the EU Economic and Commercial Counsellors in Hanoi, FDI companies are taking an increasingly important role in the exports of Vietnam. In 1994 the total exports of FDI firms was US$ 161.1 million, accounted for only 3.9% of total exports (Belser, 2000). In 1996, the share of exports by FDI firms in total exports increased to 10%. In 2000, exports by FDI firms accounting for nearly a quarter of total exports (Table VI.12). Oil-based and labour-intensive products such as garments, handicrafts and footwear are the main categories of exports by FDI firms.

Table VI.12 - Exports and Imports by FDI firms in Total Exports and Imports (1994-2000)

(in percentage)

	1994	1996	1997	1998	1999	2000
Exports	3.9%	10.83%	19.49%	21.18%	22.42%	23.08%
Imports	N/A	18,33%	30,22%	24,87%	27,64%	28,48%

Source: www.uk-vietnam.org/commerce and Belser (2000)

Crude oil is an important category in the export portfolio of Vietnam, accounting for nearly 30% of exports each year between 1990 and 1993[74]. Since then the share of crude oil in total exports has decreased although it is still an important category. In 1999, the share of crude oil exports in total exports was 18%. FDI firms in the oil and gas industry have contributed to the development of this capital-intensive industry and its exports. Foreign firms have participated in oil exploration and production in Vietnam since the early stages of the Reform. With the operation of FDI firms[75], the volume of crude oil exports increased rapidly. Until 1993, crude oil and

[72] See Appendix VI.14
[73] UNCTAD (2002)
[74] See Appendix VI.14
[75] See Section 2 and 3.2

petroleum were the main export products by FDI firms. In 1992 Vietnam exported 5.4 million tons of crude oil, which was worth US$ 756 million. In 1999 the crude oil exports of Vietnam increased by nearly three times in terms of volume and value (Table VI.13).

Table VI.13 - Exports of Crude Oil (1992-1999)

	1992	1993	1994	1995	1996	1997	1998	1999
Volume (000 tons)	5,400	6,152	6,949	7,593	8,705	9,638	12,145	14,882
Unit value (US$/ton)	140	137	125	135	154	148	101	141
Value (million US$)	756	844	866	1,024	1,346	1,423	1,232	2,092

Source: Country Statistics (IMF, various issues)

Exports of labour-intensive products have emerged as an important category in the total exports of Vietnam and of exports by FDI firms. According to the World Investment Report 2002, Vietnam is among 20 winner economies, based on world export market share gains during 1985-2000 (UNCTAD, 20002). In 1992, garments and footwear exports of Vietnam accounted for only 7.9% of total exports, worth US$ 195 million. During 1996-1999 they accounted for around 27% of total exports, worth more than US$ 3 billion. Since 1997 Vietnam has started exporting electronic goods and components. During 1997-1999, the value of electronic goods and components was nearly US$ 1.5 billion, accounting for around 5% of total exports each year[76]. FDI firms in Vietnam have played an important role in the exports of these products. In 1997, the share of light industrial exports by FDI in total light industry exports was 21.6% (Belser, 2000). Exports of light industrial manufacturing products are mainly by FDI from Japan, Korea, Taiwan and Hong Kong, which is more export-oriented than FDI from other countries (Table VI.5). As mentioned above investors from these countries have been looking for locations that could provide cheap unskilled labour[77], which is an advantage of Vietnam. This might explain why Vietnam and China became winners in Japanese garment imports (Vietnam had 3% market share in 2000) while

[76] Appendix VI.14
[77] Section 2 and 3.2

Korea, Taiwan and Hong Kong were losers (UNCTAD, 2002). Although the increase in labour-intensive exports of Vietnam is impressive, the volume of exports and of export-oriented FDI into Vietnam is rather modest in comparison with the abundant source of labour force that Vietnam has[78]. Only about 200,000 people work in FDI firms in light industries and food processing, compared with nearly 37.7 million people in the labour force.

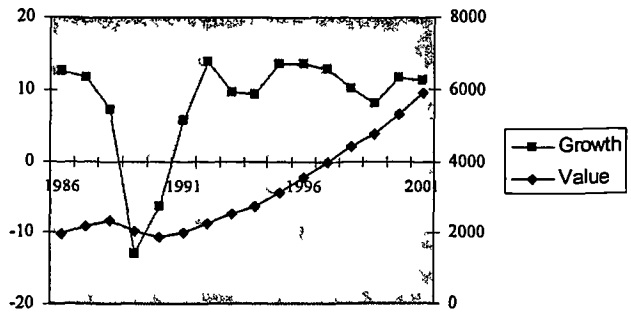
Overall FDI has not only raised the value and volume of exports but also diversified the export portfolio. Vietnam has moved from natural-resources-based exports towards low-technology manufacturing exports. The impacts of exports by FDI, especially labour-intensive exports, on economic growth are however controversial. Theoretically when FDI substantially increases foreign demand for products made in Vietnam it will promote higher economic growth. The kind of exports that FDI firms have promoted however is unskilled-labour-intensive and could create an export enclave. In Vietnam many export-oriented FDI firms are attracted by low labour costs and various financial and fiscal incentives. They therefore simply import materials and use low-cost unskilled labour for assembly. Jobs that require skilled labour such as design, R&D, marketing, sales are located elsewhere. That is why Vietnam is an export winner only for low-technology manufactures (UNCTAD, 2000). This kind of unskilled-labour-intensive production and exports might not have large impacts on economic growth. It does not establish linkages with locals firms and tends to pay low salaries and wages, thus not generating domestic consumption and investment. The benefit for technology progress is trivial because it uses unskilled labour[79].

[78] See Chapter VII
[79] See Chapter IV

4.5 - Impacts of FDI on Productive Capacity

The government of Vietnam has claimed that Vietnam has improved its productive capacity with new technologies and management skills from FDI[80]. The industrial output of Vietnam has increased rapidly with a large and growing contribution of the FDI sector (Table VI.9). With the presence of the FDI sector and its domination in production in industries such as automobiles, electronics, *infra*, the value added of manufacturing has increased rapidly with high growth rates since 1990. Chart VI.2 shows that during 1986 and 1990 the value added of manufacturing remained unchanged at around US$ 2 billion. After 1990, it increased rapidly and in 2001 it reached US$ 5.8 billion, i.e. nearly three times higher than that of 1986. During 1991 and 2001 the growth rate of manufacturing value added is 10.8%. If manufacturing value added per worker is taken as an indicator of labour productivity, the productivity of a Vietnamese worker doubled between 1990 and 2000. In 1990 the manufacturing value added per worker of Vietnam was only US$ 827 and it increased to US$ 1,654 in 2000[81].

Chart VI.2 – Manufacturing Value Added and its Growth Rates in Vietnam (1986-2001)



Source: calculated from World Bank (2003). All values are in US$ at 1995 prices.

FDI improves the productive capacity of Vietnam by i) bringing capital goods and technology; ii) bringing intangible assets such as entrepreneurial, managerial and marketing skills; iii) improving the technological progress of domestic enterprises; and

[80] See for example Resolution no. 07-NG/TW of the Politburo dated 27 November 2001
[81] See Chapter VII, Table 5 for more details.

iv) participating in the emergence of a new way of thinking and of the dynamic generation of entrepreneurs and skilled workers.

The first and second channels through which FDI improves productive capacity in Vietnam are clear. FDI has brought in capital goods and technology. The share of imports by FDI firms in total imports increased from 18.33% in 1996 to 28.48% in 2000 (Table VI.11). This has contributed to the productive capacity of the country, especially in the capital-intensive industries where domestic firms do not have a presence such as oil and gas and heavy industries. In such industries FDI firms have become dominant players in terms of production and output.

In the early documents governing the operation of FDI in Vietnam, one objective of the government was to use FDI as a means to improve and upgrade the existing productive capacity, and technological progress of SOEs by allowing FDI in he form of joint ventures with SOEs[82]. The contribution of FDI to the productive capacity of domestic firms, however, tends to occur outside the joint venture relationship. This occurs in various ways, including linkages via supply and distribution networks and via increased competition. In industries where FDI firms require capital-intensive and skilled-labour-intensive parts and components, there is little evidence of local sourcing (section 4.2), which suggests little impact of FDI on the productive capacity of domestic firms. However in some industries where the requirement of FDI firms is lower in terms of the technology level, FDI firms have established linkages with domestic firms and have contributed to the productive capacity of domestic firms. Unilever Vietnam, for instance, has procurement ratios of local raw materials and packaging materials to total requirements of about 60% and 100%, respectively. It claims that its local sourcing strategy has established a strong "symbiotic" partnership with local businesses in production processing and materials supply and such

[82] See Section 1.2

relationships have helped its Vietnamese partners to develop their business. Vietnamese partners have benefited from Unilever's supports in upgrading equipment and infrastructure, and in transferring new technologies[83]. Yamaha Motor Vietnam, a company producing motorbikes, has 24 domestic suppliers and it also has helped these suppliers with technology and training assistance to meet its requirements[84].

Along with advanced technologies, FDI has brought to Vietnam its intangible assets such as entrepreneurial and managerial skills, which Vietnamese labour absorbs while working in FDI firms. In some industries where there is lack of expertise, the presence of FDI is essential in developing new skills in the local labour force. For example in the real estate and consultancy business, employment in the FDI firms accounts for 7.9% of total employment of the industry; in finance and banking it is 5.9%. In the South East region, where Ho Chi Minh city, the business centre of Vietnam is located, the shares of employment of the FDI sector in these industries are 12.7% and 16.7%, respectively[85].

Many FDI firms in Vietnam have invested in technical and non-technical training for their staff. Technical training by FDI firms has contributed to the development of a skilled labour force in Vietnam, especially in technology-intensive industries such as oil and gas, machinery and automobiles. Non-technical training for such skills as communication, sales and management is particularly emphasised because these are the skills that are scarce in Vietnam in its period of transition from a centrally planned to a market economy. Such skills that employees of FDI firms acquire do not seem to be transferred to domestic firms, either in the state or private sectors, because the latter cannot provide a remuneration package as competitive as foreign firms. Nevertheless there is a large group of people who work for FDI firms at the managerial level who have become entrepreneurs themselves. With the experience

[83] See Appendix VI.7
[84] See Chapter VII for more details
[85] *ibid.*

that they acquire, they have become part of a new and dynamic generation of entrepreneurs.

One important channel through which FDI contributes to productive capacity in Vietnam is its impact on the incentive system and thus on the mode of thinking of Vietnamese[86]. Under the central planning system, the concentration of power and resources in the hands of the State seriously inhibited individual opportunity and choice, especially in the economic sphere. The development of individual capabilities as well as the people's participation in socio-economic areas was obstructed[87]. The incentive system seemed to be abolished as most people who worked for SOEs were guaranteed to have jobs for all their life and gradually got promoted regardless of their performance[88]. FDI has participated in the reintroduction of the incentive system where people can pursue the job that they are interested in, work and are rewarded according to their capability. The salaries of workers with education and training gradually increase to higher levels than salaries of workers without education or training. The gaps between salaries of skilled workers and unskilled workers and between workers with no education and workers with education are larger in FDI firms than in firms of other sectors. The implementation of this incentive system in the FDI sector explains to a great extent the movement of skilled workers from the domestic sector to the FDI sector.

With the reintroduction of the incentive system, Vietnamese workers in the FDI firms have got used to the idea of getting bonuses and promotion for good performance and of being sacked for bad performance. This incentive system has made Vietnamese workers more responsible for their performance and more inclined to equip themselves with new knowledge needed for their career. There is a rapid increase of people enrolling in courses such as business administration, commerce, English, and

[86] See Sections 1.2.2 and 2.2 in Chapter VII for more details
[87] National Centre for Social Sciences and Humanities (2001)
[88] Tran Van Hoa (1995)

computing. This improvement in human capital in Vietnam has positively influenced the productive capacity of the country and FDI has helped spreading the incentive system as well as the new way of thinking among Vietnamese.

FDI firms in Vietnam however have some negative impacts on the productive capacity of domestic firms. FDI firms, which tend to offer higher salary packages and more opportunities for training and promotion, have attracted large numbers of employees at senior and managerial levels, engineers, technicians, and skilled workers from domestic firms. FDI firms in the electronics industry, for example, have recently offered highly competitive packages to attract skilled labour from domestic firms[89]. This domestic 'brain drain' has harmful effects on the productive capacity of domestic firms not only in the short term but also in the long term as skilled labour and human resource are essential for the operation of these firms.

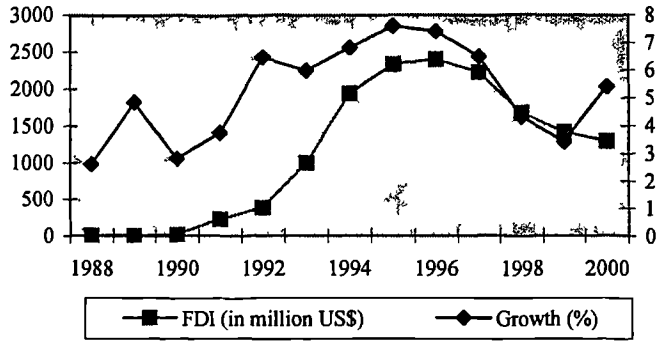
5 – The Relationship between FDI and Economic Growth in Vietnam

This section analyses the relationship between FDI and economic growth in Vietnam and the roles of the trade regime and human capital in this relationship. The previous sections have shown that high economic growth is a positive determinant of FDI in Vietnam and FDI has contributed to high growth of the Vietnamese economy. High economic growth positively influences FDI because a large proportion of FDI to Vietnam is attracted to high and growing demand in the domestic market of Vietnam, which is closely associated with high rates of economic growth. High economic growth in Vietnam is a positive factor not only for domestic-market-oriented FDI but also for other types, such as natural-resource-seeking and export-oriented FDI because high economic growth has been substantially achieved by rapid development in

[89] According to a Vietnamese E-Newspaper (VNExpress January 2003), FDI firms in the electronics industry have been trying to attract senior staff at managerial levels, engineers, technicians and skilled workers in domestic firms in the industry. The packages that they offer include seven to ten times higher salaries, and competitive schemes for pensions and insurance.

infrastructure. Since the first FDI project was licensed in Vietnam in 1988, FDI has played an important role in the process of economic growth in Vietnam. It has been promoting growth by generating domestic consumption, domestic investment, and exports and by improving the productive capacity of the country. FDI and economic growth in Vietnam are therefore interdependent: FDI has impacts on economic growth and economic growth influences FDI. Chart VI.3 shows a close link between annual inflows of FDI and economic growth rates in Vietnam during 1988 and 2000.

Chart VI.3 - FDI and Economic Growth in Vietnam (1988-2000)



Source: Growth is annual growth rates of GDP per capita and FDI is annual FDI inflows. From World Bank (2003). See Appendix VI.15 for more details.

Until 1992, FDI was attracted mainly by the natural resources of Vietnam and the unfilled demand of the domestic market for some products. The rate of economic growth between during 1988 and 1991, which averaged 4.1% per year, did not play a vital part in attracting FDI in this period. FDI in this period was not large and there was not much linkage between the FDI sector and the domestic economy. Consequently the contribution of FDI to economic growth was not large; it mainly improved the productive capacity of some industries such as oil and gas and heavy industries and generated some domestic investment in industries that support the operation of FDI, such as construction and infrastructure.

Between 1992 and 1997 high economic growth in Vietnam, which was on average 6.8% per year, played an important role in attracting FDI to the country. The inflows of FDI to Vietnam increased rapidly. During this period FDI went to Vietnam

not only for natural resources but also to meet the growing demand of the domestic economy and to benefit from the cheap labour force for the production of exports. Linkages between FDI and the domestic economy were established and FDI contributed to the economic growth of Vietnam through various channels, including generating domestic consumption and investment, increasing exports and improving productive capacity. From 1997 to 2000 both the annual inflow of FDI to Vietnam and the economic growth rates of the country decreased. Although some external factors could be attributed to this situation such as the Asian financial crisis, internal factors including slow reforms in every aspect of the economy were the main factors.

The trade regime and human capital are essential in explaining the experience of Vietnam in attracting FDI and making FDI contribute to economic growth. The choice of trade regime, including protection and EOR, in Vietnam has been crucial in the relationship between FDI and growth. Protection is responsible for around 70% of total FDI to Vietnam[90] while EOR is important in attracting export-oriented FDI. The contribution to economic growth varies by type of FDI. Domestic-market-oriented FDI has established strong linkages with the domestic economy and thus contributed to growth via its network of suppliers, distributors and transporters. Meanwhile export-oriented FDI has established little linkage with the domestic sector and contributed to growth mainly via increasing exports. Thus the two-way relationship between FDI and growth in the 1990s in Vietnam to a large extent was due to the implementation of protection together with EOR. Nevertheless this relationship soon became unsustainable. During 1998 and 2000 both the inflows of FDI to Vietnam and the economic growth rates of the country have slowed down. GDP per capita has grown at an annual average of 4.4%. This is because the domestic market has not increased fast enough to host more domestic-market-oriented FDI while the country has to compete

[90] See Section 3.2

for export-oriented FDI with other countries that also offer cheap unskilled labour such as China, Indonesia and more recently Cambodia and Laos. Growth of the domestic market has slowed down because of the slow growth of the domestic sector, which is mainly attributable to low human capital and underdevelopment of the private sector. Low human capital and underdevelopment of the private sector lead to the lack of reliable domestic suppliers, which deters FDI and hinders the linkages between the FDI sector and the domestic sector and the contribution of FDI to growth. Low human capital also prevents Vietnam from hosting export-oriented FDI that produces technology-intensive and value-added products. In brief, the two-way relationship between growth and FDI existed briefly in Vietnam in the 1990s due to the implementation of a protection policy and with an EOR. Nevertheless, inadequate human capital and the underdeveloped private sector have slowed down the inflows of FDI and the contribution of FDI to economic growth.

6 – Conclusion

This chapter studies the experience of FDI in Vietnam since the Reform started. It finds that the reasons behind the decision of the government to promote FDI include internal economic turmoil; the collapse of the Soviet Union and communist Eastern Europe; and the success of its neighbour, China, in implementing economic reform by opening the economy for foreign investors. Since 1988 Vietnam has attracted an accumulated amount of US$ 16.5 billion of FDI from 59 countries.

The main determinants of FDI into Vietnam are Vietnam's natural resources such as *oil and gas reserves*; a growing and protected *domestic market*; *low labour costs* plus lax and ineffective labour regulation; the *location* of Vietnam in a region where intra-regional FDI has increased rapidly; and the positive *attitude* towards FDI of the government. High economic growth of Vietnam in the 1990s played an

important role in attracting FDI into the country because i) it demonstrated a growing domestic market and thus a higher growth of expected sales for products of FDI firms and ii) it was achieved by improvements in infrastructure such as road, electricity and telecommunications infrastructure improvement is a positive determinant for attracting FDI.

FDI has contributed to the high growth rate of the Vietnamese economy. The channels through which FDI contributes to high economic growth include generating domestic consumption, domestic investment, and exports, and improving the country's productive capacity. FDI generates domestic consumption by creating new consumer tastes and habits and providing income for its direct and indirect employment. FDI promotes domestic investment by establishing linkages with domestic firms and by exposing domestic firms to competition, forcing them to invest in order to survive. FDI firms have substantially increased exports from Vietnam, especially oil-based and labour-intensive exports. FDI has contributed to the productive capacity of Vietnam by bringing in and transferring technology and knowledge to their domestic partners. More importantly of FDI firms have participated in the formation of a new generation of entrepreneurs and professionals. The presence of FDI firms is also an important catalyst in the reintroduction of an incentive system, which has motivated Vietnamese labour to acquire knowledge and thus helped improve the productive capacity of the country.

The analysis of this chapter suggests that in the 1990s there was a two-way relationship between FDI and high economic growth in Vietnam: FDI was attracted by and contributed to high economic growth. The trade regime, including protection and EOR, played an important role in this relationship. Inadequate human capital and underdevelopment of the domestic private sector however has made this relationship unsustainable since the late 1990s.

Chapter VII - The Role of Foreign Direct Investment in Employment and Human Capital in Vietnam: A Case Study of Three Automobile Firms

Introduction

As discussed in the previous chapters FDI could play an important role in generating employment and improving human capital. In the case of Vietnam, where unemployment is high and the stock of human capital is inadequate, FDI is expected to provide employment and contribute to human capital. The objective of this chapter is to examine more thoroughly the impact of FDI on employment and human capital in Vietnam. This chapter is based on a field study in Vietnam in Summer 2002, which included factory visits, interviews with government officials, consultants, investment experts and management of foreign and Vietnamese firms. Since the impact of FDI tends to be different across industries and firms (as mentioned in Chapter III), the analysis focuses on the automobile industry and is based on a case study of three big foreign firms in the industry: Ford Vietnam Limited, Toyota Motor Vietnam and Yamaha Motor Vietnam.

The chapter is structured as follows: Section 1 reviews the labour market, employment and human capital in Vietnam. This section focuses on the supply and demand of labour at different education and skill levels in Vietnam. Section 2 studies the role of FDI in employment generation and human capital development in Vietnam since 1988. This section looks into employment directly and indirectly created by the FDI sector and different ways in which the FDI sector influences the human capital of Vietnam. Section 3 discusses the role of FDI in the automobile industry in employment and the human capital of Vietnam and presents the results of a case study of three big foreign firms in this industry. Section 4 summaries and concludes the chapter.

1 – The Labour Market, Employment and Human Capital in Vietnam

1.1 – The Labour Market and Employment

The labour force of Vietnam has been growing at a high rate. Between 1985 and 2001 on average one million people entered the labour force every year. Agriculture is the sector that provides the most jobs, nearly three forths of total employment. The ratio of agricultural employment in total employment, however, decreased from 74.7% to 68.8% between 1991 and 1997. In the same period, the share of employment in industry increased slightly from 13.3% to 18.7% and the share of employment in services remained unchanged at 12%[1].

In terms of ownership, the picture of employment in Vietnam has changed extensively since the Reform. Although the informal sector, i.e. households and farms, still takes the largest share in employment, the numbers of people who work for private and foreign invested companies have increased rapidly. Table VII.1 shows that in 1999, 89% of the employment was in household businesses and farms, 9% in the state sector, 1.4% in private companies and 0.6% in FDI firms. Between 1996 and 1999 employment in the state sector and in households and farms grew at only 1.5% and 3.3%, respectively. Meanwhile employment in private and FDI firms increased at much higher rates, 12% and 38.5%, respectively. This rapid increase in employment in private firms is because since 1992 this sector has been legally recognised and encouraged by the Vietnamese government. High growth in employment in the FDI sector is mainly attributed to the inflow of FDI in labour-intensive industries such as processing, textiles and garments in the 1990s.

A large proportion of employment in the domestic private sector and the FDI sector is in industry. However the growth of employment in industrial activities is not large in comparison with industrial growth. Belser (2000) reports that between 1992

[1] Data are from World Bank (2003)

and 1997 the industrial sector of Vietnam expanded at 13% per annum, meanwhile the growth of employment in the industrial sector was only 4%, which could be explained by the capital-intensive and inward-looking nature of much of Vietnam's industrial sector.

Table VII.1 – Employment by Ownership (1996-1999)

(in percentage)

	Share in 1999	Growth rate during 1996-1999
Total	100	3.4
Public (State and Collective)	9.0	1.5
Non-State	90.4	3.4
Households and farms	89	3.3
Private companies	1.4	12.1
Foreign Invested Sector	0.6	38.5

Source: General Statistics Office (various issues)

Overall the supply of labour in Vietnam is much bigger than the demand. Three reasons could be attributed to this situation: i) the labour force is big and has been increasing at a high rate; ii) the agricultural sector of Vietnam, which employs nearly three forths of the labour force, is technologically laggard, already over-employed and unlikely to provide more jobs; and iii) the capacity of the industrial sector in absorbing labour is not large and is unlikely to expand enough in the short-term.

If the labour force of Vietnam is divided into three segments: unskilled labour; skilled workers and technicians; and graduates from universities and colleges, the imbalance between supply and demand is not the same for all segments. For unskilled labour, Vietnam has a large supply, which is much bigger than the demand. Since the agriculture sector already over-employs unskilled labour, the industrial and service sectors are the most promising sources of employment. Demand for unskilled labour in these sectors however is not large and is unlikely to grow fast enough to absorb the large supply despite the government's effort in promoting unskilled-labour-intensive projects.

In contrast to the oversupply of unskilled labour, the supply of skilled workers and technicians in Vietnam is far below the demand. Demand for skilled workers in many industries, especially in technology-intensive industries and high value-added services, is high and increasing; meanwhile demand for unskilled labour and university graduates is low and unlikely to grow fast. According to a survey of 94 enterprises in Hanoi in 2002 only 26.5% of the current recruitment demand of these enterprises is for unskilled labour, 22.5% for university graduates and 51% for skilled workers and technicians[2]. Despite high demand for skilled labour and technicians, after higher secondary school, Vietnamese students prefer to go to universities and colleges rather than to vocational schools. This has made the supply of university graduates in Vietnam far higher than the demand.

The fast growing labour force, a large supply of unskilled labour, and the shortage of skilled labour have made unemployment high. Creating jobs has become a burden for the economy. The Labour Department of Hanoi reported that every year during 1991-1995, in Hanoi only 35% of people who looked for jobs found jobs. During 1996-2000 every year only 60% of people who looked for jobs found jobs. This is largely attributed to the lack of an appropriate strategy for the development of the labour market and of human capital in Vietnam. The next section will study in more detail the quality of Vietnamese labour and human capital in Vietnam.

1.2 – Labour Quality and Human Capital Development

According to the Report on *Doi Moi* and Human Development in Vietnam, the country "clearly distinguishes itself from other low income countries when it comes to its human development performance"[3]. The social indicators such as the literacy rate, school enrolment, and longevity are higher in Vietnam than in countries with similar income levels. Consequently, it can be argued that Vietnam has an advantage in its

[2] Labour Department of Hanoi (2002)
[3] National Centre for Social Sciences and Humanities (2001) p. 37

labour force, which is large, relatively young, low-cost, and with relatively high scores for human development. Nevertheless, as we will see later, the labour force of Vietnam cannot meet the demand of the new era of economic development because it is incompetent in terms of education, technology, health and other work disciplines.

1.2.1 - Labour Quality

The quality of Vietnamese labour is not as high as has been claimed. Although the labour force of Vietnam has acquired some level of education, the average number of years of schooling of a worker is less than four years, which is the lowest in the region. Only half of the labour force has attained secondary and higher secondary schooling, which is the necessary education level required to develop the technological capability of the labour force. The country has a serious shortage of skilled labour and the technical level of labour is low. There are also several other issues relating to the quality of Vietnamese labour such as malnutrition, low health conditions, and lack of work discipline. This section focuses on the education and technical levels of Vietnamese labour.

Education

Table VII.2 shows the education attainment of the Vietnamese labour force in 2001 at four levels: illiterate and incomplete primary school; primary; secondary; and higher secondary school. At the national level, 19.7% of the labour force is illiterate or did not complete primary schooling, 30% have finished primary school, 32.7% have finished secondary school and 17.58% have finished higher secondary school. The education attainment of labour in urban areas is higher than that of labour in rural areas.

At the regional level, some areas such as the North West and the Mekong River Delta have extremely high rates of illiterate and incomplete primary school workers, 38.3% and 38.9%, respectively. The Red River Delta and North Central Coast have the lowest level of illiterate and incomplete primary school workers, at 6.2% and 8.5%,

respectively. These areas and the South East are the areas with the highest rates of workers with higher secondary school education of above 20%. This is because the Red River Delta includes Hanoi and the South East includes Ho Chi Minh City, the two biggest cities in Vietnam.

Table VII.2 – The Education Attainment of the Vietnam Labour Force in 2001

(percentage of people with education in total labour force)

	Illiterate and incomplete primary school	Finished primary school	Finished secondary school	Finished higher secondary school
Whole country	19.70	30.02	32.70	17.58
Urban areas	10.58	23.53	27.93	37.96
Rural areas	22.46	31.99	34.15	11.40
Red River Delta	6.27	17.74	52.24	23.75
North East	17.89	27.00	37.98	17.13
North West	38.34	28.57	23.95	9.14
North Central Coast	8.53	22.15	48.61	20.72
South Central Coast	22.61	37.84	24.38	15.17
Central Highland	28.01	32.94	26.30	12.75
South East	17.52	36.15	23.10	23.23
Mekong River Delta	38.93	39.06	13.97	8.03

Source: calculated from number of economically active population aged 15 and above by educational level from MOLISA (2002a)

Although it is claimed that the labour force of Vietnam has high rates of literacy and school enrolment as compared with its level of income[4], these achievements are not high as compared with other countries in the region. Table VII.3 shows that Vietnam has a much higher ratio of illiterate or incomplete primary school population (19.7%) than those of other Asian countries. In terms of number of years of schooling, on average a Vietnamese has 3.8 years, while an Indonesian has four years, a Thai has 5.6 years and a Korean has 9.9 years.

[4] National Centre of Social Sciences and Humanities (2001)

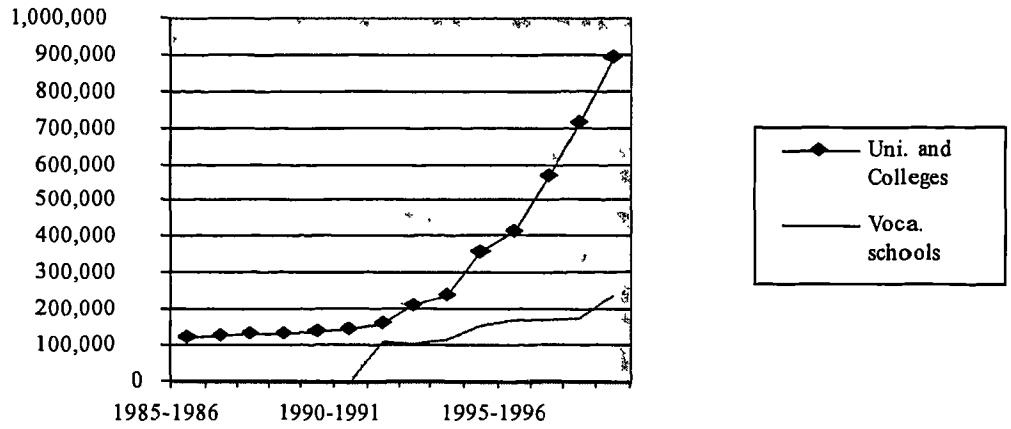
Table VII.3 – Education Attainment in Vietnam and other Asian countries (1990-2001)

	Average Years of School (years)	Rate of Illiterate Population (%)
Vietnam	*3.84*	*19.7*
China	n/a	14.23
Indonesia	4.01	12.66
Hong Kong	9.15	6.49
Korea	9.94	2.14
Malaysia	6.03	12.12
Philippines	7.28	4.85
Singapore	5.96	7.45
Thailand	5.58	4.35

Source: Data about average years of schooling is as of 1990 from Barro-Lee Data Set for 138 Countries from the NBER website: http://www.cid.harvard.edu/ciddata/ciddata.html. Data about percentage of illiterate population is as of 2001. Data about Vietnam is from MOLISA (2002a) and data about other countries is from World Bank (2003).

After higher secondary school, Vietnamese can continue their education either by going to a university or college or to a vocational school. Traditionally, degrees, especially university degrees, are highly regarded. In the Vietnamese social structure, a university degree is more respected than a certificate from a vocational school and therefore after higher secondary school Vietnamese youngsters prefer to go to universities rather than to vocational schools.

Chart VII.1 - Number of Students at Universities, Colleges and Vocational Schools (1985-1999)



Source: NEU and JICA (2001) Table 3

Chart VII.1 reflects this perception in Vietnam. Between 1985 and 1999, the number of students at universities and colleges increased rapidly, especially between 1991 and 1999. Between the academic years of 1991-1992 and 1998-1999 the number of students at universities and colleges increased by 5.5 times from 160,200 to 892,700. In the same period, the number of students at vocational schools just doubled from 111,000 to 241,100[5].

This bias towards a university degree not only leads to a shortage of skilled workers (more details in the next section) but also creates an oversupply of university graduates. Additionally, the education programmes at Vietnamese universities fail to provide students with the knowledge demanded in the labour market and thus employers do not highly value the quality of Vietnamese university graduates. According to a survey of employers, the evaluation of employers of university graduates in economics and business administration is just average[6]. It should be noted that economics and business administration have become fashionable subjects in the 1990s and the students who choose these subjects have relatively higher academic merits than students in other subjects. A similar view is shared by employers in other industries, especially in technology-intensive industries, who think that although Vietnamese graduates are hard working and quick in learning, the knowledge that they receive at universities is largely out-of-date and/or irrelevant. This is also because students tend to pay more attention to education rather than to acquire experience and relevant knowledge. Communication and teamwork skills are what many Vietnamese university graduates lack. According to recruitment service consultants of KPMG and PriceWaterhouseCoopers, it is easy to find candidates with the required degree but difficult to find candidates with the required knowledge and experience[7]. The numbers of students at universities and colleges are high also because in many cases when

[5] See Appendix VII.1 for more details
[6] See Appendix VII.2 for roe details
[7] See Appendix VII.3 for more details.

graduates cannot find jobs, they pursue a second degree. Consequently there are more and more university graduates who are unemployed or have jobs that are not relevant to what they have studied at universities. According to an official report, in 2000, 23.3% of students who graduated in 1999 were unemployed and 24% had jobs that were not relevant to what they had studied (MOLISA, 2001).

Technical Skills and Productivity

The technical skills and productivity of the Vietnamese labour force are low due to i) inadequate education attainment, ii) the lack of skilled labour force and iii) an inefficient vocational training system. As discussed above the ratio of illiterate or incomplete primary schooling labour in the total labour force in Vietnam is quite high. On average a worker has less than 4 years of schooling. Only half of the labour force completes secondary and higher secondary schooling, a level which is very important for the development of the indigenous capability of the labour force[8]. Low education attainment has largely contributed to the technological incompetence of the Vietnamese labour force.

Vietnam has a serious shortage of skilled labour. In 2001, only 17.05% of the total labour force had participated in some type of training course, of which 11.74% had formal training certificates from technical vocational schools and 5.31% had elementary apprenticeships (Table VII.4). Similar to education attainment at the regional level, the Red River Delta and the South East are the areas with the highest ratios of skilled workers and workers with elementary apprenticeship. The North West and the Mekong River Delta are the areas with the lowest ratios of workers with training. The number of skilled workers in Vietnam has increased slowly. In 1989 there were 3.4 million workers with formal vocational training and in 1999 there were 4.1 million. That is after 10 years the number of workers with formal vocational training

[8] According to Rani et al. (2001) secondary and higher secondary education facilitates the acquisition of skills and managerial capacity; and supports the development of basic science.

increased by 0.7 million compared with a 8.9 million increase in the total labour force. Alarmingly, the ratios of workers with formal vocational training among young workers are low and lower than the average ratio for the total labour force. Only 3.23% of workers aged between 15-24 and 9.03% of workers aged 25-34 have formal vocational training (MOLISA, 2001b).

Table VII.4 - The Technical Level of the Vietnam Labour Force in 2001

(percentage of labour with/without skills in total labour force)

	Unskilled workers	Workers with at least elementary apprenticeship	Skilled workers
Whole Country	82.95	17.05	11.76
Red River Delta	77.82	22.18	15.31
North East	84.26	15.51	12.21
North West	89.84	10.16	8.04
North Central Coast	85.91	14.09	10.62
South Central Coast	83.75	16.25	9.96
Central Highland	86.52	13.48	9.02
South East	75.47	24.53	17.12
Mekong River Delta	83.04	10.67	6.57

Source: calculated from number of economically active population aged 15 and above by technical level from MOLISA (2002a)

The lack of skilled labour in Vietnam is not only because of low enrolments to vocational schools but also because of inefficiency in the education system. Although investment in vocational training has increased rapidly, a large proportion of such investment is inefficient and vocational schools are still short of modern and suitable equipment, and qualified teachers and trainers (MOLISA, 2002b). The knowledge and skills that vocational schools provide to students are either out-of-date or irrelevant to what is demanded. There is little linkage between vocational schools and enterprises; thus many students are unemployed and enterprises have to employ students who do

not meet their requirements and retrain them[9]. Below is the opinion of Unilever Vietnam, a foreign company in Vietnam about current vocational training in Vietnam:

> Vocational training in Vietnam is still very basic, highly focused and without balance between theory and practice. Vocational schools although do offer practical education, the equipment and machinery they use are very basic and do not dwell into the interaction or inter-relationship amongst the different vocational disciplines in a semi-complex machine operation. Most of the vocational students come to school without any exposure to simple or semi-complex machine operations and come out of the school to face something entirely different. Most of the educators are with a university or college background, but have no industry experience and hence there is a very big gap on what they teach against what the industry requires. For as long as the vocational schools see their customers as the student who comes to school and most importantly, not the industry that will employ the students, then the gap between the industry requirement and the training given will remain.
>
> *Source:* from an interview by Vietnam Economy in 2003.

As Vietnam has a in serious shortage of skilled labour, labour productivity is undoubtedly low. Taking the manufacturing value added per worker as an indicator of labour productivity, Table VII.5 compares the labour productivity of Vietnam with that of other Asian countries between 1990 and 2000.

Table VII.5 - Labour Productivity in Vietnam and other Asian Countries (1990-2000)

(in US$ at 1995 prices)

	1990	2000	Growth between 1990-2000 (in %)
Vietnam	***827.6957***	***1,654.875***	***69.28***
China	1,199.938	4,207.754	125.46
Indonesia	4,021.95	4,858.371	18.89
Korea	19,532.27	49,450.27	92.88
Malaysia	10,141.04	16,522.11	48.81
Philippines	7,047.989	7,125	1.08
Singapore	31,593.26	66,386.21	74.25
Thailand	8,950.998	11,448.69	24.61

Source: manufacturing value added per worker is taken as labour productivity, calculated from World Bank (2003) and ADB (various issues)

Although during this period the growth of labour productivity in Vietnam was 69%, lower only than that of China, Korea and Singapore, the labour productivity of

[9] See for example Section 3.1 about Ford's employment.

Vietnam is still the lowest in the region. In 1990 the value added that a Vietnamese worker in manufacturing produced was US$ 827, which was the lowest in the region. However the gap between the labour productivity of Chinese and Vietnamese workers was small. At US$ 1,199 per worker, China had the second lowest productivity. In 2000, the labour productivity in China had increased by almost four times to US$ 4,207 while that of Vietnam had less than doubled to only US$ 1,654 and was still the lowest in the region.

1.2.2 – Human Capital Development

It is widely agreed that human capital development is essential in the economic development process of any developing country (see Chapter V). It is not different for Vietnam. The government of Vietnam has voiced its worry about the human capital of the country and has invested in human capital development. Nevertheless the process of human capital development comes from the efforts of not only government but also from institutions and individuals. An important element of human capital development is the incentive structure, which is formed by the government and other institutions. This incentive system encourages individuals to acquire knowledge, or more particularly education and skills, and thus promotes human capital development. This section studies two aspects of human capital development in Vietnam: investment in human capital by the government and households, and the incentives to acquire education and skills.

Investment in Human Capital by the Government and Households

Investment in human capital in Vietnam has been emphasised since the Reform. Over the past decades investment in human capital by the government and especially by households has increased. This section focuses on two main areas of investment in human capital: education and health. Human capital development, especially education, has been given high priority by the Vietnamese government. Public spending on

education has increased and grew more rapidly towards the end of the 1990s. Table VII.6 shows that public expenditure on education per capita in Vietnam increased from US$ 1.02 in 1991 to US$ 8.08 in 1998 (all at current prices). Investment in vocational training by the government increased from VND 523 billion in 1997 to VND 1,070 billion in 2001 (MOLISA, 2002b). In absolute terms public spending on education in Vietnam is similar to that in Indonesia and is much lower than in other countries in the region. However as a percentage of GDP in 1998 Vietnam spent as much as Singapore on education and much more than Indonesia. Vietnam spent 2.6% of its GDP while Singapore spent 2.3% and Indonesia spent 0.62% (Table VII.6).

Table VII.6 - Public Expenditure on Education in Vietnam and other Asian countries (1991-1998)

(in US$ at 1995 prices)

	Expenditure per capita in 1991	Expenditure per capita in 1993	Expenditure per capita in 1997	Expenditure as % of GDP in 1997
Vietnam	*1.02*[a]	*2.69*[a]	*8.08*[a, b]	*2.6*[b]
Indonesia	4.48	4.84	5.63	0.62
Malaysia	104	130.8	152	3.95
Singapore	476.5	434.2	603.8	2.36
Thailand	48.2	65	66.2	3.23

Source: Data about Vietnam is calculated from National Centre for Social Sciences and Humanities (2001) with exchange rate from ADB (various issues). Data about the other four countries is from own calculations (see Appendix IV.2). [a] at current prices. [b] as of 1998.

Private and public expenditure on health also increased rapidly in the 1990s. Table VII.7 shows that total expenditure on health increased by nearly four times from almost US$ 398 million in 1990 to US$ 1,508 million in 2000. Increase in private health expenditure is the main contributor to the increase in total expenditure. Private expenditure increased from US$ 279 million in 1990 to US$ 1,119 million in 2000 while public expenditure increased from US$ 123 million to US$ 389 million during the same period[10]. Although health expenditure as a share of GDP in Vietnam is high compared with those of other countries and has increased rapidly, it is far lower than

[10] See Appendix VII.4

those of other countries in the region. In 2000 health expenditure per capita in Vietnam was only US$ 19 as compared with US$ 27 in Indonesia, US$ 43 in China, US$ 791 in Korea and US$ 996 in Singapore[11].

Table VII.7 - Public and Private Expenditure on Health in Vietnam (1990-2000)

(in million US$ at 1995 prices)

	Private Expenditure	Public Expenditure	Total Expenditure
1990	279.6	123.02	398.43
1995	482.01	326.73	808.74
2000	1,119.63	389.30	1,508.94

Source: calculated from World Bank (2003)

Table VII.8 shows that at the household level, spending on education and medical care has increased. Although food still takes a large share of total spending, considering the low income level in Vietnam, Vietnamese households, especially in the urban areas, have paid increasing attention to education and medical care. In 1985 spending on education and medical care represented 0.4% of total income in an urban family and 1.3% in a rural family. In 1991 this increased to 6.5% in an urban family and 7.7% in a rural family.

Table VII.8 - Share of Spending on Food, Education and Medical Care in Total Spending by Households in Urban and Rural Areas (1985-1991)

(in percentage)

	1985	1990	1991
An average family in urban areas			
Food	70	73	81
Education and Medical care	0.4	3.4	6.5
An average family in rural areas			
Food	63	48	73
Education and Medical care	1.3	8.2	7.7

Source: Tran Van Tuan (1995)

Incentives to Acquire Education and Skills

According to the Nobel Prize Laureate Douglass North, the incentive system of a society, which is formed by the political and economic institutions, determines

[11] See Appendix VII.5

economic performance through time[12]. The incentive system through monetary rewards and penalties creates competition, which in turn encourages individuals to acquire knowledge so as to receive rewards and survive. In Singapore, for example, in the early 1980s the government strongly recommended companies to increase wages and considered this as a means of driving up workforce skill levels because they believed that higher salaries and wages are incentives for workers to acquire more training and knowledge[13]. In the case of Vietnam the government was the sole factor behind the destruction of the incentive system in the pre-Reform period and it has played a crucial part in reforming the incentive structure in the post-Reform period. As the incentive structure came back to Vietnamese society after the Reform, it is essential to study the effect of the reappearance of incentives in human capital development in Vietnam.

Until 1985 the incentive system did not seem to exist in Vietnam. State ownership dominated almost all aspects of the economy, be it agriculture, industry or services. It seemed that employees had no incentives to acquire knowledge or improve their performance. There are several reasons for this: i) employees in most cases were guaranteed life-long employment contracts and certainty about bonuses and promotion; ii) volumes of inputs and outputs for production were determined by the State and iii) attempting to reduce income inequality, the government deliberately reduced differences in salaries and wages between workers. According to a report by the Research Division about Strategies for Science and Technology (1986) the difference between skilled and unskilled workers in 1960 was 7.03 times, and in 1985 it was only 3.5 times. As the monetary rewards were not evident, employees were not willing to acquire education and skills.

The situation has changed considerably since the Reform. One milestone for this is the process of dismantling the old public sector wage structure, started in 1990.

[12] North (1994)
[13] For details see Singapore Ministry of Manpower, www.mom.gov.sin

Workers are no longer guaranteed life-long employment contracts and are not paid according to length of service. State-owned enterprises have more freedom to pay their employees. The government does not get involved in the wage structures of private domestic firms and foreign invested firms, except to set minimum wage levels. Earnings scales have changed towards giving monetary rewards for education, skills, and performance.

Table VII.9 - Total Earnings according to Education Level (1992-1998)

(in thousand VND)

	1992-1993	1997-1998
No degree	375.47	529.44
Primary School	441.98	651.34
Secondary School	445.86	701.11
Higher Secondary School	417.35	804.14
Technical Worker	354.68	668.2
With Vocational Training	374.91	732.96
University and College Degree	437.92	1,128.21

Source: calculated from total salaries, bonuses and compensation from General Statistics Office (1993 and 1998a)

Table VII.9 shows that between 1992 and 1993 the total earnings of a university graduate were only 1.2 times higher than those of a worker with no degree and the earnings of a worker with vocational training was almost equal to that of a worker with no degree. Between 1997 and 1998 the earnings of a university graduate was more than twice as much as earning of a worker with no degree and earning of a worker with vocational training was 1.4 times higher than that of a worker with no degree. Differences between the earnings of workers with different levels of education are greatest in the foreign invested sector and the private domestic sector. According to a recent survey, in state-owned enterprises the highest income receivers earn 7.1 times more than in the lowest income receivers. In the domestic private sector, this ratio is 10.9 and in the foreign sector it is 11.2[14].

[14] This survey is based on the sample of 500 firms in three sectors (www.nhandan.org.vn 28 May 2002).

The reappearance of the incentive system in Vietnam has, to some extent, made earning levels correspond to education and skill levels. Employees are rewarded according to skills, education, responsibility and job performance. Nevertheless according to the Vietnam Living Standard Survey (1993) on average the earnings levels of workers in the Southern area are higher than those of workers in the Northern area, although Northern workers acquire higher levels of education than Southern workers. On average a worker in the North, who has about ten years of schooling, earns US$ 9 per month while a worker in the South, who has less than seven years of schooling, earns around US$ 17. This mainly is because the Southern area has attracted more business than the Northern and thus job demand and salary and wage levels in the South are also higher than in the North.

Undoubtedly incentives, including monetary rewards and promotion, have dramatically encouraged the learning process among Vietnamese workers. The number of students who enrol at technical vocational schools and universities has increased rapidly. Second degrees and evening classes, especially in foreign languages, computing, law and business management have become common. The incentive system in Vietnam has been run mainly by the sectors including state-owned, domestic private and foreign invested firms. In an increasingly competitive environment these enterprises have been offering high salaries, bonuses and promotion to attract qualified employees such as skilled workers, engineers, and sales and marketing managers. For Vietnamese employees, it has become more and more difficult to get and to keep a job with a competitive remuneration package in a well-established company. Acquiring education and skills thus has become worthwhile and necessary for Vietnamese labour. The government does not, except by implementing the Reform, play an active part in the incentive system.

Although the reintroduction of the incentive system has contributed to human capital by encouraging Vietnamese labour to build up knowledge, it has had a negative impact on human capital. The incentive system has brought high rewards, including high pay and managerial positions, for university graduates. This, in addition to the conventional preference for university degrees, has lead to high enrolments at university level and thus to the oversupply of university graduates and undersupply of skilled workers.

2 - The Role of FDI in Employment and Human Capital in Vietnam

After more than a decade since FDI was first promoted in Vietnam, a considerable amount of FDI has flowed into the country, playing ed an important part in the high economic growth of Vietnam (Chapter VI). This section studies two important channels through which FDI contributes to economic growth in Vietnam: i) employment directly and indirectly created by FDI and ii) the contribution of FDI to human capital in Vietnam.

2.1 – Employment

Direct Employment

By 2001 more than 350 thousand people were working in the FDI sector[15]. Although a large proportion of FDI is concentrated in capital-intensive industries, especially import-substituting, this FDI does not have a large impact on employment. FDI in labour-intensive industries, including light industries, and agriculture and forestry, accounting for only 22% of total FDI, provides 70% of the employment. Most jobs in labour-intensive industries do not require skills and pay low salaries[16]. In Ho Chi Minh City, the city with the biggest amount of FDI in Vietnam, the FDI sector

[15] Statistics about employment in the FDI sector in 2001 differ slightly. According to the statistic published by the Ministry of Planning and Investment (MPI), this number is 358,137. According to statistics of the Ministry of Labour, War Invalids and Social Affiars (MOLISA), it is 353,804.
[16] See Sections 2.1 and 4.2 of Chapter VI for more details.

created 124,350 jobs during 1991-1994, and 281,481 jobs during 1996-2000 of which 55.43% were unskilled jobs. The industries that create the most jobs are textiles, garments, food processing and the production of construction materials (MOLISA, 2001a).

Table VII.10 shows that in 2001 employment in the FDI sector accounted for 0.94% of total employment of the country. FDI is important in creating jobs in the industry and services sectors, especially in some industries such as processing and light manufacture, and banking and finance. Employment in the FDI sector as a share of employment in the industry and services sector as a whole was 2.43%[17]. In some industries the share of employment in the FDI sector is higher than the average. Employment in the FDI sector accounts for 7.3% of total employment in processing industry, 7.92% in the real estate business and consultancy service, and 5.9% in finance and banking.

Table VII.10 - Employment in the FDI sector by Industrial Activities in 2001

(in number of people and in percentage)

	Total	FDI sector	In percentage
Whole Country	37,677,429	353,804	0.94
Processing industry	3,800,609	277,402	7.30
Real estate business and consultative service	100,337	7,943	7.92
Finance and banking	117,069	6,917	5.91
Production and supply of electricity, water and gas	101,768	2,626	2.58
Hotels and restaurants	489,852	5,033	1.03
Transportation, storage and communication	1,153,180	9,169	0.80
Trade and repair of motor vehicles	3,937,880	16,885	0.43
Exploiting industry	265,757	1,109	0.42
Construction	1,263,842	4,557	0.36
Agriculture, forestry and aquaculture	23,647,936	13091	0.19
Others	2,799,199	8981	0.32

Source: MOLISA (2002a)

[17] I.e. total employment excludes employment in agriculture, forestry and aquaculture.

In the South East, where two thirds of total FDI in Vietnam and also two thirds of total employment in the FDI sector is located, the share of the FDI sector in the total employment of some industries is higher than the national level. Table VII.11 shows that employment in the FDI sector accounts for 16.32% of employment in processing industry, compared with 7.3% at the national level. In the production and supply of electricity, gas and water, the share of employment in the FDI sector is 8.44%, compared with 2.58% at the national level. In finance and banking, the share of employment in the FDI sector is 16.73%, compared with 5.91% at the national level. In the real estate business and consultative service, the share of employment in the FDI sector is 12.75%, compared with 7.92% at the national level. In the Red River Delta where 15% of FDI is located, the share of employment in the FDI sector in the total employment of some industries is also higher than the country's average, for example 7.3% in processing industry, 5.9% in finance and credit and 7.9% in the real estate business and consultative service[18].

Table VII.11 - Employment in the FDI sector by Industrial Activities in the South East in 2001

(in number of people and in percentage)

	Total	FDI sector	In percentage	Whole Country
Whole Region	5504180	233,570	4.24	0.94
Processing industry	1,193,302	194,707	16.32	7.30
Production and supply of electricity, gas and water	31,106	2,626	8.44	2.58
Finance and banking	30,198	5,051	16.73	5.91
Real estate business and consultative service	37,765	4,814	12.75	7.92
Exploiting industry	15,311	438	2.86	0.42
Hotels and restaurants	74,646	1,449	1.94	1.03
Transportation, storage and communication	312,890	6,468	2.07	0.80

Source: MOLISA (2002a)

Although the share of employment in the FDI sector is high in some industries and in some areas, the number of jobs that the FDI sector has directly created in Vietnam is not large as compared with other countries in the region. In China, Malaysia

[18] See Appendix VII.6

and Singapore, the countries that have received large amounts of FDI, employment in the FDI sector accounts for 9.5%, 16.6% and 10.4% of total employment, respectively. In countries that receive relatively smaller amounts of FDI such as the Philippines and Thailand, the share of employment in the FDI sector is around 2%[19].

It is widely argued that the FDI sector generates high income for its employees (Le Dang Doanh, 1997). Nevertheless statistics seem to overestimate the average income in the FDI sector. Only a small fraction of employees such as skilled workers, engineers and staff in managerial positions have high incomes. Meanwhile a large proportion of employees in the FDI sector are unskilled workers in labour-intensive industries who receive salaries and wages at around the minimum level set by the government. In Binh Duong province, one of the top FDI-recipient provinces in Vietnam, the average salaries of workers in industrial zones, where most FDI is located, range between US$ 33.8 and US$ 48.3, which is just around the minimum level set by the government. This level of income, although higher than income in the agriculture sector, is barely enough for the minimum needs of workers especially as prices and living costs tend to increase[20]. In addition many companies do not pay benefits such as health and social insurance, and sickness pay, making the total earnings of employees in the FDI sector not as high as it is claimed[21]. Because of low income and tough working conditions in labour-intensive industries, a proportion of workers are no longer willing to work in labour-intensive FDI firms. In recent jobs fairs in Ho Chi Minh City and the Southern areas, employers in the textiles, garments, footwear and processing industry could not recruit enough unskilled workers[22]. Employees in the FDI sector also work more hours and more days than employees in other sectors, making the salaries and wages per hour or per day in the FDI sector not

[19] See Appendix VII.7
[20] See Section 4.2 Chapter VI for more details
[21] Binh Duong Industrial Zones Committee (2001)
[22] See various issues in www.laodong.com.vn, and www.vneconomy.com.vn, for example Vietnam Economy issue of 25 June 2003

particularly higher than in the other sectors. According to a recent survey by the Ministry of Labour, Invalids and Society, in 2001 the average earning of employees in the FDI sector was around VND 1.3 million while that of employees in state-owned enterprises were VND 932,000 and in the domestic private sector was VND 873,000. However on average a worker in the FDI sector works 229 hours per month compared with 226 hours in the private sector, and 213 hours in the state sector[23].

Indirect Employment

Through its networks of suppliers, distributors and transporters, the FDI sector has indirectly created employment. A large of proportion of this indirect employment is in supporting services such as distribution and transportation. Employment created in local suppliers of FDI firms is rather limited because a large proportion of FDI in Vietnam is in capital-intensive and labour-intensive export-oriented industries, which do not procure domestically. FDI firms in these industries tend to import capital goods, materials and inputs despite the government's encouragement and rules about local content. This is partly because such products are not domestically available at the price and quality that FDI firms require. For example low local content in the car assembling industry is because this industry requires technology-intensive auto bodies, parts and components, which local firms are unable to produce[24]. To date there are statistics about indirect employment of the FDI sector. Considering the low local procurement levels of FDI firms, the approximate number of jobs that FDI firms have created in their local partners is around 500 thousand, i.e. 1.5 times higher than direct employment[25].

Some industries that use inputs available in Vietnam, especially agro-based enterprises, those and producing for the domestic market (especially consumer goods) create more indirect employment than others. For example, Unilever Vietnam, a

[23] www.nhandan.org.vn 28 May 2002, see also Appendix VII.8.
[24] See Section 3 of this Chapter for more details.
[25] See also Section 4.2 Chapter VI

foreign company in Vietnam that produces a wide range of consumer goods for the domestic market has created a nation-wide distribution system of about 350 distributors, more than 150,000 retailers and 5,500 jobs at its local partners[26]. Yamaha Motor Vietnam, a company that manufactures motorcycles for the domestic market, has a network of 24 local suppliers and more than 120 dealers. According to a survey of 10 joint ventures and 100% foreign invested companies in assembling, textiles and garments, services, and food processing in 2000, these companies had 213 suppliers and distributors, directly creating 4,688 jobs and indirectly creating 43,286 jobs. Also according to this survey, firms in consumer goods, especially food processing have the highest ratios of indirect to direct employment, ranging between 12.5/1 and 49/1 (Bui Anh Tuan, 2000)[27].

2.2 - Contribution to Human Capital

Although the overall impact of the FDI sector on employment and in generating income might not be as large as it is claimed, the FDI sector has played an important role in creating jobs in some key industries of Vietnam, and it has contributed to the human capital of the country. There are three main ways in which FDI contributes to human capital: i) by providing formal and informal training, ii) by participating in the creation of a new generation of entrepreneurs and professionals, and iii) by encouraging labour to learn. Considering the low education attainment and technical skills of the Vietnamese labour force, the impact of the FDI sector on human capital is considerable, and might be more important than the effect on employment. The presence of FDI in Vietnam has not only established but also developed the human resources of an international standard for some industries that Vietnam did not possess such as hotels and tourism, real estate management and consultative services, and finance and banking. High ratios of employment in the FDI sector to total employment in such

[26] It should be noted that retailers sell products of different companies, not only of Unilever. See also Appendix VI.7

[27] See also Appendix VII.9

industries show the importance of FDI in developing the human capital of these industries.

The contribution of FDI, however, tends to vary across industries and across positions in a firm. Employees in position that require skills and education such as technicians, engineers and staff in sales, marketing and management tend to benefit more from FDI than unskilled employees. According to a survey by the Ministry of Labour, War Invalids and Social Affairs (MOLISA) and the Ministry of Planning and Investment (MPI), 49% of FDI firms have training funds and they tend to provide training courses for managerial staff (Bui Anh Tuan, 2000). Employees in technology- and capital-intensive industries tend to benefit more than employees in labour-intensive industries because firms in these industries need to train their employees to work with technological-intensive equipment. In labour-intensive industries such as textiles, garments, and primary processing the impact of FDI firms on human capital tend to be minor. Most firms in these industries are from Korea, Hong Kong and Taiwan and invest in Vietnam to exploit cheap labour costs, which are no longer available in their home countries. The jobs in these firms therefore do not require skills or vocational qualifications and most firms in these industries do not provide training.

In the industries in which skills are needed, because of the weakness of technical vocational education in Vietnam, employees of both FDI firms and their local partners are provided with technical training. Interviews with some foreign companies and their local suppliers and distributors show that training programmes provided by FDI firms are valuable and help to improve the technical capability of Vietnamese workers. This is especially important for the industrial development of Vietnam because the vocational training system does not have enough capability to train workers. Training programmes of FDI firms have provided and upgraded the technical

skills of workers in key industries such as oil and gas, construction and automobiles[28]. The result of this has been a rapid increase in output growth and labour productivity in both the FDI and domestic sectors[29]. In top FDI-recipient locations such as Hanoi, Ho Chi Minh City and Binh Duong, the growth of the industrial output of the FDI sector is four to five times higher than that of the domestic sector. In provinces that receive relatively little FDI such as Hai Duong and Ha Tay, the growth of the industrial output of the FDI sector is fifteen times or even twenty six times higher than that of the domestic sector[30].

Non-technical training, especially for such skills as communication, teamwork, management, and sales and customer service, is another important contribution of FDI firms to the human capital of Vietnam. These skills are those that Vietnamese employees lack and are those that the education system of Vietnam, either in vocational schools or universities, is unable to provide for its labour force. These training programmes and the environment in which the employees of FDI firms work have enabled them to acquire the required knowledge and to develop as experienced and qualified professionals and entrepreneurs if they leave FDI firms, both of which are essential for the market-oriented economy of Vietnam.

In promoting their images, some foreign firms, especially affiliates of big multinational corporations, have contributed to the human capital of Vietnam through various programmes to sponsor distinguished students to study in Vietnam and abroad, and to assist universities and vocational schools with textbooks and equipment. For example, Toyota Motor Vietnam has carried out an education support programmes since 1997, under which it provides scholarships to distinguished students, and

[28] See Section 3 for more details about training provided by FDI firms in the automobile sector and Appendix VII.10 for the training programme of Unilever Vietnam
[29] See Section 4.1 Chapter VI and Section 1 this Chapter
[30] See Appendix VII.11

textbooks and equipment to students in several universities in Vietnam[31]. Unilever Vietnam is supporting the programme by the Vietnam General Department of Vocational Training for the period of 2002- 2005 to improve the ability of vocational trainers[32].

As mentioned above the reintroduction of the incentive system in Vietnam is crucial for human capital development and the economic development of the country. The FDI sector has played an important part in this process. The incentives to acquire skills and education and to perform well are highest in the FDI sector because the average salaries and wages in FDI firms are higher than in other sectors, and the difference in salaries and wages among positions in FDI firms is also wider than in other sectors. In Ho Chi Minh City, for example, the difference between salaries and wages of skilled and unskilled workers in the state sector it is 1.73 times, in the private sector is 2.68 times and in the FDI sector it is 5.22 times (MOLISA, 2001a). As the salaries and wages are higher and the jobs in FDI firms tend to be more stable than in domestic private firms, employees in FDI firms seem to face high competition and pressure. Consequently the monetary rewards and penalties (e.g. losing jobs) have created incentives for employees in the FDI sector to learn and to improve their performance.

The contribution of the FDI sector to human capital has had some made negative impacts on the economy of Vietnam. It seems that FDI firms have recruited the most dynamic and qualified part of the Vietnamese labour force. According to a survey of FDI firms in Hanoi by MOLISA in 1996, 100% of workers in this sector have secondary schooling, 67% have technical education and 33% have higher education or a university degree (Bui Anh Tuan, 2000). Not only do FDI firms recruit experienced and qualified labour, they can also specify their gender and age preference. This is

[31] See more details in Section 3.2
[32] See more details in Appendix VII.10

partly because FDI firms recruit with a carefully defined procedure and with certain requirements about professional knowledge, skills and especially work discipline. The main reason, however, is because Vietnamese labour prefers to work for an FDI firm rather than for a Vietnamese firm, especially in the private sector. They believe that in FDI firms they will receive higher salaries and training opportunities. With high salaries and other attractive benefits, it is relatively easier for FDI firms to attract skilled workers and experienced and qualified staff. In some cases FDI firms attract skilled labour from their domestic rivals. The most recent case is in the electronics industry where FDI firms from ASEAN have offered seven-times-higher salaries to attract skilled workers who currently work in Vietnamese electronic firms[33]. Considering the shortages in the Vietnamese labour market, this internal 'brain-drain' has made it difficult for the domestic sector to find qualified staff and has made the domestic sector less efficient than the FDI sector in capital, technology and also human resources.

3 – Case Studies of Three Foreign Firms in the Automobile Industry

The automobile industry is a relatively new industry in Vietnam. It started in the mid 1990s with the coming of FDI in the industry. Since then the production and sales of cars and motorcycles in Vietnam have increased rapidly. The number of cars sold increased from 663 in 1999 to 14,000 in 2000. From 2000 to 2002 the average growth rate of car production was 40% and that of motorbike production was 200%. The FDI sector has played a dominant role in the production and the sales of both products. To date production of the FDI sector accounts for 92.8% of total cars produced in Vietnam and 83.7% of total motorcycles[34].

[33] From Vietnam Economy, www.vneconomy.com.vn January 2003
[34] From Vietnam Investment Review July 2003

The automobile industry has received strong protection from the government in the form of high tariffs and tight quotas for imported cars and motorcycles. Import tax for cars with less than 5 seats is 200%; meanwhile foreign companies assemble imported auto parts and components, which have a tariff rate of 20%. However there are still two problems in the automobile industry: i) the price is still too high and ii) the local content is still low. According to the Ministry of Trade, the price of cars assembled in Vietnam is 1.9 to 2.6 times higher than prices in other countries in the region. Some companies in motorcycle and car manufacturing have raised the local content significantly such as Honda Vietnam and Toyota Motor Vietnam. However most firms only assemble imported parts and components with very insignificant local content. As the Vietnamese market is rather small, there is a limitation in increasing local content, especially in consideration of economies of scale. The government has stopped granting licences to projects in car and motorbike assembly but has encouraged projects that produce parts and components. Several measures have been carried out to push companies to raise their local content such as incentives for parts and components production, increases in import tax and decreases in quotas for parts and components of automobiles[35]. The government has set the target that FDI firms in the car industry must have local content of 20-25% in 2005 and 40-45% in 2010[36].

FDI firms in the automobile industry have made considerable impacts on employment and human capital in Vietnam. FDI firms not only generate direct employment but also indirect employment in their local partners, including suppliers, distributors and transporters. As this is a capital-intensive industry the number of jobs created by the industry might not be as large as that created by labour-intensive industries. Nevertheless FDI firms in the industry tend to employ experienced and qualified people with skills that are scarce in the Vietnamese labour market, such as

[35] See also Chapter VI for more details about the automobile industry in Vietnam.
[36] Decision no. 175/TTG of the Prime Minister dated December 2002

technicians, engineers, skilled workers, sales and marketing representatives and other managerial positions. Thus the salaries and wages of employees in firms in the automobile industry, including firms that produce cars and motorcycles, firms that produce parts and components and firms that sell cars and motorcycles, are high in comparison with those in other industries. Most employees directly and indirectly hired by FDI firms also benefit from training programmes provided by these firms. As FDI firms tend to provide training in skills that Vietnamese workers lack, they have played an important part in human capital development in Vietnam, especially in the automobile industry. This section is based on a case study of three foreign companies, which are among the biggest companies in the industry: Ford Vietnam Limited, Toyota Motor Vietnam and Yamaha Motor Vietnam. The first two companies are car assemblers and the third is a motorcycle manufacturer. This study focuses on direct and indirect employment and on training programmes to support such employment in each company. It also studies other activities of each company that influence human capital in Vietnam. This study was carried out by factory visits and interviews with staff at the managerial level in each company and with government officials and industry consultants in Summer 2002. For each company the interviews were conducted with a senior officer or with the head of personnel for information about direct employment and associated training programmes; and with distribution and/or sales managers and input managers for information about indirect employment and associated training programmes for indirect employment. All interviews were pre-designed but open, i.e. interviewees were asked the same questions but from time to time further questions were asked.

3.1 – Ford Vietnam Limited

3.1.1 – Overview of the Company

In September 1995, a joint venture agreement was signed between Ford Motor Company and Song Cong Diesel Company, a State-Owned Enterprise (SOE), to establish Ford Vietnam Limited (FVL), the biggest automotive investor in Vietnam with investment capital of US$ 102 million. Ford Motor Company contributed 75% of the capital and Song Cong Diesel Company contributed 25% of the capital, mainly in the form of land use rights. The main activity of FVL is to assemble cars. It has one office in Hanoi and one plant in Hai Duong province with a total production capacity of 14,000 vehicles per annum. It has six distributors, all of which are Vietnamese companies and that are financially and operationally independent from FVL. These six distributors are located in four cities, Hanoi, Ho Chi Minh City, Ha Long and Da Nang.

FVL mainly assembles CKD (complete knock-down) parts and components. FVL has brought to Vietnam its world-class production technologies including the most modern painting system in Vietnam and South East Asia. It is the only automobile assembler in Vietnam using a Coordinating Measuring Machine to measure its vehicle bodies, a high technology test-line system and a quality management system. FVL's assembly plant in Hai Duong is equipped with production lines and assembles both trucks and cars simultaneously. To date it has introduced three models of cars. In 1997, the first year that FVL sold its cars in the Vietnamese market, FVT was ranked 7th in terms of market share. In 2002 it was the second in terms of market share. In 2001 FVL sold 200 cars and in 2002 it sold more than 3000 cars[37].

3.1.2 – Direct Employment

Direct Employment

The total employment of FVL is 327, including 210 hourly paid workers and 117 salaried staff. Hourly workers are those who work in the assembly plant. Salaried staff include engineers, supervisors in the plant, and sales, marketing and

[37] From the interview with the Managing Director of FVL by Vietnam Economy in November 2002 and Ford Vietnam Limited's website: www.ford.com.vn

administration staff in the Hanoi office. In Vietnam, the common practice in a joint venture agreement between foreign firm(s) and Vietnamese State-Owned Enterprise(s) is that the joint venture gives priority to recruiting workers from the Vietnamese partner(s) so as to ease the problem of redundancy in the Vietnamese partners that is resulting from the scaling-down of the state subsidised system. Although FVL is a joint venture between Ford Motor Company and a SOE, FVL does not recruit employees from its partner. This might be because Song Cong Diesel Company is located around 100 miles from the site of FVL's assembly plant.

According to FVL's personnel manager, it is not difficult to recruit hourly paid workers. The basic requirement is the completion of a three-year vocational training course; speaking English is an advantage. Around 80% to 90% of FVL's hourly paid workers are from the two technical vocational schools, Chau Giang 1 and Sao Do, in Hai Duong province. Most of the hourly paid workers have tertiary education and three years education at a technical vocational school. As the plant is located in Hai Duong province, priority is given to applicants who live in this province and thus most of the hourly paid workers are from Hai Duong.

Unlike hourly paid workers, salaried staff are required to have a university degree and to speak English fluently. As FVL has an office in Hanoi, most salaried staff live in Hanoi and only some live in Hai Duong. From 1996 to 1999 FVL recruited foreign expatriates for most of its senior positions in human resources, sales, services, marketing, manufacturing and finance. Since 1999 Vietnamese staff have replaced all those positions on the one-to-one principle, i.e. one Vietnamese is recruited or promoted to perform the job previously performed by one foreign expatriate. In 2002 foreign expatriates held only the positions of General Director and Finance Director.

Generally FVL does not find it difficult to recruit hourly paid workers who meet its requirements. The new employees in most cases have tertiary education and have

completed three-year vocational training course. Therefore hourly paid workers normally have the basic technical knowledge to perform the job and meet 70-80% of the requirements. However the skills that all new employees do not have are of the non-technical kind such as communications and work discipline. The overall evaluation of FVL about its hourly paid workers is that Vietnamese workers are diligent and quick to learn and to adapt to the new environment. Also most of the jobs that they perform are automated and do not require skills and/or specific knowledge.

For salaried positions, it is more difficult for FVL to find the right people, especially in such areas as sales and marketing. Candidates tend to have sufficient qualifications but lack experience and practical capabilities. There are many cases where FVL recruits new employees, who are under-qualified and it requires training afterward. Overall FVL salaried staff are evaluated as competent and of high quality and FVL is one of a few foreign companies in the industry that replace foreign expatriates by Vietnamese staff on the 'one-to-one' basis. Besides promoting existing staff FVL also appoints new employees into senior positions.

Training

FVL has carried out various training programmes since it was established. Training at FVL includes in-house training, training abroad in collaboration with Ford Motor Company and training conducted by outside training centres. Every year the personnel staff, who are in charge of training, assess the previous year's training programme and draft the training needs for the current year. This is based on the needs of staff after reviews by their supervisors and on the requirements of the personnel team.

Although the jobs that hourly paid workers perform tend to be automated and do not require skills (except some jobs such as painting), the company provides various training programmes for these workers. Most of the training programmes for hourly

workers are in-house training programmes, which include on-the-job experience and learning-by-doing for new workers provided by more senior workers, supervisors, technicians and engineers. In-house training is also provided on a consistent basis to ensure high quality performance. If the performance of hourly workers is not satisfactory, it is compulsory for them to take part in training. When FVL launches a new line of products, workers who are involved directly will be sent for training to a subsidiary of Ford Motor Company abroad, which has that product line.

For salaried staff, training programmes are conducted by training centres or vocational institutes in the country such as the Asian Institute of Technology (AIT) and Borne-Griffith Ltd. Training programmes are generally for non-technical skills such as English, computing, communication skills, leadership skills, teamwork skills and presentation skills. These courses must follow the standard requirements set by Ford Motor Company. When FVL launches a new line of products, engineers and technicians who are involved directly will be sent for training to a subsidiary of Ford Motor Company abroad, which has that product line. Every year FVL spends on average $50,000 on training for its staff.

To improve the quality of its hourly paid workers, especially skilled workers, FVL has initiated some cooperation with the Chau Giang 1 Technical Vocational School. This school is one of the largest vocational schools in Hai Duong province, and is the main source of technical workers for companies in the province, providing 80% of FVL's workers. The cooperation programme is in the form of scholarships for distinguished students, internships for students and an agreement to employ students in the FVL factory. The objective is to establish linkages with the school so that students can have opportunities to practice on FVL's modern equipment and FVL can spot and help train the best students to meet its recruitment needs. Theoretically this programme should be beneficial not only for FVL but also for the school because students can

study on the new and modern equipment, which are not available at the school, and have career opportunities. This programme however has not been welcomed by the school. A reason for this, according to FVL, is that the school is financed by the state budget and thus there is no incentive for the management to improve the quality of the teaching or to pay attention to the career opportunities for students. This is a typical example of the rigid and inefficient operation of technical vocational schools in Vietnam, most of which still do not train technicians and skilled workers according to the demand of industry.

3.1.3 – Indirect Employment

FVL has no domestic suppliers because it imports all capital goods, materials, parts and components. FVL claims that it is committed to meet the local content requirements set in its FDI licence; however local suppliers cannot meet its requirements for quality and prices and thus it cannot source locally.

Employment indirectly hired by FVL therefore is mainly in its distribution network. In 1997 FVL had only one distributor but in 2002 it had seven distributors across the country. All distributors are Vietnamese companies, which are financially and operationally independent from FVL. Distributors of FVL work in the 3S form, i.e. Sales, Showroom and Service, and only sell cars produced by FVL. FVL requires a standard organisational structure for all distributors, which includes an administration division, a marketing and sales division and a repair and maintenance service division. The size of employment in a standard structured distributor is between 60 to 80 employees, of which 9 to 15 are in administration, 20 to 30 in sales and marketing and 35 to 40 in repair and maintenance services. With seven distributors, FVL has indirectly created around 450 jobs.

Most employees in FVL's distributors are experienced and qualified. FVL offers consultation to its distributors to help the recruitment process and sometimes gets

directly involved in recruitment for such important positions as managers or supervisors in service and sales. In general, distributors are influenced by the views of FVL in making appointments to important positions. Most workers and technicians in the repair and maintenance services have completed formal training at technical vocational schools. Staff at management level normally have a university degree.

In recruiting new employees, distributors of FVL find that it is difficult to recruit for the positions of managers and supervisors in sales and service. The qualities that most applicants lack are experience, and teamwork and communication skills. According to a distribution network consultant for FVL, who is involved in the distribution recruitment process, applicants normally have more than enough theoretical knowledge but do not have experience and practical knowledge, e.g. for a supervisory position most applicants do not know how to deal with their supervisees, or how to encourage or assess their performance. Sometimes it takes more than half a year to fill the position of a sales manager. It is difficult for FVL's distributors to recruit to important positions also because many qualified candidates prefer to work for foreign companies rather than for the distributors, which are Vietnamese firms[38].

FVL has extensively contributed to the human capital of its distributors by offering technical and non-technical advice, sales network development, promotion assistance, training assistance and training programmes. All training programmes for distributors are provided by Ford Motor Company and adjusted by FVL to be suitable for Vietnam. FVL has a training budget for all distributors, which is around US$20,000 to US$ 30,000 per year. FVL has a training team for distributors, which includes two staff for sales training, two coordinators, and two for technical training. Besides, staff of FVL in such divisions as planning, distribution and finance also provide training for staff of the distributors. For every new distributor FVL carries out four training courses

[38] See also Appendix VII.2

in sales and marketing, service, stock and finance. For existing distributors, there are training programmes in three categories: non-technical, technical and launch to maintain and improve the staff quality. The launching training programme is conducted when a new model/line is introduced. Every employee of distributors has a training identification number (TIN), which is the parameter for his/her performance assessment and promotion. When a new employee starts, he must attend all the training programmes and pass all the exams in order to be qualified. Without that he is unqualified to work. Every year there are two tests, and if workers do not pass or have bad results they have to take re-training. Recently FVL organised a course on communication skills, focusing on customer services and psychology for its staff and general managers, sales managers and service managers of its distributors. The cost of this two-month course was $700 per person and was paid by FVL.

3.2 – Toyota Motor Vietnam

3.2.1 - Overview of the Company

Toyota Motor Vietnam (TMV) is a joint venture between Toyota Japan, Kuo Singapore and VEAM (Vietnam Engine and Agricultural Machine Corp.), which contribute 70%, 10%, and 20% of the total capital, respectively. TMV was established in 1995 with total capital of US$ 49.14 million. It started production in August 1996 with an output of 10,000 cars per year. The company headquarters is in Vinh Phuc province and there is one branch in Hanoi and one in Ho Chi Minh City.

The main activity of TMV is to assemble cars from CKD parts and components. Since its establishment, it has produced around 20,000 cars. It is a pioneer in Vietnam in introducing and developing integrated car body, part and component manufacturing industry. Its objective is to become the leader in automobile parts production in Vietnam. TMV has produced several car parts, i.e. exhaust pipes, and roof side inner and floor panels. In 2003 TMV opened two factories to produce bodies and parts and

become the first car producer in Vietnam to have a standard auto assembling line including four major processes, namely stamping, welding, painting and assembling. Meanwhile other foreign firms mainly assemble from CKD parts and components. In September 2002 TMV held a workshop in Japan about the production of automobile parts in Vietnam with the main objective of promoting Japanese FDI in car parts and components production into Vietnam. To date TMV has several parts suppliers in Vietnam and it has increased its ratio of local content. In 2001 for example the local content of Corrola Altis, a car produced by TMV, was around 4-5%. The local content of TMV's products is expected to increase substantially with the operation of its new factories.

3.2.2 - Direct Employment

Direct Employment

TMV has 458 permanent Vietnam employees, 49 seasonal workers and 10 foreign expatriates; of the total 37 work in the headquarters office, 35 in the Hanoi branch, 28 in the Ho Chi Minh City branch, 263 in production, 100 in sales and marketing, and 95 in administration and finance. Overall employees of TMV are qualified and, in some positions, experienced. Half of workers have formal training from technical vocational schools. Most staff in sales, marketing, administration and production have a university degree, and speak English or Japanese. In general TMV recruits employees for low positions and the promotes, therefore it does not require high-qualified new employees. Nevertheless according to personnel staff, the quality of applicants is generally not high. Applicants tend to have degrees (and sometimes theoretical knowledge) rather than the knowledge and skills needed for their positions.

Training

Since the opening of its training centre in July 1997 with an initial investment of US$ 500,000, TMV has constantly emphasised training for its employees. Training

at TMV includes in-house training, training provided by foreign experts invited by TMV, training courses abroad in collaboration with Toyota Japan, training programmes conducted by its training centre, and training courses provided by outside training centres. The training budget of TMV is between $20,000 and US$30,000 per year. Training programmes are developed according to the demand of the company and employees.

TMV provides in-house training programmes, including on-the-job experience and learning-by-doing training, for all workers. The training time is three months for a beginner for simple jobs, and six months for more technical jobs. Instructors, who are team leaders and group leaders, normally carry out in-house training.

TMV also has a collaboration programme with Toyota Japan for employees' training. Overall 286 employees have been sent abroad for training between 1996 and 2001, 163 employees from the production division, 110 from marketing, 5 from finance, and 8 from administration. The main training mode of TMV is to send workers to a subsidiary of Toyota Japan to work and receive in-house training in that subsidiary. When a new model is launched, skilled and senior workers such as instructors are sent for training abroad. TMV has also invited more than 100 foreign experts to provide training for its employees.

Various training programmes have been carried out by TMV's training centre and by outside training centres for foreign languages, computing, leadership skills, human resource management, environmental awareness and safety. On average between 150 and 200 employees are trained at the TMV's training centre of every year. In September 2000 the centre was upgraded to provide training for body and paint repair with advanced equipment and facilities. In 2003, to meet the growing demand for complicated services as well as improving the knowledge and understanding of

advanced technology, TMV applied a new training system, known as "Technical Education for Automotive Mastery for the 21st Century".

TMV has also contributed to the human capital of Vietnam through an education support programme running between 1997 and 1999. Under this programme TMV provides scholarships to distinguished students in three leading universities in Vietnam. From 1997 to 1999, TMV disbursed US$500,000 worth of scholarships to 135 outstanding students to finance their post-graduate education at the Toyota Technology Institute in Japan. In particular, Toyota also donated $50,000 to the Young Talents Development Fund of Hanoi University of Technology in October 2001.

3.2.3 - Indirect employment

TMV has indirectly created jobs for its local suppliers and distributors. It has contributed to the human capital of these companies by providing employees of these companies with various training courses in Vietnam and abroad.

Supplier Network

TMV is one of very few foreign companies in the automobile industry that pursues a local sourcing strategy and actively develops its domestic suppliers network. By procuring from domestic suppliers TMV has indirectly created employment. To date there are ten companies in TMV's domestic supply network. Half of these domestic suppliers are companies with Japanese FDI and the rest are Vietnamese companies. These companies produce not only to meet the demand of TMV but also that of other companies in Vietnam. Although data on employment and the ratio of TMV's sales to the total sales of these companies are not available, the fact that TMV has procured domestically shows that the company has indirectly created more employment than other foreign companies in the car assembling industry in Vietnam.

Distributor Network

TMV has also indirectly created employment in its dealers and service stations. To date TMV has nine dealers, one direct outlet and two Toyota Authorized Service Stations (TASS). These distributors sell only Toyota vehicles. The strategy of TMV is to improve the skills of the employees of its dealers and TASS by continually providing training programmes in its training centres. Since 1999 TMV has held the annual Toyota Technician Skills Contest for technicians at its dealers and TASS. The objective of the contest is to promote technical knowledge, the ability to adhere to Toyota's standard working procedures, professional behaviour, prudence, swiftness and confidence among employees. Unlike FVL, TMV does not participate in the recruitment procedure of the distributors.

3.3 - Yamaha Motor Vietnam

3.3.1 – Overview of the Company

Yamaha Motor Vietnam (YMV) is a joint venture between VINAFOR (Vietnam), Co Do Engineering Factory (Vietnam), Yamaha (Japan) and Hong Leong (Malaysia), which contributed 8%, 22%, 46% and 24% to the total capital of US$ 25.25 million, respectively. The company got its licence early in 1998 and first introduced its products in October 1999. Its headquarters office and factory are located in Soc Son, Hanoi. The main activities of the company are to manufacture motorcycles and parts and to provide maintenance and repairing service for motorcycles. YMV has emphasised parts manufacturing and domestic sourcing and the local content of its products has reached 40%.

3.3.2 - Direct Employment

Direct Employment

YMV has 581 employees, including 12 foreign expatriates, 42 staff in the Hanoi office, 87 staff in Ho Chi Minh City office, 300 workers in production, and 140 staff in

sales and marketing, administration and finance. YMV is planning to expand its number of workers in production to 600. The first cohort of workers in production employed by YMV in June 1999 was unskilled labour. YMV spent four months in training these employees because they only had secondary schooling. The workers that YMV recruited later had formal training at technical vocational schools. In recruiting workers for production, YMV gives preference to local people. According to the personnel staff of YMV when the company recruits there are always too many applicants. The average number of applicants is twenty times higher than the number of jobs offered. The reason for the large number of applicants is because the salary and wage rates that YMV offers for its workers are much higher than the average income of the local area, which is one of the poorest suburban areas of Hanoi. Although Vietnamese workers are unskilled and are not good at following work disciplines, YMV considers them to be as diligent and quick in learning.

For staff in administration, sales, marketing and engineering YMV requires a relevant university degree and competence in a foreign language (English) and computing. Although YMV recruits directly for the majority of its positions, it also hires PricewaterhouseCoopers (a consultant company) to recruit to senior positions. Like many other foreign companies, the company has also faced difficulty in attracting competent candidates for senior positions. It is also difficult for YMV to recruit engineers, sometimes there is only one applicant for one job offered. In many cases because no qualified Vietnamese can be found YMV has to hire foreign expatriates or promote its existing staff on a job-share base. The highest position that a Vietnamese holds in YMV is marketing manager.

Training

The main training programme of YMV is in-house training and training abroad for its workers. In-house training is carried out in the form of on-the-job and learning-

by-doing training. Every six months, YMV sends five workers to work in the Yamaha factory in Japan. When a new line or model is launched, engineers are also sent to Japan. YMV does not provide any training for other staff nor support them to undertake training outside.

3.3.3 - Indirect Employment

YMV has indirectly created employment in its local suppliers, distributors and transporters. It has contributed to the human capital of these companies by providing various training courses in Vietnam and abroad to employees of these companies.

Supplier Network

Motorcycles produced by YMV have a local content ratio of 40%. To achieve that the company has a network of 24 local suppliers, among them four Vietnamese companies and twenty foreign invested companies, mainly originating from Japan and Taiwan. Normally one supplier has more than 100 workers, some suppliers have between 500 and 700 workers. The local content of YMV motorcycles is mainly parts and components as local suppliers are not capable of producing engines for motorcycles. The parts and components that YMV source locally are relatively less technology-intensive. Vietnamese suppliers provide rubber and plastic products, which do not require big investments or high-technology machinery, while foreign invested suppliers provide more technology-intensive products. The ratio of YMV's sales to those of the suppliers is 20-30%. Because the output of YMV is not large enough for a supplier to produce only for Yamaha, these companies also supply for other Motorcycle Assemblers in Vietnam, such as Honda, Suzuki and VMEP.

YMV tends to establish long-term relationships with its local suppliers. There are three criteria for the choice of supplier: quality, price and delivery. For quality, YMV carries out inspections to assess suppliers' technology levels and supports them in improving their technological levels. YMV also provides various training

programmes for the employees of its suppliers, including training and technical assistance by Japanese engineers from Yamaha Japan or from other suppliers of Yamaha Japan.

Distributors Network

YMV has a network of distributors, which includes 124 dealers with 103 shops in the North and 70 shops in the South. Unlike car distributors, motorcycle distributors sell motorcycles produced by YMV and by other companies, including imports, in the same outlet. There are two types of distributors. Simple distributors only sell motorcycles. These distributors normally are small shops with only a few staff. 3S distributors (Sales, Showroom and Service) sell motorcycles and provide repair and maintenance services. These distributors are big with more than one shop and have sales staff and technicians.

YMV has provided training for the employees of its distributors in different forms. Training is provided to dealers' owners on management skills and market information. YMV also organises study tours to dealers for dealers' owners. Under a global policy of Yamaha Japan, YMV has provided training in Customer Community Satisfaction (CCS) for the managers of its distributors. The CCS training emphasises communication skills and customer service. Other training in sales techniques and maintenance and repairing services is also provided to sales staff, technicians and other employees of dealers.

Transport Companies

YMV indirectly creates jobs in three transport companies, which transport parts, components and equipment from Hai Phong port to the factory, and transport motorcycles from the factory to dealers across the country. All of these companies are Japanese companies in Vietnam.

3.4 – Overview on Contribution to Employment and Human Capital of Three Foreign Companies

Table VII.12 summaries and compares the experience of the three FDI firms in generating employment and contributing to human capital. The three foreign companies in the automobile industry, FVL, TMV and YMV, have had some impact on employment and human capital in Vietnam. These companies have also created employment in their factories and offices, and pay relatively high salaries for their workers in comparison with other Vietnamese companies and even foreign companies in the same location. FVL for example claims that its workers receive the highest salary and wage rates among all foreign companies in Hai Duong Province. According to personnel staff of YMV the average salaries and wages that its workers receive are very high as compared with the average income of the local people, the poorest suburban of Hanoi. The experience of the three companies in recruiting provides a small-scale picture of the labour market in Vietnam. That is, it is easy to recruit unskilled workers and the number of applicants is always much larger than the number of jobs offered. Meanwhile it is difficult to find qualified candidates for positions that require skills and experience such as technicians, engineers and senior management. The quality of applicants also reflects the quality of the education system of Vietnam, i.e. most workers from technical vocational schools do not have the skills and up-to-date knowledge that are required; while university graduates have only theoretical knowledge. These companies have also created jobs in their local distributors and transporters. With the local sourcing strategy, TMV and YMV have created jobs in local suppliers while FVL does not have any local suppliers.

Table VII.12 – Impact on Employment and Human Capital of Three FDI Firms in the Automobile Industry

	FVL	TMV	YMV
Total Investment	US$ 102 mil.	US$ 49.1 mil.	US$ 24.2 mil.
Direct Employment			
No. of Workers	327	458	581
Technical training	√	√	√
Non-Technical Training	√	√	
Indirect Employment			
Form	Distributors	Suppliers and Distributors	Suppliers and Distributors
No. of Workers	App. 450	N/A	N/A
No. of Distributors	7	12	124
No. of Suppliers	0	10	24
Technical training	√	√	√
Non-Technical Training	√	√	√
Social activities that contribute to human capital		√	

All three companies have contributed to human capital in Vietnam, especially in the skilled labour force by providing training for both their employees and the employees of their local partners. All companies emphasise technical and non-technical training. The training portfolio of three companies shows the gap between the requirements of employers and the qualifications of employees. The skills that are largely in shortage among Vietnamese employees such as communicational skills and customer awareness are particularly emphasised. TMV however has focused more on activities that do not directly relate to its operations such as education support programmes for universities that have science, engineering and transportation subjects. These activities, which are the seeds of the future operation of the company in Vietnam, have contributed to the development of technology education in Vietnam.

4 – Conclusions

This chapter has studied the role of FDI in employment and human capital in Vietnam with a case study of three foreign firms in the automobile industry. The chapter finds that the FDI sector is important in creating jobs in Vietnam, where the

labour force is big and growing rapidly. Employment in the FDI sector has grown much faster than in the state and domestic private sectors. The FDI sector has created approximately 350 thousand jobs directly and 500 thousand jobs indirectly, accounting for 2.5% of total employment. The share of employment in the FDI sector is much higher in some sectors such as processing industries, and banking and finance and in some areas such as the South East, including Ho Chi Minh City and other surrounding provinces. Considering the abundant quantity of unskilled labour, especially in agriculture, the impact of the FDI sector in creating unskilled jobs has not been large, although two thirds of employment in the FDI sector is in unskilled-labour-intensive industries. These unskilled workers in labour-intensive industries tend to receive salaries and wages at around the minimum level set by the government. Meanwhile a small proportion of employees in the FDI sector, including skilled workers, employees in sales, marketing and management, especially in senior positions, receive high salaries and wages. Although the average salaries and wages of employees in the FDI sector are higher than the averages in other sectors, employees in the FDI sector work more hours in a day and more days in a month than employees in other sectors.

The role of the FDI sector in human capital in Vietnam has been influential and more important than its contribution to creating jobs and generating income. The FDI sector has contributed to human capital by providing formal technical and non-technical training to its direct and indirect employees. As the ratio of skilled workers in the labour force is low and technical vocational education seems unable to provide students with the skills and knowledge that is demanded, technical training provided by FDI firms has helped to improve the skill levels of Vietnamese workers. Non-technical training, including communication, teamwork and managerial skills, is particularly emphasised by FDI firms as these are regarded as the weakness of Vietnamese labour. Informal training, e.g. on-the-job and learning-by-doing, and the working environment

in FDI firms are also important in improving the skills of Vietnamese labour. These training programmes and the working environment of FDI firms have enabled their employees to acquire the knowledge required and to develop workers to become experienced and qualified professionals and entrepreneurs, both of which are essential for the market-oriented economy of Vietnam. The presence of FDI in Vietnam has not only established but also developed human resources of an international standard for some industries for which Vietnam did not have a capability. This includes sectors such as hotels and tourism, real estate management and consultative services, and finance and banking. The FDI sector also contributes to human capital in Vietnam by playing an important part in reintroducing the incentive system in the country. As FDI firms pay high salaries, salary differentials within firms are large and the competition and pressure within FDI firms are intense, employees of FDI firms have incentives to acquire skills and education in order to improve their performance.

Chapter VIII - Conclusion

This thesis contributes to the existing literature by studying the two-way relationship between economic growth and FDI, based on an empirical analysis of ASEAN countries. This chapter summarises the findings of the thesis. It also discusses policy implications, and the limitations of the thesis and offers suggestions for future research.

1 – Summary of the Thesis

The thesis starts with reviews of the literature about the location determinants of FDI and the impact of FDI on economic growth (Chapters II and III). These reviews find that the possibility of a two-way relationship between FDI and economic growth has neither been explored in the theoretical nor in the empirical literature. The literature about the impact of FDI on economic growth takes the amount and pattern of FDI as given, i.e. host countries' characteristics have no influence on FDI or on the growth impact of FDI. Meanwhile the literature about the location determinants of FDI implicitly assumes positive effects of FDI; and the main concern of this literature is to point out the factors in host countries that attract or deter FDI. The reviews also find that there are very few empirical studies about the main ASEAN countries, i.e. Indonesia, Malaysia, Singapore, Thailand and Vietnam, although these countries have been distinctive in their experience of promoting FDI and high economic growth.

This thesis contributes to the existing literature by: (1) developing a framework to study the nature and mechanism of the two-way relationship between FDI and economic growth, and the role of the trade regime and of human capital in this relationship; and (2) empirically testing hypotheses of the framework for the ASEAN countries. As the existing literature tends to consider FDI as a homogeneous

phenomenon, i.e. the impacts of all types of FDI, regardless of their characteristics, are simply considered as either 'good' or 'bad' for host countries, the thesis adopts a more disaggregated approach, i.e. analysing the relationship between different types of FDI e.g. labour-intensive FDI and export-oriented FDI, and the economic growth of developing countries.

1.1 – Theoretical Framework

This thesis contributes to the existing literature not only by putting forward an hypothesis about the possibility of a two-way relationship between FDI and economic growth but also by studying the potential channels through which FDI and economic growth are interrelated (Chapters IV and V). The theoretical framework of this thesis is built based on the Keynesian-Kaleckian approach with two main assumptions: 1) economic growth is demand-driven and productive-capacity-constrained and 2) the investment function is dependent on the marginal efficiency of investment. It hypothesises that there is a two-way relationship between FDI and economic growth: FDI could contribute to the economic growth of the host country by generating demand, i.e. boosting domestic consumption, domestic investment and exports, and by improving productive capacity of the country. High economic growth could attract FDI because it improves profitability and the confidence of investors. The theoretical framework suggests that the implementation of an Export-Oriented Regime (EOR) and the human capital of the host country play important parts in this two-way relationship between economic growth and FDI.

The objective of EOR is to vigorously encourage firms to produce for exports by offering various incentives and reducing trade barriers. The implementation of EOR could strengthen the two-way relationship between economic growth and FDI because it helps to induce more FDI, thus enhancing the contribution of FDI to economic growth. EOR helps to induce more FDI, especially export-oriented FDI, because it

influences cost factors positively and boosts the confidence of foreign investors by signalling the pro-growth and pro-business commitment of government. By encouraging FDI firms to export, EOR could enhance the positive impacts of FDI not only on exports but also on domestic consumption, domestic investment and productive capacity, and thus enhance the contribution of FDI to economic growth.

The human capital of the host country is a positive factor in the relationship between FDI and economic growth. Human capital could improve the contribution of FDI to economic growth, especially its contribution to productive capacity and to the shift toward technology-intensive and value-added production and exports. It could enhance the attractiveness of the country due to high economic growth and could help the country to attract *FDI* that could promote higher economic growth.

In brief, the implementation of EOR strengthens the two-way relationship between economic growth and FDI while human capital facilitates and enhances the sustainability of this relationship. When EOR is not implemented, even if the country has a high level of human capital, its small domestic market constrains the contribution of FDI to growth and the amount of FDI that it could attract. The implementation of EOR thus strengthens this relationship. Nevertheless, if human capital of the host country is low, FDI's contribution to growth could be decreasing and the country might find it difficult to attract FDI other than of the unskilled-labour-intensive kind. In this case, the growth dynamic becomes weak as the country relies too much on the world market for its unskilled-labour-intensive exports and domestic demand remains low. The relationship between economic growth and FDI becomes unsustainable.

1.2 – Empirical Work

The empirical work of this thesis tests the hypotheses put forward by the theoretical framework. It is comprised of two parts: the first part is an econometric analysis for four ASEAN countries - Indonesia, Malaysia, Singapore and Thailand

during 1975-1995 (Chapters IV and V); the second part is a qualitative study for Vietnam during 1988-2000 (Chapter VI and VII).

Econometric Analysis

The econometric analysis of this thesis is carried out by the estimation of a simultaneous-equation system with fixed-effects panel data. Another contribution of this thesis is that it develops a procedure to estimate a simultaneous-equation system with panel data. With this technique, the study can examine the existence as well as the mechanism of the two-way relationship between FDI and economic growth, with the richness of panel data. Overall empirical results are consistent with the hypotheses. Below are the main findings of the econometric analysis:

- In four ASEAN countries - Indonesia, Malaysia, Singapore and Thailand during 1975-1995 there was a two-way relationship between FDI and high economic growth: FDI was an important growth-enhancing factor and high economic growth was a positive determinant of FDI. FDI contributes to economic growth in the ASEAN countries mainly through its impact on exports and technological progress. Besides the growth of FDI stock, the growth of domestic consumption and the implementation of EOR are other key determinants of economic growth. The growth and size of the domestic economy and the implementation of EOR affect FDI positively while the existing stock of FDI in the host country is negatively related to FDI.
- The two-way relationship between FDI and high economic growth in the ASEAN countries was conditional upon the implementation of EOR: without controlling for a variable representing EOR the relationship between economic growth and FDI became insignificant. Also during 1975-1985 when EOR was not implemented in the ASEAN countries, the relationship between economic growth and FDI was insignificant. This relationship became significant during 1986-1995 when EOR was implemented.

- Human capital was a positive and facilitating factor in the two-way relationship between economic growth and FDI in the ASEAN countries during 1975-1995. More specifically, public spending on education and labour productivity, are found to exert a positive impact on technological progress and the shift toward higher value-added production and exports made possible by FDI, and thus on the contribution of FDI to economic growth. Education attainment, weighted by educational-related earnings, is a positive factor determining FDI.

Qualitative Study

The qualitative study of this thesis is based on a country visit to Vietnam in Summer 2002, which included factory visits, interviews with government officials, consultants, investment experts and managers of foreign and Vietnamese firms. As Vietnam changed from a centrally-planned economy to a market economy in 1986, the available data are not enough for an econometric analysis and therefore a qualitative approach is more suitable for this study.

This thesis finds that in the 1990s FDI and high economic growth in Vietnam were interdependent and the trade regime, including protection and EOR, played an important role in this relationship. However, inadequate human capital and underdevelopment of the domestic private sector made this relationship unsustainable in the late 1990s. High economic growth in Vietnam in the 1990s played an important role in attracting FDI into the country because i) it demonstrated a growing domestic market and thus a higher rates of growth of expected sales for products of FDI firms and ii) it was achieved by improvements in infrastructure, which is a positive determinant in attracting FDI. FDI has contributed to high growth rates in the Vietnamese economy by generating domestic consumption, promoting domestic investment, and increasing exports, especially oil-based and labour-intensive exports; and by contributing to the productive capacity of Vietnam.

The thesis conducts a further analysis of the role of FDI in employment and human capital in Vietnam with a case study of three foreign firms in the automobile industry. It finds that the FDI sector is important in creating jobs in Vietnam, especially in some sectors such as processing industry and in some areas such as the South East. A more influential impact of FDI on economic growth is via its contribution to human capital in Vietnam. As Vietnam has a serious shortage of skilled labour and inadequate stocks of human capital in general, which have seriously hindered economic growth, the impact of FDI in Vietnam is considerable. FDI contributes to human capital in Vietnam by i) providing formal and informal training, ii) participating in the creation of a new generation of entrepreneurs and professionals, and iii) encouraging labour to learn by participating in the reintroduction of the incentive system in the country.

2 – Policy Implications

The thesis has come to some important policy implications. By pointing out the possibility of a two-way relationship between economic growth and FDI, it suggests that a host country can do more than just provide incentives to attract FDI. By implementing EOR and improving human capital, it can induce FDI and make FDI contribute to the growth of its economy. Although the success of the ASEAN countries, especially Singapore and Malaysia, is crucially dependent upon external factors, such as the growth of world FDI, and the time that these countries started their pro-FDI strategy, i.e. in the 1970s and 1980s, when most other developing countries were not welcoming inward FDI, the internal efforts are of paramount importance. Our findings are in line with the notion of Kravis (1970) that the mainspring for growth is internal. The ASEAN governments, especially Singapore, Malaysia and more recently Thailand, have shown strong determination and effort in boosting economic growth via promoting exports, attracting FDI, and improving human capital.

There are however some concerns with the policy implications of this framework not only within the ASEAN countries but potentially in other developing countries. For the ASEAN countries, although exports of these countries are dominated by the FDI sector, especially in some key industries such as textiles and electronics, such exports have low linkages with the domestic sector and have high levels of import content. On one hand, this could be attributed to the global production strategies of multinational corporations, in which FDI in each country represents a particular stage of the production chain. On the other hand, this could be attributed to the lack of reliable domestic suppliers. At least two concerns arise from this situation. *First*, as Kalecki (1976) has pointed out, there are dangers for a country that depends to such a degree on foreign firms, which may at any time take decisions affecting the whole future of the recipient country, e.g. reduce output in one country in order to produce in another country. This happened to the ASEAN countries, especially Malaysia and Singapore in the 1990s, when these countries faced tight labour markets and rising wages. The rise of some other low-cost competitors in the region such as China and Vietnam worsened the situation. *Second* is the problem of dualism, i.e. the coexistence of the foreign sector, which is technologically advanced and export-oriented, and the domestic sector, which is underdeveloped and domestic-oriented. Our results show that domestic investment plays an insignificant role in the export-led growth of the ASEAN countries. This could lead to low domestic demand and investment, which is perilous for long-term growth. This has been recognised by the ASEAN governments. Singapore and Malaysia have already embarked on some extensive programmes to promote domestic investment and indigenous productive capacity in order to shift towards more value-added, technology-intensive production and to promote local supply for FDI firms.

As for Vietnam, although efforts have been made, this country needs to pay more attention to developing its human capital and the private sector in order to attract more FDI and to benefit more from FDI. The low level of human capital has become an obstacle to Vietnam's prospects for more FDI and higher growth. Additionally, the FDI sector has created an internal 'brain-drain' in Vietnam, in which the most dynamic and qualified workers choose to work for FDI firms rather than domestic firms. As the labour market of Vietnam has a serious shortage of skilled workers, this makes the domestic sector less efficient than the FDI sector in terms of capital, technology and also human resources. The lack of skilled labour in Vietnam also prevents the country from attracting more FDI, especially in technology-intensive and value-added industries. Meanwhile the contribution of the FDI sector to human capital in Vietnam results mainly from the needs of the FDI firms, rather than from the encouragement and cooperation of the government. The experience of Singapore and Malaysia could provide Vietnam with some valuable lessons, especially in encouraging foreign firms to participate in national education and training programmes. Both countries have been successful in developing demand-based training systems with large contributions from foreign firms. To improve the skill and education level of the labour force, the Vietnamese government not only needs to develop an education and training strategy that links the demand of employers with education and training but also a programme to encourage FDI firms to participate in education and training.

3 – Limitations and Suggestions for Future Research

3.1 – Limitations of the Thesis

There are some limitations in the empirical work of this chapter. *First*, although the empirical work suggests that there is a two-way relationship between high economic growth and FDI, such that economic growth boosts FDi and, in turn, FDi

boosts economic growth, we do not have enough evidence about the channels through which economic growth influences FDI, i.e. whether high economic growth is a positive determinant of FDI by enhancing profitability or the confidence of investors or both. *Second*, though the study attempts to use different indicators of human capital, each indicator represents only one aspect of human capital such as accumulation of human capital through education, or labour productivity. Some other forms of human capital such as health and nutrition that could be associated with growth and FDI are ignored due to lack of reliable data. The results could be more meaningful if a more inclusive index that considers various aspects of human capital was built and used. *Third*, the thesis does not have enough data to analyse the impact of the country-specific social and economic environment on the relationship between FDI and growth, though presumably this is important for the process of economic growth.

3.2 – Suggestions for Future Research

The theoretical framework and empirical study of this thesis provides some suggestions for future research. *First*, further research is called for to empirically estimate the channels through which FDI and economic growth are interrelated. The impact on the relationship between economic growth and FDI of such variables as different aspects of human capital or country-specific characteristics also deserve more discussion. *Second*, as the sample of the study ends in 1995 due to lack of available data, the impact of the 1997 Asian financial crisis on the relationship between FDI and economic growth is unaccounted for. It will be interesting to conduct further research about this period because a considerable proportion of FDI after 1997 to the ASEAN countries is in the form of merger and acquisition, which have different characteristics as compared with FDI before 1997. *Third*, research about the relationship between FDI and economic growth could be enriched substantially by micro-studies, looking into the impact of FDI on economic growth via its impact on domestic firms' operations. Little

effort has gone into exploring this area for the ASEAN countries in particular and for developing countries in general.

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Glossary

ASEAN: The Association of South East Asian Nations.

ASEAN countries: ASEAN countries are the members of ASEAN. This thesis considers only five members of the ASEAN: Indonesia, Malaysia, Singapore, Thailand and Vietnam.

Centrally Planned Economy: A Centrally Planned Economy is one where economic decisions are taken by the central authority.

Developing Countries: Developing countries used in this thesis are countries that are ranked as low-income and middle-income countries in the World Development Reports published by the World Bank.

Developed countries: Developed countries are the industrial market economies of the western world, including Japan.

Economic Growth: Economic growth is increase in output of a country. The popular proxies for economic growth are the growth rates of its GDP, GDP per capita, GNP and GNP per capita.

Export-Oriented Regime: Export-Oriented Regime is the trade policy that encourages exports by offering various incentives and policy measures

Import-Substitution Regime: Import-Substitution Regime is the trade policy that encourages domestic production to replace imported goods by offering various incentives for domestic production and restrictions to imports.

EU: The European Union

Foreign Direct Investment (FDI): FDI is defined as investment that is made to acquire a lasting interest (usually 10% of the voting stock) in an enterprise operating in a country other than that of the investor and the investor's purpose being an effective voice in the management of the enterprise (UNCTAD, 1995).

Inward FDI: Inward FDI is FDI made by foreign investors into a country. It is different from outward FDI, which is FDI made abroad by investors of a country. In this thesis, FDI is used as inward FDI.

FDI Inflow: FDI inflow refers to the flow of FDI into a country within a period of time, normally a year.

FDI Stock: FDI stock is the stock of FDI that is accumulated in a country through a period of time.

FDI firms: FDI firms are firms that have FDI in their capital.

Gross Domestic Product (GDP): GDP is the total monetary value of all final goods and services produced within a nation in one year.

Gross National Product (GNP): GNP is the total monetary value of all final goods and services produced by domestically owned factors of production in one year plus net property income from abroad.

Human Capital: Human capital is the skills, knowledge and physical capability that contribute to workers' productivity.

IMF: The International Monetary Fund

Market Economy: A market economy is one where economic decisions are influenced by the market forces of supply and demand.

Monopoly: Monopoly is an industry structure characterised by a single firm selling a product for which there are no close substitutes and with substantial barriers to entry.

Oligopoly: Oligopoly is an industry structure characterised by a few relatively large sellers and substantial barriers to entry.

State-Owned Enterprises (SOEs): These are enterprises that receive subsidies from and operate under the guidance of the state.

Open economy: An open economy is the one that exchanges goods and services with other countries.

Productive Capacity: Productive capacity is the capacity of a country to produce certain products, which include technology, human capital, infrastructure and other factors of production.

Productivity of labour: Productivity of labour is the amount of output an average worker is able to produce in a period of time, usually a year.

Technology: Technology is the state of knowledge about production and distribution.

WB: The World Bank

WTO: The World Trade Organisation

APPENDIX CHAPTER I

APPENDIX I.1 – Annual Average Growth of Real GDP per capita of 77 Developing Countries

	Annual Average Growth (1960-1995)	Annual Average Growth (1980-1995)
Algeria	1.13	-1.09
Angola	-1.68	-2.11
Benin	0.06	-0.21
Botswana	4.84	3.41
Burkina Faso	0.66	0.78
Burundi	0.92	-1.13
Cameroon	0.16	-1.65
Cape Verde	3.22	4.54
Central Afri Rep.	-1.92	-3.58
Chad	-0.89	-4.34
Comoros	-0.56	-2.08
Congo	1.53	1.20
Cote Divoire	0.28	-3.88
Egypt	2.45	1.84
Ethiopia	0.12	-1.05
Gabon	2.83	-1.07
Gambia	-0.27	-3.04
Ghana	-0.42	-0.35
Guinea	-0.17	0.25
Guinea-Bissau	0.93	0.73
Guyana	0.40	-0.60
Kenya	1.08	-0.09
Lesotho	2.84	-0.36
Madagascar	-1.60	-2.75
Malawi	0.67	-0.97
Mali	-0.41	-1.31
Mauritania	0.61	-2.72
Mauritius	3.18	3.34
Morrocco	2.94	0.83
Mozambique	-2.17	-4.14
Nigeria	8.26	-1.46
Niger	-1.74	-2.60
Rwanda	-0.14	-1.23
Senegal	-0.75	-0.85
Seychelles	3.26	1.52
Syria	2.94	2.37
Tanzania	0.42	-2.44
Togo	-0.25	-2.68
Uganda	1.26	4.15
Zambia	-1.96	-3.00
Argentina	0.93	-0.07
Bolivia	0.32	-1.33
Brazil	2.98	0.69
Chile	2.24	3.00
Colombia	2.33	1.79

Costa Rica	1.16	-0.45
Dominican Rep	2.44	1.34
Ecuador	1.63	-0.94
El Salvdor	0.86	-0.19
Guatemala	1.27	-0.21
Honduras	3.25	-0.63
Jamaica	1.14	0.81
Mexico	1.77	0.02
Nicaragoa	-1.02	-2.23
Panama	2.46	1.32
Paraguya	2.72	2.02
Peru	1.03	-0.36
Trinidad & Tobago	2.11	-0.96
Uruguya	1.11	0.83
Venezuela	0.45	-1.25
Bangladesh	8.33	2.32
Hong Kong	6.06	5.03
India	2.33	3.64
Indonesia	4.35	5.09
Jordan	1.49	0.08
Korea	6.38	6.36
Malaysia	4.07	4.25
Pakistan	2.36	2.48
Papua New Ghinea	0.93	-0.56
Philippines	1.23	-0.23
Singapore	6.78	5.44
Sri Lanka	2.24	3.29
Taiwan	6.62	6.08
Thailand	5.17	5.70
Turkey	2.48	1.72
China		6.17
Average	1.65	0.49

Source: Pen World Data. Annual average growth of real GDP per capita is calculated from real per capita GDP chain method (at 1996 prices).

APPENDIX CHAPTER IV

APPENDIX IV.1: Growth of Real GDP per capita of Developing Countries (1960-1995)

Africa	Annual Average	Stand. Devi.	*Latin America*	Annual Average	Stand. Devi.	*Asia*	Annual Average	Stand. Devi.
Algeria	1.10	10.13	Argentina	0.92	6.52	Hong Kong	5.93	4.39
Angola	-1.51	12.39	Bolivia	0.31	3.95	India	2.46	3.42
Benin	0.10	3.91	Brazil	2.97	4.21	Indonesia	4.45	4.03
Botswana	4.73	6.45	Chile	2.33	6.89	Jordan	1.40	7.93
Burkina Faso	0.69	4.52	Colombia	2.29	2.11	Korea	6.36	3.64
Burundi	0.45	8.32	Costa Rica	1.02	4.35	Malaysia	4.06	3.90
Cameroon	0.23	7.63	Dominican Rep	2.54	6.89	Pakistan	2.39	3.67
Cape Verde	3.04	8.14	Ecuador	1.54	4.38	Papua New Guinea	0.84	4.20
Central Afr. Rep.	-2.52	7.05	El Salvador	0.81	4.79	Philippines	1.29	3.72
Chad	-0.81	12.79	Guatemala	1.22	2.34	Singapore	6.91	3.73
Congo	1.51	6.21	Honduras	3.19	14.81	Sri Lanka	2.28	3.40
Comoros	-0.56	8.19	Jamaica	1.13	5.23	Taiwan	6.58	2.61
Cote D'Ivoire	0.22	6.75	Mexico	1.76	4.19	Thailand	5.15	3.56
Egypt	2.44	3.33	Panama	2.42	5.33	Turkey	2.56	4.10
Ethiopia	0.11	5.66	Paraguay	2.63	4.64			
Gabon	2.76	9.32	Peru	0.98	6.70			
Gambia	-0.30	6.18	Trinidad & Tobago	2.11	6.91			
Ghana	-0.41	5.34	Uruguay	1.21	5.34			
Guinea	-0.17	3.92	Venezuela	0.28	5.45			
Guinea-Bissau	0.93	9.24						
Kenya	1.06	6.15						
Lesotho	2.83	5.28						
Madagascar	-1.60	3.38						
Malawi	0.66	7.16						
Mali	-0.41	5.84						
Mauritania	0.54	10.51						
Mauritius	3.18	7.11						
Morocco	3.12	5.72						
Mozambique	-2.01	7.33						
Niger	-1.74	8.68						
Rwanda	-0.14	8.66						
Senegal	-0.75	3.68						
Syria	2.94	12.36						
Tanzania	0.42	9.75						
Togo	-0.14	9.40						
Uganda	1.26	8.07						
Zambia	-1.88	6.48						

Source: compiled from Pen World Table

APPENDIX IV.2: Data Sources and Compilation

The major sources of data are *World Development Indicators CD-ROM 2000* (World Bank, 2000), *International Financial Statistics* (IMF, various issues) and *Key Indicators of Developing Asian and Pacific Countries* (ADB, various issues). Data on human capital is from Bosworth and Collins (1996).

Variables expressed in monetary units are in real terms of US dollars at 1990 prices. Data is converted into 1990 prices on the basis of the US GDP deflator index (1990=100). Per capita series are calculated by dividing the main series by the population of the corresponding year. All variables are used in either natural logarithm form (ln) or growth form (Δln), i.e. first difference of series in logarithm.

1. **GDPPC:** Real GDP per capita, which equals to GDP in US dollars at 1990 prices divided by total population of the corresponding year. Unit: US dollars.
2. **Economic Growth:** Growth of real GDP per capita. Unit: %.
3. **FDI*Stock*:** Stock of inward FDI, which is accumulated from the annual FDI inflows in US dollars at 1990 prices. Annual FDI inflows in US dollars are converted into real term with US GDP deflator. Minor variations are found when our data at current prices is compared with data from *World Investment Reports*, which is available for 5-year interval and *The IRM Directory of Statistics of International Investment and Production* by Dunning and Cantwell (1987). Unit: million US dollars.
4. **FDI Stock Growth:** Growth of real stock of FDI. Unit: %.
5. **Invest/GDP:** Gross Domestic Investment as percentage of GDP. Unit: %.
6. **ConsPC:** Real private consumption per capita, which equals real private consumptions in US dollars at 1990 prices divided by total population of the corresponding year. Unit: US dollars.
7. **Export:** Real exports of goods and services at US dollars at 1990 prices. Unit: million US dollars.
8. **Export/GDP:** Exports of goods and services as percentage of GDP. Unit: %.
9. **Open:** Sum of Exports and Imports as percentage of GDP. Unit: %.
10. **OECD:** Sum of real GDP of 22 high-income OECD countries, including Australia, Austria, Belgium, Canada, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, and United States, in US dollars at 1990 prices. Unit: million US$.
11. **Labour:** Labour force. Unit: million people.
12. **Hcapital:** Index of human quality from B. Bosworth and S. Collin (1996). Unit: index.
13. **EduSpend:** Real public spending on education per capita, which equals to real public spending on education divided by total population of the corresponding year. Total education spending is derived from public spending on education as percentage of GDP and real GDP in US dollars at 1990 prices. Unit: US dollars.
14. **MVA:** Real manufacturing value added in US dollars at 1990 prices. Unit: million US dollars.
15. **MVAPW:** Real manufacturing value added per worker, which equals to manufacturing value added in US dollars at 1990 prices divided by total number of workers in manufacturing industries. Unit: US dollars.

APPENDIX IV.3 - Structure of Four ASEAN Economies (1976-1995)

Indonesia	Agriculture/GDP (%)	Manufacturing/GDP (%)	Industry/GDP (%)	Service/GDP (%)
1976	31.11	9.39	34.22	31.12
1977	31.06	9.55	34.43	31.31
1978	29.48	10.63	35.77	31.79
1979	28.09	10.33	38.18	31.11
1980	24.84	11.63	43.37	29.59
1981	23.56	12.15	41.42	31.40
1982	24.10	11.97	38.00	34.14
1983	22.88	12.74	39.82	33.42
1984	22.71	14.58	39.11	34.02
1985	23.21	15.98	35.84	36.81
1986	24.22	16.73	33.74	37.83
1987	23.32	16.94	36.25	36.49
1988	22.48	19.69	37.26	36.13
1989	21.65	19.73	38.34	36.26
1990	19.41	20.66	39.11	37.89
1991	18.25	21.35	40.40	38.00
1992	18.67	21.96	39.64	38.33
1993	17.87	22.30	39.68	39.13
1994	17.28	23.34	40.64	38.84
1995	17.13	24.13	41.80	37.95

Malaysia	Agriculture/GDP (%)	Manufacturing/GDP (%)	Industry/GDP (%)	Service/GDP (%)
1976	1.75	24.49	34.93	63.12
1977	1.76	24.82	34.40	63.82
1978	1.53	25.66	34.11	64.34
1979	1.43	27.78	36.07	62.48
1980	1.28	29.14	38.11	60.60
1981	1.21	28.49	37.85	60.92
1982	1.06	24.95	36.81	62.11
1983	1.23	23.98	37.83	48.81
1984	1.12	24.30	39.03	47.97
1985	0.98	23.29	36.31	50.19
1986	0.76	25.52	36.78	48.49
1987	0.59	27.14	36.35	48.88
1988	0.45	28.78	36.83	48.42
1989	0.38	27.98	35.32	49.05
1990	0.35	27.09	34.51	51.25
1991	0.28	27.06	35.34	51.46
1992	0.22	25.22	34.55	51.78
1993	0.20	24.82	33.77	53.46
1994	0.20	24.00	32.85	54.67
1995	0.17	24.80	33.52	54.29

Singapore	Agriculture/GDP (%)	Manufacturing/GDP (%)	Industry/GDP (%)	Service/GDP (%)
1976	26.68	19.67	27.62	34.87
1977	24.77	20.17	29.33	34.71
1978	24.50	20.00	29.56	34.64
1979	24.00	21.04	30.34	33.76
1980	23.23	21.51	28.67	30.61
1981	21.35	22.63	30.09	30.96
1982	18.54	21.32	29.50	33.44
1983	20.06	22.13	30.58	30.89
1984	17.57	22.90	31.97	32.25
1985	15.80	21.92	31.84	33.68
1986	15.66	23.87	33.08	32.28
1987	15.73	24.25	33.34	32.70
1988	16.17	25.83	34.57	32.41
1989	15.07	26.74	36.25	32.15
1990	12.49	27.20	37.22	33.88
1991	12.64	28.24	38.65	32.91
1992	12.29	27.51	38.05	34.25
1993	10.40	28.14	38.89	35.28
1994	10.79	27.99	39.03	35.17
1995	11.18	28.35	39.16	34.50

Thailand	Agriculture/GDP (%)	Manufacturing/GDP (%)	Industry/GDP (%)	Service/GDP (%)
1976	N/A	N/A	N/A	N/A
1977	N/A	N/A	N/A	N/A
1978	N/A	N/A	N/A	N/A
1979	N/A	N/A	N/A	N/A
1980	N/A	N/A	N/A	N/A
1981	22.44	19.23	34.66	34.78
1982	22.58	19.17	34.90	35.00
1983	21.09	19.46	36.27	35.29
1984	20.13	20.28	37.51	35.53
1985	20.76	19.72	36.61	36.43
1986	21.38	20.97	37.84	35.49
1987	19.96	19.80	38.52	35.86
1988	20.07	21.82	38.35	35.44
1989	18.08	23.80	39.80	37.65
1990	15.21	24.22	42.19	37.83
1991	14.35	25.54	42.10	38.33
1992	14.57	25.82	41.14	39.04
1993	13.78	25.92	40.08	41.34
1994	13.66	26.64	40.04	41.28
1995	12.94	26.37	41.40	41.18

Source: ADB (various issues)

APPENDIX IV.4 - Share of Manufacturing Export/Import in Merchandise Export/Import in ASEAN Economies (1975-1995)

Indonesia	Manufacturing Exports (% of Total Merchandise Exports)	Manufacturing Imports (% of Total Merchandise Imports)	*Malaysia*	Manufacturing Exports (% of Total Merchandise Exports)	Manufacturing Imports (% of Total Merchandise Imports)
1980	N/A	N/A	1980	19	67
1981	3	69	1981	20	64
1982	4	66	1982	23	68
1983	7	62	1983	25	70
1984	10	67	1984	27	74
1985	13	72	1985	27	72
1986	19	74	1986	37	75
1987	25	75	1987	39	76
1988	30	75	1988	44	78
1989	32	75	1989	49	79
1990	35	77	1990	54	82
1991	41	76	1991	61	84
1992	48	76	1992	64	84
1993	53	76	1993	70	84
1994	52	75	1994	74	86
1995	51	73	1995	75	86
1996	51	71	1996	76	85
1997	42	73	1997	77	85
1998	45	69	1998	79	85
Singapore	Manufacturing Exports (% of Total Merchandise Exports)	Manufacturing Imports (% of Total Merchandise Imports)	*Thailand*	Manufacturing Exports (% of Total Merchandise Exports)	Manufacturing Imports (% of Total Merchandise Imports)
1980	47	54	1980	25	51
1981	48	52	1981	26	54
1982	48	53	1982	26	52
1983	49	55	1983	31	60
1984	50	56	1984	33	60
1985	51	55	1985	38	60
1986	59	65	1986	44	66
1987	66	68	1987	52	68
1988	70	71	1988	54	73
1989	72	73	1989	56	72
1990	72	73	1990	63	75
1991	73	75	1991	66	75
1992	77	76	1992	67	76
1993	78	79	1993	71	78
1994	82	82	1994	72	80
1995	84	83	1995	73	81
1996	84	83	1996	71	78
1997	84	82	1997	71	78
1998	86	84	1998	N/A	N/A

Source: complied from World Bank (2000)

APPENDIX IV.5 - Real Export and Real Stock of FDI in ASEAN Economies (1975-1995)

Indonesia	Export	FDI Stock	*Malaysia*	*Export*	FDI Stock
1975	17949.77	2341.603	1975	9864.651	3709.194
1976	21110.07	3094.776	1976	12549.23	4543.549
1977	24689.94	3577.938	1977	13548.46	5377.019
1978	23697.14	4109.557	1978	15284.95	6329.4
1979	29452.8	4504.662	1979	20774.48	7332.022
1980	42594.25	4792.202	1980	22511.18	8823.875
1981	39033.43	4985.516	1981	19021.8	10662.1
1982	32740.44	5292.893	1982	18628.42	12570.85
1983	29552.36	5675.092	1983	20183.25	14220.71
1984	29023.78	5952.939	1984	23055.07	15218.84
1985	24160.24	6326.433	1985	20639.76	16055.82
1986	18919.11	6628.895	1986	18304.81	16628.98
1987	21407.74	7067.392	1987	22980.64	17110.41
1988	24022	7701.055	1988	25807.48	17901.83
1989	26689.01	8415.191	1989	29050.26	19648.32
1990	29912	9508.191	1990	32664	21981.32
1991	32569.23	10933.19	1991	36621.15	25825.56
1992	37525.72	12595.49	1992	41919.55	30674.01
1993	38536.01	14422.29	1993	47993.62	35237.37
1994	41455.44	16301.97	1994	59016.04	39107.06
1995	46168.4	20076.28	1995	72337.67	42693.44
Singapore	Export	FDI Stock	*Thailand*	Export	FDI Stock
1975	19247.21	4111.299	1975	6356.279	1214.223
1976	20540.92	4682.556	1976	7519.256	1387.308
1977	23061.6	6144.147	1977	8102.875	1605.173
1978	26243.81	8118.268	1978	9094.857	1711.268
1979	32601.4	10531.06	1979	10805.07	1807.946
1980	40317.89	12719.31	1980	12461.66	2111.301
1981	42683.14	14203.47	1981	12078.49	2533.685
1982	41512.3	15832.88	1982	11455.87	2794.477
1983	40612.57	17094.09	1983	10540.71	3252.069
1984	39858.57	19099.13	1984	11457.32	3753.946
1985	35818.07	22329.43	1985	10879.76	3950.573
1986	34906.21	26350.11	1986	12934.35	4258.31
1987	43064.92	29372.73	1987	16630.98	4659.107
1988	57369.64	34947.43	1988	22396.04	5875.169
1989	62941.36	39646.56	1989	26419.9	7734.331
1990	73999	41708.58	1990	29130	10178.33
1991	79528.85	45980.5	1991	33970.19	12114.87
1992	84859.68	53601	1992	38547.24	14091.48
1993	95223.34	59856.47	1993	43163.17	15735.97
1994	107816.4	66548.66	1994	49909.98	16953.44
1995	128706.6	74633.43	1995	60929.69	18748.58

Source: Data in US$ in 1990 prices, compiled from World Bank (2000)

APPENDIX IV.6 - Correlation between Real Export and Real Stock of FDI in ASEAN Countries (1975-1995)

Countries	Correlation (1975-1995)	Correlation (1975-1985)	Correlation (1986-1995)
Indonesia	0.668	0.491	0.971
Malaysia	0.960	0.781	0.979
Singapore	0.975	0.835	0.989
Thailand	0.986	0.651	0.978

Source: Data in US$ in 1990 prices, complied from World Bank (2000)

APPENDIX IV.7: Correlation Matrix of Variables

1. Correlation Matrix of Variables of Growth Equation

	Δln(FDI*Stock*)	Δln(GDPPC)	ln(GDI/GDP)	Δln(ConsPC)	ln(Open)	ln(Export/GDP)	Δln(Labour)
Δln(FDI*Stock*)	1	0.19	0.14	0.19	0.11	0.10	0.06
Δln(GDPPC)		1	0.28	0.62	0.17	0.16	-0.06
ln(GDI/GDP)			1	0.18	0.72	0.69	0.02
Δln(ConsPC)				1	0.15	0.15	-0.21
ln(Open)					1	0.99	0.12
ln(Export/GDP)						1	0.11
Δln(Labour)							1

2. Correlation Matrix of Variables of FDI Equation

	Δln(FDI*Stock*)	Δln(GDPPC)	ln(FDI*Stock*$_{-1}$)	ln(GDPPC$_{-1}$)	ln(Export$_{-1}$)	ln(Open)	ln(OECD$_{-1}$)
Δln(FDI*Stock*)	1	0.19	-0.24	0.03	-0.05	0.11	-0.11
Δln(GDPPC)		1	0.16	0.17	0.21	0.17	0.42
ln(FDI*Stock*$_{-1}$)			1	0.60	0.83	0.56	0.73
ln(GDPPC$_{-1}$)				1	0.55	0.96	0.23
ln(Export$_{-1}$)					1	0.57	0.66
ln(Open)						1	0.16
ln(OECD$_{-1}$)							1

APPENDIX IV.8: Sources of Growth in Four ASEAN Countries (1960-1994)

Country and period	Growth of output per worker	Contribution by component		
		Physical capital per worker	Education per worker	Total factor productivity
Indonesia				
1960-1994	3.4	2.1	0.5	0.8
1973-1984	4.3	3.3	0.5	0.5
1984-1994	3.7	2.3	0.5	0.9
Malaysia				
1960-1994	3.8	2.3	0.5	0.9
1973-1984	3.6	2.7	0.5	0.4
1984-1994	3.8	1.8	0.5	1.4
Singapore				
1960-1994	5.4	3.4	0.4	1.5
1973-1984	4.3	3.1	0.2	1.0
1984-1994	6.0	2.3	0.6	3.1
Thailand				
1960-1994	5.0	2.7	0.4	1.8
1973-1984	3.6	2.0	0.5	1.1
1984-1994	6.9	2.6	0.8	3.3

Source: Collins and Bosworth (1996), Table 6

APPENDIX CHAPTER V

APPENDIX V.1: Real Value Added per Worker in the Manufacturing Sector in the ASEAN Countries (1975-1997)

	Indonesia	Malaysia	Singapore	Thailand
1975	2,485.667	8,496.678	14,434.61	4,763.154
1976	2,246.969	7,190.098	13,584.51	6,388.923
1977	2,508.422	7,816.812	13,626.65	6,165.108
1978	3,147.105	8,891.085	14,143.74	6,191.507
1979	2,055.604	10,160.38	15,540.48	5,836.931
1980	3,458.74	10,779.02	16,838.24	6,214.406
1981	3,439.543	9,228.085	16,435.63	6,582.584
1982	2,566.183	8,185.839	14,458.11	5,310.444
1983	2,668.304	8,672.517	15,855.75	6,294.157
1984	2,874.438	8,937.081	16,629.98	6,034.545
1985	2,901.877	8,132.46	16,016.81	4,970.535
1986	2,801.805	6,988.929	17,896.6	5,830.501
1987	2,518.693	7,347.406	19,210.66	5,726.061
1988	3,208.608	8,214.378	21,900.9	7,122.776
1989	2,858.417	7,460.576	22,604.58	7,305.65
1990	3,073.313	8,259.565	22,400.9	7,410.469
1991	3,311.899	8,691.13	26,019.68	7,698.413
1992	3,462.029	9,569.138	26,774.67	7,969.286
1993	3,657.412	9,977.634	30,530.39	8,111.217
1994	3,395.458	10,545.86	35,437.82	9,359.33
1995	4,181.359	13,522.16	44,447.02	9,393.127
1996	4,589.541	15,108.76	45,629.23	10,599.85
1997	4,291.638	11,848.68	44,236.49	9,021.296

Source: At constant 1990 prices in US$. Calculated by the author from World Bank (2000) and ADB (various issues).

APPENDIX V.2: Public Spending on Education in ASEAN Countries (1970-1997)

	Spending as % of GDP				Spending per capita at 1990 US$			
	Indonesia	Malaysia	Singapore	Thailand	Indonesia	Malaysia	Singapore	Thailand
1970	2.35	3.70	2.99	2.34	6.32	46.91	99.213	15.2
1971	2.23	4.34	2.73	2.45	5.69	53.81	99.99	15.2
1972	2.20	4.35	2.72	2.44	6.15	59.5	121.6	15.6
1973	2.19	4.31	2.67	2.44	8.32	82.33	158.17	18.8
1974	2.17	4.27	2.65	2.45	11.7	90.66	175.88	21.4
1975	2.07	4.96	2.52	2.56	11.71	91.44	163.63	21.5
1976	1.06	5.07	2.47	2.60	6.76	102.2	154.4	22.8
1977	1.06	5.07	2.45	2.60	7.59	111.4	156.4	24.3
1978	1.06	5.03	2.48	2.59	7.71	119.4	170.84	26.6
1979	1.03	5.03	2.47	2.58	6.86	138.9	183.99	27.1
1980	1.03	4.83	2.34	2.39	8.71	137.3	192.06	26.5
1981	1.04	5.48	2.42	2.82	9.29	141.3	210.99	30
1982	1.02	5.55	3.01	2.92	8.63	140.5	265.42	30.1
1983	1.03	5.17	3.09	3.05	7.37	137.5	292.44	32.3
1984	1.02	4.62	3.17	3.09	6.97	128.7	305.52	32.2
1985	1.02	5.24	3.56	3.20	6.61	125.7	306.18	29.4
1986	1.02	6.11	3.28	3.16	5.80	123.1	273.01	30.8
1987	1.02	5.65	3.18	2.92	5.24	122.3	289.76	31.9
1988	0.73	4.44	3.00	2.62	4.15	98.92	320.26	33.1
1989	0.67	4.22	2.78	2.85	4.12	94.84	328.43	39.5
1990	0.68	4.03	2.69	2.95	4.38	94.73	365.59	45.3
1991	0.66	4.29	3.19	2.88	4.48	104	476.46	48.2
1992	0.67	4.53	2.56	2.93	4.76	129.4	416.41	53.3
1993	0.63	4.38	2.38	3.31	4.84	130.8	434.22	65.1
1994	0.59	4.21	2.32	3.02	4.89	135.5	492.71	66.2
1995	0.61	4.09	2.33	3.16	5.54	150.8	568.34	77.7
1996	0.63	3.91	2.34	3.14	6.16	158.8	598.68	80.7
1997	0.62	3.95	2.36	3.23	5.63	152.3	603.87	66.2

Source: Calculated by the author from World Bank (2000) and ADB (various issues).

APPENDIX V.3: Correlation Matrix of Variables

1. Correlation Matrix of Variables of Growth Equation

	Δln(FDI*Stock*)	Δln(GDPPC)	ln(GDI/GDP)	Δln(ConsPC)	ln(Open)	Δln(HCapital)	Δln(EduSpend)	Δln(MVA)
Δln(FDI*Stock*)	1	0.19	0.14	0.19	0.11	-0.02	0.12	0.05
Δln(GDPPC)		1	0.28	0.62	0.17	-0.16	0.40	0.58
ln(GDI/GDP)			1	0.18	0.72	-0.35	0.31	0.23
Δln(ConsPC)				1	0.15	-0.25	0.34	-0.29
ln(Open)					1	-0.66	0.22	-0.18
Δln(HCapital)						1	-0.12	-0.03
Δln(EduSpend)							1	0.05
Δln(MVA)								1

2. Correlation Matrix of Variables of FDI Equation

	Δln(FDI*Stock*)	Δln(GDPPC)	ln(FDI*Stock*$_{-1}$)	ln(GDPPC$_{-1}$)	ln(Open)	Δln(HCapital)	Δln(EduSpend)	ln(EduSpend$_{-1}$)	ln(MVAPW$_{-1}$)
Δln(FDI*Stock*)	1	0.19	-0.24	0.03	0.11	-0.02	0.12		
Δln(GDPPC)		1	0.16	0.17	0.17	-0.16	0.40		
ln(FDI*Stock*$_{-1}$)			1	0.60	0.56	-0.44	0.18		0.85
ln(GDPPC$_{-1}$)				1	0.96	-0.69	0.27	0.90	0.41
ln(Open)					1	-0.66	0.22	0.49	
Δln(HCapital)						1	-0.12	-0.56	-0.52
Δln(EduSpend)							1	0.22	0.33
ln(EduSpend$_{-1}$)								1	0.85
ln(MVAPW$_{-1}$)									1

APPENDIX V.4: Manufacturing Exports as Percentage of Total Exports in the ASEAN Countries (1981-1995)

(in percentage)

	Indonesia	Malaysia	Singapore	Thailand
1981	3	20	48	26
1982	4	23	48	26
1983	7	25	49	31
1984	10	27	50	33
1985	13	27	51	38
1986	19	37	59	44
1987	25	39	66	52
1988	30	44	70	54
1989	32	49	72	56
1990	35	54	72	63
1991	41	61	73	66
1992	48	64	77	67
1993	53	70	78	71
1994	52	74	82	72
1995	51	75	84	73
1996	51	76	84	71
1997	42	77	84	71

Source: World Bank (2000)

APPENDIX IV.5: Wages and Salaries per Employee in the Manufacturing Sector of Selected Asian Countries (1985-1999)

Country	1985	1999
China	384	N/A
Hong Kong	4904	23053*
Philippines	1258	2966[a]
Taiwan	3820	14756[b]
Indonesia	921	598[c,*]
Malaysia	3084	4836
Singapore	7234	20881
Thailand	N/A	3344[d]
Korea	3476	14053

Source: UNIDO Country Industrial Statistics, website: www.unido.org
[a] as of 1997
[b] as of 1996
[c] as of 1998,
[d] as of 1994
* calculated as average of wages and salaries in all manufacturing sub-sectors

APPENDIX CHAPTER VI

APPENDIX VI.1: Annual Average Growth Rates of GDP per capita of Vietnam and some Asian Economies (1988-2000)

(in percentage)

Average (1988-2000)		Average (1988-1990)		Average (1991-2000)	
Vietnam	**5.23**	**Vietnam**	**3.44**	**Vietnam**	**5.76**
China	8.00	Thailand	10.30	China	8.96
Singapore	5.37	Singapore	6.71	Singapore	4.97
Thailand	5.22	Indonesia	6.24	Malaysia	4.57
Malaysia	4.92	Malaysia	6.10	Sri Lanka	3.89
India	3.96	India	5.18	Thailand	3.69
Indonesia	3.68	China	4.78	India	3.59
Sri Lanka	3.62	Pakistan	3.00	Bangladesh	2.98
Bangladesh	2.64	Philippines	2.89	Indonesia	2.91
Pakistan	1.79	Sri Lanka	2.69	Pakistan	1.43
Philippines	1.10	Bangladesh	1.48	Philippines	0.57

Source: Calculated from Annual Growth Rates of GDP per capita from World Bank (2003)

APPENDIX VI.2: Stock of FDI of Vietnam and some Asian countries (1985 – 2000)

(in current million US dollars and as % of GDP in parentheses)

	1985	1990	1995	2000
Vietnam	64	260	5,760	14,623
	(1.1)	*(4.0)*	*(28.5)*	*(46.7)*
China	10,499	24,762	137,435	348,346
	(3.4)	*(7.0)*	*(19.6)*	*(32.3)*
Hong Kong	129,750	148,183	174,063	429,063
	(372.1)	*(198.1)*	*(125)*	*(263.8)*
Indonesia	24,971	38,883	50,601	60,638
	(28.6)	*(34.0)*	*(25.0)*	*(39.6)*
Malaysia	7,388	10,318	28,732	52,748
	(23.7)	*(24.1)*	*(32.9)*	*(58.8)*
Philippines	2,601	3,268	6,086	12,440
	(8.5)	*(7.4)*	*(8.2)*	*(16.6)*
Singapore	13,016	28,565	59,582	95,714
	(73.6)	*(76.3)*	*(70.0)*	*(103.8)*
Thailand	1,999	8,209	17,452	24,468
	(5.1)	*(9.6)*	*(10.4)*	*(20)*
Total FDI stock in Developing Countries*	347,237	487,694	849,376	2,002,173

Source: compiled from UNCTAD (2002)

* Not include Developing Europe, Central and Eastern Europe

APPENDIX VI.3: Legal Documents and other documents relating to inward FDI issued by the Vietnamese government under the Reform Policy.

1. Decision no. 163/CT of the Chairman of Vietnam's Council of Ministers, dated 12 June 1989 on the direction to attract FDI.
2. Foreign Investment Law dated 29 December 1987.
3. Decree no. 139-HDBT to implement 1987 Foreign Investment Law dated 5 September 1988.
4. Amended Law of the 1987 Foreign Investment Law dated 30 June 1990.
5. Labour Regulation no. 233-HDBT for enterprises with foreign capital, dated 22 June 1990;
6. Circular no. 19-LDTBXH/TT of the Ministry of Labour, Invalids and Social Affairs as a guidance to implement the 233-HDBT Regulation, dated 31 December 1990.
7. Decision no. 365-LDTBXH/QD of the Ministry of Labour, Invalids and Social Affairs on the minimum wages for labour in the enterprises with foreign capital, dated 29 August 1990.
8. Constitution 15 April 1992 passed by National Assembly VII.
9. Resolution no. 120-HDBT of the Council of Minister on creating employment, dated 11 April 1992.
10. Resolution of the National Assembly for the year 1993, dated 23 December 1992.
11. Decision no. 242-LDTBXH/QD of the Ministry of Labour, Invalids and Social Affairs on the minimum wages for labour in the enterprises with foreign capital, dated 5 May 1992.
12. Amended Law of the 1987 Foreign Investment Law dated 23 December 1992.
13. Resolution of the National Assembly for the year 1994 dated 30 December 1993.
14. Decree of the government no. 29-CP, to encourage overseas Vietnamese to invest in Vietnam dated 27 May 1993.
15. Law to Encourage Domestic Investment dated 22 June 1994.
16. Resolution of the National Assembly for the year 1995, dated 1 Novermber 1994
17. Decision no. 366-HDBT of the government to assess FDI projects, dated 7 November 1991.
18. Decree no. 191-CP of the government to assess FDI projects, dated 28 December 1994.
19. Decree of the government no. 192-CP about the industrial zones, dated 28 December 1994
20. Resolution of the National Assembly for the year 1996, dated 28 October 1995.
21. Decision no. 307/TTG of the Prime Minister in promoting tourism in Vietnam 1995-2010, dated 24 May 1995.
22. Decision no. 385-LDTBXH/QD of the Ministry of Labour, Invalids and Social Affairs on the minimum wages for labour in the enterprises with foreign capital, dated 1 April 1996.
23. Foreign Investment Law dated 12 November 1996
24. Decree of the Prime Minister no. 12/CP to provide guidance for the implementation of the 1996 Law dated 18 February 1997.
25. Resolution of National Assembly IX, 5 year Plan 1996-2000, dated 12 November 1996.
22. Resolution of the National Assembly for the year 1997, 12 November 1996
23. Document no. 3815-BKC-KCN to provide guidance on the export ratio of FDI firms dated 27 June 1997.
24. Resolution of the National Assembly for the year 1998, dated 12 December 1997.
25. Instruction no. 11/1998/CT-TTG about the implementation of the Government Decree no. 10/1998/NDCP about improving the administration procedure for FDI projects dated 16/03/1998.
26. Resolution no. 15/1998/QH10 of the National Assembly, dated 20 May 1998.

27. Instruction no. 26/1999/CT-TTG of the Prime Minister's Decision on boosting the activities of State-owned enterprises dated 08 September 1999.
28. Resolution no. 22/1999/QH10of the National Assembly, dated 12 June 1999.
29. Decision no. 53/1999/QD-TTG to promote FDI dated 26 March 1999.
30. Decision no. 1021/1999/QD-BTM of the Ministry of Trade to abolish the approval of the export plan of FDI firms dated 1 September 1999.
26. Decision no. 708-1999/QD-BLDTBXH of the Ministry of Labour, Invalids and Social Affairs on the minimum wages for labour in the enterprises with foreign capital dated 15 June 1999.
27. Decision no. 59-1999/QD-BTC of the Ministry of Finance to abolish the licence fee for FDI projects dated 26 May 1999.
28. Instruction no. 16/2000/CT-TTG of the Prime Minister about the Socio-Economic Plan for 2001-2005, dated 19 September 2000.
29. Document no. 3639/TM-XNK of the Ministry of Trade about Export-Import Plan for 2001-2010
30. Amended Foreign Investment Law no. 18/2000/QH10 dated 9 June 2000
31. Resolution of the Government, March 2001
31. Resolution no. 54/2001/QH10 of the National Assembly for 2002, dated 25 December 2001.
32. Resolution no. 09/2001/NG-CP of the Government dated 28 August 2001.

Source: CD-LawData published by Vietnam's National Assembly Office (2002)

APPENDIX VI.4: Disbursement of FDI to Vietnam by Activities (1988-2000)

(In million USD)

	1988-91	1992	1993	1994	1995	1996	1997	1998	1999	2000
Heavy industries	17	20	74	306	314	478	701	491	424	445
Economic processing zones	0	3	3	9	34	136	88	43	49	14
Light industries	10	10	45	149	267	412	363	225	182	326
Food	3	15	144	126	186	116	174	164	178	126
Oil and Gas	69	73	375	617	567	377	261	375	345	205
Construction	0	6	44	38	133	261	407	198	152	221
Transport and communications	29	19	27	49	155	82	101	80	106	28
Hotels and tourism	19	43	83	209	261	289	227	233	128	164
Office property and apartments	9	10	30	70	172	132	261	237	212	135
Agriculture, forestry and fisheries	14	12	32	37	130	113	234	124	192	208
Services	-3	104	66	26	120	95	61	77	71	87

(Share in total FDI disbursement)

	1988-91	1992	1993	1994	1995	1996	1997	1998	1999	2000
Heavy industries	10.3	6.5	8	18.7	13.4	19.2	24.4	21.8	20.8	22.7
Economic processing zones	0	1	0.3	0.6	1.4	5.4	3.1	1.9	2.4	0.7
Light industries	6.1	3.1	4.9	9.1	11.4	16.6	12.6	10	8.9	16.6
Food	1.7	4.8	15.6	7.7	8	4.6	6	7.3	8.7	6.4
Oil and Gas	41	23	40.7	37.7	24.2	15.1	9.1	16.7	16.9	10.5
Construction	0.2	1.9	4.8	2.3	5.7	10.5	14.1	8.8	7.4	11.3
Transport and communications	17.4	6.1	2.9	3	6.6	3.3	3.5	3.6	5.2	1.4
Hotels and tourism	11.6	13.6	9	12.8	11.2	11.6	7.9	10.4	6.3	8.4
Office property and apartments	5.3	3.2	3.3	4.3	7.4	5.3	9.1	10.6	10.4	6.9
Agriculture, forestry and fisheries	8.3	3.9	3.4	2.3	5.6	4.6	8.1	5.5	9.4	10.6
Services	-1.8	32.9	7.2	1.6	5.1	3.8	2.1	3.4	3.5	4.5

Source: General Statistics Office (various issues)

APPENDIX VI.5: Electricity Production in Vietnam (1988-2001)

(In Million kWh)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Production	7000	8000	8790	9307	9818	10851	12693	14665	16962	19253	21694	23599	26682

Source: ADB (2002)

APPENDIX VI.6: GDP of Vietnam by Activities (1988-2000)

(in billion VND at constant 1994 prices)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total	15,420	28,093	41,955	76,707	110,532	140,258	178,534	228,892	272,036	313,624	361,016	399,942	444,139
Agriculture	7,139	11,818	16,252	31,058	37,513	41,895	48,968	62,219	75,514	80,826	93,072	101,723	107,913
Mining	265	732	2,185	4,176	5,306	7,215	9,114	11,009	15,282	19,768	24,196	33,703	42,219
Manufacturing	2,784	4,257	5,142	10,051	17,015	21,275	26,624	34,318	41,291	51,700	61,906	70,767	82,992
Electricity, gas and water	210	377	573	966	1,635	1,944	2,856	4,701	6,538	8,604	10,339	11,725	12,993
Construction	436	1,078	1,613	3,059	6,179	10,101	12,946	15,792	17,766	20,522	20,858	21,764	24,461
Trade	1,360	3,276	5,460	9,742	15,281	20,215	30,185	37,491	43,125	48,914	55,783	59,384	64,460
Transport and communications	325	710	1,449	2,860	4,662	5,692	7,154	9,117	10,390	12,418	14,076	15,546	17,601
Finance	150	350	490	1,108	1,567	2,318	3,450	4,604	5,148	5,444	6,274	7,488	8,457
Public administration	1,264	2,366	3,608	6,807	9,718	13,605	17,837	22,877	26,451	29,733	34,124	35,368	38,159
Others	1,487	3,129	5,183	6,880	11,656	15,998	19,400	26,764	30,532	35,694	40,388	42,474	44,884

Source: ADB (2002)

APPENDIX VI.7: UNILEVER VIETNAM

Unilever started its business in Vietnam since 1995 with the investment US$120 million for its three businesses as following:

Company: Manufacturing Site	Total Investment (US$ Million)	Scope of Business: Key Brands
Lever Vietnam: Hanoi and Ho Chi Minh City	56.3	Home & Personal Care Products: OMO, Viso, Lux, Dove, Lifebuoy, Sunsilk, Organic, Ponds, Hazeline.
Elida P/S: Cu Chi Industrial Zone – Ho Chi Minh City	17.5	Oral Care Products: P/S, Close-up
Unilever BestFoods Vietnam: Cu Chi Industrial Zone – Ho Chi Minh City	37.1	Ice Cream, Tea & Tea based, Beverages, Foods, Culinary: Paddle Pop, Connetto, Lipton, Knorr

During 1995 and 2001 Unilever Vietnam was profitable with average annual growth rate of 74% and contributed about 900 billion VND to the State budget. Unilever has created an effective national-wide distribution system with about 350 distributors and more than 150,000 retailers.

Since the start of its operation in Vietnam, Unilever's brands have developed a very strong local presence and gained market leadership in all categories where they compete. Omo, Sunsilk, Clear, Lifebuoy, Lux, Dove, Pond's, Close-up, Cornetto, Paddle Pop, Lipton, Knorr... together with Vietnamese traditional brands such as Viso, P/S have become household names, the first choice of Vietnamese consumers. The company claims that the key factor for this success is a deep understanding of the Vietnamese market, the continuous effort in researching and delivering high quality products, developing traditional products, and studying local habits, beliefs and aspirations to create traditional products. Sunsilk Bo ket, Salt toothpaste, two products developed based on traditional taste have been phenomenal successes.

Unilever Vietnam received the Prime Minister's Award in 2000 for "its business achievement and social development contribution". In October 10th, 2001, the President of Vietnam awarded the 3rd rank Labour Medal for Unilever for "its excellent business achievement during the period 1996-2000 & the contribution for development of Vietnam".

Source: From correspondences with the Public Relation Officer of Unilever Vietnam Limited, Vietnam Economy and Vietnam Investment Review (various issues).

Appendix VI.8: The FDI Experience of Binh Duong province

Binh Duong has been regarded as the province with the most open and favourable investment environment. The provincial authority has carried out different measures to improve the investment environment and facilitate the operation of FDI firms in the province. Within the last few years, this province has carried out two "red-carpet campaigns" to induce FDI, each time with more favourable terms. For example the management of industrial zones is given the right to promote FDI and to allocate and quote the land use rights to FDI firms. Improving infrastructure is also emphasised. Binh Duong has also invested heavily in upgrading its infrastructure both inside and outside industrial zones, including roads, water and electric supply. Other facilities such as custom office, tax office and post office have also been built or upgraded. Binh Duong is also one pioneer in promoting non-state investment in infrastructure for industrial zones. The provincial authority set up an Investment Board to facilitate the licence applications and the operation of FDI firms in the province. The authority also set up a simple inspection procedure, which takes place no more than twice a year with each firm. Various fiscal incentives are offered such as tax exemption and reduction for investment in import-substituting and export-oriented production.

By 2001 there were six Industrial Zones in Binh Duong, which have received both FDI and domestic investment. There were 106 FDI firms with total implemented capital of US$ 212.5 million, which is 50% of registered capital. There were 53 domestic invested firms with total capital of VND 1,562.5 billion, equivalent to US$ 107.7 million. Total employment in the industrial zones was 37,163, among which 21,781 work in FDI firms. Most of the workers are migrants from other provinces, only 4,100, which is 11% of total employment being from Binh Duong. The average salaries of workers in industrial zones range between VND 490,000 and VND 700,000, i.e. US$ 33.8 and US$ 48.3.

According to a report by the Industrial Zones Committee of Binh Duong in 2001, there are many cases of violation of the Labour Law. Many firms do not sign labour contracts with workers, prolong the probation period, do not pay wages and salaries according to the minimum wage levels, and do not contribute to the compulsory health and social insurance schemes. Some firms even set up illegal regulations about fines and charges on workers.

Source: from Binh Duong Industrial Zones Committee (2001), Vietnam Economy (various issues) and website of Lao Dong, www.laodong.com.vn

APPENDIX VI.9: Gross Output of Industry of Foreign Invested Sector by Industrial Activities

(In Billion VND at 1994 prices)

	1995	1996	1997
Mining	**10,834.1**	**12,456.5**	**14,238.4**
Oil and Gas	10,811.3 *(41.7%)*	12,432.9 *(39.4%)*	14,207.1 *(36.5)*
Metal Ores, Stone and Other Mining	22.8	23.6	31.3
Manufacturing	**15083.7**	**19093.6**	**24606.6**
Food, Beverage, Ciga. and Tobacco	5163.4 *(19.9%)*	6205.9 *(19.7)*	7167.2 *(18.4%)*
Textile and Garments	1606.2 *(6.2%)*	1542.7 *(4.9%)*	2342.6 *(6%)*
Leather tanning and processing	1274.3	1850.2	3052
Coke, Petroleum and Chemicals	1038.8	1394.6	1481.2
Rubber and Plastics	313.8	398.5	652.8
Non-metallic Products	450.4	693	1528.9
Metallic	1013.9 *(3.9%)*	1302.7 *(4.1%)*	1296.8 *(3.3%)*
Metal Products	268.8	532.2	887.5
Machinery and Equipment	146.5	94	152.2
Computer and Office Equipment	0.8	31.4	37.7
Electric and Electronics Products	1250.3 *(4.8%)*	2104.7 *(6.7%)*	2886.3 *(7.4%)*
Medical and Accurate Instruments	41.8	139.2	84.6
Motor Vehicles	1883.6 *(7.3%)*	1769.8 *(5.6%)*	1772.3 *(4.6%)*
Others	634.1	1034.7	1264.5
Electricity, Gas and Water Supply	**15.5**	**11.8**	**32.8**
Total	**25,933.2**	**31,561.9**	**38,877.8**
	(100%)	*(100%)*	*(100%)*

Source: General Statistics Office (1998)

APPENDIX VI.10: Gross Output of Industry of State Sector by Industrial Activities

(In Billion VND at 1994 prices)

	1995	1996
Mining	**2,418.7**	**2,746.6**
Coal	1,654.7 *(3.1%)*	1,904.9 *(3.3%)*
Oil and gas	33.3	34
Metal Ores, Stone and Other Mining	730.3	807.7
Manufacturing	**43,400.6**	**48,098.2**
Food, Beverage, Ciga. and Tobacco	16,834.6 *(32.4%)*	18,718.9 (32.2%)
Textile and Garments	4,534.2 *(8.7%)*	4,908.3 *(8.4%)*
Leather tanning and processing	1,363.8 (2.6%)	1,575.2 *(2.7%)*
Coke, Petroleum and Chemicals	3,857.7 *(7.4%)*	4,404.5 *(7.6%)*
Rubber and Plastics	1005.1 *(1.9%)*	1,051.9 *(1.8%)*
Non-metallic Products	6,160.8 *(11.8%)*	6,818.9 *(11.7%)*
Metallic	2080.2 *(4%)*	2,477.4 *(4.2%)*
Metal Products	415.2	460.3
Machinery and Equipment	924.8 *(1.7%)*	1,100.7 *(1.9%)*
Computer and Office Equipment	27.1	6.7
Electric and Electronics Products	1,789.7 *(3.4%)*	1,990.4 *(3.4%)*
Medical and Accurate Instruments	44.9	54.1
Motor Vehicles	891.1	920.4
Others	3,471.4	3,193.3
Electricity, Gas and Water Supply	**6,171.2** *(11.8%)*	**7,320.9** *(12.6%)*
Total	**51,990.5**	**58,165.6**
	(100%)	*(100%)*

Source: General Statistics Office (1998)

APPENDIX VI.11: Gross Output of Industry of Non-State Sector by Industrial Activities

(In Billion VND at 1994 prices)

	1995	1996	1997
Mining	**666.9**	**764.5**	**869.5**
Coal	22.5	24.9	23.2
Metal Ores, Stone and Other Mining	644.4	749.6	846.3
Manufacturing	**24,776.3**	**27,596**	**30,191.4**
Food, Beverage, Ciga. and Tobacco	8,986.9 *(35.3%)*	10,157.5 *(35.8%)*	10,727.9 *(34.5%)*
Textile and Garments	2,985.6 *(11.7%)*	3,322.9 *(11.7%)*	3,731.5 *(12%)*
Leather tanning and processing	931.8	1,043.4	1,569
Coke, Petroleum and Chemicals	532.3	692.7	791.4
Rubber and Plastics	953.1	1,339.3	1,587.1
Non-metallic Products	2,588.8 *(10.1%)*	2,608.6 *(9.1%)*	2,745.5 *(8.8%)*
Metallic	333.9	305.8	336.5
Metal Products	1,647.6 *(6.5%)*	1,948.6 *(6.9%)*	2,200.6 *(7%)*
Machinery and Equipment	273.8	365.5	406.5
Computer and Office Equipment	0	1.4	0
Electric and Electronics Products	263.1	325.4	311.8
Medical and Accurate Instruments	115.9	68.3	96.1
Motor Vehicles	577.7	667.4	690
Others	4,585.8	4,749.2	4,997.5
Electricity, Gas and Water Supply	**7.8**	**8.7**	**7.1**
Total	**25,451**	**28,369.1**	**31,068**
	(100%)	*(100%)*	*(100%)*

Source: General Statistics Office (1998)

APPENDIX VI.12: Total Investment in Vietnam by Ownership

(in Billion VND)

	1995	1996	1997	1998	1999	2000	2001
Foreign Invested Sector	22,000	22,700	30,300	24,300	22,644	27,171.8	30,000
Domestic Sector	50,447	64,694	78,070	92,834	108,527	118,161	133,500
State Sector	30,447	42,894	53,570	65,034	76,985	83,567.5	95,000
Non-state Sector	20,000	21,800	24,500	27,800	31,542	34,593.7	38,500
Total	72,447	87,394	108,370	117,134	131,171	145,333	163,500

Source: Website of Vietnam Economic Times, www.vneconomy.com.vn

APPENDIX VI.13: Salaries and Wages in FDI firms in 1996

(in US$)

Director	Managers	Admin. Staff	Technicians	Workers
500	200-300	70-120	70-80	35-50

Source: Tran Van Tuan (2000) Table 29 about salaries and wages in FDI firms from Survey of MOLISA and MPI 1996 – in US$

APPENDIX VI.14: Vietnam's Exports (1988-1999)

(in million USD)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Crude oil	79	200	390	581	756	844	866	1,024	1,346	1,423	1,232	2,092
	(17%)	(20.5%)	(31%)	(28.9%)	(30.5%)	(28.3%)	(21.4%)	(19.7%)	(18.3%)	(15.6%)	(13.2%)	(18.1%)
Rice	0	316	272	225	300	363	425	496	855	870	1,020	1,025
		(32.3%)	(21.6%)	(11.2%)	(12%)	(12%)	(10.5%)	(9.5%)	(11.7%(	(9.5%)	(10.9%)	(8.9%)
Coal, Rubber and Coffee	N/A	N/A	N/A	N/A	187	254	536	814	615	800	823	827
					(7.5%)	(8.5%)	(13.2%)	(15.6%)	(8.4%)	(8.7%)	(8.8%)	(7.2%)
Marine	N/A	N/A	N/A	N/A	302	427	551	431	651	782	858	974
								(8.3%)	(8.9%)	(8.6%)	(9.2%)	(8.4%)
Garments and Footwear	N/A	N/A	N/A	N/A	195	307	598	631	1,681	2,482	2,481	3,133
					(7.9%)	(10.3%)	(14.7%)	(12.1%)	(22.9%)	(27.1%)	(26.5%)	(27.1%)
Electronic goods and components	N/A	N/A	N/A	N/A	0	0	0	0	0	440	497	585
										(4.8%)	(5.3%)	(5.1%)
Others	386	462	594	1,204	735	790	1,078	1,802	2,189	2,348	2,454	2,884
Total exports	465	978	1,256	2,010	2,475	2,985	4,054	5,198	7,337	9,145	9,365	11,540
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)

Source: General Statistics Office (various issues)

APPENDIX VI.15: The Relationship between FDI and Economic Growth in Vietnam (1988-2000)

	FDI inflows (Million US$)	GDP Per Capita Growth (%)
1988	8	2.62
1989	4	4.86
1990	16	2.83
1991	229	3.75
1992	385	6.46
1993	1,002	5.98
1994	1,936	6.81
1995	2,336	7.58
1996	2,395	7.39
1997	2,220	6.48
1998	1,671	4.29
1999	1,412	3.42
2000	1,298	5.41
Correlation between FDI inflows and GDP per capita growth		0.70

Source: compiled from World Bank (2003)

APPENDIX CHAPTER VII

APPENDIX VII.1: Number of Students at Universities, Colleges and Vocational Schools (1985-1999) (in number of students)

Academic Year	At Universities and Colleges	At Vocational schools
1985-1986	121,100	N/A
1986-1987	127,000	N/A
1987-1988	133,000	N/A
1988-1989	132,500	N/A
1989-1990	138,600	N/A
1990-1991	144,500	N/A
1991-1992	160,200	111,000
1992-1993	210,200	107,800
1993-1994	242,200	119,000
1994-1995	356,300	155,600
1995-1996	412,200	170,500
1996-1997	568,300	172,400
1997-1998	715,200	179,700
1998-1999	892,700	241,100

Source: NEU and JICA (2001) Table 3

APPENDIX VII.2: Evaluation of Skills of University Graduates in Economics and Business Administration by Employers

General evaluation	2.09
Knowledge about market economy	2.07
Professional skills	2.01
Work skills	2.26
Creativity at work	2.26
Work environment adaptability	2.11
Presentation skills	2.31
Foreign Languages	2.31
Computer skills	2.49
Research and analysis skills	2.33
Obedience	2.03
Professional ethics	1.86

Source: NEU and JICA (2001) Table 24. Scale 1 – Poor, 2 – Average, 3 – Above Average, 4 - Good

APPENDIX VII.3: Interview with KPMG

This is based on an interview with the Head of the Executive Search Department. KPMG is a leading foreign company in consulting, accounting and auditing in Vietnam. One of its key functions is the executive search service performed by the Executive Search Department. It has two offices in Vietnam, one in Hanoi and one in Ho Chi Minh city. The Hanoi office is mainly in charge of the Northern market and the Ho Chi Minh city office is in charge of the Southern market. The Southern market is regarded as bigger than the Northern market in terms of demand and clients. The Southern market is also able to provide more and higher qualified labour, which is partly because the southern people are more open, business-oriented and adaptable.

Clients of KPMG

Half of the clients of the Executive Search Department are from the clients, which also use the auditing and tax consulting services of KPMG. All clients of the Department are foreign companies operating in Vietnam. There are no Vietnamese clients partly because they cannot afford the service fee charged by KPMG. In the past KPMG had several clients, who were Vietnamese companies. Nevertheless KPMG was not successful in providing the service and the main problem was that candidates that met the requirements, especially high-qualified candidates, refused to take up the jobs after knowing that the employers were Vietnamese companies.

Clients of KPMG tend to be companies who are strongly established in Vietnam such as foreign companies in manufacturing, trading, and development projects. Their recruitment need is to serve the expansion of operations. A few clients hire KPMG to recruit for their start up, for example in 1996 IBC, the company that produces Pepsi-Cola hired KPMG to recruit the whole team for its starting up process.

Positions that KPMG recruits and Requirements

Although the name of the Department is Executive Search, the positions for which this Department recruits are senior and sometimes junior positions in such areas as accounting, administration, sales, and production, and sometimes positions at executive levels such as general directors.

The general requirements for all positions include a university degree in a relevant subject, e.g. an accounting or finance degree for the position of accountant; language competence, in most cases it is English, sometimes it is Cantonese or Japanese; and computing competence. In KPMG's experience of recruiting, it is easy to find candidates with the required degree but difficult to find candidates with the required experience. This is partly because Vietnamese pay more attention to education

than to experience. In many cases university graduates study for one more degree domestically or abroad because they cannot find suitable jobs. Consequently there are many Vietnamese who have more than one degree but no experience and their knowledge is purely theoretical rather than practical. This is different from the labour market in other countries in the region, where people pay much attention to experience.

General Evaluation about Vietnamese Labour

According to the evaluation of KPMG, the Vietnamese labour market is still immature. The supply of labour for junior positions is not tight. However there are very few candidates for senior positions such as general directors, sales and marketing managers. In general the supply of more technical, specialised and high position is generally smaller than the demand, especially for the posts that require relevant experience. Foreign companies are main employers of qualified candidates, who generally do not want to work for Vietnamese firms. According to KPMG's evaluation, in the next few years the gap between supply and demand of labour for technical and high positions will be narrowed because Vietnamese are quick learners and they can acquire necessary qualifications and experience. Also there will be a large group of young Vietnamese coming back from abroad to contribute to the supply of labour.

APPENDIX VII.4: Public and Private Expenditure on Health in Vietnam (1990-2000)

(in million US$ at 1995 prices)

	Private Expenditure	Public Expenditure	Total Expenditure	Total Expenditure per capita (current US$)
1990	279.6	123.02	398.43	3
1991	325.88	122.95	451.79	3
1992	337.97	154.50	497.30	4
1993	678.33	205.24	883.56	9
1994	738.30	208.24	946.55	11
1995	482.01	326.73	808.74	11
1996	680.04	362.96	1043.00	15
1997	759.20	344.29	1103.49	16
1998	864.23	354.71	1,218.94	17
1999	1,129.89	364.67	1,494.57	21
2000	1,119.63	389.31	1,508.94	21

Source: calculated from World Bank (2003)

APPENDIX VII.5: Total Health Expenditure in Vietnam and other Asian Countries (2000)

(in percentage and in US$ at 1995 prices)

	Expenditure (as % of GDP)	**Total Expenditure (in million US$)**	**Expenditure Per Capital (in US$)**
Vietnam	***5.20***	***1,508.94***	***19.22***
China	5.30	55,183.60	43.71
Indonesia	2.70	5,649.48	27.39
Korea	6.00	37,227.00	791.93
Malaysia	2.50	2,790.50	119.92
Philippines	3.40	2,999.89	39.15
Singapore	3.50	4,002.60	996.17
Thailand	3.70	6,345.13	104.48

Source: calculated from Public and Private Health Expenditure from World Bank (2003)

APPENDIX VII.6: Employment in the FDI sector by Industrial Activities in the Red River Delta (2001)

(in number of people and in percentage)

	Total	FDI sector	In percentage	Whole Country
Whole Region	8,525,877	53,275	0.62	0.94
Exploiting industry	18,334	671	3.66	0.42
Processing industry	1,078,613	33,920	3.14	7.30
Hotels and restaurants	103,873	1,910	1.84	1.03
Finance and banking	31,818	1,532	4.81	5.91
Real estate business and consultative service	36,596	2,813	7.69	7.92

Source: MOLISA (2002a)

APPENDIX VII.7: Employment of Foreign Affiliates as a Percentage of Total Employment in Asian Countries (1999)

(in percentage)

	Employment of Foreign Affiliates as a Percentage of Total Employment
China	9.5
Hong Kong	2.5
Indonesia	0.9
Malaysia	16.6
Philippines	2.4
Singapore	10.4
Taiwan	4.1
Thailand	2.1

Source: UNCTAD (2002), Annex table A.I.6

APPENDIX VII.8: Working Time in FDI firms and State-Owned Enterprises by Industrial Activities

	Average working hours per day		Average working days per month	
	FDI firms	*State-owned enterprises*	*FDI firms*	*State-owned enterprises*
Natural resource exploitation	8	6.64	25.73	23.48
Mechanism	8.08	7.17	25.59	23.95
Transportation	8	7.32	25.41	24.42
Textiles, Garments and Paper Production	7.82	7.77	26.14	24.60
Commerce and Services	7.97	7.82	25.88	24.81
Food Processing	8	8.95	25.43	25.54

Source: Bui Anh Tuan (2000) Table 24

APPENDIX VII.9: Direct and Indirect Employment created by FDI firms

	Industries	Direct Employment	Indirect Employment	Ratio Indirect/Direct
VMC	Car assembling	574	1540	2.68/1
American Feed	Foods for animals	130	3010	23/1
Everton	Food processing	400	4263	10.6/1
Coca-Cola	Soft Drinks	1500	18030	12/1
Shell Codamo	Oil	39	2306	59.1/1
Haiha-Kotobuki	Confectionary	115	3580	31/1
Samsung-Vina	Electronics	323	3210	9.9/1
Sony Vietnam	Electronics	600	4820	8/1
Visintex	Silk production	321	1209	3.7/1
Vinataxi	Taxi, transport	686	1350	1.97/1

Source: Bui Anh Tuan (2000) Table 15

APPENDIX VII.10: Contribution of Unilever Vietnam to Human Capital in Vietnam

Unilever Vietnam emphasises enhancing local human resources by localising management staff. From 1995 to 2002, the Company has implemented 15,700 training days for all employees in local and international courses. More than 500 managers have been sent to regional and overseas training courses. Vietnamese managers have replaced many key senior managers in positions previously hold by foreign expatriates. Training networks have been set up at all sites of Unilever Vietnam to co-ordinate and share updated information and experience. Technicians were sent to study and work on similar technology production lines in Unilever Vietnam factories in the region. Training programmes combine general knowledge with practice on production lines. Unilever establishes multi-professional skills that help workers to control, maintain, repair different machines they operate.

Unilever Vietnam also provides training for employees of its suppliers and distributors to improve managerial skills, technology transfer, technical aspects, and financial support.

Unilever Vietnam also signed a sponsorship agreement to support the programme of the Vietnam General Department of Vocational Training in the period of 2002- 2005 to improve the ability of vocational trainers, which includes: organising training courses for trainers on new advanced technology; improving trainer's pedagogy skills by distance learning programmes; building a model vocational library and establishing a website on vocational training; and the Nguyen Van Troi Award for excellent teachers.

Source: From correspondence with the Public Relation Officer of Unilever Vietnam Limited, Vietnam Economy and Vietnam Investment Review (various issues).

APPENDIX VII.11: Growth of Industrial Output in the FDI sector and the Domestic sector (1995)

(in percentage)

	FDI sector	Domestic Sector
Ho Chi Minh City	44.2	12
Ha Noi	51.9	9.6
Hai Phong	76.3	17.3
Ha Tay	260.6	9.7
Hai Duong	343.2	20.6
Binh Duong	147.5	29.9
Dong Nai	62.2	13.6

Source: Bui Anh Tuan (2000), table 28