Globalization, FDI and employment in Viet Nam

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The article considers the impact of foreign direct investment on employment in Viet Nam, a country that received considerable inflows of foreign capital in the 1990s as part of its increased integration with the global economy. Despite the significant share of foreign firms in industrial output and exports, the direct employment generated has been very limited because of the high labour productivity and low ratio of value added to output of much of this investment. The article also shows that the indirect employment effects have been minimal and possibly even negative because of the limited linkages which foreign investors create and the possibility of "crowding out" of domestic investment.

Key words: foreign direct investment; employment; Viet Nam; manufacturing; capital-intensity

Introduction

The impact of globalization on employment is a central issue of contemporary political economy. From the point of view of workers in developed countries, globalization is often seen as a threat as traditional industrial jobs disappear or are relocated around the globe (and not just traditional jobs, as the recent expansion of call centres in India and elsewhere illustrates). On the other hand, increased employment in developing countries is seen as a major contribution to reducing poverty and meeting the Millennium Development Goals. However, the impact of globalization on labour markets and the mechanisms through which closer integration with the global economy may lead to job creation are still a subject of debate.[1]

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[1] For a recent review of the literature on the impact of globalization on workers in developing countries, see Rama (2003).

There are a variety of ways in which globalization affects labour: the most important ones are through increased trade, foreign direct investment (FDI) and international technology transfer. Empirical research has given much more attention to the effects of trade on labour markets than to the impacts of FDI.[2] This partly reflects the fact that, while there are fairly well established methodologies for analysing the impact of trade on employment and trade data is relatively easily available, the analysis of FDI is more problematic.

While employment creation is regarded by governments as an important potential contribution that FDI can make to their economies, most analyses of the labour market effects of FDI identify both positive and negative potential effects. Table 1 illustrates the main types of effects that can arise.

Looking primarily at the effects of FDI on the level of employment, it is possible to identify circumstances under which it has a significant positive impact. Where such investment supplements domestic investment and involves the creation of new "greenfield" plants, demand for labour will tend to increase. If this FDI is concentrated in labour-intensive industries, this increase will be substantial. FDI can also lead to increased employment amongst local firms as a result of backward or forward linkages so that the direct employment by foreign affiliates may underestimate the total impact. There may also be spillovers to domestic firms as a result of training by foreign investors or technology transfer. Foreign firms that are subject to pressures in their home countries may also bring with them higher labour standards and wages than the norm for the host economy. Where a firm makes a long-term commitment, it can provide stable employment.

[2] This is reflected in a survey of the effects of trade and FDI on employment and wages by Baldwin (1995) in which most of the studies discussed deal with trade effects. Reviewing studies that specifically focus on developing countries, Sen (2002, p. 24) comments that "in contrast to the existence of several studies that examine the impact of international trade on the labour markets of developing countries, there are very few studies that do so for foreign direct investment."

Table 1. The range of potential effects of inward FDI on the quantity, quality and location of employment

	Direct		Indirect	
	Positive	**Negative**	**Positive**	**Negative**
Quantity	Adds to net capital and creates jobs in expanding industries	Acquisitions may result in rationalization and job losses	Creates jobs through forward and backward linkages and multiplier effects in local economy	Reliance on imports or displacement of existing firms results in job loss
Quality	Pays higher wages and has higher productivity	Introduces practices in e.g. hiring and promotion that are considered undesirable	Spillover of "best practice" work organization to domestic firms	Erodes wage levels as domestic firms try to compete
Location	Adds new and perhaps better jobs in areas with high unem-ployment	Crowds already congested urban areas and worsens regional imbalances	Encourages migration of supplier firms to areas with availabler labour supply	Displaces local producers, adding to regional unemployment, if foreign affiliates substitute for local production or rely on imports

Source: UNCTAD 1994, table IV.1.

However, it is also possible for FDI to have very little (or even negative) effects on employment. It may displace local investment, so that the net effect on jobs is lower than the number directly employed by foreign affiliates. Where FDI involves the acquisition of local firms rather than new plants, there is no initial increase in employment; if the foreign owner subsequently rationalizes the firm, employment is even likely to decrease. Often, FDI is concentrated in capital-intensive industries so that jobs created per dollar invested are low. Moreover, there may be few local linkages if most inputs used by the foreign affiliates are imported and these constitute an enclave within the local economy. Jobs that are created may be for labour that is relatively skilled rather than for the unskilled who are in excess supply. If investment is footloose and can easily move to alternative locations, then the jobs that are created are likely to be highly unstable.

The situations described in the two preceding paragraphs represent opposite poles in terms of the impacts of FDI on employment. Which most accurately represents conditions in a particular country, or more likely where the country lies between these poles, is an empirical question.[3]

The present article considers the impact of FDI on employment in Viet Nam, a country that received significant inflows of foreign capital in the 1990s. It is a companion piece to a paper that looked at the effects of greater trade openness on employment in Viet Nam (Jenkins, 2004a). It also complements a more general study of the employment problem in Viet Nam (Jenkins, 2004b). The next section describes the transition that took place in Viet Nam during the 1990s from a centrally planned economy to a much more market based economy increasingly integrated with the global economy. This is followed by an overview of the morphology of FDI during the 1990s. The reset of the article then analyses the the direct and indirect impacts of FDI on employment in Viet Nam.

Viet Nam's integration with the global economy

The integration of Viet Nam into the global economy began with the adoption of *doi moi* ("renovation") in 1986, a process that intensified from 1989 onwards. Until that time, Viet Nam had operated as a centrally planned economy with significant inputs of aid from the Soviet Union. International trade was managed through agreements with foreign governments, and the

[3] Brown *et al.* (2003, p. 40) similarly conclude their theoretical discussion of the labour market effects of transnational production in developing countries with the statement: "All the cases that we have considered in this theoretical overview … have failed to yield unambiguous conclusions about the effects of foreign direct investment and transnational firms on equilibrium wages in host countries … It is therefore an empirical question whether the actual operations of transnationals have raised or lowered wages in developing countries."

overall level of trade was low.[4] In the 1980s, only around 10% of domestic production was exported and the growth of exports was only 3.5% per annum between 1977 and 1988 (World Bank, 1990, p. 59). Exports were dominated by primary commodities. Around half of total trade was with the COMECON countries (World Bank, 1990, p.61). Moreover, prior to the introduction of *doi moi,* Viet Nam was closed to foreign investors.

Following the fall of the Berlin Wall and the disintegration of the Soviet Union, Viet Nam became much more integrated with the global economy. There has also been a reorientation of trade, with the East Asian economies becoming the country's major trading partners during the 1990s. The OECD countries (including Japan and the Republic of Korea) also became increasingly important markets for Vietnamese exports during the 1990s and, by the end of the decade, accounted for more than half of the country's total exports compared to less than a quarter in 1990 (Institute of Economics, 2001, p. 29).

As can be seen from figure 1, the trade openness of the economy rose sharply in the late 1980s and then continued to grow rapidly throughout the 1990s. By the start of the millennium, trade (exports plus imports) as a share of GDP was more than three times the level of that during the late 1980s. The growth of FDI was equally or even more spectacular. The stock of FDI as a ratio of GDP rose from zero in the mid-1980s to over 75% by the year 2001.[5]

The increased openness of the Vietnamese economy in the 1990s was partly a reflection of the policies that were introduced to liberalize trade and promote FDI, and the ending of the trade embargoes that limited trade during the 1980s. Trade

[4] In 1979, a number of countries imposed a trade and financial embargo on Viet Nam as a result of its military intervention in Cambodia.

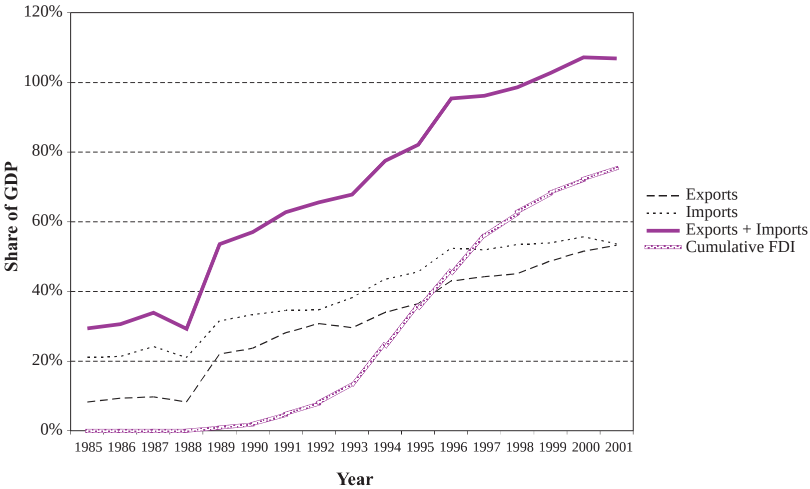
[5] This was calculated as the cumulative sum of disbursed investment in each year. It may therefore exaggerate the true stock of FDI somewhat since it does not take account of any withdrawals or capital repatriation by foreign affiliates.

liberalization began at the end of the 1980s. The main elements included:

- liberalization of entry into international trading activities;
- removal of most export taxes;
- removal of non-tariff barriers;
- reductions in tariff levels and bands – the maximum tariff was reduced from 200% to 120% and the number of bands to 15;
- negotiation of various trade agreements – the ASEAN Free Trade Area (AFTA), agreements with the European Union (1992) and with the United States (2000); and
- measures to promote exports – import duty rebates; establishing export processing zones.

Viet Nam was closed to FDI until the adoption of *doi moi*. In 1987, the first foreign investment law was passed. Since then, the FDI legislation has been revised four times - in 1990, 1992, 1996 and 2000. These revisions have liberalized the original law in a number of ways; e.g. they:

Figure 1. Trade and cumulative FDI as % of GDP



Source: Author's elaboration from Nguyen et al. (2002), Binh and Haughton (2002).

- removed obstacles and difficulties for FDI enterprises to operate;
- reduced risks for foreign affiliates in land clearance and shifted responsibility for compensation and land clearance from foreign partners to the Vietnamese side;
- allowed foreign affiliates to mortgage their land use rights to borrow from credit organizations;
- relaxed currency balance regulations for foreign affiliates;
- gave more autonomy to foreign affiliates and reduced the number of issues that require consensus in the management board;
- allowed investors more freedom to change the investment form, re-organize enterprises, and transfer capital;
- improved procedures regarding the Government's FDI management;
- gave more preferences to foreign investors, increasing the list subject to import tariff exemption and reduction, reduced profit transmittal tax rates from 10%, 7% and 5% to 7%, 5%, and 3% respectively; and
- allowed 100% foreign owned affiliates and foreign partners in business contract cooperation to carry forward losses.

However, these changes have taken place against the background of a general trend amongst developing countries, including those of East and South-East Asia, to liberalize their FDI regimes. Thus, although foreign investors have received increasingly liberal treatment from the Vietnamese authorities, this has not necessarily made the climate for FDI in Viet Nam more attractive compared to that of other potential host countries.

Three modes of FDI were permitted by the 1987 Law; business cooperation contracts (BCC), joint ventures, and 100% foreign-owned affiliates. In 1992, foreign investors in infrastructure construction were allowed to enter on a build-operate-transfer (BOT) basis. Since 2000, foreign affiliates and parties to BCCs have been allowed to change the form of investment, and there have been several cases of joint ventures becoming 100% foreign-owned affiliates (Nguyen and Nguyen, 2003, p. 14).

The increased integration of the Vietnamese economy into the world economy during the 1990s has been accompanied by rapid economic growth and a substantial reduction in poverty. Despite the negative effect of the 1997 East Asian crisis, GDP growth averaged 7.6% per annum between 1990 and 2000. At the same time, there is general agreement that the 1990s also saw a significant reduction in the various poverty indicators (World Bank, 2000; Haughton et al., 2001; Glewwe et al., 2000). However, there has been relatively little analysis of the causal links between globalization and poverty in Viet Nam.[6]

An overview of FDI in Viet Nam[7]

The opening of the Vietnamese economy to FDI in 1987 and subsequent measures to liberalize the FDI regime, together with the fast growth of the 1990s, led to a rapid increase in FDI inflows from 1988 to 1996. Although FDI carried out (disbursements) lagged behind the commitments that were made, the levels of investment flowing into the country during this period were nevertheless high by any standards. FDI inflows

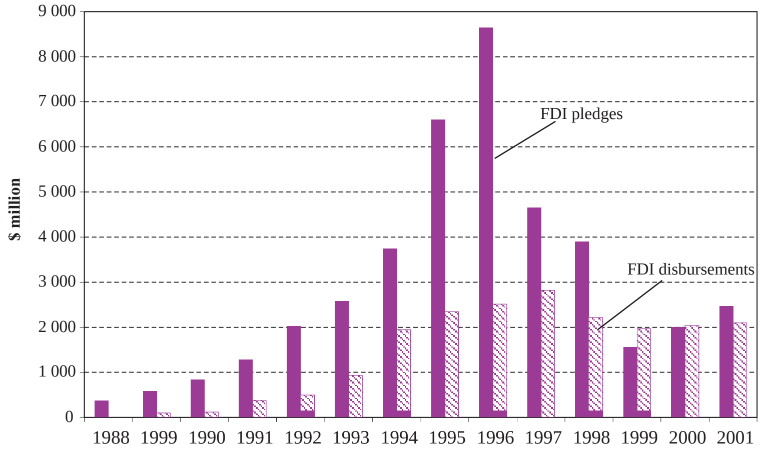
[6] There have been a few studies recently of the impact of trade liberalization on poverty in Viet Nam. For a review of these studies see Jenkins and Thoburn (2002).

[7] The data on FDI in Viet Nam are rather problematic (see Freeman and Nestor, 2002 for a discussion). Official Vietnamese sources give data on FDI commitments (which reflect planned investments) and disbursements (which reflect actual investment carried out). The commitments are consistently higher than subsequent disbursements because not all planned investments are subsequently implemented. However, these figures are not consistent with internationally accepted definitions of FDI, because they include the contribution of Vietnamese partners to joint ventures and so exaggerate the real capital inflow. They also include all foreign loans to foreign affiliates and not just those from the parent company in conformity with international definitions. As a result, World Bank and IMF estimates of actual FDI in Viet Nam are about a third lower than the figures provided by the Ministry of Planning and Investment. However, despite differences over the level of FDI in Viet Nam, there is general agreement between different sources as far as the trends are concerned.

rose to an average of over 9% of GDP between 1994 and 1997, the highest level in any developing and transition economy during this period (FIAS, 1999, fig.1). Despite its relative latecomer status with regard to FDI, the ratio of FDI stock to GDP in Viet Nam was also high, especially compared to other low income countries (Apoteker, 2000, pp. 43-44).

The vertiginous growth of FDI in Viet Nam was abruptly interrupted after 1996. New commitments fell by almost a half in 1997. Although disbursements were still rising in 1997 as a result of past commitments, actual investment also fell in the following year. There are various interpretations of the downturn in FDI inflows. The 1997 East Asian crisis played a part, since the bulk of FDI in Viet Nam in the early 1990s had come from these countries. However, it has also been noted that the beginning of the downward trend in FDI was already evident before the crisis hit. Some commentators attribute this to the slowdown in the economic reform process in Viet Nam in the mid-1990s, while others emphasize the "euphoric" nature of expectations concerning investment opportunities in the country, which were almost bound to be disappointed (Freeman and Nestor, 2002).

Figure 2. Foreign direct invesment in Viet Nam



Source: Binh and Haughton, 2003.

Although FDI inflows to Viet Nam in the past few years were much lower than earlier, they were nevertheless still significant. There is even some evidence that levels may be picking up again in the past year or two (Mekong Economics, 2002, p. 40). As will be shown in the next section, even with a lower annual inflow of FDI, foreign affiliates now play an important and growing role in the Vietnamese economy.

Table 2 shows that, despite the declining contribution of FDI to total investment after 1997, the share of foreign affiliates in the other macroeconomic aggregates has continued to increase in the late 1990s. Between 1996 and 2000, their share of non-oil exports doubled, as did the contribution to GDP.

Table 2. Share of foreign affiliates in macroeconomic aggregates, 1991-2000
(%)

	GDP	**Investment**	**Non-oil Exports**	**Industrial output**
1991	n.a.	14.3	4.0	12.7
1992	n.a.	21.0	4.1	15.2
1993	n.a.	25.2	8.4	15.4
1994	6.4	30.4	9.8	15.2
1995	6.3	32.3	8.8	25.1
1996	7.4	28.6	16.7	26.7
1997	9.1	31.3	25.7	28.9
1998	10.0	25.0	25.9	32.0
1999	12.2	18.0	32.7	34.7
2000	13.3	17.2	33.8	35.2

Source: Mekong Economics, 2002, table 3.1, fig. 3.1; GSO, 2000a; GSO, 2000b, tables 52; Athukorala 2002, table 2.8.

Clearly the role of FDI in Viet Nam has not been marginal in the 1990s. Therefore, it has the potential to make a major contribution to employment.

The pattern of FDI in Viet Nam is unusual in that it is dominated by regional investors rather than North American or

European firms. In terms of cumulative disbursements by foreign investors up to December 2002, the leading economies were Japan (15.7%), Singapore (12.5%), Taiwan Province of China (11.0%), the Republic of Korea (10.1%), Hong Kong (China) (8.5%), and Malaysia (5.5%) (STAR, 2003, table 16). The leading European investing country, the Netherlands, ranked behind Malaysia, while the United States, admittedly affected by the long history of strained relations with Viet Nam, accounted for only 2.5% of total FDI, level with Thailand. Although some of the investments classified as coming from Singapore, Hong Kong (China) and Malaysia were in fact made by the regional headquarters of European or North American TNCs, this does not substantially change the overall picture of the bulk of FDI coming from Japan, the four East Asian newly industrializing economies and some of Viet Nam's more advanced ASEAN partners.

A corollary of the countries of origin of FDI in Viet Nam is the fact that - again contrary to the usual picture of FDI in developing countries as dominated by large TNCs with extensive international operations - a majority of foreign investors tend to be relatively small firms. A recent survey of 171 foreign investors found that the median worldwide employment of the parent companies was only about 2,000 employees (Nguyen, Nguyen and Meyer, 2003, p. 10). The survey also found that the majority of the investors had very little experience of international investment, particularly outside their home region, at the time of their entry into Viet Nam (*ibid*. table 8b). This is particularly true of investors from Taiwan Province of China, which comprise the largest number of foreign firms in the country.

As noted above, Vietnamese law recognizes four different types of FDI, 100% foreign-owned firms, joint ventures, business cooperation contracts (BCC)[8] and build-operate-

[8] Defined as "a written document signed by two or more parties for the purpose of carrying on investment activities without creating a legal entity" (1996 Law of FDI in Viet Nam, Art. 2.9).

transfer (BOT).[9] Only the first two accord with the normal definition of FDI, and these account for the greater share of FDI in Viet Nam.

In the early days of economic reform, the Government had a strong preference for FDI in joint ventures; up to 1995, the majority of projects each year were of this form. The trend, however, has been for the share of 100% foreign affiliates to increase over time; from 1996 onwards, the majority of new projects have been 100% foreign-owned (Nguyen and Nguyen, 2003, table 10a). However, it needs to be pointed out that joint ventures are significantly larger than 100% foreign affiliates so that, in terms of capital invested, the bulk is still in the form of joint ventures (table 2).[10]

Table 3. FDI in Viet Nam, by type of investment, as of 31 December 2001

(US dollars)

Form of investment	Number of projects	Disbursement
BOT	6	39 962 500
BCC	139	3 274 371 386
100% foreign owned	1 858	5 663 310 743
Joint Venture	1 043	9 716 048 731
Total	3 046	18 693 693360

Source: MPI data, 2002.

[9] This is "a written document signed by an authorized state body of Viet Nam and a foreign investor(s) for the construction and commercial operation of an infrastructure facility for a fixed duration. Upon expiry of the duration, the foreign investor(s) shall, without compensation, transfer the facility to the State of Viet Nam (1996 Law of FDI in Viet Nam, Art. 2.11).

[10] The large size of FDI projects in Viet Nam reflects a number of significant infrastructure, construction and oil and gas projects. In recent years there has been a fall in average size as more of the newer FDI has been in smaller manufacturing projects (Schaumburg-Muller, 2003, p. 49).

At the same time, there have been significant shifts in the destination of FDI by sector. Between 1988 and 1992, oil and gas and real estate accounted for more than half of actual inflows, while the share of the manufacturing sector was only about 15% (IMF, 1999, table 31). However, over time, the share of manufacturing has risen significantly, so that, in each year from 1996 onwards, at least 40% of FDI has gone into manufacturing, while the share of oil and gas and real estate has fallen to between a quarter and a third of the total (IMF, 2002, table 29). At the end of 2001, the manufacturing sector accounted for almost 40% of cumulative disbursed investment (Mekong Economics, 2002, appendix table 3.4). Agriculture, which provides the bulk of employment in Viet Nam, has not attracted much FDI and accounted for only 6% of total investment up to 2001 (*ibid*.).

There has also been a shift in the motivation behind manufacturing FDI. In the early years of Viet Nam's opening, most projects were oriented towards the domestic market. Between 1991 and 1997, there was a significantly higher share of export-oriented projects but their share fluctuated from year to year. After 1997, there was a significant upward trend and, by 2000, the majority of new projects were highly export-oriented (Athukorala, 2002, p. 19).

FDI in Viet Nam is concentrated in the major urban centres of the country, with some 30% located in Ho Chi Minh City and 20% in Hanoi. In recent years, as the costs of operating in these cities have risen, there has been a tendency for new investment to locate more in neighbouring areas rather than in the two cities themselves. Ho Chi Minh City and neighbouring areas account for over half of all FDI registered, while Hanoi and its environs make up over a quarter of the total (Mekong Economics, 2002). At the other extreme, the six poorest provinces received only 1% of total FDI between 1988 and 2000 (Kokko et al., 2003).

FDI and employment

Given the significant role played by FDI in the Vietnamese economy, what can be said about the impact of FDI on employment in Viet Nam? Despite the massive inflows of foreign capital in the 1990s and the significant contribution of foreign affiliates to output in this period (see table 2 above), the numbers directly employed by such affiliates are still relatively low (table 4).

As with other Vietnamese economic statistics, there are different estimates of employment by foreign affiliates. There are considerable differences between the Ministry of Planning and Investment and the Ministry of Labour, Invalids and Social Affairs estimates of the numbers employed in foreign affiliates. Ministry of Labour, Invalids and Social Affairs data are based on the annual Labour Force Survey which collects data from over 100,000 households, while the Ministry of Planning and Investment data are collected from a quarterly survey of enterprises. Although it might be expected that enterprise data would give a more accurate picture of employment, it has been noted by the IMF that Ministry of Planning and Investment data are likely to be biased upwards because firms receive tax incentives for FDI-related activities (IMF, 1999, box II.1).

Table 4. Direct employment by foreign affiliates 1990 -2001

Year	All foreign affiliates) (MOLISA	% of total labour	All foreign affiliates (MPI)	% of total labour	Foreign affiliates in industry	% of industrial labour
1990	…	…	…	…	9 753	0.4
1991	…	…	…	…	13 215	0.6
1992	…	…	…	…	19 773	0.9
1993	…	…	…	…	38 362	1.6
1994	…	…	…	…	62 909	2.7
1995	…	…	…	…	104 715	4.0
1996	95 400	0.3	…	…	163 488	6.0
1997	130 304	0.4	249 940	0.7	225 253	8.3
1998	184 201	0.5	288 782	0.8	253 712	9.3
1999	190 099	0.5	293 510	0.8	293 583	10.0
2000	218 350	0.6	400 130	1.1	288490	…
2001	353 804	0.9	419 837	1.1	301 911	…

Source: Col. (1) MOLISA, 2001, table 22; MOLISA, 2002, table 25;
Col. (3) Athukorola; 2002, table 16;
Col. (5) 1990-99 GSO, 2000b, table 46; 2000-2001 Mekong Economics, 2002, appendix 6.

At one level, foreign affiliates have made an important contribution to employment. Since the mid-1990s, total employment by foreign affiliates has increased by around a quarter of a million, most of which has been in manufacturing. However, this is small relative to the absolute level of employment in Viet Nam and the need to increase employment by 1.3 to 1.4 million jobs each year to keep pace with the growth of the labour force.

The extent to which employment in foreign affiliates represents additional job creation depends in part on the mode of entry of foreign firms. A greenfield investment is more likely to create additional employment than the acquisition of an existing firm.

Unfortunately, there is no comprehensive information available about the mode of entry of foreign firms in Viet Nam other than on whether they involve joint ventures or 100% ownership. As was pointed out above, the major share of FDI was in joint-ventures – almost all of which involved State-owned enterprises as local partners – during the early years of Viet Nam's integration with the global economy. Since the mid-1990s, the share of wholly owned affiliates has risen significantly.

Takeovers of local firms by foreign companies have not occurred in Viet Nam. The few examples of acquisitions that do exist involve transfer of ownership from one foreign firm to another. Thus, it can be assumed that 100% foreign owned affiliates are almost entirely greenfield investments.

In the case of joint ventures, however, the situation is more complex. Two types of joint ventures can be distinguished (Nguyen, Nguyen and Meyer, 2003, pp.17-20). Type I involves the setting up of a new firm by a foreign investor and a local State-owned enterprise with contributions by both partners, who continue to run their other operations independently. Examples of this type are the Carlsberg and Honda operations. There is another type of joint venture, type II, in which the Vietnamese state-owned enterprise transfers all its existing assets and liabilities to the joint venture, which may then be largely managed by the foreign investor, although the state-owned enterprise remains a shareholder and can influence strategic decisions. The ABB joint venture is an example of this type. In terms of the direct impact on employment of the FDI, type I joint ventures have more in common with greenfield investment, whereas type II are more akin to acquisitions.

A recent survey by the London Business School classified 163 investment projects carried out between 1990 and 2001 according to mode of entry (Nguyen, Nguyen and Meyer, 2003, table 11). The majority of investments involved wholly owned foreign affiliates and, as with the overall trend discussed earlier, their share has tended to increase over time. Of the investments in joint ventures, three quarters were of type I and only a quarter of type II. The share of type II joint ventures in all projects also showed a tendency to decline over time.

This suggests that the bulk of foreign affiliates in Viet Nam are in fact greenfield investments rather than changes in ownership of existing firms. This means that the direct employment by foreign-invested affiliates mainly represents newly created jobs.[11]

Why is direct employment by foreign affiliates in Viet Nam so limited?

It is often asserted, particularly by the international financial institutions, that FDI in Viet Nam has been concentrated in capital-intensive industries and that this has limited the extent of employment creation by foreign firms (IMF, 1999, p. 10; FIAS, 1999, p. 8). It is certainly the case that foreign affiliates

[11] One minor qualification is that, as pointed out earlier, joint ventures tend to be larger than wholly owned foreign affiliates in terms of investment. However, in the sample studied by the London Business School project, wholly owned affiliates tended to be larger than joint ventures in terms of employment, and type I joint ventures tended to be larger than type II (Nguyen, Nguyen and Meyer, 2003, figure 8).

in Viet Nam tend to be more capital-intensive than local firms (table 6), but this is not necessarily because they tend to be predominantly in capital-intensive industries. Indeed, the evidence suggests that, while this may have been true in the early years, it became less true in the late 1990s.

Table 5 divides manufacturing industries into three groups, according to their level of fixed assets per person employed. It shows that, in 1995, almost half of the total output of foreign affiliates came from the high capital intensity group and only 29% from the most labour intensive industries.[12] By 1999, however, the share of capital intensive industries had fallen to only 40% of the total output of foreign affiliates, which was only 4% higher than the corresponding figure for Vietnamese private firms, while the share of labour intensive industries was only 3% lower. Foreign affiliates expanded most rapidly between 1995 and 1999 in those industries characterized by medium levels of capital-intensity as reflected in a rise of almost 10% in their share of total output.

Although foreign affiliates are not now disproportionately concentrated in capital-intensive industries, it is nevertheless true that overall these firms do tend to be considerably more

Table 5. Share of manufacturing output by ownership and capital intensity, 1995-1999

(%)

Item	Foreign		State		Non-state	
	1995	1999	1995	1999	1995	1999
High K/L	49.6	38.8	32.6	30.9	38.2	35.0
Medium K/L	21.5	31.0	35.7	38.7	26.7	31.8
Low K/L	29.0	30.1	31.7	30.5	35.0	33.2

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Source: author, based on GSO, 2001, tables 136, 148 and 159 for output, GSO, 2000b, tables 1 and 23 for capital intensity.

[12] If extractive industries are included, then the share of capital intensive industries of foreign affiliates in the output of foreign firms is even higher because of the large share of oil and gas projects.

capital intensive than local ones. The 1999 Industrial Survey of Viet Nam provides data on output, fixed assets and employment by sector and different ownership groups in 1998 for 17 provinces.

Table 6 shows that, in aggregate, foreign affiliates are more than seven times as capital intensive as State-owned enterprises and over eleven times as capital intensive as private Vietnamese firms and consequently create much less employment per billion Vietnamese dong of output produced. This is reflected in the second row of the table: on average, local privately owned firms generate five times as many jobs for a given level of output as foreign affiliates; even State-owned enterprises create more than double the number of jobs compared with foreign affiliates.

The difference in the number of jobs created per unit of output between foreign and Vietnamese firms within an industry can be decomposed into two components, one that is attributable to differences in employment per unit of value added (L/VA) and one that arises from differences in the ratio of value added to output (VA/O). The first is the inverse of labour productivity and can be taken as a proxy for differences in technology or degree of mechanization.[13] The second is a measure of vertical integration. The overall difference in employment creation by foreign versus local firms then depends on technology, vertical integration and the sectoral distribution.

Table 6. Capital-intensity and employment creation by ownership of industrial activities in 17 provinces, 1998

Item	Foreign affiliate	State	Non state
Capital/labour[a]	293.7	40.6	25.7
Labour/output[b]	3.2	8.7	17.9

Source: author based on GSO, 2000b, tables 5, 6, 7 and 22.
[a] Million Vietnamese dong of net fixed assets per employee.
[b] Employees per billion Vietnamese dong of gross output.

[13] One limitation of this proxy is that differences in VA/L may reflect differences in the skill mix between different types of firms. Lack of data makes it impossible to consider this aspect.

Overall employment per unit of output from foreign affiliates is only 40% of the level for Vietnamese firms (both private and state-owned). This reflects the fact that the level of vertical integration of such affiliates is a fifth lower (23% as compared to 30%) and that the level of productivity (VA/L) in foreign affiliates is almost double that of local firms (table 7). Thus, overall productivity differences are twice as important as differences in vertical integration in explaining employment creation.

Table 7. Decomposition of inter- and intra-industry causes of differences in labour-intensity and vertical integration in foreign-invested and Vietnamese firms, 1998

Item	Labour/VA (per bn. VND)	VA/Output%
Vietnamese firms	33.0	29.9
Difference due to composition	+0.5	-2.9
Intra-industry differences in coefficients	-16.5	-3.7
Foreign invested affiliates	17.0	23.4

Source: author based on GSO, 2000b.

The aggregate figures for both VA/O and VA/L can themselves be decomposed into intra-industry differences and into differences in the industrial composition of output. In the case of employment per unit of value added, the entire difference between foreign and Vietnamese firms is due to differences within industries. There is no evidence that foreign affiliates are particularly concentrated in industries with higher levels of productivity than local firms. Indeed, the positive coefficient indicates that the sectoral composition of value added by foreign affiliates is marginally positive in terms of employment creation. This is not surprising given the investment in recent years in labour-intensive industries such as clothing and footwear.

In the case of vertical integration, intra-industry differences remain more significant in accounting for the overall differences in performance than differences in the composition of output. However, in this case over 40% of the total difference in vertical integration is due to foreign affiliates tending to be concentrated in industries with a relatively low level of value-added to output. The remainder results from foreign affiliates being more heavily dependent on bought inputs compared to Vietnamese firms within industries.

In summary, the most important factor accounting for the lower level of employment generated by foreign affiliates is their more advanced technology. However, the lower level of vertical integration, which probably reflects greater dependence on imported inputs, and the tendency for foreign affiliates to be concentrated in less vertically integrated industries, also contributed significantly to the overall effect.

Indirect employment effects

In order to analyze fully the impact of FDI on employment, it is also necessary to look at the indirect effects that it has on employment. As was pointed out earlier, these can either be positive or negative. Given the data available and the potential problems of interpretation, the results are suggestive rather than conclusive, but provide a first attempt at presenting the broader picture.

An econometric analysis was carried out to identify whether the dominant impact of FDI on employment in Viet Nam was positive or negative. Labour demand functions can be derived from Cobb-Douglas or Constant Elasticity of Substitution production functions (Hamermesh, 1986). The trade and employment literature has extended this by making the technical efficiency parameter in the estimating equation dependent on certain trade variables such as import penetration or export orientation (Greenaway et al., 1999). A similar approach is adopted here, with the difference that it is the share of foreign affiliates in production that is considered to influence the technical efficiency parameter.

First the growth of employment at the 2-digit level of the Vietnamese Standard Industrial Classification between 1995 and

1999 was regressed on the change in the share of foreign affiliates in gross output.[14] The results are summarized in table 8. The main interest here is in the impact of increased foreign ownership on employment in an industry. The impact is consistently negative and significant at either the 5% or 1% level. In other words, industries in which foreign ownership has risen significantly between 1995 and 1999 have tended to lag behind in terms of employment growth.

A number of other variables are included in the different specifications summarized in table 8. The *a priori* expectation from a standard demand for labour function is that employment is positively correlated with output and negatively with wage costs (or strictly speaking wages relative to the cost of capital). As predicted, the growth of production is consistently significant at the 1% level.

Unfortunately, there are no industry level data available on wages in Viet Nam and so an estimate was made of the change in average wages and salaries per person employed between 1995 and 1998.[15] The proxy used for wage costs has the expected negative sign in all three specifications, although levels of significance are not particularly high. The low levels of significance may reflect the fact that it is not a particularly good proxy for the change in relative wage costs.

Equation (1) introduces the share of State-owned enterprises in an industry as a control variable. A high level of State ownership at the start of the period is expected to depress the rate of growth of employment. As liberalization has taken hold in Viet Nam, State-owned enterprises were forced to

[14] The office, accounting and computing machinery industry was excluded as an outlier.

[15] It was not possible to obtain data for 1999 which would have given the same period coverage as for the other variables. The figure for 1998 was obtained directly from the Industrial Survey (GSO, 2000b, table 1), while the figure for 1995 was calculated by applying the share of wages in gross output obtained from the 1996 input-output table to the gross output per person in 1995 as calculated from GSO (2000b, tables 45 and 48).

rationalize. In some cases, they reduced employment, while in others they were able to increase output without taking on additional workers. There is therefore likely to be a negative relationship between the share of State enterprises in an industry and the level of employment. This variable has the expected negative sign and is significant at the 5% level.[16]

In the second equation, the change in the share of exports in output is introduced instead of the level of State ownership. Since Viet Nam has become increasingly specialized in exports in labour-intensive industries, it is expected that the share of exports in production would be positively correlated with employment – and this turns out to be the case. Equation (3) controls for both State ownership and export orientation.

Table 8. Determinants of sectoral employment growth, 1995-99

Variable	Eq. 1	Eq. 2	Eq. 3
PRODGR	0.617*	0.845*	0.756*
DWAGE	-0.0002**	-0.0001	-0.0002***
DFSHARE	-0.271**	-0.484*	-0.403*
SLEVEL	-0.140**		-0.094***
DXSHARE		0.225*	0.163***
Adj. R^2	0.46	0.48	0.53
D-W Stat	1.326	1.356	1.446

Source: author's calculations.
* - significant at 1% level.
** - significant at 5% level.
*** - significant at 10% level.
Notes: PRODGR – % growth of industrial output, 1995-1999.
DWAGE - % growth of wages per person employed, 1995-1998.
DFSHARE –change in share of foreign affiliates in gross output, 1995-1999.
SLEVEL – share of State owned enterprises in gross output in 1995.
DXSHARE – change in ratio of exports to gross output, 1995-1999.

[16] In contrast to the other independent variables, the share of State enterprises in output at the beginning of the period was used, on the grounds that it is a high level of State ownership initially that dampens employment growth.

There are a number of possible reasons why increased foreign ownership tends to be associated with a slower rate of employment creation. As already noted, since foreign affiliates tend to create fewer jobs per billion Vietnamese dong of output than local firms, an increased share of foreign affiliates would be expected to be associated with lower employment growth. However, in this section, we are particularly interested in the indirect impact that FDI has on employment in local firms. There are two types of effects that can be considered. The first is the impact that increased foreign ownership has on production by local firms. This can be either positive because of new market opportunities created for local producers, or negative because foreign affiliates out-compete local firms displacing them from the market.[17] The second impact is the technology effect, whereby local firms, facing competition from foreign investors, adopt more advanced technologies in order to survive. In this case the effect is expected to be a lower level of employment growth.

It is useful to distinguish between State and privately owned Vietnamese firms because they are very different kinds of enterprises and may possibly be affected in different ways by the entry of foreign firms. As noted earlier, where foreign affiliates have set up joint ventures, these have tended to be overwhelmingly with State firms.

First the impact of increased foreign presence on the growth of production of state and non-State firms was estimated. In the case of State firms, no relationship was found between changes in the share of foreign affiliates and the growth rate of

[17] FDI in an industry may create a market for local firms which can either be in the same industry or in different industries. The effects that are measured here are on firms within the same industry; but given the relatively broad industry groups used, this may still capture significant positive effects where they occur. Thus, for example, FDI in car assembly leading to an increased market for local auto parts producers, would be included (because they are within the same industry, motor vehicles), whereas the impact on local tyre producers would not.

production by State firms. However, for non-State firms, a negative relationship was observed, significant at the 5% level.

NSPRODGR = 0.127 – 0.229DFSHARE**
R^2 = 0.155, D-W = 1.762

NSPRODGR – growth of production of non-state (Vietnamese owned) firms

This suggests that the dominant effect of FDI as far as private local firms are concerned is to reduce their market share.[18]

As a second step, the impact on employment growth, given the rate of growth of production was estimated. This captures the impact of the increased presence of foreign affiliates on employment through rationalization, which can be seen as a response to increased competition.[19] In this case there is no significant relationship between employment growth in local firms and the increased share of foreign affiliates, but there is a negative relationship for State firms.

SEMPGR = - 0.090 + 0.756SPRODGR* - 0.184DFSHARE* + 0.001KINT*
R^2 = 0.919, D-W = 1.979

SPRODGR – growth of production of State-owned firms
SEMPGR – growth of employment of State-owned firms
KINT – capital intensity.

This evidence is consistent with the view that the impact of FDI on employment operates in different ways. As far as

[18] Causality could run in the opposite direction if foreign investors entered industries in which local private firms were growing slowly, although there is no intuitively obvious reason why in the Vietnamese context this should be the case.

[19] Again the direction of causation is open to debate. However the opposite interpretation would imply that foreign affiliates were deliberately avoiding those industries in which State enterprise productivity was lagging, which again seems less plausible than the interpretation proposed here.

private Vietnamese firms are concerned, the growth of foreign affiliates affects employment primarily through a reduction in their market share and hence in the growth of production, while for State-owned enterprises the main impact is through competition from foreign affiliates making them rationalize their activities and increase labour productivity. In both cases however the overall impact on employment growth tends to be negative.

Conclusions

Despite the rapid growth of FDI in Viet Nam during the 1990s and the significant share of foreign affiliates in industrial output and exports by the early years of the 21st century, the direct employment generated has been very limited. Most of Viet Nam's labour force continues to be in the agricultural sector and in services such as the wholesale and retail trades, and transport where FDI has been minimal. Even the recent expansion of foreign firms to labour-intensive manufacturing has not had a substantial impact on employment because of the high productivity and low value-added of much of this investment.

Not only have the direct employment effects of FDI in Viet Nam not been very substantial, but the indirect effects have also been minimal and possibly even negative. The outcome in terms of indirect effects depends on the balance between the crowding-in effects of FDI creating new markets for local investors and the crowding-out effects that arise when foreign affiliates displace local competitors. Foreign investors in Viet Nam have created very limited local linkages since they import most of their inputs. According to the Industrial Survey imports accounted for 63.9% of all materials and supplies purchased by foreign affiliates, compared to 36.6% for State-owned enterprises and 18.2% for local non-State firms (own calculation from GSO, 2000b, tables 31 and 35). There are of course important differences between industries; for example food processing tends to make greater use of local inputs than the clothing or electronics industries (GDI, 2000, p. II), but the overall picture is one of heavy dependence on imported inputs.

While the linkages created by foreign affiliates have been limited, there is also evidence of crowding-out of local firms, and of rationalization by State firms in response to foreign competition, both of which tend to reduce employment. ■

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