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## Does foreign direct investment contribute to unemployment in home countries? An empirical survey

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# Kiel Working Papers

Kiel Working Paper No. 765

**Does Foreign Direct Investment Contribute to Unemployment  
in Home Countries? – An Empirical Survey –**

by

Jamuna Prasad Agarwal

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# **Does Foreign Direct Investment Contribute to Unemployment in Home Countries? – An Empirical Survey**

## **Abstract**

*According to investors' motivations, outward foreign direct investment (FDI) can be distinguished between natural resources seeking, market seeking or efficiency seeking. In the first two types, unemployment resulting from export substitution and reimports is expected to be considerably less than employment emanating from additional exports of capital equipment, intermediate goods and new product lines to foreign affiliates, and the need for more office jobs in the home countries. The efficiency seeking FDI may cause more unemployment due to export substitution and reimports than employment through additional exports to host countries. Since the first two types constitute generally the bulk of FDI, net employment effect on home countries should ceteris paribus be positive.*

This is a revised version of the paper presented at Eighth World Congress of Social Economics, College of Charleston, Charleston, South Carolina, USA, July 31-August 3, 1996.

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# **Does Foreign Direct Investment Contribute to Unemployment in Home Countries? – An Empirical Survey –**

## **I. Introduction**

Most of the developed countries are faced with long-term rising unemployment and declining relative wages of unskilled workers. At the same time, their foreign direct investment (FDI) has risen. This coincidence has fuelled concerns that outflow of equity capital is one of the important causes of unemployment. France and Germany are struggling against high unemployment since many years, but have hardly any success. In a report to the French Senate, the former senator Jean Arthuis argued in 1993 that FDI is a major factor for unemployment among factory workers. In Japan, unemployment is a newer phenomenon, and its rate is still very low compared with some developed countries in Europe. But the Japanese policy makers are all the more worried that the country's multinational corporations may be "hollowing out" the economy by "relocating" plants in neighboring Asian countries and exporting from there to third countries and Japan as well (OECD 1995a). In the U.S., the debate on employment effects of FDI is older. It peaked in the 1970s, and has been rekindled by the formation of NAFTA as well as the rising wage gap between skilled and unskilled labor. The German

discussion is popular under the banner of locational competition. The rising net outflow of FDI from Germany is often considered as the result of deteriorating attractiveness of the country for foreign investors due to high direct and indirect costs of local labor. Moreover, the transformation of the Central and East European countries and their envisaged integration into the European Union has strengthened the concern about relocalization of German industries.

The purpose of this paper is to draw a broad outline of the scope for a negative employment effect of FDI in investors' home countries. In order to do this, it is essential to understand the main components of employment effect of FDI. These are explained in section 2. This section draws also on the existing literature in order to judge their relative importance. Section 3 discusses the net effect of employment and unemployment creating components. This is followed by a structural analysis which divides FDI according to their motivations into resource or market seeking on the one hand and efficiency seeking on the other. The former include investments which have a positive net impact on employment in home countries. The latter refer to FDI which may have a net negative impact. Data at global as well as country level are used to quantify the relative strength of these two types of FDI. Section 5 explains why job exodus discussion has become popular in spite of a likely positive net employment effect of FDI at aggregated level. The last section summarizes the above discussion.

## II. Main Components of Employment Effect

The focus in this paper is on advanced economies having a fairly diversified level of outward FDI. This means there is a multitude of firms and industries investing abroad. This also implies that both positive and negative effects of FDI may occur in any given period of time. Their net result is subject to a variety of factors such as industrial mix, investment motives, and competitive context within which investments are undertaken abroad. Before discussing the net effects, it is appropriate to understand the nature of various positive and negative effects of FDI on employment. The following list is, however, confined to main employment effects of FDI on home countries. A discussion of indirect effects is beyond the scope of this paper.

### *a. Export Substitution*

Both from the perspective of theoretical as well as empirical literature, export substitution is one of the two main channels through which FDI may reduce employment in the home country. Product cycle theory, which was a very popular explanation of FDI in the sixties and seventies before the onset of eclectic theory, postulated that FDI of a firm to produce a particular product in a foreign country substitutes its exports of that product from the home base (Vernon 1966 and 1979; Hirsch 1967; Hufbauer 1966). Standardization of the product and its production technology give rise to new producers; and competition with them

forces the original producer to locate new plants nearer the foreign market place to save transport costs and in labor-abundant countries to seek cost advantages, especially of labor. Empirically, only a few studies<sup>1</sup> have found evidence for product cycle theory of FDI. For the purpose of this paper it is important to remember that this theory hypothesises a kind of market compulsion for the original producer to invest abroad. Failure to follow this market signal could result in a loss of export markets as well as home market. Thus the choice between export and FDI, which is available during the early stages of a product cycle, does not exist in the final stage. FDI is a natural descendant of exports according to this theory. The choice at this stage is between FDI and market exit, and not between FDI and export. However, from the point of view of home country, product-cycle FDI need not necessarily reduce domestic employment so long there are more products in early than in the final stages of product cycle.

A similar position is held by the optimal timing theory of FDI. It says that once a company has developed certain market share in a foreign country by exporting, it is likely to begin with FDI in order to raise this share further. Higher

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<sup>1</sup> For a survey of these studies see Agarwal (1980).

market shares often require local production in the market.<sup>2</sup> Several authors have argued that exports are followed by FDI once a critical level of market share is reached in a foreign market, or when it is threatened by tariff and non-tariff barriers or by host country competitors. If the investing firm is producing only one product, its FDI will lead to export substitution resulting in home country unemployment. But if it is producing more than one product, FDI to produce one product may lead to exports of other products because of the export promotional effect of the foreign affiliate. Additional exports may reduce, neutralize or overcompensate the unemployment effect of initial FDI. At macro level, it is even more realistic that most of the countries are producing and exporting several products and substitution of exports of one or more products by FDI may be followed by increased exports of other products. Moreover, FDI often requires imports of inputs from home countries. Thus, FDI involves both growth and substitution effects on exports. The theory of optimal timing does not predict which of these effects would outweigh at country level.

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<sup>2</sup> Roch (1973), Agarwal (1978), Buckley and Casson (1985). This theory is based on historical experience of sequential relation between trade and FDI in market seeking FDI. It does not predict that accessing foreign markets right from the start through FDI would be suboptimal. Moreover, the importance of this theory has diminished due to worldwide declining costs of communication and transportation.

### ***b. Reimports***

Reimports refer to goods and services produced abroad by foreign affiliates of domestic firms and imported in the home country to be used as inputs in production or sold to final consumers. Reimports are supposed to reduce actual or potential domestic production and employment. Any equity or non-equity investment involved in the production of reimports is therefore likely to destroy jobs at home. This is the second important channel of employment reduction in home countries, and has drawn even greater attention than export substitution effect of FDI in the popular "relocation" and "hollowing out" discussion.

As early as 1971, Ruttenberg and Associates prepared a study for the Industrial Union Department of the U.S. AFL-CIO on employment effect of American FDI abroad. They estimated that half a million jobs were lost during 1966 and 1969 due to manufacturing FDI by U.S. multinational firms. The study relied primarily on a comparison of growth of imports and FDI and assumed that the demand for additional imports during this period could have been satisfied domestically in the absence of U.S. FDI. The study seems to have assumed further that all additional imports were produced by the affiliates of American MNCs i.e. they were reimports. Both of these assumptions are unrealistic.

Largely the same assumptions permeate the relocation discussion even today. Critics of relocation usually ignore the fact that firms at home are faced

with foreign competition and they invest abroad to strengthen their competitiveness. The choice is often between outsourcing and loss of home market, and not so much between outsourcing and domestic production. In labor intensive and low-technology products, firms from developed countries can lose market shares both at home and abroad to newly industrializing countries if they do not improve their cost competitiveness by augmenting their production at low-cost locations in labor-abundant countries.

### *c. Capital Export*

Outflow of FDI could *ceteris paribus* reduce domestic capital formation and thus employment. Koechlin and Larudee (1992) argued that NAFTA would divert investment worth \$ 31 billion to \$ 53 billion by the year 2000 from the U.S. to Mexico resulting in a loss of jobs up to half a million.

However, FDI is followed by earnings; and before accounting for the effect on domestic investment, inflows of earnings have to be deducted from FDI outflows. In a short run, FDI outflows of a country are likely to exceed its FDI earnings, but in a longer period of time earnings may outstrip FDI outflows. Then the net balance of these two variables begins to have a positive rather than a negative impact on domestic capital formation.

In the case of the U.S., outward FDI during six years from 1989 to 1994 amounted to \$ 263 billion and total FDI earnings to \$ 339 billion yielding a surplus of \$ 76 billion. If earnings reinvested in the host countries amounting to \$ 131 billion are excluded from both outward FDI and total earnings, net inflows of earnings (\$ 208 billion) exceeded FDI outflows (\$ 132 billion) by 157 per cent during this period. In addition, U.S. firms had net inflows of \$ 106 billion for royalties, license fees and charges for other services received from their foreign affiliates. During the given period, earnings exceeded outward FDI in every year except 1993. If royalties, license fees and charges for other services are taken into account, the U.S. had a surplus even in 1993 (U.S. Department of Commerce 1995: 94).

For a country with a relatively shorter history of outward FDI such as Germany, FDI outflows may mean a drag on domestic capital formation. Of the total outstanding stock of outward German FDI in 1994, only 34 per cent had been financed through reinvested earnings. The ratio of earnings to FDI outflows during the years 1990 to 1994 amounted to 25 per cent, a great deal smaller than in the U.S. (Deutsche Bundesbank 1996a and 1996b). However, Germany had a net surplus on capital account during the same period (Deutsche Bundesbank 1996b). Therefore, it cannot be said that FDI outflows reduced domestic capital

formation. It is possible that they were financed through foreign borrowings routed through domestic capital market.<sup>3</sup>

*d. Associated Exports of Goods and Services*

FDI outflows for establishing new plants are well known to stimulate often exports of capital goods, spare parts, raw materials, etc., to the related foreign affiliates (Hawkins 1972). This applies particularly to foreign transplants set up to circumvent import restrictions of host countries, or to realize cost efficiency by utilizing their cheaper labor and resources. In addition, foreign investments stimulate exports of other product lines neither produced by the foreign affiliate nor exported earlier by the parent firm. This is because the new unit is usually able to offer closer servicing and market relationship to foreign customers. The new export of capital goods, spare parts, raw materials and additional product lines have a positive impact on employment in the home country.

Hufbauer and Scott (1993: 16–19) estimated that U.S. exports of capital goods, intermediate components, replacement parts and other associated goods

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<sup>3</sup> Investment diversion argument is basically static in nature assuming that what is not invested abroad will be invested in home economy in national accounting sense where savings equal investments. Beyond that, substitutability of capital between foreign and domestic fixed capital formation may be limited, and the choice of investors between foreign and domestic locations will depend – among other things – on earnings expectations.

and services to Mexico as a result of U.S. FDI stimulated by NAFTA would increase more than reimports having a positive impact on the U.S. employment level. More recently, Hanson (1995) has investigated the effects of U.S. FDI in so-called *maquiladoras* in northern Mexico. He found that a 10 per cent expansion of production in them leads to a 5.8 per cent increase of durable goods manufacturing and a 3.6 per cent increase in nondurable goods manufacturing in U.S. border region. Moreover, the impact on employment in the U.S. goes far beyond manufacturing. A 10 per cent increase in maquiladora value added leads U.S. border region employment to rise by between 1.7 per cent and 2.8 per cent in transportation, 1.4 per cent and 2.4 per cent in wholesale trade, and 1.3 per cent and 1.6 per cent in services.

#### *e. Management Expansion in Home Country*

FDI creates jobs in legal, administrative and managerial departments of parent companies, the expansion of so-called white-collar employment in home office due to foreign operations (Hawkins 1972). In the case of relocation of production facility, office jobs may be saved or even increased because operations in a foreign country may require more managerial inputs due to different sets of laws, accounting practices, labor relations, etc. In an investigation on effects of U.S. FDI in Mexico, a U.S. electronic company reported that it was able to maintain 300 administrative, marketing and warehousing jobs in the U.S. by investing in

Mexican *maquiladora*, which otherwise would have been lost due to a likely closure of U.S. operations (U.S. International Trade Commission 1991: 68).

The need for administrative jobs to manage foreign affiliates is likely to differ from case to case depending mostly on integration of foreign affiliates in global production process of the parent corporation and development of the host country. However, the impact of FDI on managerial jobs in a home country is sometimes difficult to measure. Expansion of managerial personnel is usually a continuous process, and often a clear-cut separation of domestic and foreign responsibilities of an employee is not possible. Most of the studies are, therefore, not able to account for this effect while estimating employment impact of FDI (Hawkins 1993).

### **III. Net Employment Effect**

Net employment effect of outward FDI is the sum of negative and positive results of above components, viz. export substitution (–), reimports (–), capital export (–/+), associated exports (+) and management expansion (+). They do not make an exhaustive list of possible ways and means of employment creation and destruction in home countries or their second round effects on wages and regional

disparities or international competitiveness etc. But they do cover the overwhelming part of quantitative effect of outward FDI on home country jobs.<sup>4</sup>

Empirically, net employment effect may turn out in a particular case positive or negative. A firm, for example, producing only one item and exporting to only one country will have to reduce jobs at home if it starts production of the same item in that foreign market. Its exports will be *ceteris paribus* substituted by host country production, and expansion of jobs in management section may not compensate contraction of jobs in production unit. If, however, the investing firm is a conglomerate producing and trading a larger number of products, substitution of export of one product to a host country may be more than compensated in terms of employment by exports of other product lines. As a firm grows larger and more global, the effect of its FDI on its own employment is likely to move in a positive direction.

Similarly, in the case of a very narrowly defined industry faced with stagnant market, FDI may result in net unemployment in that industry through greater export substitution and reimports than management expansion. But if industry is defined very broadly or if manufacturing sector as a whole is considered, more

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<sup>4</sup> For a fuller discussion see UNCTAD-DTCI 1994: 166-173.

jobs may be created through associated exports than lost through export substitution and reimports.

At country level, net employment effect of outward FDI depends largely on the stage of economic development and investment policy of home country. At very early stages of economic development, outward FDI is rare. Either domestic firms do not possess resources (e.g., ownership specific assets) to be able to invest abroad, or the home government follows a restrictive policy on ground of foreign exchange constraint. Permission to invest abroad is given at this stage as an export promotion measure. In such a case, net employment effect ought to be positive. In a study of Indian outward FDI (Agarwal 1985) it was found that it had a positive effect on India's balance of payments in terms of net foreign exchange earnings. The study did not examine employment consequences. But more exports can be assumed to be associated with more employment. In the case of semi-industrialized countries in Asia such as Malaysia, the Republic of Korea, Taiwan or Thailand also, outward FDI policies are export promotion oriented (UNCTAD-DTCI 1995, Chapter VII).

As to developed economies, equity capital outflow is widely liberalized and scope for direct trade related investment promotion measures by public agencies is very limited. However, outward FDI of these economies is dominated by diversified conglomerates. Ratios of their exports to foreign affiliates in their total

exports are rather high. In U.S. and Japanese manufactures in 1992, they amounted to 42 per cent and 32 per cent, respectively, and they increased as compared to 1983 (Table 1). This indicates that increased FDI outflows were correlated with more exports. Furthermore, balance of intra-firm trade is in favor of home economies in the U.S. as well as Japan. In both the countries, increased outward FDI is accompanied by higher reimports. But reimports are outstripped by exports to foreign affiliates, indicating *ceteris paribus* net employment

Table 1 — Intra-firm International Trade in the U.S. and Japan 1983 and 1992 (billion dollars and percentages)

	United States		Japan <sup>a</sup>	
	1983	1992	1983	1992
Exports by parent firms to their foreign affiliates (\$ billion)	47	106	31	86
Imports by parent firms from their foreign affiliates (\$ billion)	39	94	5	16
Balance of intra-firm trade in home country of parent firms (\$ billion)	8	12	26	70
Share of affiliates in total exports of parents (per cent)	31	42	28	32
Share of affiliates in total imports of parents (per cent)	36	46	21	29
<sup>a</sup> excluding commerce.				

Source: UNCTAD-DTCI (1995: 194-195).

creation. Japanese balance of intra-firm trade is considerably higher than of the U.S. The major reason for high export surplus of Japanese TNCs in trade with their foreign affiliates is that the latter are still in their early stages of development and heavily dependent on supply of components from parent firms. Japanese firms have often been criticized for putting up transplants in the U.S. and Europe to circumvent actual or potential import barriers. Transplants usually have a relatively high ratio of imports of components from home countries (OECD 1994a). On the basis of sectoral and geographical distribution of U.S. FDI and exports Bergsten et al. (1978: 97) concluded that in industries or countries with small amounts of American investment, an expansion of FDI was matched by expansion of exports. At modest-to-high levels of FDI, according to their view, complementarity between FDI and exports of a parent company lessens. The reason given for the high initial complementarity is that in the beginning FDI is concentrated in marketing and assembling of parent's products. As affiliates start producing a full product line, their imports from parent firm decline.

#### **IV. Why Should FDI Lead to Net Employment Creation? – Some Plausibility Considerations**

Current discussion on employment effect of outward FDI from developed countries is flawed because it tends to generalize from a few visible cases of job

relocation in a country to its entire FDI abroad. With a view to unveil and remove this misunderstanding, FDI is divided into three sectors, viz. natural resources, manufactures and services, and the latter two into market and efficiency oriented subsectors. FDI in natural resources, market oriented manufacturing industries as well as services is likely to create employment rather than unemployment in home countries. Only efficiency oriented FDI of industries and services can result in net unemployment in investing economies. If FDI in natural resources as well as market oriented activities exceeds efficiency seeking FDI, net employment effect in the home country is likely to be positive. However, no attempt is made here to test this hypothesis on quantitative data. The discussion in this section is confined to analytical arguments and evidence from the published literature.

#### *a. Natural Resources*

Historically, natural resources (primary sector) were a classical field for FDI. Not very long ago (1984), they absorbed nearly one third of U.S. and U.K. outward stock of FDI. Since then the share of this sector in total outward FDI of most of the major investing countries has considerably retreated (Table 2).

FDI in natural resources is likely to create employment and not unemployment in home countries. This is the reason why published studies have generally not included such FDI in their empirical investigations.

Table 2 — Sectoral Distribution of Stock of Outward FDI of Selected Countries 1984–1993 (percentages)

	Germany		France		Japan		United Kingdom		United States	
	1984	1993	1987	1992	1984	1993	1984	1993	1984	1993
Primary Sector	3.8	1.1	4.0	7.3	18.6	5.3	33.3	16.7	30.1	12.6
Manufacturing Sector of which:	59.7	48.9	50.0	40.3	30.3	27.3	31.9	37.8	40.6	36.3
Textile, clothing and leather	0.6	1.0	1.1	0.8	2.7	1.3	n.a.	n.a.	0.6	0.4
Services	36.5 <sup>a</sup>	50.0 <sup>a</sup>	46.0	52.4	51.1 <sup>a</sup>	67.4 <sup>a</sup>	34.8	45.5	29.3	51.1
n.a. = not available.										
<sup>a</sup> including unallocated.										

Source: OECD (1995).

Considering the major components of employment effect of FDI, it is fairly obvious that FDI in natural resources such as mining, quarrying or oil exploration does not usually lead to export substitution. Indeed, it is possible to conceive that, for example, a country like Germany substitutes domestically produced with cheaper imported coal from a neighboring country like Poland. But in practice, such cases are rare. Moreover, FDI in natural resources usually involves exports of capital goods. Thus, the net employment effect of natural resources seeking FDI in the host country can be expected to be positive.

## ***b. Manufactures***

Manufacturing FDI forms the core of ongoing discussion on relocation of industries and its adverse consequences on home country jobs. It is this sector which has been often explored in empirical studies to verify employment effects of outward FDI. Even if the relative importance of this sector in total outward FDI has declined since the mid-1980s, it still accounts for about one fourth (Japan) to half (Germany) of all investments (Table 2). So it is in place to focus on manufacturing industries for examining employment effect of FDI. However, employment is unlikely to be affected in every industry equally by the outflow of FDI, because in some industries investments are made to secure or expand market shares, whereas in others to lower costs of production by utilizing international differences in relative factor prices, especially of land, labor and environmental resources. Therefore, a distinction is made in the following between industries whose FDI makes a positive contribution to domestic employment or leaves it unchanged, and industries in which outflow of FDI tends to reduce domestic jobs. The former are called market and the latter efficiency seeking FDI.

### ***1. Market Seeking Industrial FDI***

Market seeking FDI is attracted by size and growth prospects of host country market, advantages linked to direct presence in customers' vicinity, avoidance of import barriers, discriminatory government procurement policies and high

transport costs, if the same market was supplied through exports. Market size and growth have proved most prominent determinants of FDI in most of the available empirical studies (Agarwal 1980, UNCTC 1992). Market seeking FDI can also be a result of oligopolistic competition where TNCs try to get a foothold in each other's domestic market. Much of intra-industry FDI is associated with oligopolistic competition.

The motivation of market seeking FDI is to increase the global turnover of the entire firm and not to relocate jobs from home to host country. But it is possible that some of the market seeking investments may lead to reduction of exports of a related product to a host country, but this reduction may be compensated by increased exports of associated inputs and other product lines.

Most of manufacturing FDI of developed countries is located in each other's economies. In the case of the U.S. outward stock of manufacturing FDI, developed countries' share amounts to 77 per cent (U.S. Department of Commerce 1995: 97), and for Germany and Japan these ratios are 78 per cent (Deutsche Bundesbank 1996a: 36) and 65 per cent (UN-TCMD 1993: 293) respectively. FDI of developed countries among each other's economy is overwhelmingly more market than efficiency seeking.

Moreover, about 60 per cent of the U.S. and 83 per cent of the German FDI are channeled through acquisitions.<sup>5</sup> In such cases, investors buy existing market shares of host country firms. Subsequent restructuring of the global strategy of the buying firm may result in less or even in more exports depending, among other things, on the acquisition motivation and its implementation. But generally acquisitions are likely to raise exports of acquiring firms to the target market due to intimate customer relations made possible through local presence.

## 2. *Efficiency seeking Industrial FDI*

Efficiency seeking FDI is normally observed in labor intensive industries and processes. In these industries and processes TNCs from developed countries invest in developing countries to utilize relatively low costs of labor. Prominent examples of such investments are those of off-shore assembly and outsourcing by U.S. firms in *maquiladoras* of Mexico, of Japan in textile industry in neighboring Asian countries and of European clothing firms in Mediterranean as well as Central and East European countries. Pollution abatement costs in industrialized countries could also encourage their TNCs especially in pollution intensive industries such as petro-chemical to invest in less regulated developing economies. However, studies on "pollution haven" hypothesis fail to find any

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<sup>5</sup> See Mataloni Jr. (1995) and FAST (1990).

support for a systematic relocation of dirty industries to developing countries by means of FDI (Beghin et al. 1994: 6). Land costs in developing countries are also often lower than in developed countries. But they are likely to play a subsidiary role in motivating manufacturing investors to go to developing countries, because land costs generally constitute a minor part of total capital expenditure. Similarly, fiscal and financial incentives offered by these countries tend to enhance efficiency of invested foreign capital. But like land costs, incentives may not be sufficient enough for investors to prefer locational sites in developing countries in comparison to home base. They become important in association with other efficiency stimulating advantages of lower wage and environmental costs in target economies (Agarwal 1987; OECD 1983; UNCTAD-DTCI 1995).

Efficiency seeking outbound FDI may be additional to the existing production facilities in the home country, or it may be meant to relocate the production capacity from the home base to another country. In the first case, home country employment is not reduced. But its future growth may be adversely affected as far as additional production capacity is created only on foreign sites. In the second case, *relocation* of plant reduces employment at home.

It is this *relocation* which is of prime importance for employment implications of FDI. The relevant questions then are (1) what is the weight of

*relocation* investments in total FDI of a country, and (2) whether the jobs in the home country can be saved by stopping relocation investments abroad?

As to the first question, a precise answer at aggregated economy level is not possible for lack of statistical information. The evidence on the closure and subsequent relocation of plants by the same firms in other countries is largely anecdotal. But an indirect inference can be drawn from the weight of those industries in total FDI in which relocation investments are likely to have a strong incidence. This is presumably the case with labor intensive industries.<sup>6</sup>

Labor intensive industries are leather, textiles and clothing. The share of these industries in total stock of outward FDI of developed countries is around only one per cent (Table 2). Moreover, except in the case of Germany this share has declined rather than increasing in the past many years. Looking from the perspective of host developing countries too, the share of these three industries in

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<sup>6</sup> However, it must be remembered that technical progress has made it possible to splinter a production process into different parts and locate them in different countries according to their relative factor prices. As a result, labor intensive processes within a particular industry may be relocated to a labor abundant country keeping others at home. This is observed specially in electronics and automobile industries. But again separate data on such industrial activities are not available. The reliance only on the three labor intensive industries (leather, textile and clothing) for evaluating employment effect of efficiency seeking FDI may, however, not amount to an underestimation because relocating FDI from industries other than these may be compensated by some of FDI in these three industries which is meant to supply the host markets rather than for reimports in host countries.

their inward stock of FDI is very low, often below 5 per cent (Agarwal 1994). Since these are labor intensive industries, their share in total number of employees in foreign affiliates is higher (Table 3), but insufficient for a wide ranging concern about unemployment resulting in the whole of industrial sector from outflow of equity capital.

The second question regarding *relocation* of production is whether domestic as well as export market shares – and thus jobs in the home country – can be retained in the absence of efficiency seeking FDI? In all the three industries viz. textiles, clothing and leather, production technologies are fairly standardized and accessible to producers in developing countries. They generally have strong cost advantages in those industries vis-à-vis developed countries. This is obvious from their increasing production and exports. TNCs from developed countries are often able to continue reaping the benefits of their patents, trademarks and established marketing networks through production relocation in poorer regions by means of equity and non-equity foreign investments. Forgoing such investments will reduce their international competitiveness resulting in loss of market shares. Thus waiver of relocation investment under existing constellation of international relative factor prices would mean more and not less unemployment in home economies of investors. Moreover, in the case of waiver, jobs in industries delivering associated exports of machinery and other inputs to foreign affiliates, in

management and distribution network, and jobs related indirectly with rental earnings on property rights (licensing fees, etc.) may be lost.

Table 3 — Sectoral Shares in Total Number of Employees in Foreign Affiliates of Germany, Japan and U.S. 1982–1993 (percentages)

	Germany		Japan		U.S. <sup>a</sup>	
	1983	1993	1982	1990	1982	1993
Primary sector	1	1	5	2	8	3 <sup>b</sup>
Manufacturing sector	74	68	79	80	67	60
Food, beverages and tobacco	2	2	2	2	8	8
Textiles, clothing and leather	4	4	11	6	1	1 <sup>c</sup>
Paper	2	1	3	1	3	— <sup>d</sup>
Chemicals	20	14	6	5	9	9
Coal and petroleum products	1	1	—	—	2	— <sup>d</sup>
Rubber products	1	1	—	—	2	— <sup>d</sup>
Non-metallic mineral products	2	2	—	—	3	— <sup>d</sup>
Metals	4	5	9	4	4	3
Machinery excluding electrical	7	7	0	0	8	7
Electrical machinery	13	14	29	33	10	8
Automobiles	13	13	—	0	13	11 <sup>e</sup>
Other transport equipment	0	—	11	15	1	— <sup>e</sup>
Remaining manufactures	4	3	9	14	4	13
Services	25	31	16	18	25	37
Total employment (thousands)	1617	2513	881	1550	6816	6731

<sup>a</sup> Excluding banking. - <sup>b</sup> Petroleum. - <sup>c</sup> 1991. - <sup>d</sup> Included in remaining manufactures. - <sup>e</sup> Included in automobiles.

Source: UNCTAD-DTCI (1994: 181); Deutsche Bundesbank (1995); Mataloni Jr. (1995: 49).

### *c. Services*

The service sector accounts now for about half of all FDI from leading investor countries, and has recorded considerable growth since the mid-1980s. In the case of Japan, share of services sector in total outward FDI had reached 67 per cent in 1993, rising from 51 per cent in 1984 (Table 2). Until recently, FDI in services used to be generally considered as market seeking involving hardly any export substitution and reimports, because production and consumption of services generally took place within the same country (Kravis and Lipsey 1988: 2).<sup>7</sup> This is the reason why this sector has often been ignored in the empirical studies on employment consequences of FDI for home countries.<sup>8</sup> But the technological revolution in the means of communication and data transmission has now made it possible to produce some services in one country and use the same in another

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<sup>7</sup> Services as defined in trade statistics include trade related services such as shipment and other transportation, cargo insurance, trade financing etc. They are not the same as services defined in FDI statistics which include investments in trade and transport network, construction, banking and financial institutions, real estate, etc. in host countries. The production of services rendered by these investments must take place in the country of domicile of purchasers. For a distinction between trade related services and other services see Deardorff (1984), who tries to explain how far the theory of comparative advantages is applicable to trade in services. He is not concerned with FDI, but the distinction made by him between different types of services is relevant for analyzing the employment implications of FDI in services sector. For a broader categorization of services see Sampson and Snape (1985).

<sup>8</sup> See Hawkins (1972), U.S. Tariff Commission (1973), Bergsten et al. (1978), Horst (1978), Hufbauer and Scott (1993). For a recent survey of literature see Enderwick (1994).

irrespective of geographical distance (Bhagwati 1984). Thus, it is now possible to raise efficiency by relocation of production in selected segments of services also. Though the share of such efficiency seeking FDI in total FDI in services is considered to be yet very small, it is appropriate to treat it here separately from the rest which is targeted for local consumption in host countries.

### *1. Market Seeking Services FDI*

Services FDI is generally in trade, construction, banking, finance, transportation, storage, communication, insurance, real estate, hotels, health and other such services. Except in the case of the U.S., a more detailed classification of FDI is not published by the investing countries. Sectors like banking, finance, transportation, communication and insurance used to be more restricted for foreign investment than manufacturing industries in both industrialized as well as developing countries (OECD 1992). The recent wave of liberalization has spread to services too resulting in high outflows of services FDI. But there is no evidence of export substitution or reimports because such services have to be produced in the proximity of consumers and are not tradeable. Thus, outflow of FDI in these cases is likely to create net employment in home countries due to greater need for personnel in management centres of the investing TNCs and in industries delivering inputs to foreign affiliates even if import ratios of servicing affiliates is likely to be very low as compared to industrial affiliates.

## 2. *Efficiency Seeking Services FDI*

The revolution in microelectronics and its impact on information and communication technologies has made it possible to have a cross-border separation between production location and use of data processing services. For example, more than 100 of the top 500 U.S. corporations are said to use on- or off-site software services from India (Nicholson 1996). Some of them have established affiliates in India to produce and export such services. U.S. investment in these cases is efficiency seeking in contrast to market-oriented FDI of computer hardware producing corporations or of banks and insurance companies selling services to local markets in host countries.

The U.S. is the only country publishing separate data on FDI in "computer processing and data preparation services". How much of this is motivated really to utilize low costs of production in host countries cannot be determined. Even if it is assumed that all of it is efficiency and not market oriented, it amounts to only 0.4 per cent of FDI in all services and 0.2 per cent of total stock of FDI from the

U.S. in 1994 (U.S. Department of Commerce 1995: 116). Similar data for other countries are not available.<sup>9</sup>

Some of the efficiency seeking services FDI does reduce employment in home countries, as firms shift their personnel intensive departments to cost efficient locations abroad. Swissair, for example, gets its accounting done in India. But the rest of FDI in software and data processing is likely to be in extension and not in relocation of services from high to low cost locations abroad. Moreover, the loss of jobs resulting from relocation in software and data processing sections may be compensated by job creation through additional export of hardware to the foreign affiliates.

Considering both market as well as efficiency seeking services FDI, its net employment effect in home countries is likely to be positive. In the case of the U.S., average compensation for services employees in the U.S. affiliates abroad is not lower than in their parent corporations (Mataloni Jr. 1995: 42-43). Thus the scope for relocation investments is confined to a few minor segments of services

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<sup>9</sup> According to German balance-of-payments statistics, payments for computer services to developing countries in 1995 increased more than for the world as a whole as compared to 1990. This increase was smaller than the increase in receipts from developing countries for computer services. Moreover, these data are not comparable with the U.S. data quoted above, and it is not known what proportions of these payments and receipts are on account of German FDI (Deutsche Bundesbank 1996c).

sector. Services accounted for about 50 per cent of FDI from Germany and the U.S. in 1993 (Table 2) but employed only about one third of the working force in their foreign affiliates (Table 3). In the case of Japan, where services accounted for 67 per cent of FDI but only 18 per cent of employment in the affiliates, limitedness of international relocation of services is particularly more conspicuous.

## **V. Why So Much Noise About Job Exodus?**

If the probability is strong that outward FDI creates net employment as argued in this paper, why is there so much noise about exodus of jobs in the home countries?

First and foremost reason is that outward FDI of developed countries has since the mid-1980s grown faster than their domestic investment. As a result, their ratios of outward FDI to gross domestic fixed capital formation have gone up considerably (Table 4). But it is erroneous to conclude from this that FDI outflows are at the cost of domestic capital formation and employment. Firms are investing abroad primarily to penetrate and have a greater share of growing foreign markets. If they miss to do so, they will not be able to serve these markets to the same extent through exports. Liberalization and globalization of markets have necessitated a greater local presence of foreign suppliers. Moreover, ratios

of FDI outflows to domestic fixed capital formation have risen in developing countries too (UNCTAD-DTCI 1995: 422-426). Some of the Asian countries are starting to invest in the European Union and the U.S. to achieve a greater share of the host country markets by circumventing import restrictions and to diversify portfolio risks. Their aim of investing in developed countries is unlikely to be efficiency seeking because land, labor and pollution abatement costs are relatively higher in developed countries.

Table 4 — Growth of FDI Outflow and Its Share in Domestic Capital Formation, 1980-1993 (percentages)

	Annual growth rate	FDI outflow as percentages in gross fixed capital formation	
		1983	1993
Belgium-Luxembourg	22.5	2.59	10.33
Denmark	24.2	1.10	6.20
France	17.1	1.80	5.22
Germany	10.5	2.70	4.62
Italy	13.4	3.34	4.33
Japan	16.0	2.47	2.89
Netherlands	13.0	8.74	18.25
U.K.	17.2	7.13	17.98
U.S.	24.6	1.38	6.58

Source: OECD (1994 and 1995); IMF (1986 and 1995).

Second reason of the concern about job exodus is that job losses get more publicity than jobs gains. When employment in labor intensive industries such as textiles, clothing and leather shrinks while efficiency seeking investments are

made abroad, these industries are able to make their voices heard. But industries in which employment expands due to associated exports of capital and intermediate goods remain silent. A plant which is relocated abroad gets a greater attention in the media than a new production plant established by a foreign firm. Most of the home countries are also hosts of FDI (Table 5). But the latter aspect is often ignored in the "relocation" discussion. It is interesting to note that in contrast to some other developed countries, negative balance of jobs in U.S. affiliates abroad and foreign affiliates in the U.S. has declined considerably since the early 1980s (Table 5). Foreign TNCs have increased their direct investment in the U.S. to take advantage of its large domestic market. There are cases in which

Table 5 — Number of Manufacturing Employees in Foreign and Home Country Affiliates of Selected Countries 1980-1994 (thousand)

		Inward affiliates	Outward affiliates
Germany	1980	1240	1312
	1994	1112	1811
Italy	1986	476	322
	1991	508	511
Japan	1980	178	611
	1990	145	1261
Sweden	1980	56	..
	1990	128	523
U.S. <sup>a</sup>	1981	1300	4429 <sup>b</sup>
	1993	2118	4019

<sup>a</sup> Excluding banking. – <sup>b</sup> 1992.

Source: UNCTAD (1994: 180); Deutsche Bundesbank (1996a); Fahim-Nader and Zeile (1995); Mataloni Jr. (1993).

foreign firms such as BMW from Germany have established production plants in the U.S. reportedly to take advantage of comparatively lower wage costs in the U.S. But these cases have probably received more publicity in their home countries than their likely weight in total FDI in the U.S. as well as in the outflows of the respective countries.

Lastly, imports are usually more striking than exports, and people tend to associate imports of labor intensive products with off-shore export platforms of domestic firms. They ignore that some of these imports come from foreign producers, and their share in total imports would increase if domestic firms were to reduce or relinquish reimports of goods manufactured by them abroad.

In the context of job exodus, it is important to remember further that employment in outward foreign affiliates in developed countries has grown during 1982 and 1993 much faster than in developing countries, which are the target of efficiency seeking and relocation FDI. Among the developing host regions, employment in developed countries' affiliates has increased faster in South and Southeast Asian countries with growing domestic markets than in other regions, where low wage costs should have provided a greater incentive to invest (Table 6). This supports the conclusion that it is market penetration which plays the overriding role in FDI-decisions and not relocation of industries for accessing cheap labor in poorer countries.

Table 6 — Growth of Regional Employment in Foreign Affiliates of Germany, Japan and the U.S. 1982-1993 (per cent per annum)

Host region	Germany	Japan <sup>a</sup>	U.S. <sup>b</sup>
All foreign affiliates	3.7	9.7	0.1
Affiliates in developed countries	3.8	16.1	0.2
Affiliates in developing countries	0.9	4.3	0.0
Latin America	0.5	1.7	0.5
Africa <sup>c</sup>	-1.0	-1.4	-7.5
West Asia	-0.9	-5.3	-9.2
South and Southeast Asia	3.8	8.0	2.5

<sup>a</sup> Excluding banking, finance and insurance. – <sup>b</sup> 1982-1990. – <sup>c</sup> Includes Republic of South Africa, Nigeria and Libya.

Source: Deutsche Bundesbank (1990, 1995); UNCTAD-DTCI (1994); Mataloni Jr. (1995); Whichard and Shea (1985).

## VI. Conclusion

Most of the empirical literature on employment effect of outward FDI is about the U.S., and the majority of these studies have come out in favor of a positive effect as far as the economy as a whole is concerned. Nevertheless, the discussion has remained controversial because concerns emanating from outsourcing investments are not seldom generalized for all FDI.

This paper offers some plausibility arguments why net employment effect of FDI at aggregated macro level in home countries can be expected to be positive. It considers FDI in natural resources, manufacturing industries and services

separately. FDI in the latter two are further subdivided as market or efficiency seeking. An overwhelming majority of FDI is undertaken to exploit natural resources and to supply domestic markets of host countries with locally produced manufactured goods and services. The paper also explains why FDI is sometimes a more efficient or inevitable conduit to serve a foreign market than exports.

FDI targeted at natural resources and host markets can be expected to create net employment in home countries. In these cases employment results from additional exports of inputs such as machinery and intermediate goods to foreign affiliates and of final products which were not so far exported to the related host countries but can be exported after FDI due to closer consumer relations. This employment effect is likely to be greater than unemployment emanating from export substitution and reimports of goods produced by the foreign affiliates. In addition, some net employment creation by FDI can be expected on management side in the home countries.

In contrast to natural resource and market seeking FDI, efficiency oriented outsourcing FDI may displace more jobs through export substitution and reimports than create them by causing additional exports of inputs and new product lines. However, the net unemployment impact of such *relocating* FDI at macro level of an economy is likely to remain smaller than net employment effect

of resource and market seeking FDI because the former generally accounts for a minor portion of total FDI.

Moreover, relocation of production is a result of international competition heightened by spreading of technical progress as well as by liberalization of trade and investment. Unemployment in non-competitive industries cannot be prevented by waiving their investment activities in foreign locations because such a policy intervention will help foreign firms to outcompete domestic producers even more rapidly. Furthermore, attempts to discourage outsourcing FDI will disturb structural adjustments towards more competitive industries resulting in inefficient allocation of resources. Therefore, instead of hindering the relocation process, workers affected by it should better be helped through labor market measures (see Siebert 1994) such as compensatory adjustment assistance and retraining for alternative jobs.

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