

# Some salient features of recent Turkish FDI experience with special emphasis on export and employment performance<sup>1</sup>

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## **Abstract**

This paper examines Turkey's experience with foreign direct investment (FDI), with special emphasis on two relatively neglected issues: export and employment performance of FDI firms. It draws attention to the weak and volatile FDI performance in Turkey and links this with the pattern of domestic investment. It examines the composition and geographical distribution of FDI exports in comparison with exports by domestic firms. Its comparison of FDI firms with domestic firms on the basis of labour market indicators indicates that the FDI firms are characterized by relatively higher wages and productivity and somewhat better employment performance but lower share of wages in value added. The paper concludes that the high expectations attached to the developmental role of FDI under the current economic policies in Turkey are not yet warranted.

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\* The views expressed in this study do not necessarily reflect the views of the Central Bank of Turkey.

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## 1. Introduction

Although Turkey had a fairly liberal legislative framework towards foreign direct investment (FDI) from the early 1950s, most observers hold the view that FDI environment under Turkey's state-led, protectionist import-substituting industrialization until 1980 was in practice highly restrictive.<sup>2</sup> Liberalization of the FDI environment was one of the major pillars of Turkey's transition to a neoliberal policy framework since 1980, which was instrumental in removing all major hurdles in the way of an open door policy for FDI for virtually all sectors of the economy. It was hoped that, the change of attitude towards FDI in the domestic policy framework together with Turkey's locational advantages as a "bridge between Europe and Asia" would boost FDI inflows into Turkey.<sup>3</sup> These expectations were reinforced after the emergence of the independent Turkic states following the disintegration of the Soviet Union and the reactivation of relations with the European Union with the perspective of full membership. With public investment in manufacturing declining sharply and with private investors not showing much enthusiasm to fill in the gap, high hopes were attached to FDI as a major source of investment in this sector. The sharp turnaround in FDI policies in the post-1980 period notwithstanding, FDI inflows to Turkey have not, however, reached high proportions, as compared also with countries at comparable levels of development. Moreover, what little FDI Turkey managed to attract has been concentrated outside manufacturing, in services and real estate.

Other than filling the financing gap needed for complementing domestic savings (UNCTAD, 1999:22), FDI can contribute to the development of host countries through four elements (UNCTAD, 1992:8-14): Capital formation, technology transfer, human resources development, and export promotion. Keeping in mind that the manufacturing industry plays an important role in economic development for it serves as a "hub" for the generation and diffusion of new technologies to the rest of the economy (Taymaz, 1999:2), FDI in the manufacturing sector should be the primary aim of the host countries. It is precisely in this context that the present paper investigates whether FDI inflows can help Turkey attain its

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<sup>2</sup> See for example, Erdilek (1982).

<sup>3</sup> See Öniş (1994) for a detailed account of FDI policies and performance covering the first decade of neoliberal policies in Turkey.

industrialization and development objectives by expanding and deepening its export base and creating new employment opportunities.

Although FDI has constituted one of the cornerstones of Turkish economic policy in the neoliberal period in five-year plan documents as well as policy declarations at the highest level, it has been subject to little academic scrutiny. The academic interest on the subject has, by and large, been confined to productivity spillovers, technological and innovative capacity and survival characteristics of FDI firms<sup>4</sup>. Moreover, Türkan (2005) has discussed the importance of FDI firms in Turkish manufacturing industry in terms of selected economic aggregates, utilizing the data sets on the 500 largest industrial firms published by the Istanbul Chamber of Industry. Export and employment performance of FDI firms, however, are among subjects that have remained largely unexplored, possibly reflecting the lack of available statistical information. Only Göver (2004) has analyzed exports by FDI firms, based on the General Directorate of Foreign Investment (GFDI) database, in terms of their sectoral and geographical distribution and with respect to OECD technology classification for the 1996-2002 period. FDI performance in Turkey in relation to labour market indicators, on the other hand, has not received any systematic attention.

This study aims at redressing this imbalance by focusing on these neglected issues and also provides an up-to-date account of the recent trends in FDI inflows into Turkey. By drawing on the GFDI database on FDI exports as Göver (2004), it extends his analysis by comparing the pattern of FDI exports<sup>5</sup> with exports by domestic firms. Utilizing the most recent State Institute of Statistics (SIS) data set available, it also examines the performance of FDI firms<sup>6</sup> in terms of labour market indicators such as employment, wages, labour

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<sup>4</sup> Aslanoğlu (2000), Taymaz (2001), Özler and Taymaz (2004), Yılmaz and Özler (2004) and Lenger (2005) are the most prominent studies on these subjects.

<sup>5</sup> The standard definition of a FDI firm is based on the 10% rule, which states that when a resident in one country owns 10 percent or more of the ordinary shares of voting power of an enterprise resident in another country that investment is counted as FDI. However, in Turkey no such rule applies. That is, in Turkey any positive amount of foreign investment is counted as FDI. Hence, in the analysis of the export pattern of FDI firms, the standard definition does not apply; implying that the contribution of FDI exports to total exports is actually overestimated.

<sup>6</sup> In the SIS data set, information on FDI firms was available with respect to different foreign share categories ranging from 10% to 100% with 10% increments. Thus, we were able to compare the performance of FDI firms in different foreign share categories. As in the case of export performance, labour market performance of FDI firms will change drastically as the definition of FDI firm changes.

productivity, and share of wages in value added in comparison with domestic firms for the 1992-2001 period. It links poor FDI performance with domestic investment performance and concludes that FDI, on the basis of export and employment performance as well as its overall trends has so far failed to generate the expected developmental impact on the Turkish economy.

The plan of the paper is as follows. Section 2 presents a statistical overview of the pattern and sectoral composition of FDI inflows, emphasizing the relationship between FDI and domestic investment. Section 3 investigates FDI export performance in comparison with domestic exports. Section 4 examines FDI performance on the basis of selected labour market indicators. Section 5 summarizes and concludes.

## 2. FDI and domestic investment performance

This section provides a statistical overview of FDI inflows to explore the extent to which the recent trends in FDI inflows in Turkey fulfill the expectations of Turkish planners and policy makers in terms of the volume and composition of these inflows. It further investigates whether FDI and domestic investment follow a similar path.

### *2.1. Statistical overview of FDI inflows<sup>7</sup>*

In terms of actual FDI inflows, one can divide the 1980-2005<sup>8</sup> period into three sub-periods. While FDI inflows were constant at an average level of around USD 372 million during 1980-87, they jumped to an average of USD 819 million in 1988-1999. In the post-2000 period, there was a sharp increase in 2001 to USD 3,266 million<sup>9</sup>. Although the cumulative amount of FDI realizations during the 2003-2005 period was USD 5,850 million, USD 2,994 million of this was due to real estate investments of foreigners, which is recorded as FDI (CBRT, 2005a). The percentage share of real estate FDI in actual FDI inflows was 56.3% in 2003, 49.1% in 2004, and 48.5% as of the second quarter of 2005 (CBRT, 2005a). FDI inflows increased from USD 1,364, in the second quarter of 2005 to USD 3,742 in the third quarter. However, USD 1,048 of this increase represented the sale of Dışbank (a domestic private bank) to Fortis (a foreign bank of

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<sup>7</sup> Unless otherwise stated, all figures given in this paper come from Koldaş (2005).

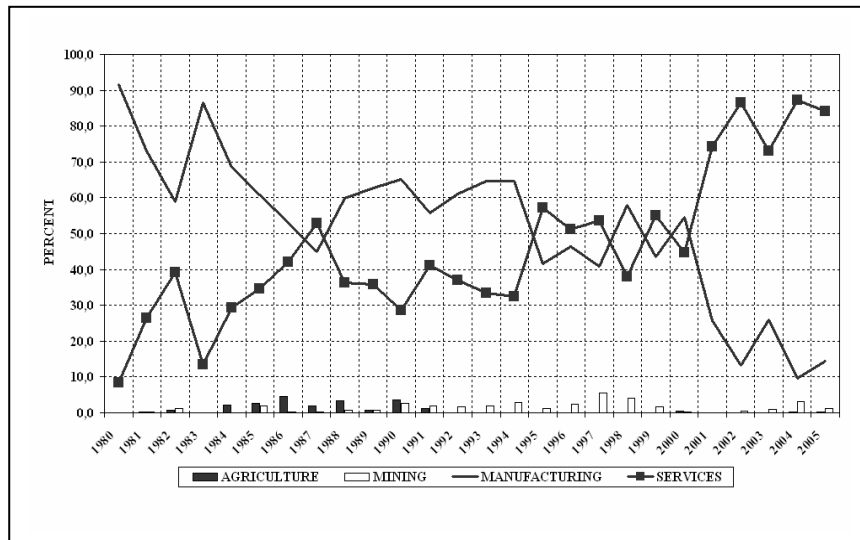
<sup>8</sup> The figures for 2005 are as of June 2005.

<sup>9</sup> Investment by İş-Tim Telecommunication Services Inc. amounting to USD 2,023 million, of which USD 1,4 billion represented the credit provided by the foreign partner, accounted for a major portion of this increase in 2001.

Netherlands-Belgium origin) in June 2005, while USD 322 million was again due to real estate investments.<sup>10</sup> As more than one half of the actual FDI inflows in the last three years were accounted for by unproductive real estate investments, one can hardly refer to this recent performance as a “FDI boom”.

**Figure 1**

Sectoral Distribution of Actual FDI Inflows: 1980-2005 (percent)



Source: GFDI Foreign Investment Statistics ([www.hazine.gov.tr](http://www.hazine.gov.tr)) and (CBRT, 2005a).

During the period 1980-2005, the bulk of FDI inflows were directed to services and manufacturing sectors which on average represented 97.6% of FDI inflows (Figure 1). The decreasing trend in the share of manufacturing was accompanied by a corresponding increasing trend in the share of services<sup>11</sup>. In terms of both the number of firms and the stock of capital, FDI in services is concentrated heavily in low productivity and low wage activities. Wholesale and retail trade, hotels and restaurants, and other social services, for example, accounted for 40.4% of foreign capital stock in services as of June 30, 2003<sup>12</sup>.

<sup>10</sup> See *Radikal* (2005); CBRT (2005a; 2005b).

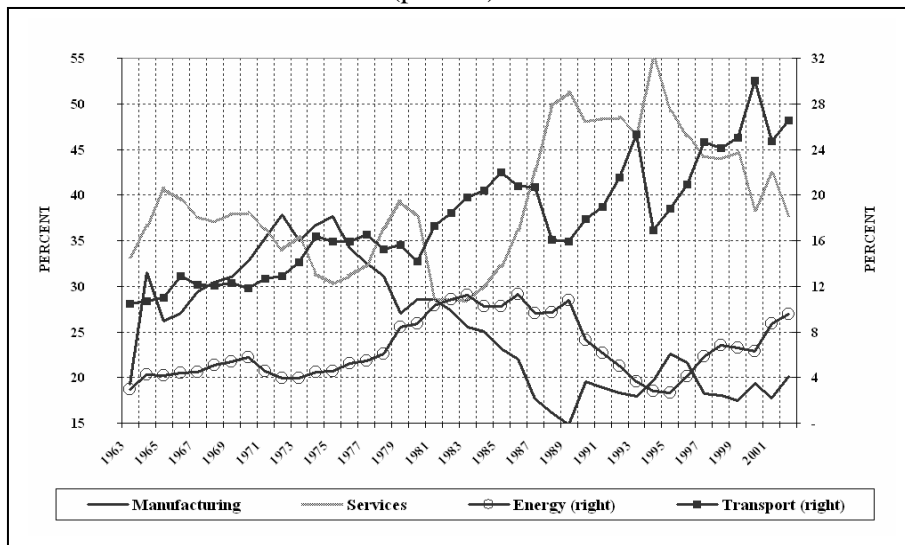
<sup>11</sup> The trends in FDI inflows to Turkey were also similar to global trends in FDI. See UNCTAD (2004:xvii-xxii) for details.

<sup>12</sup> This refers to the latest date for which data was available at the time of writing. See Koldaş (2005:111-112).

## 2.2. FDI inflows and domestic investment

The above trends in FDI inflows bear a close resemblance to the pattern of domestic fixed capital investment in Turkey (Figure 2). The rise in fixed investment in services, especially after 1980, can be attributed to the increase in relative prices in non-tradable sectors vis-à-vis tradable sectors following trade liberalization<sup>13</sup>. Gross Fixed Capital Formation (GFCF) in manufacturing declined steadily between 1975 and 1990, as GFCF in services increased continuously in the same period (Figure 2). After 1990, as GFCF in manufacturing has shown a volatile pattern around a constant trend, the GFCF in services has indicated a decreasing trend, while maintaining its much higher share than manufacturing. There was an increase in the share of investment in energy and transportation, especially after 1995.

**Figure 2**  
Sectoral Distribution of Gross Fixed Capital Formation, 1983-2002  
(percent)



Source: SPO (State Planning Organization) Main Economic Indicators ([www.dpt.gov.tr](http://www.dpt.gov.tr)) and CBRT Electronic Data Delivery System ([www.tcmb.gov.tr](http://www.tcmb.gov.tr))

The slow pace of FDI inflows in Turkey may be linked with the gradual decline in the rate of growth of domestic GFCF. There is a close relationship between the pace of domestic private and public

<sup>13</sup> See Yentürk (2003a; 2003b) for the analysis of the pattern of investment in Turkey within the framework of tradable and non-tradable sectors.

GFCF and FDI inflows<sup>14</sup> (Figure 3). İsmihan *et al.* (2002:17-18) have provided evidence supporting the complementarity between public and private investment in short and medium run by applying impulse response analysis for the period 1963-99<sup>15</sup>. Likewise, Attar and Temel (2002:118) have found that although a crowding out effect of public investments was observed in the current period, public investment had positive spillover effects on private investment in the following period.

Although FDI inflows increased sharply in 1980, thanks to the liberalization policies implemented in the same year, the stagnation in FDI inflows until 1988 was accompanied by the continuous decrease in total GFCF during the period 1979-1985 (Figure 3). In a similar fashion, the gradual increase in FDI inflows during 1987-1992 was associated with the steady increase in total GFCF during 1985-1993. The volatility in total GFCF during 1994-2002, reflecting in large measure the effects of economic crises in 1994, 1999 and 2001, was again accompanied by the volatility of FDI inflows. This close similarity between the paths of domestic investment and FDI points in the direction of their complementarity. Both public and private components of domestic investment seem highly correlated with FDI. The correlation between realized FDI inflows and one period lagged domestic private investment is 0.71, while the correlation between realized FDI inflows and one-period lagged public investment is 0.67<sup>16</sup>.

Calderon *et al.* (2002:13-15) have found that in developing countries FDI inflows do not have an effect on domestic investment or growth. Instead, domestic investment and economic growth precede and have a positive impact on greenfield FDI. They argue that a rise in domestic investment may send a positive signal to foreign investors for the emergence of profitable opportunities in the economy. The close association between domestic investment and FDI in the Turkish case provides some justification for the view that the reasons behind the slow pace of FDI inflows may be related with the poor investment performance in the domestic economy.

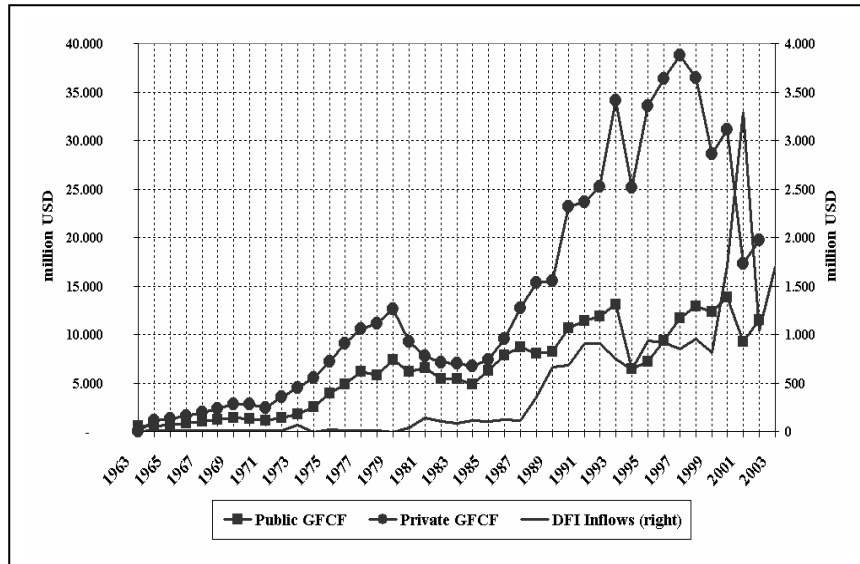
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<sup>14</sup> In Figure 3, the values for total GFCF and public GFCF in current Turkish liras were converted to USD using the average annual exchange rate of USD/TL.

<sup>15</sup> Metin-Özcan *et al.* (1999) also provide evidence to support the complementarity between public and private investments.

<sup>16</sup> Simple correlations were calculated utilizing the data from SPO, GFDI and CBRT and are significant at 1% (two-tailed test).

**Figure 3**  
FDI Inflows and Public and Private Gross Fixed Capital Formation:  
1983-2002



Source: Calculated from SPO Main Economic Indicators ([www.dpt.gov.tr](http://www.dpt.gov.tr)), GFDI Database, and CBRT Electronic Data Delivery System ([www.tcmb.gov.tr](http://www.tcmb.gov.tr)).

Existing FDI firms were responsible for the bulk of FDI inflows to Turkey. In other words, totally new (greenfield) investments constitute only a small portion of total FDI approvals, especially in the manufacturing sector. Moreover, both in services and manufacturing, the share of totally new FDI has a decreasing trend, while the shares of expansion, capital increase and participation FDI have an increasing trend in the 1983-2003 period (Figure 4).

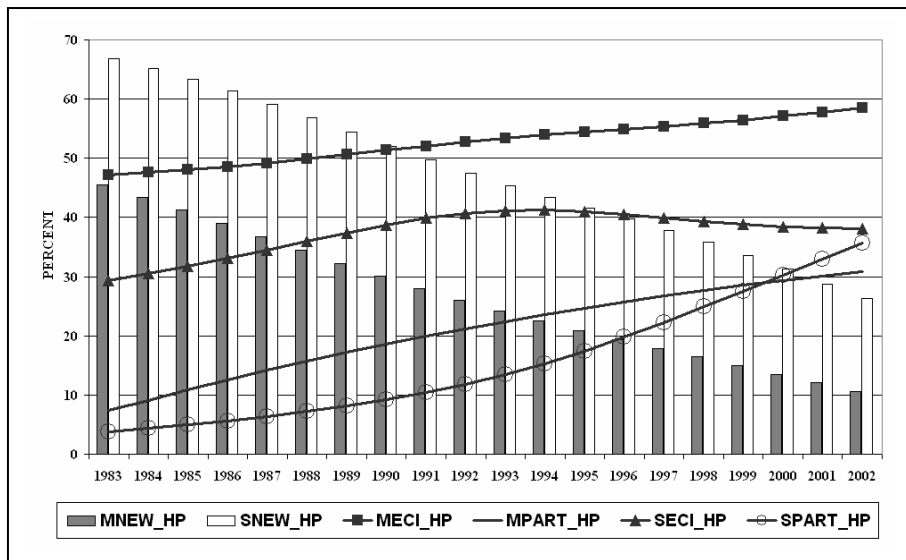
Since greenfield FDI involves newly created capital assets, it will contribute to economic growth through increased physical assets in the economy. Expansion and modernization investments may also involve the creation of new physical assets, and thus they can also be counted as productive investments. However, as capital increase and participation investments pertain to the increase of foreign capital in existing firms, their contribution to growth will at best be confined to an increase in productivity.<sup>17</sup> As the contribution of FDI inflows to the creation of new physical assets is very low and have a decreasing

<sup>17</sup> See Calderon *et al.* (2002:3).



trend in both manufacturing and services, FDI will be beneficial to Turkish economy only if it brings in new technology, better management and organizational techniques and access to new export markets for existing firms<sup>18</sup>.

**Figure 4**  
The Distribution of FDI Approvals by Type of Investment, 1983-2002  
(percent)<sup>a</sup>



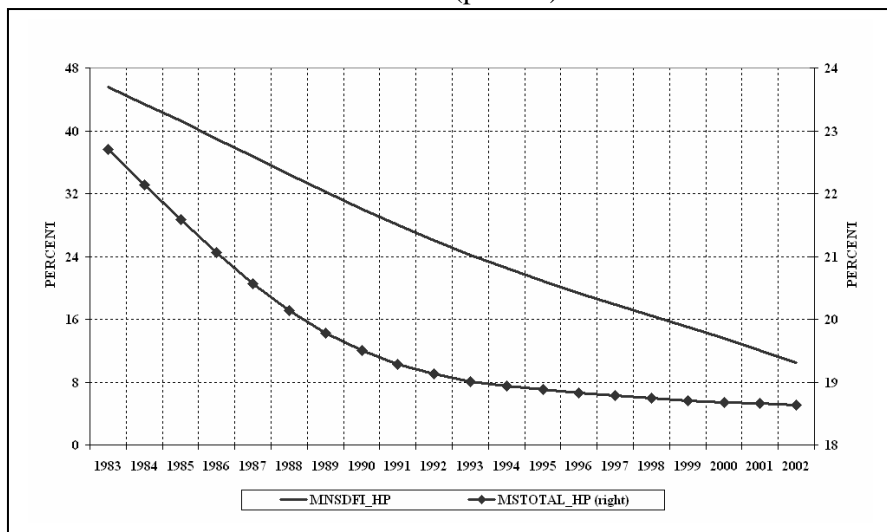
MNEW\_HP: Trend value of new FDI in manufacturing.  
 SNEW\_HP: Trend value of new FDI in services.  
 MECI\_HP: Trend value of expansion and capital increase FDI in manufacturing.  
 SECI\_HP: Trend value of expansion and capital increase FDI in services.  
 MPART\_HP: Trend value of participation FDI in manufacturing.  
 SPART\_HP: Trend value of participation FDI in services.  
<sup>a</sup> HP Filter–Trend Values.  
 Source: GFDI Annual Reports.

Figure 5 shows Hodrick–Prescott trend values for the share of manufacturing in gross fixed capital formation and in new FDI approvals. The constant decrease in the share of FDI approvals for totally new investment in total FDI approvals for manufacturing is in line with the decreasing trend of the share of manufacturing in gross fixed capital formation in the Turkish economy during 1983-2002. This is a reflection of investment preferences in Turkish economy in

<sup>18</sup> See Hausmann and Fernandez-Arias (2000:13).

the post-1980 period. As domestic investors do not see many profitable opportunities in manufacturing industry, and hence do not add much to the physical capital stock, foreign investors behave in a similar fashion. This may explain the lack of greenfield FDI in the manufacturing industry.

**Figure 5**  
Share of Manufacturing in Total Investments and in FDI Approvals,  
1983-2002 (percent)<sup>†</sup>



<sup>a</sup> MNSDFI\_HP : HP Filter Trend Values for the Share of Manufacturing FDI in Total FDI Approvals

<sup>b</sup> MSTOTAL\_HP: HP Filter Trend Values for the Share of Manufacturing Investment in Total Domestic Investments

<sup>†</sup> HP Filter- Trend Values

Source: SPO Main Economic Indicators ([www.dpt.gov.tr](http://www.dpt.gov.tr)) and GFDI database.

As far as mergers and acquisitions through FDI are concerned, participation FDI has an increasing trend after 1987 (Figure 6). In particular, a sharp increase for services is observed after 1996. For manufacturing, participation FDI registered a big increase in 1988-89, 1992, 1995 and 2000. As 1989, 1991, 1994 and 1999 were all years of trough; it is interesting to note that in trough years or in years that immediately follow a trough, participation FDI in manufacturing registers a sharp increase. For services, on the other hand, the years in which there was a big increase in participation investment are 1990, 1996 and 2001, pointing to a lag of one year between the sharp increase in participation FDI in manufacturing and participation FDI

in services. It seems that soon after a recession, “fire-sale” FDI increases in both manufacturing and services.<sup>19</sup>

### 3. Comparative structure of FDI and domestic exports

In this section, FDI and domestic exports will be analyzed with respect to their geographical and sectoral distributions and OECD technology classification to test whether FDI firms contribute to the commodity and market diversification and technological upgrading of Turkish exports. We shall also investigate whether there is a regular pattern between the country of origin of FDI firms and the destination of their exports. In doing this, we aim to detect whether foreign firms use Turkey as a jump-base for their exports, and if so to which markets.

#### 3.1. *The general picture*<sup>20</sup>

Turkish exports rose from USD 23.2 billion in 1996 to USD 36.1 billion in 2002, representing an increase of 55.3%. During the same period, while domestic exports increased by 43.3%, from USD 19.4 billion to 27.7 USD billion, FDI exports more than doubled, rising from USD 3.7 billion to USD 8.3 billion. In the period 1996-2002, the average annual increase in domestic exports was 5.3% as opposed to 11.6% for exports by FDI firms. As a result, the share of FDI exports in total exports rose from 16.7% in 1996 to 23.1% in 2002, averaging 19.0% for the 1996-2002 period as a whole. Thus, FDI firms have accounted for around one-fifth of total exports.

The FDI firms included among the 500 largest industrial firms of Turkey accounted for the majority of FDI exports. In the period 1996-2002, the 106 FDI firms, on average, included in this category accounted for 74.8% of total FDI exports. While 81 largest FDI firms accounted for 61.5% of total FDI exports in 1996, 124 largest FDI firms accounted for 83.8% of total FDI exports in 2002<sup>21</sup>.

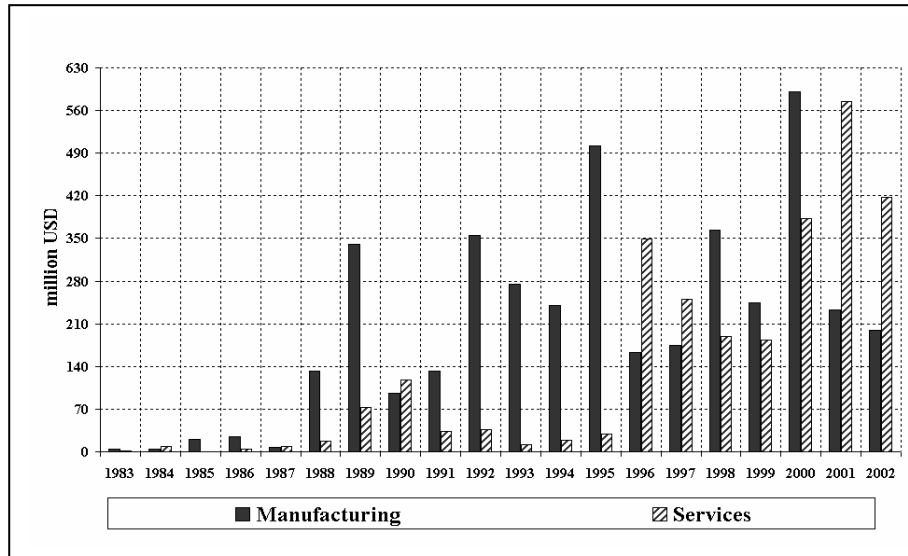
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<sup>19</sup> From the outbreak of the crisis at the beginning of 2001 until March 2002, for example, a total of 45 firms sold more than 50 percent, 31 firms 50 percent, and another 58 firms less than 50 percent of their shares to foreign buyers. See Şenses (2003: 118).

<sup>20</sup> FDI export figures are from the database of General Directorate of Foreign Investment and cover the 1996-2002 period. Domestic export figures are from the Undersecretariat of Foreign Trade. See Koldaş (2005:138-143).

<sup>21</sup> These figures were calculated by using the Istanbul Chamber of Industry (ICI) data set.

**Figure 6**  
Participation FDI Approvals in Manufacturing and Services, 1983-2002



Source: GFDI Annual Reports.

According to SIS Longitudinal Data Set, which is available for the period 1992-2001, the average number of FDI firms operating in the manufacturing sector during the period 1996-2001 was 364 which indicate that only around one third of total FDI firms operating in Turkish manufacturing industry accounted for three quarters of total FDI exports in this period. In other words, approximately 75% of FDI firms operating in Turkey produce mainly for the domestic market with very low export shares.

The geographical distribution of FDI and domestic exports is almost the same in terms of average figures<sup>22</sup> (Table 1). Spearman's rank correlation between average geographical distributions of FDI and domestic firms is 0.927 and significant at 1%. Moreover, Spearman's rank correlation is exclusively significant for every year in the 1996-2002 period<sup>23</sup>. In other words, the geographical distribution of FDI exports almost exactly mimics the geographical distribution of domestic exports, and it is *not* the case that FDI exports penetrate those markets that domestic exports cannot.

<sup>22</sup> At the time of writing 2002 was the latest year for which data was available.

<sup>23</sup> Spearman's rank correlations were calculated utilizing the data in Table 5.3 in Koldaş (2005:147).

**Table 1**  
Geographical Distribution of FDI and Domestic Exports:  
1996-2002 Average (percent)

Region	1996-2002 Average (%)		
	(0)	(1)	(2)
EU-15	69,0	53,5	53,5
Central and Eastern Europe	0,6	11,4	11,2
West Asia	2,3	7,8	7,9
East Asia	0,9	3,2	5,3
North America	7,8	11,4	5,1
North Africa	0,2	4,7	4,2
Free Trade Zones	na	na	4,0
Central Asia	0,2	3,3	2,5
Other Developed Countries	4,6	3,2	2,1
Other Western Europe	7,9	1,6	1,5
Latin America and Other Africa	0,9	1,0	1,4

(0) Geographical distribution of FDI stock in Turkey as of June 2003.

(1) Geographical distribution of domestic exports.

(2) Geographical distribution of FDI exports.

na = not available

Source: Koldaş (2005:147).

The Turkic Republics of Central Asia do not seem to be a preferable destination for FDI exports. This result is contrary to the widespread expectations in Turkey that FDI firms would use Turkey as a jump base for exporting to these countries by utilizing the close cultural ties of Turkey with that region. If FDI firms are using Turkey as a jump base for exports, this seems to apply only to exports to the European Union, Central and Eastern Europe, and West Asia, which also constitute the main export markets for domestic firms.

Sectoral distribution of FDI and domestic exports for the period 1996-2002 is given in Table 2. As regards to the three broad categories, representing agricultural products, mining products, and manufactures, there was a great deal of similarity between the average distribution of domestic and FDI exports.

The sharp rise in the share of FDI manufactured exports in total exports (from 15.0% in 1996-1998 to 25.1% in 2000-2002) was due to the increase in the share of FDI exports in chemicals and automotive products and other transport equipment<sup>24</sup>. While the share of automotive products and other transport equipment in domestic exports decreased from an average of 3.6% in 1996-1998 to 2.6% in

<sup>24</sup> The figures are from Table 5.4 in Koldaş (2005:149).

2000-2002, the share of this sector in FDI exports increased sharply from 13.9% in 1996-1998 to 40.0% in 2000-2002.

It seems that the structure of manufactured exports as classified by domestic versus FDI firms and in terms of sub-sectors is quite rigid, at least as far as the period of analysis is concerned. That is, one cannot observe a structural change in the export behavior of FDI firms. FDI firms are increasing their share in total exports in those sectors in which they have had a significant share from the beginning of the period.

The average figures for the period of 1996-2002 indicate that capital goods, intermediate goods and passenger cars have a higher share in FDI exports than in domestic exports while domestic exports are more focused on consumption goods (Table 3). When the figures are examined in further detail, however, it turns out that the higher share of capital goods and intermediate goods in FDI exports is due mostly to industrial transport equipment and parts and accessories of transport equipment, especially passenger cars.

Table 4 presents the distribution of FDI and domestic exports on the basis of OECD technology classification. The data for the 1996-2002 period indicate that a massive 60.6% percent of domestic exports on average originate from low-technology industries with 48.6% alone representing textiles, textile products, leather and footwear. Medium-low and low technology industries, together, account for 81.0% of domestic exports. On the other hand, most of FDI exports (52.3%) come from medium-high technologies, with motor vehicles, trailers, and semi-trailers representing 32.7% of the total.

#### 4. Main labour market indicators of FDI firms<sup>25</sup>

The investigation in this section of FDI performance in comparison with domestic firms on the basis of labour market indicators also sheds light on the developmental impact of FDI in the Turkish context.

##### *4.1. Employment Creation by FDI firms*

In 1992, the total number of workers in wage-employment in the manufacturing sector was 979,098, with domestic and FDI firms

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<sup>25</sup> The scope of discussion in this section is guided by data availability at the time of writing. The figures come from SIS Longitudinal Database, 1992-2001.

**Table 2**  
Sectoral Distribution of FDI and Domestic Exports:  
1996-2002 Average (percent)

Sector	1996-2002 Average (%)	
	(1)	(2)
1- Agricultural Products	16,8	16,6
2- Mining Products	4,4	2,5
3- Manufactures	78,5	80,8
Iron and steel	8,0	5,7
Chemicals	3,7	13,8
Other semi-manufactures	7,0	4,8
Machinery and transport equipment	12,1	43,3
Textiles	14,5	4,7
Clothing	28,5	6,2
Other consumer goods	4,8	2,2
4- Other Products	0,2	0,2
<b>Total</b>	<b>100,0</b>	<b>100,0</b>

(1) Sectoral distribution of domestic exports.

(2) Sectoral distribution of FDI exports.

Source: Koldaş (2005:149).

**Table 3**  
Domestic and FDI Exports Classified as Broad Economic Categories:  
1996-2002 Average (percent)

Category	1996-2002 Average (%)	
	(1)	(2)
1-Capital Goods	5,3	11,2
Industrial Transport Equipment	2,3	6,6
2-Intermediate Goods	39,9	49,9
Processed industrial supplies, not elsewhere specified	29,9	23,8
Parts and accessories of transport equipment	1,1	15,9
3-Consumption Goods	55,8	24,3
4-Other	0,3	14,7
Passenger Cars	0,0	14,6
<b>Total</b>	<b>100,0</b>	<b>100,0</b>

(1) Distribution of domestic exports.

(2) Distribution of FDI exports.

Source: Koldaş (2005:156).

**Table 4.**  
Domestic and FDI Exports According to OECD Technology  
Classification: 1996-2002 Average (percent)

Category	1996-2002 Average (%)	
	(1)	(2)
High-technology industries	4,1	2,0
Medium-high-technology industries	12,6	52,3
Medium-low-technology industries	20,4	21,5
Low-technology industries	60,6	22,4
Other transport	2,3	1,9
<b>Total manufacturing</b>	<b>100,0</b>	<b>100,0</b>

(1) Distribution of domestic exports.

(2) Distribution of FDI exports.

Source: Koldaş (2005:159).

accounting for, respectively, 90.2% and 9.8% of the total. From 1992 to 2001, a total of only 116,520 new jobs were created, raising the level of total wage-employment in the manufacturing sector to 1,095,618 in 2001. In between these two years, the composition of total employment shifted slightly towards FDI firms<sup>26</sup>. In 2001, the share of domestic firms fell to 88.3%, as the share of FDI firms increased to 11.7%.

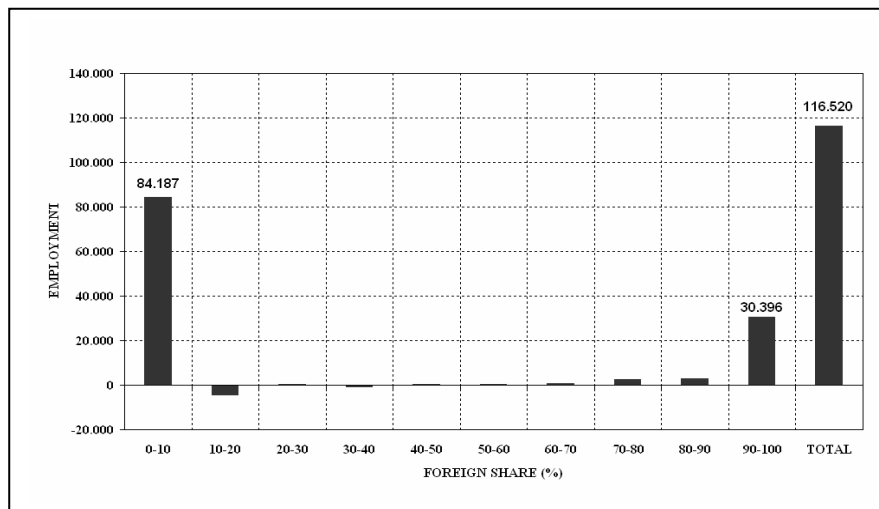
Figure 7 presents the contribution to total employment generation by firms in each foreign share category in the 1992-2001 period. 72.3% of new wage-employment in this period was generated by domestic firms (in which foreign share is less than 10%), and 26.1% was generated by FDI firms in which foreign share is more than or equal to 90% (90+ FDI firms). The contribution of FDI firms having a foreign share between 20% and 70% was negligible. The employment level in FDI firms with a foreign share in the range of 10-20% even decreased in this period.

As expected, the increase in FDI employment is highly correlated with the increases in the number of FDI firms. During the 1992-2001 period, as the number of FDI firms increased by 184 from 228 to 412, the number of domestic firms decreased by 74 from 10,973 to 10,899. More than half (56.0%) of the increase in the

<sup>26</sup> In interpreting the results, one should note that 2001, which was the latest year for which data was available at the time of writing, was a year of deep economic crisis in Turkey.



**Figure 7**  
Employment Generation with Respect to Foreign Share Categories:  
1992-2001



Source: Calculated from SIS database.

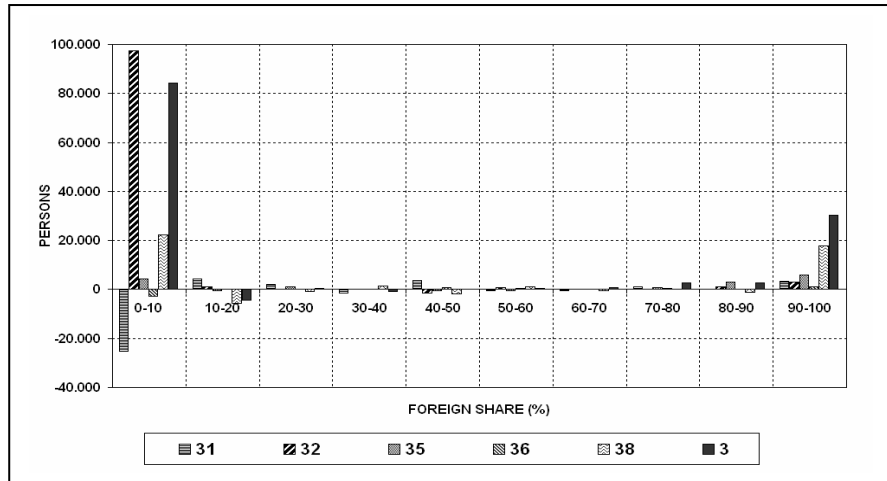
number of FDI firms was accounted by 90+ FDI firms, increasing from 66 to 169. The share of 90+ FDI firms in total number of FDI firms increased from 28.9% in 1992 to 41.0% in 2001. While Pearson correlation coefficients between the number of firms and employment generation are 0.870 and 0.843, respectively, for total and domestic firms; they are 0.944 and 0.959 for FDI and 90+ FDI firms, respectively.<sup>27</sup>

Most of the employment was generated by domestic firms in textiles and apparel (32)<sup>28</sup> (Figure 8). Then comes engineering industries (38) in which both domestic and 90+ FDI firms were responsible for employment generation. In food and beverages (31) and non-metallic mineral products (36), employment in domestic firms actually fell, pointing to a negative contribution to employment generation. Employment generation in chemicals (35) was positive for domestic firms, 90+ FDI firms and FDI firms with foreign share between 80-90% and 20-30%. It should be noted that for 90+ FDI firms employment generation was positive for all sectors (Figure 8).

<sup>27</sup> All correlations are significant at 1% (two-tailed test).

<sup>28</sup> Figures in brackets refer to ISIC code numbers.

**Figure 8**  
Sectoral Employment Generation with respect to Foreign Share Categories:  
1992-2001



Source: Calculated from SIS database.

#### 4.2. Labour productivity and wages

In this section, the level of and changes in labour productivity and wages in Turkish manufacturing sector in the 1992-2001 period are discussed with respect to different foreign share categories. Labour productivity is defined as value added per man-hour worked. Value added is measured in 1994 prices, deflated by the Wholesale Price Index (WPI).

Labour productivity in domestic firms is exclusively below the manufacturing industry average for this period. Especially after 1994, FDI firms in all foreign share categories have higher labour productivity levels than domestic firms. Moreover, Spearman rank correlation between foreign share and labour productivity is significantly positive in the period 1994-2001; that is, labour productivity in FDI firms rises as foreign share rises

FDI firms have higher productivity levels than their domestic counterparts also at the sectoral level. The difference between FDI and domestic firms, however, differs with respect to sectors and is sensitive to how a FDI firm is defined. Labour productivity is highest in chemicals (35) for both domestic and FDI firms, and it increases as foreign share increases in this sector. The difference between FDI and domestic firms is also highest in this sector, at least during the 1992-

1999 period. In contrast, in textiles (32), the levels of labour productivity for different definitions of FDI firm are very close to each other and to levels in domestic firms. One interesting point to note is that, in textiles (32), although FDI firms have higher productivity levels when the FDI firm is defined as foreign share exceeding 10% or 50%, productivity level decreases for FDI firms having more than 90% foreign share. These FDI firms in the textiles sector have even lower productivity levels than their domestic counterparts. In engineering industries (38), FDI firms with more than 90% foreign share have exclusively lower labour productivity levels than FDI firms with foreign share more than 10% or more than 50% during 1992-2001. This is also the case in food, beverages and tobacco industry (31) in most of the years during 1992-2001. In other words, it seems that increase in the foreign share does not always and in every sector guarantee an increase in labour productivity.

As in the case of labour productivity, hourly real wages<sup>29</sup> are also higher in FDI firms. Spearman rank correlation between foreign share and hourly real wages is significant at 5% for most of the years in the period 1992-2001. However, it was also the case that the average share of wages in value added was smallest in 90+ FDI firms during this period.

As Alfaro and Rodriguez-Clare (2004:116) note, if FDI firms that have higher productivity levels pay wages at market levels, most of the value added will be captured by FDI firms themselves, and national welfare will not improve much. On the other hand, if they pay higher-than-average wages, some of their higher productivity will be shared by nationals, and this will contribute to national welfare. Although FDI firms pay higher wages than their domestic counterparts in Turkish manufacturing industry, the share of wage payments in value added is lower in FDI firms than their domestic counterparts. The average wage share in value added during 1992-2001 was 19.6% for domestic firms and 18.0% for FDI firms with foreign share exceeding 10%. The share of wage payments in value added decreased further in FDI firms with a foreign share exceeding 90%. The average share of wage payments in value added for these FDI firms was only 11.5%. In other words, although FDI firms paid higher wages than their domestic counterparts, their contribution to national welfare was less than expected in lieu of their relatively higher productivity levels.

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<sup>29</sup> Hourly real wages are calculated by deflating nominal wages by the Consumer Price Index (1994: 100).

## 5. Concluding remarks

The examination of the pattern of FDI in Turkey has shown that Turkey's increasingly open door policy towards FDI since 1980 has not brought about the expected results in terms of the size of inflows as well as their technology content and sectoral and geographical distribution. The increasing share of service sectors in total FDI inflows indicates that FDI cannot serve as a panacea to compensate the severe neglect of industrialization during this period. Moreover, the contribution of FDI through the creation of new physical assets (greenfield investments) in the manufacturing sector was very low. Almost one half of the actual FDI inflows in the last three years were due to unproductive real estate investments with participation investment and fire sales to foreigners during recessions and economic crises playing a major role in the rest. The evolution of investment flows in the post-1980 period provides some evidence to support the view that FDI and domestic investment are closely related with each other, raising the possibility that they are characterized by a high degree of complementarity.

The above picture is largely confirmed when the contribution of FDI in two spheres, exports and employment, are examined at a finer level of detail. While FDI firms account for around one-fifth of Turkish exports, the bulk of FDI exports are accounted for by the largest FDI firms with about 75% of FDI firms in manufacturing industry producing mainly for the domestic market. As far as the geographical distribution of exports is concerned, there is a significant positive correlation between FDI and domestic exports, providing no evidence in support of the expectation that FDI firms will use Turkey as a jump base for their exports to Turkic Republics in Asia.

As domestic exports were rooted in consumption and intermediate goods with little structural change during the period 1996-2002, the most apparent shift in the structure of FDI exports has involved the sharp increase in the share of automotive industry. There was no evidence, however, for FDI firms making headway in the direction of technology intensive exports, with the share of high technology exports in FDI exports even lagging behind domestic exports.

The contribution of FDI firms to total manufacturing employment was even lower than to exports, accounting for only 9.7% of the total in the period 1992-2001. They have, however, played a significant role in employment generation with slightly more than a

quarter of employment created during this period accounted by FDI firms having more than 90% foreign share.

Not only are labour productivity and wages higher in FDI firms than in domestic firms, both labour productivity and wages of FDI firms rise as their foreign share rises. However, FDI firms, especially those with the highest foreign share and highest contribution to employment generation, were also characterized by the low wage share in value added, with obvious social welfare implications.

A full assessment of FDI experience would cover a wide range of topics ranging from its effects on domestic learning to the balance of payments.<sup>30</sup> Our admittedly partial examination of Turkey's FDI experience has shown that the high hopes attached to FDI as one of the main pillars of the neoliberal economic policies are not justified. The contribution of FDI to exports and employment creation has not reached very high proportions. When the standard international definition of a FDI firm based on the 10% rule is changed to increase foreign share, one would expect a further decline in the contribution of FDI to both exports and employment. Another factor to note in this context is the fact that Turkey's liberal stance towards foreign investment has in recent years led to a sharp increase in outward FDI from Turkey, reaching a total of USD 5.3 billion during the period 1998-2004<sup>31</sup>.

At a more general level the paper supports the view that providing wide-ranging incentives to FDI firms offers no guarantees for attracting sizable FDI inflows, let alone for progress in the direction of attracting the relatively more developmental type of investment. The drafting of the main components of a successful FDI policy is beyond the scope of this paper. It seems, however, on the basis of FDI experience in Turkey as outlined and assessed here, and observations from other developing countries<sup>32</sup>, the recognition of the fact that there is no blueprint for overall success in FDI performance as well as the importance of an integrated approach to domestic investment and FDI as an integral part of a broad development strategy would make a good start.

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<sup>30</sup> Boratav (2005), for instance, draws attention to the balance of payments effects arising from FDI imports and royalty payments as well as job losses resulting from privatization-related FDI.

<sup>31</sup> This information is from the web-site of the Undersecretariat of Treasury ([www.hazine.gov.tr](http://www.hazine.gov.tr)).

<sup>32</sup> See, for example, Chang (2004).

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## Özet

### Türkiye'nin son yıllardaki yabancı sermaye deneyimi: İhracat ve istihdam etkileri ve diğer bazı temel özellikler

Bu çalışma Türkiye'nin doğrudan yabancı sermaye deneyimini, başta yabancı sermayeli firmaların ihracat ve istihdam üzerindeki etkileri gibi görece ihmal edilmiş konular olmak üzere, temel özellikleri açısından incelemeyi amaçlamaktadır. Türkiye'ye yönelen yabancı sermaye akımlarının temel eğilimleri ve sektörel dağılımı bu akımların, beklentilerin aksine henüz çok önemli boyutlara ulaşamadığını, yıllar itibarıyla dalgalandığını, önemli ölçüde yabancılara gayrimenkul satışından kaynaklandığını göstermekte ve bu akımlarla yerli yatırımların temel eğilimleri arasındaki benzerliğe işaret etmektedir. Yabancı sermayeli firmaların ihracatının toplam ihracatın yapısıyla gerek mal bileşimi gerekse coğrafi dağılım açısından büyük bir benzerlik gösterdiğine ve bu firmaların katkılarının büyük ölçüde otomotiv sanayinden kaynaklandığına dikkat çekilmektedir. Yabancı sermayeli firmalarda emek verimliliğinin ve ortalama ücretlerin daha yüksek, katma değer içinde ücret payının ise daha düşük olduğu vurgulanmaktadır. Öte yandan ihracat ve istihdama ilişkin sonuçların yabancı sermayeli firma tanımına son derece duyarlı olduğuna işaret edilmektedir. Bu değerlendirmeler ışığında 1980 yılından bu yana Türkiye iktisat politikalarına hâkim olan neoliberal bakış açısının temel taşlarından birisini oluşturan yabancı sermaye akımlarının sanayileşme, istihdam ve ihracat açısından henüz yeterli bir kalkınma etkisi yaratamadığı sonucuna varılmaktadır.