

## Motives for Foreign Direct Investment in the Manufacturing Sector in FYR Macedonia

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### Abstract

*The aim of this article is to provide clear insight into the key FDI motives in the manufacturing sector in FYR Macedonia and suggest recommendations that might be applied in attracting FDI. Based on questionnaire data on 79 manufacturing companies, the manufacturing sector was found to perceive the low cost of unskilled labour as the strongest FDI driving force, followed by ownership advantages and geographical proximity. Contrary to the prevailing consensus in the literature, market factors seem to exert very limited influence in attracting investment, except for investment targeting the local market. One major lesson that can be drawn is that generalised investment promotion policies and strategies might not work equally well for all manufacturing industries and might have no impact in attracting FDI in particular cases. Instead, policies should employ a tailor-made approach, taking account of specific features of the targeted industries, companies and countries of origin.*

The issue of foreign direct investment (FDI) has increasingly triggered the interest of academics and practitioners worldwide over recent decades. Beside the academic challenge of capturing the 'rules of the game' of this rapidly changing phenomenon, it is mostly the tremendous impact that FDI exerts on the economic development of the host countries and the competitive positioning of the multinational enterprise (MNE) in the fierce global rivalry that explains the magnitude of the attention received. Within this context, the emergence of the new independent states that followed the dissolution of the former socialist federations and alliances, and their reorientation towards a market economy, simultaneously resulted in opening these countries to FDI and the emergence of a completely new field in the FDI literature.

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Expectations that the liberalisation of these relatively unexplored regions to investment opportunities would attract substantial FDI now seem to have been quite over-optimistic, especially for the South-East European countries (SEECs) of Albania, Bosnia & Herzegovina, Bulgaria, Croatia, FYR Macedonia, Romania, Serbia and Montenegro. During the period 1990–2004 the SEECs managed to attract USD 44,224 million in FDI, which was less than one-third of the USD 145,096 million that was received by the three core Central and Eastern European countries (CEECs) of the Czech Republic, Hungary and Poland (UNECE 2005). In particular, FYR Macedonia succeeded in attracting only USD 1,183 million, which is by far the lowest FDI inflow among these countries. The unsatisfactory performance of SEECs, except for Croatia and partly for Bulgaria, is even more visible if measured as FDI inward stock per capita. Albania, Bosnia & Herzegovina, FYR Macedonia, Romania, and Serbia and Montenegro had an inward FDI stock per capita in 2004 in the range of USD 432–740, lagging far behind the Czech Republic and Hungary, which both recorded slightly over USD 4,000 inward FDI stock per capita (UN 2005; UNECE 2005). On a regional level, the average FDI stock per capita in 2004 was USD 865 in SEECs, compared with the much higher figure of USD 2,479 per capita in the three CEE countries.<sup>1</sup> The performance of FYR Macedonia in attracting FDI was even below the regional average, amounting to USD 584 per capita in 2004 (UN 2005; UNECE 2005). This modest inflow of FDI in FYR Macedonia has a very limited potential to bring the critically needed beneficial effects to an economy suffering a high unemployment rate and trade deficit, technological obsolescence and insufficient domestic saving and investment.

The aim of this article is to provide clear insight into the key FDI motives in the manufacturing sector in FYR Macedonia, which is a key contributor to creating employment and particularly exports, and to suggest recommendations that might be applied in attracting decisive FDI inflows. The importance of this sector is further supported by Alfaro's (2003) claim that FDI in manufacturing exerts the strongest effect on economic growth. The investigation of FDI in FYR Macedonia was also motivated by the absence of relevant research on FDI determinants in the country and, particularly, the minor attention the manufacturing sector has received in the existing literature. Beside defining the primary FDI motives on a sector level, the article aims to identify these factors for various manufacturing industries, taking into account the empirical evidence on significant differences in FDI determinants across industries (Walkenhorst 2004; Resmini 2000). This approach, based on questionnaire data to determine motives for FDI in the manufacturing sector in FYR Macedonia, should enable a more accurate policy response to be developed with the goal of stimulating further FDI in the country. The article is structured as follows: first we present the research methodology, followed by the characteristics of the companies surveyed. The next section presents the questionnaire results, and the following section analyses them and discusses policy implications. The final section concludes.

## **Research Methodology**

The research is based on primary data collected via a questionnaire survey of foreign companies operating in FYR Macedonia. The basic criteria for selecting foreign

<sup>1</sup> Owing to the unavailability of population data for 2004, the data for 2003 were used as the most appropriate approximation for 2004.

companies to be investigated were that they be operating in the manufacturing sector<sup>2</sup> according to NACE classification of economic activities,<sup>3</sup> have completed investment projects and have a minimum of 30% foreign capital stake. The companies were selected from the database of the FYR Macedonian State Statistical Office, which is based on the data from the Central Register and includes all active enterprises with fully foreign and mixed capital (that is, any foreign capital participation below 100%). According to this database, the total number of companies with foreign capital participation on 31 December 2004 was 482, of which 206 companies had 100% foreign capital and 276 companies mixed capital.<sup>4</sup> In order to provide a representative sample, the method of stratified random sampling was used. The population was divided into industries (strata) according to manufacturing process and companies to be contacted were randomly selected from each industry (stratum). The selection aimed to include approximately 36% of the companies in each manufacturing industry in order to allow more precise estimates.<sup>5</sup> The structured questionnaire was designed on the basis of the literature reviewed in order to include the most relevant issues to be investigated. It comprised three main categories of questions: company characteristics, FDI motives and FDI barriers. The final version of the questionnaire was adopted after conducting several pilot interviews.

The survey was launched on 9 November 2005 and it was completed on 10 February 2006. In total 165 companies were contacted and 79 completed questionnaires were gathered, which represents 16.4% of the total population (79/482). Owing to the fact that in the selected stratified sample 12 companies either already had stopped operations (bankrupt) or were not operating in the manufacturing sector or were unreachable, the active response rate was 51.6% (79/153). The actual response rate was considerably higher than expected, which is due to the fact that 65% of the respondent companies were visited personally and the questionnaire data were collected via personal interviews, while the remaining data were collected by the self-administered questionnaires method. In almost all cases the questionnaires were answered either by the CEO (chief executive officer) or a top manager.

<sup>2</sup> The manufacturing sector comprises any industry that makes products from raw materials by the use of manual labour or machines and is engaged in the mechanical, physical or chemical transformation of materials, substances or components into new products.

<sup>3</sup> The Classification of Economic Activities of the European Union is also applied by the State Statistical Office of the FYR of Macedonia (see [http://ec.europa.eu/comm/competition/mergers/cases/index/nace\\_all.html](http://ec.europa.eu/comm/competition/mergers/cases/index/nace_all.html)).

<sup>4</sup> As some of the companies with mixed capital have a foreign capital participation of less than 10% (no data on the exact number of these companies are available), the population actually entails less than 482 companies.

<sup>5</sup> The sample size needed was determined according to the formula for the population proportion (Lind *et al.* 2002, p. 320):  $n = p(1 - p)(z/E)^2$ , where  $n$  is the sample size,  $p$  is an estimate of the population proportion,  $z$  is the standard normal value corresponding to the desired level of confidence, and  $E$  is the maximum allowable error. In this case, the desired level of confidence is 90%, the maximum allowable error is 0.10, and the most conservative approach is used for estimating the population proportion being determined at 0.50.  $n = (0.5)(1 - 0.5)(1.65/0.10)^2 = (0.25)(272.25) = 68.0625 = 69$  companies. The necessary number of companies to be contacted was found based on the formula:  $n^a = n \times 100/re\%$ , where  $n^a$  is the actual sample size required,  $n$  is the minimum sample size and  $re\%$  is the estimated response rate. The expectations were that, thanks to direct contact with the companies, the response rate would be 40%.  $n^a = (69 \times 100)/40 = 6900/40 = 172.5 = 173$  companies to be contacted, i.e. 35.9% of the total population.

### Characteristics of the Companies Surveyed

While for the companies to be contacted only the specific industry within the manufacturing sector in which a company operates was known and used to define the strata, we gathered responses from companies that differed according to several key criteria that were of research interest, such as country of origin, company size, investment volume, entry mode used, and the export orientation of the multinational, if present. The most represented industry in our sample is Textiles and Textile Products (TTP) with 32%, and it is followed by Food Products, Beverages and Tobacco (FPBT) with 20%, Basic Metal and Fabricated Metal Products (BMFMP) with 10%, Pulp, Paper Products, Publishing and Printing (PPPP) with 8%, and Rubber and Plastic Products (RPP) with 6%. The remaining industries were represented by relatively low numbers of companies, ranging from 1% to 4%. Table 1 compares the structure of the population and sample companies. The sample composition almost perfectly mirrors the population structure per industry as reported in Table 1, with maximum deviation of 3.9 percentage points, while the majority of industries (77%) are represented within 1.0 percentage point deviation.

The comparison of the sample and the population investment volume in FYR Macedonia (Table 2) shows that the structural discrepancies reach a maximum of 1.50 percentage points for the TTP, WPP–PPPP, RPP and Electrical and Optical Equipment (EOE) industries. FPBT and BMFMP are over-represented with deviations of 12.4 and 7.50 percentage points, respectively. Chemicals, Chemical Products and Man-made Fibres (CCPF), Furniture and Other Manufacturing (FOM) and Other Industries are under-represented with deviations ranging from 6.40 to 8.60 percentage points.

**Table 1.** Structure of population and sample companies by manufacturing industry

Manufacturing industry	Total number of companies with foreign and mixed capital		Respondent companies	
	Number	%	Number	%
Food Products, Beverages and Tobacco (FPBT)	94	19.5	18	22.8
Textiles and Textile Products (TTP)	145	30.1	25	31.6
Leather and Leather Products (LLP)	12	2.5	2	2.5
Wood and Wood Products (WWP)	16	3.3	1	1.3
Pulp, Paper Products, Publishing and Printing (PPPP)	36	7.5	6	7.6
Coke, Refined Petroleum Products and Nuclear Fuel (CRPPNF)	3	0.6	1	1.3
Chemicals, Chemical Products and Man-made Fibres (CCPF)	16	3.3	3	3.8
Rubber and Plastic Products (RPP)	27	5.6	5	6.3
Other Non-metallic Mineral Products (ONMMP)	10	2.1	2	2.5
Basic Metal and Fabricated Metal Products (BMFMP)	50	10.4	8	10.1
Machinery and Equipment (ME)	10	2.1	1	1.3
Electrical and Optical Equipment (EOE)	37	7.7	3	3.8
Transport Equipment (TE)	4	0.8	1	1.3
Furniture and Other Manufacturing (FOM)	22	4.6	3	3.8
Total	482	100.0	79	100.0

*Note:* For the purpose of further analysis, the tobacco industry (represented by only two companies) was treated as a separate industry owing to its specific characteristics as an outlier (primarily motivated by natural resources and pure export orientation) in order to prevent the distortion of the results of the Food Products and Beverages (FPB) industry, except when the comparison with official data required joint presentation of Food Products, Beverages and Tobacco (FPBT).

**Table 2.** Structure of the initial investments of population and sample companies

Manufacturing industry	Manufacturing investments 1997–2005		Total investments of sample companies	
	USD million	%	USD million	%
Food Products, Beverages and Tobacco (FPBT)	85.06	24.1	82.03	36.5
Textiles and Textile Products (TTP)	14.23	4.0	8.54	3.8
Wood and Wood Products, Pulp, Paper Products, Publishing and Printing (WWP-PPPP)	11.71	3.3	10.44	4.6
Chemicals, Chemical Products and Man-made Fibres (CCPF)	29.00	8.2	2.18	1.0
Rubber and Plastic Products (RPP)	2.50	0.7	0.88	0.4
Basic Metal and Fabricated Metal Products (BMFMP)	74.44	21.1	64.33	28.6
Electrical and Optical Equipment (EOE)	0.36	0.1	3.59	1.6
Furniture and Other Manufacturing (FOM), LLP, ONMMP	82.59	23.4	38.08	17.0
Other Industries (CRPPNF, ME, TE)	53.47	15.1	14.54	6.5
Total manufacturing	353.36	100.0	224.62	100.0

*Note:* Although data on actual investments were collected for 14 manufacturing sectors in Table 2 the sectors are regrouped into nine sectors as Wood and Wood Products is combined with Pulp, Paper Products, Publishing and Printing, while Leather and Leather Products and Other Non-metallic Minerals Products are included within Furniture and Other Manufacturing (FOM) in order to comply with the official FDI statistics of the National Bank of Republic of Macedonia. In addition, the Coke, Refined Petroleum Products and Nuclear Fuel, Machinery and Equipment, and Transport Equipment sectors are provided under 'Other industries', in order to protect companies that are the single representative of their sector.

The total investment in the sample companies represents 63.6% of the country's total manufacturing investment,<sup>6</sup> hence supporting the sample's representativeness and the credibility of the research findings.

As shown in Table 3, Greek companies were the most represented with 39.2%, followed by German (10.1%) and USA companies (7.6%). The other countries have invested in up to five companies, of which Bulgaria and Poland registered only one investment each (1.3%). Unfortunately, no comparison with the number of investments and total accumulated FDI inflows from various investor countries in the manufacturing sector in FYR Macedonia is possible since the data are not available. At this point we could only conclude that the high share of Greek companies fairly represents the leading investor position of Greece in FYR Macedonia. The total Greek investment for 1997–2005 amounted to USD 270.10 million, which represents 29.2% of the total FDI inflows in all economic sectors except telecommunications. The telecommunications industry is exceptional as Hungarian investment in the Macedonian Telecommunication-Maktel in 2001 amounted to USD 334 million, or 26.0% of the total FDI inflow of the period 1997–2005.

In order to get a clearer picture, the relationship between the manufacturing industries and the investors' countries is analysed from two standpoints: the first presenting the share of various industries in the total number of investment projects

<sup>6</sup> The only available data for the period before 1997, that is 1994–96, are on an aggregate level. The amount was USD 44.7 million, almost negligible.

**Table 3.** Structure of sample companies by country of origin

Country	Companies surveyed	
	Number	%
Austria	5	6.3
France	3	3.8
Cyprus	4	5.1
Poland	1	1.3
Switzerland	3	3.8
Netherlands	5	6.3
USA	6	7.6
Germany	8	10.1
Greece	31	39.2
Serbia and Montenegro	3	3.8
Italy	2	2.5
Slovenia	3	3.8
Turkey	4	5.1
Bulgaria	1	1.3
Total	79	100.0

originating from a particular country (Table 4), and the second showing the share of various countries of origin in the total number of investment projects in a particular industry (Table 5).

As we see in Table 4, French investors have focused on BMFMP, mechanical products and transport equipment, while investment from the Netherlands, Germany and Greece has mainly been concentrated in the TTP industry. There were major investment projects from Austria in the PPPP industry, and Italy has invested solely in the LLP industry.

The analysis of industries from the country of origin standpoint in Table 5 shows that the majority or at least half of the investment projects in FPB, TTP, ONMMP and EOE industries originate from Greece, and the majority of PPPP, CCPF and FOM companies are Austrian, Serbia & Montenegro and Turkish investments respectively. All investment projects in the LLP industry originate from Italy.

### Questionnaire Results

The questionnaire results revealed that the low-cost unskilled labour force was perceived as the most important factor attracting investment in the manufacturing sector in FYR Macedonia. This factor was cited as important/very important by 80% of the respondent companies and is followed by factors exploiting ownership advantages such as existing business links and know-how with 71% and 65% respectively, geographical proximity (65%) and access to regional market (61%) (Figure 1).

Other highly ranked motives include expected economic growth (56%), economies of scale (55%), corporate tax relief (53%), low income tax (50%) and links to neighbouring countries (50%). Notably, the market factors (market size, local market access and expected local market growth) ranked relatively low, being cited by less than half of the companies surveyed (from 24% to 43% of the respondents).

Table 6 provides a detailed overview of the assessment of motives by various industries; in order to obtain more relevant conclusions, only industries represented by

**Table 4.** Sample data distribution of investment projects from countries of origin by manufacturing industry (%)

Country	PPPP	ONMMP	BMFMP	ME	TE	FPB	WWP	CRPPNF	FOM	TTP	Tobacco	RPP	EOE	CCPF	LLP	Total
Austria	80	20														100
France			33	33	33											100
Cyprus						25	25	25	25							100
Poland										100						100
Switzerland			33			67										100
Netherlands			20			20				40	20					100
USA			17			33				33	17					100
Germany			12							63		12	12			100
Greece	3	3	7			29				42		7	6	3		100
Serbia and Montenegro												33		67		100
Italy															100	100
Slovenia	33		33									33				100
Turkey									50	50						100
Bulgaria						100										100

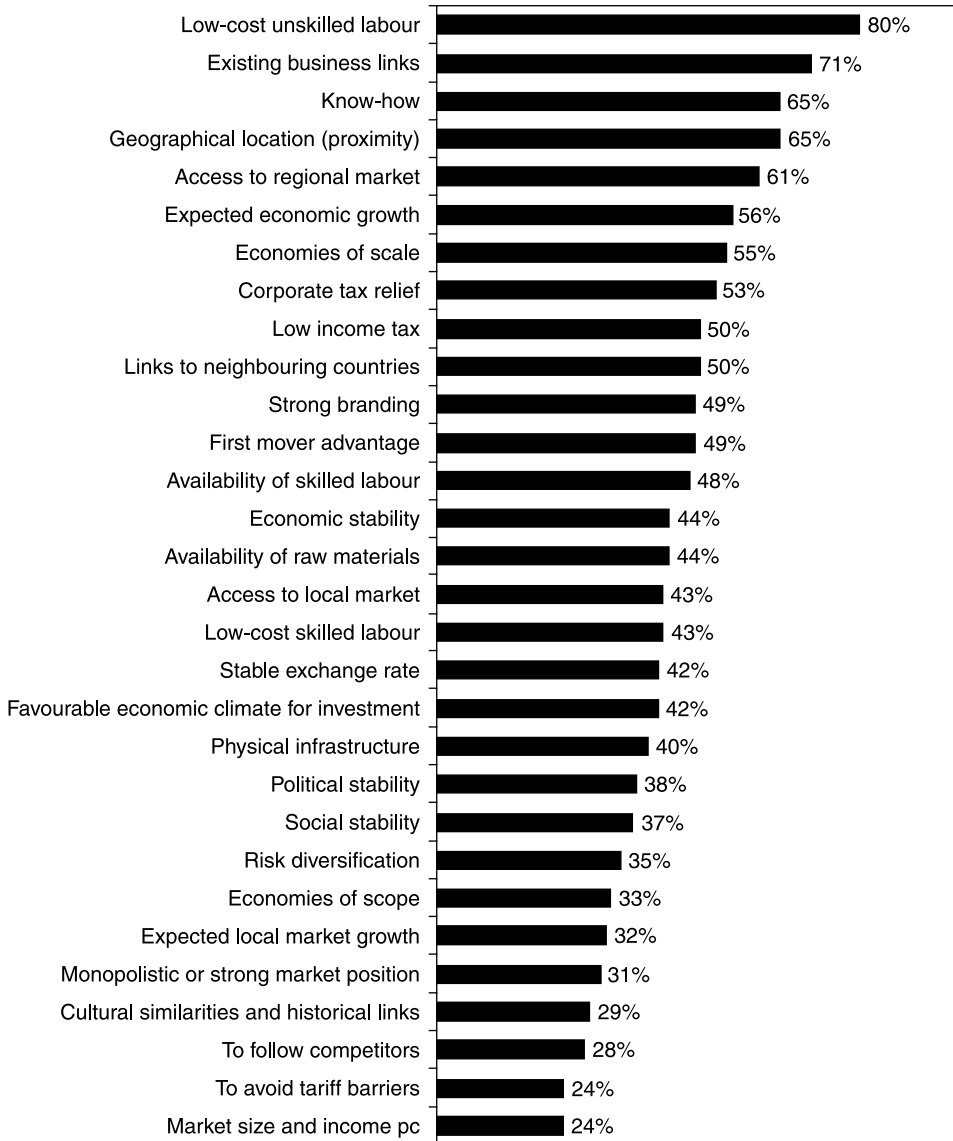
**Table 5.** Sample data distribution of investment projects in manufacturing industries by investor country (%)

Manufacturing industry	Greece	Germany	USA	Austria	Netherlands	Cyprus	Turkey	France	Slovenia	S & M	Switzerland	Italy	Bulgaria	Poland	Total
Food Products and Beverages	56		13		6	6					13		6		100
Textiles and Textile Products	52	20	8		8		8							4	100
Leather and Leather Products												100			100
Wood and Wood Products						100									100
Pulp, Paper Products, Publishing and Printing	16.7			66.7					16.7						100
Coke, Refined Petroleum Products and Nuclear Fuel						100									100
Chemicals, Chemical Products and Man-made Fibres	33									67					100
Rubber and Plastic Products	40	20							20	20					100
Other Non-metallic Mineral Products	50			50											100

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Basic Metal and Fabricated Metal Products	25	12.5	12.5	12.5	12.5	12.5	100
Machinery and Equipment					100		100
Electrical and Optical Equipment	67						100
Furniture and Other Manufacturing				33	67		100
Tobacco		50	50				100
Transport Equipment						100	100



**Figure 1.** Frequency of motive ratings as ‘very important’ and ‘important’ (%).

at least three companies were considered. Low-cost unskilled labour kept its leading position for the key manufacturing industries, TTP, FPB and BMFMP, which is in line with the skill taxonomy developed by the European Commission (2003) (skills ranking: low, low–intermediate, high–intermediate and high) that classifies these industries as low-skill industries. The classification of the first two industries as low-skill is additionally supported by their low evaluation of skilled labour availability. The BMFMP industry is an exception as it assigned almost equal importance to both unskilled and skilled labour. This is possibly due to the fact that 50% of the companies represented in this industry operate in the fabricated metal products sub-industry,

**Table 6.** Frequency of motive ratings as ‘important’ and ‘very important’ by manufacturing industry with a least three observations (%)

Motives	Total	TTP	FPB	BMFMP	PPPP	RPP	CCPF	EOE	FOM
Low-cost unskilled labour	79.7	92.0	87.7	87.5	16.7	80.0	66.7	66.7	66.7
Existing business links	70.5	64.0	56.3	87.5	83.3	60.0	100.0	33.3	100.0
Know-how	65.4	52.0	75.0	87.5	83.3	60.0	0.0	66.7	66.7
Geographical location (proximity)	64.6	72.0	75.0	62.5	33.3	60.0	66.7	66.7	66.7
Access to regional market	60.8	44.0	75.0	62.5	83.3	60.0	66.7	66.7	66.7
Expected economic growth	56.4	32.0	68.7	75.0	83.3	80.0	50.0	33.3	100.0
Economies of scale	55.1	48.0	50.0	75.0	83.3	40.0	0.0	0.0	100.0
Corporate tax relief	52.6	40.0	62.5	62.5	66.7	20.0	0.0	66.7	66.7
Links to neighbouring countries	50.0	23.1	73.3	50.0	100.0	40.0	50.0	66.7	33.3
Low income tax	50.0	40.0	50.0	37.5	83.3	20.0	0.0	66.7	100.0
First mover advantage	48.7	24.0	50.0	62.5	100.0	60.0	50.0	33.3	66.7
Strong branding	48.7	36.0	56.3	62.5	66.7	40.0	0.0	66.7	33.3
Availability of skilled labour	48.1	24.0	37.5	87.5	100.0	40.0	66.7	33.3	66.7
Availability of raw materials	43.6	8.0	62.5	75.0	83.3	40.0	0.0	0.0	66.7
Economic stability	43.6	32.0	56.3	50.0	66.7	40.0	50.0	0.0	66.7
Access to local market	43.0	12.0	62.5	37.5	100.0	100.0	33.3	33.3	33.3
Low-cost skilled labour	43.0	28.0	25.0	75.0	100.0	40.0	33.3	33.3	66.7
Favourable economic climate for investment	42.3	44.0	37.5	37.5	66.7	20.0	50.0	33.3	66.7
Stable exchange rate	42.3	24.0	50.0	37.5	83.3	40.0	50.0	33.3	66.7
Physical infrastructure	39.7	16.0	43.7	62.5	66.7	20.0	50.0	33.3	66.7
Political stability	38.5	32.0	37.5	37.5	66.7	20.0	50.0	0.0	66.7
Social stability	37.2	24.0	37.5	37.5	66.7	20.0	50.0	33.3	100.0
Risk diversification	34.6	24.0	37.5	37.5	83.3	40.0	50.0	0.0	33.3
Economies of scope	33.3	20.0	37.5	50.0	83.3	20.0	0.0	33.3	0.0
Expected local market growth	32.1	15.4	66.7	12.5	83.3	40.0	0.0	0.0	66.7
Monopolistic or strong market position	30.8	12.0	43.7	50.0	66.7	20.0	50.0	0.0	0.0
Cultural similarities and historical links	29.5	11.5	53.3	0.0	66.7	60.0	0.0	33.3	33.3
To follow competitors	28.2	16.0	25.0	12.5	66.7	40.0	50.0	66.7	33.3
To avoid tariff barriers	24.4	8.0	37.5	25.0	16.7	20.0	50.0	0.0	66.7
Market size and income pc	24.4	4.0	37.5	12.5	83.3	40.0	0.0	33.3	33.3

which is classified in the EC taxonomy as low–intermediate skilled (a slightly higher skill type), and the companies require skilled staff for operating technological processes.

The remaining industries ranked low-cost unskilled labour relatively highly (from 67% to 80%). The PPPP industry is the single exception with only 16.7% of respondents confirming the importance of low-cost unskilled labour, which is a contradictory result in view of the EC skill taxonomy, which classifies this industry as low–intermediate skilled. On the other hand, PPPP valued skilled labour availability and low-cost skilled labour highly, which might be due to the structure of respondent PPPP companies, almost 70% being publishers that require highly skilled labour. A similar exception is found for the CCPF industry, which is the only industry among those observed that, according to the same EC taxonomy, is assigned to require high skills and yet valued low-cost unskilled labour and availability of skilled labour equally, while low-cost skilled labour's importance was even below the sample average. This result might be due to the fact that 67% of the respondent CCPF companies actually operate relatively simple technological processes and are small (less than 50 employees). A similar explanation applies to the EOE industry as well.

Existing business links were of most importance to the BMFMP, PPPP, CCPF and FOM industries. Know-how ownership advantage was most important for FPB, BMFMP and PPPP, which, especially for the latter two, might be caused by the required level of skills and knowledge.

Geographical location is most important for the TTP and FPB industries. This high ranking could be explained by two factors, reflecting the two key dimensions of the geographical location motive: proximity to markets and proximity to the investors' countries. First, 69% of the FPB and 52% of the TTP companies export at least 60% of their total exports to Balkan countries. If export share of at least 80% to the same export destinations is taken as the criterion, this percentage slightly decreases to 56% for FPB and 48% for TTP industries.<sup>7</sup> In both cases these industries are leading exporters to the Balkans among the industries represented by more than five companies in the sample. Second, 56% of the investments in the FPB industry and 52% in the TTP industry originate from neighbouring Greece. Similarly, the extremely low score of the geographical location factor for PPPP might be due to their local market orientation (83% are non-exporters) and also to their origin from more distant EU countries: 83%.

The high importance of the regional market for the FPB industry is completely in line with their evaluation of geographical proximity and export orientation. The low score given by TTP seems contradictory but it is understandable as 52% of TTP companies are Greek companies actually exporting to their home company (most frequently as a channel for exports abroad). Surprisingly, the result for the PPPP industry is mainly caused by the high ranking of this factor by the printing/paper producing companies, and for the publishers it might reflect their regional expansion strategies.

Availability of raw materials is very important for the PPPP and BMFMP industries as they are primarily locally supplied and it is least important for industries relying on the import of inputs (TTP, which usually operates on a job-processing basis, CCPF and EOE). Local market factors are most important to the PPPP industry. This industry also leads the ranking in the first mover advantage and monopolistic/strong

<sup>7</sup> The tables presenting export markets and export performance of the sample companies are not included owing to space limitations.

market position motives, which are associated with its predominantly local market orientation. A clear contrast in evaluating market importance is represented by the TTP, BMFMP, CCPF and EOE industries, which reflects their export intensity. Only in the case of the CCPF industry might this rating be mainly due to the type of products (pharmaceuticals and chemicals for industrial use), which usually have more stable customers.

In order to check whether there are statistically significant differences among various manufacturing industries in ranking the investment motives, the robust test of equality of means<sup>8</sup> (Welch and Brown & Forsythe) was conducted instead of ANOVA in order to take account of the varying group sizes.<sup>9</sup> In order to provide more relevant results, only the three major industries, TTP, FPB and BMFMP, were tested. In total, there were ten motives for which this test identified that significant differences existed among the three industries.<sup>10</sup> In order to find out which particular industries differ in assessing the ten motives, a further analysis was carried out. According to the test of homogeneity of variances (Levene statistics), which distinguished the groups with equal and unequal variances, the suitable post hoc tests for these ten motives were conducted. As demonstrated in Tables 7 and 8, significant differences among the industries were found for nine of the identified motives, while no such result was reported for the first mover advantage motive.

As expected owing to its export orientation, the TTP industry is much less concerned with expected local market growth and avoidance of tariff barriers than the FPB industry (92% of TTP export over 60% of their production compared with 37% of FPB).<sup>11</sup> Owing to its skills intensity and mode of inputs supply, TTP is also much less affected by the skilled labour force factor and raw materials availability than BMFMP. Cultural similarities and historical links are more important for FPB than for TTP and BMFMP, even when the investors come from the same country, and perhaps this difference is caused by the FPB industry's local market presence. As links to neighbourhood might be associated with regional exports, and in view of the previously mentioned fact that 52% of TTP companies are Greek companies exporting via parent companies to other destinations, it is not surprising that TTP values this motive considerably lower than FPB (Table 7).

Physical infrastructure is more important for BMFMP than for TTP and this might be caused by the technological process requiring substantially higher energy inputs and the need for a developed road and railway infrastructure for product transport. As already mentioned, a possible reason for the higher ranking of low-cost skilled labour that was given by BMFMP in comparison with FPB and TTP might be the greater requirement for skilled labour in this industry. BMFMP assigned higher importance to expected economic growth than TTP, perhaps due to the expectation that a growing economy would create additional local demand for metal products.

<sup>8</sup> According to NCSU (no date), the Welch test of equality of means and Brown & Forsythe's *F* test of equality of means are used instead of ANOVA when variances and/or group sizes are unequal (the latter being the characteristics of the groups compared). In addition, Brown & Forsythe's *F* test of equality of means is more robust than ANOVA when the normality assumption is violated.

<sup>9</sup> The existence of significant (mean) differences means that the sectors analysed differ among them in ranking the investment motives (i.e. sector is related to motive perception) and that these differences are not caused by chance.

<sup>10</sup> Owing to space limitations the table displaying these ten motives is not included.

<sup>11</sup> The difference between two sectors in assigning importance to a particular motive is shown by the mean difference, given in the (I – J) column.

**Table 7.** Multiple comparisons of mean differences for three major industries (equal variances)

Dependent variable	(I) Manufacturing industry	(J) Manufacturing industry	Mean difference (I – J)	Std. error	Sig.	
					Tukey HSD	Scheffe
Expected local market growth	FPB	TTP	1.808	0.394	0.00	0.00
	TTP	FPB	- 1.808	0.394	0.00	0.00
Availability of skilled labour	FPB	BMFMP	- 1.500	0.537	0.02	0.03
	TTP	BMFMP	- 2.095	0.503	0.00	0.01
	BMFMP	FPB	1.500	0.537	0.02	0.03
	BMFMP	TTP	2.095	0.503	0.00	0.01
Cultural similarities and historic links	FPB	TTP	1.518	0.377	0.01	0.01
	FPB	BMFMP	1.438	0.510	0.02	0.03
	TTP	FPB	- 1.518	0.377	0.01	0.01
	BMFMP	FPB	- 1.438	0.510	0.02	0.03
Links to neighbouring countries	FPB	TTP	1.398	0.440	0.01	0.01
	TTP	FPB	- 1.398	0.440	0.01	0.01
To avoid tariff barriers	FPB	TTP	1.160	0.398	0.01	0.02
	TTP	FPB	- 1.160	0.398	0.01	0.02

*Note:* The mean difference is significant at the 0.05 level.

**Table 8.** Multiple comparisons of mean differences for three major industries (unequal variances)

Dependent variable	(I) Manufacturing industry	(J) Manufacturing industry	Mean difference (I – J)	Std. error	Sig. Tamhane
Low-cost skilled labour	FPB	BMFMP	- 1.313	0.380	0.008
	TTP	BMFMP	- 1.560	0.367	0.001
	BMFMP	FPB	1.313	0.380	0.008
	BMFMP	TTP	1.560	0.367	0.001
Availability of raw materials	FPB	TTP	1.745	0.445	0.002
	TTP	FPB	- 1.745	0.445	0.002
	TTP	BMFMP	- 2.120	0.335	0.000
	BMFMP	TTP	2.120	0.335	0.000
Physical infrastructure	TTP	BMFMP	- 1.390	0.345	0.002
	BMFMP	TTP	1.390	0.345	0.002
Expected economic growth	TTP	BMFMP	- 1.480	0.402	0.003
	BMFMP	TTP	1.480	0.402	0.003

*Note:* The mean difference is significant at the 0.05 level.

**Table 9.** Chi-square analysis of motives for TTP and other industries

Motives	TTP and other industries	
	Pearson chi-square	Asymp. sig. (two-sided)
Access to local market	12.189	0.002
Market size and income	9.021	0.011
Expected local market growth	8.615	0.013
Availability of skilled labour	10.059	0.007
Availability of raw materials	20.592	0.000
Physical infrastructure	8.140	0.017
First mover advantage	7.533	0.023
Monopolistic or strong market position	7.188	0.027
Cultural similarities and historical links	6.146	0.046
Links to neighbouring countries	12.693	0.002
Expected economic growth	12.452	0.002
To avoid tariff barriers	7.090	0.029

Beside the analysis of industry mean differences, additionally a Chi-square test of the statistically significant relationship between the type of industry and the importance of investment motives was conducted. Since all industries except TTP are represented by a relatively limited number of companies, the analysis was conducted for two groups: TTP and all other industries.<sup>12</sup> The significant Chi-square test results are displayed in Table 9.<sup>13</sup>

For the aforementioned motives, the majority of which are related to local and regional market sales (and also largely resemble significant mean differences as revealed by the robust test of equality of means), the crosstab frequencies distribution showed that the TTP industry assigned much less importance to all these motives than the group of other industries.<sup>14</sup> This is also confirmed by crosschecking with the results displayed in Table 6, showing that TTP had the lowest or second lowest score for almost all of these motives.

As shown in Table 10, which presents only the results for countries with at least four investments, low-cost unskilled labour is rated highly by the majority of investor countries of origin. The only exceptions are Austria, with investments in 80% of the total number of PPPP companies, and Cyprus, with 25% of its investments in CRPPNF (0% importance of this motive) and 25% in FOM.

Existing business links are most important to Austrian, Turkish and Dutch investors, and least important to investors from Greece, the USA and Cyprus, which might reflect the specifics of the businesses in which they have primarily invested. The know-how factor is overwhelmingly important to investments originating from the USA, Austria and the Netherlands, and might reflect their concentration in FPB, BMFMP and PPPP industries. The importance of geographical proximity to Greek companies was already examined above. The relevance of this factor to German and Turkish investors is probably due to the fact that the majority of German companies

<sup>12</sup> The chi-square test is very rigid: it requires a maximum of 20% of cells having less than five expected frequencies. If this analysis were performed for TTP (as the largest group) and any other sector, the number of cells with less than five expected frequencies would be much higher, i.e. no valid results could be obtained.

<sup>13</sup> In all chi square analyses the rule of a maximum of 20% of cells with less than five expected frequencies has been respected.

<sup>14</sup> Owing to space limitations, the table reporting the crosstab frequencies is not included.



**Table 10.** Frequency of motive ratings as ‘very important’ and ‘important’ by country of origin (%)

Motives	Total	Greece	Germany	USA	Austria	Netherlands	Cyprus	Turkey
Low-cost unskilled labour	79.7	87.1	75.0	83.3	20.0	100.0	50.0	75.0
Existing business links	70.5	50.0	75.0	50.0	100.0	80.0	50.0	100.0
Know-how	65.4	50.0	62.5	100.0	100.0	100.0	50.0	75.0
Geographical location (proximity)	64.6	90.3	75.0	0.0	0.0	40.0	50.0	75.0
Access to regional market	60.8	58.1	37.5	66.7	100.0	20.0	50.0	100.0
Expected economic growth	56.4	33.3	75.0	100	80.0	40.0	75.0	100.0
Economies of scale	55.1	33.3	50.0	66.7	100.0	80.0	50.0	100.0
Corporate tax relief	52.6	53.3	25.0	66.7	80.0	40.0	75.0	25.0
Links to neighbouring countries	50.0	46.7	12.5	50.0	100.0	20.0	75.0	50.0
Low income tax	50.0	40.0	25.0	66.7	80.0	80.0	50.0	50.0
First mover advantage	48.7	23.3	62.5	50.0	100.0	0.0	75.0	75.0
Strong branding	48.7	36.7	62.5	33.3	100.0	20.0	50.0	75.0
Availability of skilled labour	48.1	22.6	50.0	83.3	100.0	40.0	100.0	25.0
Availability of raw materials	43.6	30.0	37.5	66.7	100.0	40.0	25.0	50.0
Economic stability	43.6	20.0	62.5	66.7	80.0	20.0	75.0	75.0
Access to local market	43.0	32.3	25.0	50.0	100.0	40.0	75.0	25.0
Low-cost skilled labour	43.0	19.4	50.0	16.7	100.0	60.0	100.0	25.0
Favourable economic climate for investment	42.3	20.0	50.0	83.3	80.0	60.0	25.0	75.0
Stable exchange rate	42.3	10.0	50.0	83.3	80.0	40.0	75.0	75.0
Physical infrastructure	39.7	16.7	37.5	66.7	100.0	20.0	75.0	50.0
Political stability	38.5	10.0	62.5	83.3	80.0	40.0	75.0	50.0
Social stability	37.2	13.3	50.0	66.7	80.0	20.0	75.0	75.0
Risk diversification	34.6	10.0	25.0	83.3	100.0	40.0	0.0	75.0
Economies of scope	33.3	13.3	25.0	66.7	100.0	20.0	0.0	50.0
Expected local market growth	32.1	23.3	0.0	50.0	80.0	20.0	25.0	100.0
Monopolistic or strong market position	30.8	13.3	12.5	66.7	60.0	0.0	50.0	25.0
Cultural similarities and historical links	29.5	40.0	0.0	16.7	60.0	0.0	50.0	50.0
To follow competitors	28.2	10.0	50.0	16.7	80.0	40.0	25.0	25.0
Market size and income per capita	24.4	10.0	12.5	50.0	100.0	20.0	50.0	25.0
To avoid tariff barriers	24.4	13.3	25.0	0.0	0.0	20.0	50.0	25.0

and all Turkish companies export to the Balkans and the EU, and also due to the relative proximity of home and host country. Again, market factors are most important to Austrian companies, though Turkish companies lead in the evaluation of expected local market growth. Austrian companies also lead in appreciation of skilled labour. Greek and Turkish companies, on the contrary, do not consider these factors as motives. However, low-cost skilled labour received a minimal score from USA investors.

The robust test of equality of means, which was conducted for the three major investor countries (Greece, Germany and the USA), showed that these countries differed in assessing eight investment motives.<sup>15</sup> The post hoc tests further showed significant differences for these eight motives and revealed which countries differed from one another in ranking these motives.

Table 11 shows that the USA on one side and Germany and Greece on the other side display significant differences regarding the market size and income per capita motives, probably due to different shares of their companies in the category of companies exporting over 60% of their output (50%, 75% and 81% respectively).<sup>16</sup> Significant difference in valuing skilled labour availability was found between the USA and Greece. Greece and Germany show differences regarding the importance of the following competitors motive. The values of the mean differences for geographical proximity completely correspond to the geographical proximity/distance among the countries analysed, i.e. proximity is less important as the investor country is more distant. Furthermore, USA investors are more attracted by the favourable economic climate for investment than Greek companies. Greek companies also showed less interest in exchange rate stability than German and especially US investors.

Taking into account the dominating profile of Greek companies, it is not surprising (Table 12) that they are less attracted by expected economic growth than German and in particular USA investors, and also by low-cost skilled labour in comparison with US investors.

The specific features of the Greek companies can be further illustrated by the results<sup>17</sup> of the chi-square analysis conducted for the two groups comprising Greek investors and investors from all other countries, as presented in Table 13. Significant chi-square results, revealing that there is a relationship between country of origin and ranking of motives, were found for 22 motives (73% of all motives examined). Additionally, the analysis of the crosstab frequencies distribution showed that the Greek companies assigned less importance than the companies from other countries to all motives except geographical proximity, which is completely in line with the results in Table 10.<sup>18</sup> Interestingly, all motives for which the chi-square test of TTP vs. other industries showed a significant relationship (except the cultural similarities and historical links, and links to neighbouring countries motives) in Table 9 are again found to be motives whose ranking is not independent of the country of the investor. However, this is not surprising owing to the 52% Greek share in the TTP industry.

<sup>15</sup> Owing to space limitations the table displaying the results of the robust test of equality of means is not included.

<sup>16</sup> Owing to space limitations the table presenting the distribution of country of origin by local suppliers/exporters, differentiated by the 60% export of their output criterion, is not included.

<sup>17</sup> In all chi-square analyses the rule of a maximum of 20% of cells with less than five expected frequencies has been respected.

<sup>18</sup> Owing to space limitations, the table reporting the crosstab frequencies is not included.

**Table 11.** Multiple comparisons of mean differences for three major investor countries (equal variances)

Dependent variable	(I) Country	(J) Country	Mean difference (I – J)	Std. error	Sig.	
					Tukey HSD	Scheffe
Market size and income per capita	Greece	USA	-1.433	0.464	0.010	0.014
	Germany	USA	-1.417	0.561	0.040	0.052*
	USA	Greece	1.433	0.464	0.010	0.014
	USA	Germany	1.417	0.561	0.040	0.052*
Availability of skilled labour	Greece	USA	-1.575	0.609	0.035	0.045
	USA	Greece	1.575	0.609	0.035	0.045
To follow competitors	Greece	Germany	-1.833	0.437	0.000	0.001
	Germany	Greece	1.833	0.437	0.000	0.001
Geographical location (proximity)	Greece	Germany	1.052	0.346	0.011	0.015
	Greece	USA	2.344	0.389	0.000	0.000
	Germany	Greece	-1.052	0.346	0.011	0.015
	Germany	USA	1.292	0.471	0.024	0.032
	USA	Greece	-2.344	0.389	0.000	0.000
	USA	Germany	-1.292	0.471	0.024	0.032
Favourable economic climate for investment	Greece	USA	-1.433	0.517	0.022	0.030
	USA	Greece	1.433	0.517	0.022	0.030
Stable exchange rate	Greece	Germany	-1.867	0.469	0.001	0.001
	Greece	USA	-2.367	0.527	0.000	0.000
	Germany	Greece	1.867	0.469	0.001	0.001
	USA	Greece	2.367	0.527	0.000	0.000

*Note:* The mean difference is significant at the 0.05 level.

**Table 12.** Multiple comparisons of mean differences for three major investor countries (unequal variances)

Dependent variable	(I) Country	(J) Country	Mean difference (I – J)	Std. error	Sig. Tamhane
Expected economic growth	Greece	Germany	– 1.567	0.383	0.001
	Greece	USA	– 2.233	0.346	0.000
	Germany	Greece	1.567	0.383	0.001
	USA	Greece	2.233	0.346	0.000
Low-cost skilled labour	Greece	USA	– 0.909	0.293	0.013
	USA	Greece	0.909	0.293	0.013

*Note:* The mean difference is significant at the 0.05 level.

### Analysis and Policy Recommendations

Low-cost unskilled labour proved to be convincingly the leading motive in our sample. As expected, the analysis revealed substantial variations in evaluation of investment motives among industries and countries of origin, where the latter is largely caused by the type of industry in which a particular country has made major investments. Probably the most surprising outcome, in light of the prevailing consensus in the literature, is the rather modest influence of local market factors on making the decision to invest in the manufacturing sector in FYR Macedonia. On the other hand, it appears that the importance of local market factors is greatly determined

**Table 13.** Chi square analysis of motives for Greek and other countries investors

Motives	Greece and other countries	
	Pearson chi-square	Asymp. sig. (two-sided)
Access to local market	8.384	0.015
Market size and income	7.039	0.030
Expected local market growth	8.712	0.013
Availability of skilled labour	13.961	0.001
Low-cost skilled labour	16.708	0.000
Physical infrastructure	11.449	0.003
First mover advantage	13.736	0.001
To follow competitors	16.942	0.000
Monopolistic or strong market position	13.217	0.001
Geographical location (proximity)	16.359	0.000
Economic stability	11.582	0.003
Expected economic growth	24.620	0.000
Favourable economic climate for investment	10.228	0.006
To avoid tariff barriers	7.191	0.027
Stable exchange rate	31.377	0.000
Know-how	8.548	0.014
Economies of scale	9.456	0.009
Economies of scope	11.820	0.003
Risk diversification	19.625	0.000
Political stability	17.477	0.000
Social stability	12.907	0.002

by the geographical market focus of the companies investigated, which was confirmed by our results. Also, the high presence of strongly export-oriented companies in the sample, which influenced the findings regarding local market factors, can be well explained by the limited size of the local market. Low-cost unskilled labour is most important to low-skill and low-technology industries, and least important to industries requiring higher skills.

In view of the finding that the TTP industry is mainly driven by the low-cost unskilled labour motive and is strongly export-oriented, we might assume that the investors surveyed would perceive FYR Macedonia as a country that, *ceteris paribus*, possesses low-cost unskilled labour advantages for export-platform TTP operations compared with some alternative investment sites. It should be noted that although low-cost unskilled labour is also a very important motive to FPB and BMFMP (in the three major industries group) their investment decisions were based on a wider range of motives. No significant results were found for the low-cost unskilled labour motive for them, probably because of its similar importance to the other categories analysed.

The ownership advantages of existing business links and know-how ranked among the top three motives in the sample. Existing business links were more important to industries with higher skills requirements, and also to home countries with major investments in these industries. Similarly, know-how advantage was of particular importance to industries requiring higher skills, reflecting the importance of specific knowledge and skills.

At this point we might assume that the (unusually) high ranking of the existing business links and know-how motives might be an indicator that the country attracts investors that have strong ownership advantages as a compensation for possible perceived country risk. Another possibility is that their high ranking might be caused by the absence of other strong motives. Notably, although know-how is highly assessed, only one CCP company is science-based (the other two CCP companies are both too small and employ rather simple technology) and all other companies surveyed belong either to scale-intensive or traditional industries, according to Pavitt's taxonomy (Pavitt 1984, cited in Resmini 2000, pp. 687–688).

Geographical proximity is the fourth top motive for the sample companies and its importance is linked to the neighbouring position of Greece and the dominant position of Greek investors, and the presence of companies exporting to the EU and the Balkans.

A significant mean difference found in the pairwise comparison of Greece, Germany and USA confirmed that geographical proximity of home and host country was positively related to its importance, which emphasises the potential of Greece as a long-term investor country due to FYR Macedonia's neighbouring location.

The motive of access to the regional market, the fifth top factor, is assessed as most important to industries with a high share of total exports directed to the Balkan region. Hence we might assume that the decision to invest in FYR Macedonia is considerably linked to the potential for exports to the Balkan region, which is further supported by the fact that 47% of sample companies are exporting over 60% of their total exports to that region.

Chi-square analysis confirmed significant relationships of all local market motives and most of the strategic and economic motives with the TTP group and the other industries group, with TTP assigning lower importance. Similarly, chi-square tests of motives for the groups of Greek and other investors showed that a large number of motives were not independent of country of origin, with Greek companies assigning

less importance to all motives except geographical proximity. In view of the fact that 52% of TTP companies are of Greek origin, we might assume that Greek investments are rather exceptional in being driven very largely by two motives only: low-cost unskilled labour and geographical proximity.

The *post hoc* tests revealed that expected market growth, cultural similarities and historical links, links to neighbouring countries and avoidance of tariff barriers might be more relevant to industries with a stronger local market focus. The BMFMP industry is more attracted by skilled labour factors, physical infrastructure and expected economic growth than the TTP industry for the reasons that were previously presented.

Hence we might conclude that the skilled labour factors do matter, but for industries that require high skills to a larger extent. For the remaining industries, and most typically for TTP and FPB, although they certainly require and employ skilled labour, most probably the ratio of skilled to unskilled labour is too small to assign notable importance. Similarly, the importance of the physical infrastructure, as shown with the BMFMP industry, might be caused by the specific features of the production process and product.

With regard to policy implications of our analysis, the government should initiate and implement policies to capitalise on the country's strong features such as low-cost unskilled labour by providing subsidies for vocational training and/or reduction of payroll contributions, which represent a substantial part of the gross salary and are entirely paid by the employer, in order to increase employment. Additionally, it might consider introducing/enhancing curricula of educational profiles that match the requirements of potential investors. However, in order to create and implement policies for attracting investments, FYR Macedonia primarily needs a clear long-term strategy for national economic development. Our research showed that the country has mainly been targeted by investments in low-skill and low value added industries. Although they exert positive effects on employment and the trade account, the country cannot rely solely on these investments as this could only exacerbate its substantial technological and economic lag.

There is also a need to follow developments in the European/global investment environment continuously in order to identify trends and take a pro-active role in attracting investment. However, equal attention and full assistance should be secured for the existing investors, especially in view of our finding that over 60% of companies surveyed do plan additional investment in FYR Macedonia.

One major lesson that can be drawn from our research is that generalised investment promotion policies and strategies might not work equally well for all sectors and could actually have no impact on attracting FDI in particular cases. Instead, they should rather employ a tailor-made approach, taking account of the specific features of the targeted sectors, countries and companies.

## **Conclusion**

This article determined the key FDI motives for the manufacturing sector in FYR Macedonia and suggested recommendations that might be applied in attracting FDI. Based on questionnaire data on 79 manufacturing companies, we found that this sector perceived low-cost of unskilled labour as the strongest FDI driving force, followed by ownership advantages and geographical proximity. Contrary to the prevailing consensus in the literature, market factors seem to exert very limited influence on attracting investment, except for those investments targeting the local market.

A decisive lesson that can be drawn from this study is that generalised investment promotion policies and strategies might not work equally well for all manufacturing industries and might have no impact on attracting FDI in particular cases. In addition, policies should rather employ a tailor-made approach to the targeted industries, companies and countries of origin. Our recommendations for future work emphasise the need for research on a disaggregated, industry level as our research results fully support Walkenhorst's (2004) claim that it seems impossible to make 'deductive claims' on FDI determinants based on aggregate evidence. Additionally, broader analysis within particular sectors is needed as there is a plethora of possible relationships among various company features such as size, industry, markets, entry mode, home country, share of foreign equity, time of initial investment, value of initial and additional investment etc., and the motives for and obstacles to investment, which might provide valuable insights into the underlying nature of the determinants analysed. Referring to FYR Macedonia, the analysis of FDI determinants by representative samples from all sectors should be pursued in order to derive a broader picture. Also, the exploration of cross-sectoral (dis)similarities and benchmarking of these findings and the key FYR Macedonia indicators with those of the main competing locations, such as the SEE countries, should become a regular practice in order to create effective policies for strengthening the competitive potential to attract FDI.

## References

- Alfaro, Laura (2003) *Foreign Direct Investment and Growth: Does the Sector Matter?* (Boston, Harvard Business School).
- European Commission (2003) *EU Productivity and Competitiveness: An Industry Perspective: Can Europe Resume the Catching-up Process?* (Luxembourg, Office for Official Publications of the European Communities).
- Lind, D. A., Marchal, W. G. & Mason, R. D. (2002) *Statistical Techniques in Business & Economics*, 11th edn (New York, McGraw-Hill).
- NCSU (no date) 'Univariate GLM, ANOVA, and ANCOVA', North Carolina State University, College of Humanities & Social Sciences, <http://www2.chass.ncsu.edu/garson/PA765/anova.htm> (accessed 15 February 2006).
- Pavitt, K. (1984) 'Sectoral Patterns of Technical Change: Towards a Taxonomy and Theory', *Research Policy*, 13, 6, pp. 343–373, cited in Resmini, L. (2000).
- Resmini, Laura (2000) 'The Determinants of Foreign Direct Investments in the CEECs: New Evidence from Sectoral Patterns', *Economics of Transition*, 8, pp. 665–689.
- United Nations (2005) *Demographic Yearbook System*, <http://millenniumindicators.un.org/unsd/demographic/products/dyb/DYB2003/Table05.pdf> (accessed 15 May 2006).
- United Nations Economic Commission for Europe (2005) *Economic Survey, 2005*, No.2, <http://www.unece.org/ead/pub/052/052statapp.pdf> (accessed 28 April 2006).
- Walkenhorst, Peter (2004) 'Economic Transition and the Sectoral Patterns of Foreign Direct Investment', *Emerging Markets Finance and Trade*, 40, 2, pp. 5–26.