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FOREIGN DIRECT INVESTMENT AND "LESS FAVOURED REGIONS": GREEK FDI IN BULGARIA AND ROMANIA

by Simona Iammarino* and Christos Pitelis**

1. Introduction

The flows of foreign direct investment (FDI) to Central and Eastern European Countries (CEECs) have increased markedly since the end of the 1980s, after the collapse of the centrally planned regimes and the beginning of the process of transition to the market economy. This has provided grounds for many analyses of FDI flows in the countries concerned, particularly from the European Union, in view of a possible integration between the two neighbouring areas. However, scant attention has been paid to the analysis of FDI from and towards Less Favoured Regions (LFRs) of both sides, despite its significance in terms of growth patterns and rates.

While during the process of industrialisation and afterwards (1960-80) Greek outward investment to Western and developing countries had been marginal, and government policy had only emphasised inward investment, the potential opportunities arising from investment in CEECs have recently changed the scene. This is arguably in accordance with the concept of the investment development cycle, suggesting that, as a country develops, its propensity to engage in outward investment (as well as to be invested in) proceeds through various phases, with outward FDI becoming a means of industrial restructuring only in the final stages of development (Ozawa 1991; Dunning 1991).

The aim of this paper is to shed some light on the FDI flows from a peripheral EU economy, Greece, to two LFRs of Central Europe, Bulgaria and Romania. In particular, the objective is to analyse key criteria underlying investment choices by Greek firms, in order to help identify their role in the restructuring process and the impact that outward flows may have on the Greek economy.

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The empirical analysis is based on the results of a survey carried out in 1995-96 as part of an ACE Project supported by the European Commission on the economic integration through FDI in the less favoured CEECs and the impact on the LFRs of the European Union.[1] A questionnaire was sent to Greek companies that had undertaken foreign direct investment projects in Bulgaria, Romania and the Slovak Republic[2]: the responding firms were 96 and the total number of investments in the three countries was 104.[3] In this paper we focus on Greek outward FDI in Bulgaria and Romania, using part of the database in trying to draw some implications for the home country, with a sample of 76 Greek parents and 85 direct investments in the two CEECs.[4]

The paper is divided into six sections. Section II introduces the general hypotheses and the interpretation proposed on the basis of the literature. The third section describes the suggested methodology and the selected variables. Section four illustrates the relevant features of Greek outward FDI in the two CEECs as they emerge from the survey. Section five comments on the empirical findings of the econometric analysis. Section VI provides some concluding remarks and highlights further questions for future research.

2. **Greek FDI in Bulgaria and Romania: the hypotheses**

The impact of FDI on the home and the host country depends crucially upon the characteristics of the economies involved and upon the strategies followed by multinational enterprises (MNEs). From the viewpoint of the MNE, the delocalisation of production operations offers, among others, opportunities to exploit the firm's competitive capacity into new high

[1] The EU investing countries considered in the ACE Project (No 94-0719-R) were Greece and Portugal and the survey addressed also their subsidiaries in CEECs, allowing a database of 220 firms in total. In this paper we consider only the results for Greek parents which invested in Bulgaria and Romania.

[2] There were very few responses (and investments) at the last mentioned, and none of any major economic significance. Whilst this has interesting economic implications (as it underlies the potential role of geography and culture), it allows us to exclude the Slovac Republic for the purposes of this particular study.

[3] The questionnaire was elaborate and arguably a strength to the study and our results. It was the joint effort of the authors and all the partners to the ACE project for which the questionnaire was devised and data collected, as well as a number of research associates. It was based on existing questionnaires by the UN, the OECD and other studies, and increasingly improved over a six month period by, in particular, the co-ordinator of the project C. Pitelis, partners R. Sugden, I. Anton and T. Houbenova and research associates Lisa de Propis and Anastasia Pseiridis. The questionnaire (which is available by the authors on request) was sent to the top 120 Greek investors, known to be genuine (it is known that various alleged investments represent little more that nameplates on a door, if that) and of some significance. The response rate was extremely high because of the use of an army of research assistants (around 80) and because the coordinator was at the time also working on a related project at the Greek Ministry of Development, which facilitated access considerably. For these reasons this is a unique and arguably hard to replicate database, on an under-researched topic.

potential markets. Empirical analyses have shown that MNE activity may have a positive effect on trade, productivity and economic restructuring of home countries (see, among others, Dunning 1985). The overall direct and indirect effects, however, can be either "driving" or "enfeebling" with respect to the home industrial base, depending upon the type and pattern of FDI and upon the comparative points of strength and weakness of the national economy. Moreover, the relationship between FDI and trade tends to intensify their impact, enhancing the national competitiveness as much as, in the wrong circumstances, weakening it, thus reinforcing virtuous and vicious cycles both in the investor's home country and in the host location (Cantwell 1987; Cantwell and Dunning 1991; Howells and Michie 1997).

The improvement of MNE competitiveness need not necessarily imply that of its home country. Although up to a point outward investment may arguably be seen as a sign of the achievement of advanced stages of development (Ozawa 1991), competitiveness of Greek firms needs not imply competitiveness of Greece *as a nation* (Pitelis 1993, 1994; Cowling and Sugden 1994).[5] The relationships between the nation state and the investor have been defined as *power relationships* (Dicken 1994, 122), in which a bargaining process is involved (Pitelis 1990). The conditions for competitiveness, in the current era of globalisation, need careful evaluation and monitoring of FDI flows (both outward and inward) and of their role in sustaining the competitive advantage of the country as a whole. In other words, account needs to be taken of the factors responsible for the characteristics of outward flows. If they arise as a result of the creation of a higher level of firm-specific assets, and hence faster rates of domestic innovation, then economic growth and competitiveness are likely to be enhanced. Alternatively, if outward FDI occurs on the basis of cost differentials alone, then the domestic production base may turn out to be reduced (Barrel and Pain 1997). Policy making of the home country of the MNE has suffered from uncertainty about the effects of FDI (Blomström, Fors and Lipsey 1997).

These issues are particularly relevant in the case of a EU LFR, such as Greece, insofar as the decision to undertake investments in Central and Eastern European LFRs, such as Bulgaria and Romania, entails high uncertainty and risks. In this case, therefore, investors are obliged to engage themselves in the costly exercise of collecting information and taking up the risks associated to the relatively unknown and unpredictable economic and political environment.

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[4] Some Greek firms have invested in both CEECs.

[5] This contrasts with Porter (1990), who suggests that outward foreign direct investment is one of the best measures of international competitive advantage.

One of the most debated issues in the literature has traditionally been the relationship between FDI and exports, which may be substitutes or complements depending upon the type of FDI undertaken. On the other hand, the form of the MNE participation in the investment, which is becoming increasingly "pluralistic" (Dunning 1991), is likely to reflect the global marketing and production strategies followed by MNEs, enabling them to increase their competitive advantage *vis á vis* other MNEs, by sourcing local strengths, resources and capabilities. Thus, the distinction of FDI by type and control mode proved to be of utmost importance in assessing the impact of direct investments (Dunning 1991; Lankes and Venables, 1996, 1997).

FDI has been classified in the literature in different ways, according to the main objective of the investment itself (*type* of FDI). Drawing from different classifications proposed by Cantwell and Sanna-Randaccio (1992), Dunning (1993), Acocella (1995), Lankes and Venables (1997) and Mutinelli and Piscitello (1996), we may divide FDI by type in three categories.

Firstly, between export-platform and rationalised investments (*Exporters*), primarily designed to supply exports outside the host region, and market-orientated investments (*Local suppliers*), aimed at serving the local host market. While the first category of FDI type (*Exporters*) relies essentially on attractions provided by local production conditions and resources, and play little or no role in supplying the host market, FDI in the second category (*Local suppliers*) is customarily indicated as import-substituting investment (Cantwell and Sanna-Randaccio 1992).

In the case of Exporters factor cost advantage plays a rather bigger role than in the case of market-orientated investment, fostering decentralisation of stages of production (vertical investment) and possibly generating structural effects, i.e. altering the home production base. As shown by Pfaffermayr (1996) and Blomström and Kokko (1994), FDI and trade appear to be complementary partly as a result of these structural effects, insofar as rationalised FDI tends to crowd out similar exports from the home country, but also to create new intermediate flows. Therefore, if production is moved to a foreign location and the home country shifts its specialization in the production of intermediates, requiring more skilled labour and technology, the competitive position of the country as a whole may be substantially improved.

On the contrary, market-orientated FDI - Local suppliers type - aiming at producing close to the market the same good produced at home (horizontal investment), in order to adapt it to local demand conditions, is more likely to negatively affect imports from home.

The third category involves what we have called market-exploring FDI (*Distributors*), in which the objective of the investment is essentially to satisfy local demand by importing investor's products/services through local distribution networks. Its effects are generally considered to be positive, as it acts as sales and marketing base to promote exports from the home country into the host economy (export-promoting) (Lankes and Venables 1996,1997).

The three categories clearly simplify the strategies pursued by the investors, which usually undertake the FDI projects to achieve more than one objective at the same time. Therefore, from a conceptual viewpoint, they would not be mutually exclusive and have to be viewed as an interpretative scheme, helping us to analyse FDI carried out by Greek MNEs in the two CEECs.[6]

The second attempt to classify FDI has been made on the control mode chosen by the parent company to establish an affiliate abroad (*control mode* of FDI)). The three categories in this case are easily identifiable from the indication given by Greek respondents: - *Wholly owned*; - *Joint venture*; - *Licensing-franchising*. As stated in the conventional literature on MNEs, FDI arises from a combination of industrial organization and firm specific reasons, the result being a number of activities placed under different forms of ownership and control (Holland and Pain 1998; Pitelis and Sugden 1999). The latter depend upon several factors which are behind the general strategy underlying the FDI, and their investigation may provide essential information on the impact on the country of origin. A clear illustration of the implications of the control mode is provided by Lankes and Venables (1997), showing that wholly owned foreign production appears to be more integrated within the MNE, generating substantial intra-firm trade flows, whilst joint ventures FDI has less linkages with the home parent, being more likely to be chosen as a control mode by firms which value access to local tangible and intangible assets.

In the next sections we analyse the determinants of the two types of classification that have been widely recognised as crucial to achieve a better understanding of MNEs strategies.

3. **The methodology**

3.1 ***The model***

[6] In order to attribute each FDI to one and only one type category, different variables of the questionnaire were used, allowing the identification of the prevalent objective of the investment (cf. section 3).

The aim of the empirical analysis is to explore some of the factors which may affect the type and the control mode of FDI. Indeed, the investigation of the strategies which have guided Greek MNEs in the two CEECs might help to shed some light on the implications that outward flows have for a peripheral EU economy such as Greece.

The econometric analysis adopted is probabilistic. The model used is a multinomial logit model, since the dependent variable has more than two categories, i.e. in our database both the type and the control mode have three possible outcomes. In other cases, in which only two of the three categories of the dependent variable are considered, we use a binomial logit model, from now on logit model.

Consider firstly the logit model. In this case the dependent variable, as already stated, is a dummy variable. The probability of the event occurring is determined by:

$$\text{Prob}\ (Y_i = 1) = F\ (\alpha + \beta X_i) = \frac{\exp\ (\alpha + \beta X_i)}{1 + \exp\ (\alpha + \beta X_i)}$$

For both the logit model and the multinomial logit, the interpretation of the coefficients is transparent, considering the log odds ratio. After some manipulation, using the logit model we can write:

$$\log_e\ [\text{Prob}\ (Y_i = 1)/1 - \text{Prob}\ (Y_i = 1)] = \alpha + \beta X_i$$

The effect of a unit change in X on the log odds ratio of the event occurring is given by the beta coefficient. Taking into consideration the log odds ratio is very useful since the interpretation of the coefficient is immediate.

The multinomial logit is somewhat different from the simple binomial model. In fact, it allows for more than two possible outcomes, three in our case. Since there is the possibility that different parametrisations could generate identical probabilities leading to an issue of indeterminacy, a normalisation is required (Theil Normalisation). Hence, we will consider (for each of the two classifications here adopted) the coefficient of the first category as the base category with the parameters set equal to zero. Therefore, since there are three possible outcomes, we have two log odds ratios. For the multinomial model the log odds ratios are defined as follows:

$$\log_e (\pi_1/\pi_0) = \alpha_1 + \beta_1 X$$

$$\log_e (\pi_2/\pi_0) = \alpha_2 + \beta_2 X$$

$$\log_e (\pi_2/\pi_1) = (\alpha_2 + \beta_2 X) - (\alpha_1 + \beta_1 X) = (\alpha_2 - \alpha_1) + (\beta_2 - \beta_1)X$$

where

$$\pi_i = \frac{\exp(\alpha + \beta X_i)}{1 + \exp(\alpha + \beta X_i)} \qquad i = 0, 1, 2$$

As logit models are not linear in the parameters, they were estimated by using maximum likelihood techniques.

3.2 ***The variables used***

The model estimates the impact of some of the investor's features on the probability of the FDI to fall into a particular type or control mode category. As already stated, the first dependent variable (TYPE) in the model has three different categories: Exporters, Local suppliers and Distributors.

As for other variables here considered, the construction of TYPE was made by crossing the information given by several variables included in the questionnaire. The unit of analysis is the investment, since some of the surveyed parent companies invested in both countries under investigation. In order to assign each FDI to one and only one category, we checked the data for variables such as the main area of activity of the parent firm, purchase of output and supply of inputs from and to affiliates, possible inclusion in privatisation programmes, motivations of the FDI. This procedure allowed us to identify the prevalent objective of the investment and therefore the type category.[7]

The other dependent variable considered is the control mode on the affiliate chosen by the Greek parent (CONTROL). As for TYPE, the CONTROL variable has three different categories: Wholly owned, Joint venture and Licensing-franchising. In this case, the association of each FDI with the relevant category was straightforward, since the questionnaire had a rather detailed section on ownership and control from Greek parent companies.

The independent variables which may affect the probability that the FDI falls into one of the strategies considered are all dummies.

The *country* variable (BULGARIA) was introduced so as to check whether the country characteristics have a bearing on private investment decisions. Although both CEECs considered were ranked more or less equal on the basis of the EBRD transition index (EBRD 1995)[8], their rather different economic, political and social contexts suggest a relation with the kind of foreign investment choice.[9]

Four *industry* variables (IND0, IND1, IND2, IND3) were created according to the main product/service produced by the parent firm. The classification used for the industry coding is the International Standard Industrial Classification (ISIC), Rev. 3. The main sector of activity of the parent firm is expected to influence the strategy of the MNE, thus affecting the probability of FDI belonging to a particular category of the two classifications. However, as stressed by many authors (e.g., Holland and Pain 1998), it should be noted that, as both the theoretical and empirical analysis of FDI has traditionally been constrained by the absence of the sectoral dimension, it is difficult to appraise the expected impact of the industry variables on the basis of established foundations.

The *motivations* underlying the decision to become an investor in the two CEECs represent another group of dummies, which can be generally assembled as economic, social and political variables. Finally, the last group of independent variables refers to the risks and *constraints* faced by the investor, and perceived as the most serious, in undertaking the investment in Bulgaria and Romania. Also in this case, the variables can be grouped according to the economic, social and political nature of the constraint. In general terms, it might be expected that, whilst the combination of many different motivations, as well as risk perceptions, determines the level of Greek outward investment in the area, and therefore the general decision to

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[7] The variable TYPE is an independent variable in the control mode logit, thus resulting in three dummy variables.

[8] Such index was used to assess the progress of the transition of previously centrally-planned economies to market liberalisation. The transition index, which was calculated as the average of nine indicators and varies between 1 (little progress) and 4 (advanced transition), ranked in 1995 Bulgaria slightly above Romania, with an index of 2.56 and 2.44 respectively.

[9] Although the FDI cumulated inflows in the period 1989-96 were much greater in Romania (1,191 million US$) than in Bulgaria (419 million US$), the same inflows as percent of GDP were much smaller in the first country (3.4) - having a population twice as bigger than Bulgaria - than in the latter (4.8). Differences emerge in many fields: for example, the EBRD classification of transitional economies by their methods of privatisation shows that, while in Bulgaria privatisation has proceeded largely by means of sales to foreign owners, Romania has adopted primarily privatisation schemes offering fewer opportunities to the involvement of foreign firms (see also Holland and Pain 1998).

undertake FDI, only a few are crucial in choosing the type and the control mode of the investment. What we might intuitively expect on the basis of the literature is that relative costs considerations, availability of resources and trade openness would be related to the probability of having export-platform FDI versus local suppliers and distributors. Moreover, the control mode is likely to be affected by the type of FDI, which in fact enters as an independent variable in the determination of ownership modes.

Appendix 1 reports the description of the variables, both dependent and independent, used in our analysis.

4. Greek FDI in Bulgaria and Romania: some descriptive features

In this section, we present some characteristics of Greek investors that have established affiliates in Bulgaria and Romania. The overall number of FDI is 85 and, as already explained, it does not coincide with the number of investors, i.e. 76 parent companies, because some of them have invested in both countries.

It is worth mentioning briefly some general features arising from our database. First of all, the survey was mainly addressed to large firms, operating in both manufacturing and service sectors. Thus, FDI considered here is mostly attributable to rather old and experienced firms, exhibiting a relatively high propensity to invest abroad - the actual Greek multinational corporations, such as, for example, Rolco-Vianil (detergents and soaps), Intracom (telecommunication equipment, information systems and related services), Hellenic Bottling Company (soft drinks), Delta (dairy products, frozen food). While many of them are long-term operating firms, for which the internationalisation process had started much before the collapse of the centrally planned economies (the European Union partners being their main locational target), only a tiny proportion of parents declared to have been in operation in the CEECs for more than one-two years (as stated the survey was carried out in 1995-96).

Table 1 reports Greek investments by type category and host country.

Table 1. Type of FDI by country

TYPE	COUNTRY		
	Romania	Bulgaria	Total
Exporters	12	5	17
Local suppliers	29	30	59
Distributors	5	4	9
Total	46	39	85

It turns out that direct investments are not clearly orientated toward one rather than the other CEEC and, for the categories of local suppliers and distributors, the geographical division of investments between the two countries is approximately 50% each. Only in the case of exporters a relative preference towards investing in Romania emerges. Nearly 70% of Greek investments are attributed to the local suppliers category. This is in line with the majority of evidence, typically suggesting that market-orientated FDI constitutes the bulk of foreign investments in CEECs, with factor costs playing a relative small role.

Table 2. Type by industry group

TYPE	INDUSTRY					
	Primary and Mining	Heavy Manufacturing	Light Manufacturing	High technology	Services	Total
Exporters	-	5	4	3	5	17
Local suppliers	3	10	15	15	16	59
Distributors	-	-	-	-	9	9
Total	3	15	19	18	30	85

Table 2 shows that the relationship between FDI type and industry group is not clearly defined, except for the category of distributors, which are completely concentrated in the service sector. The latter sector represents the highest share (35.3%) of Greek FDI in the two CEECs considered, regarding in particular wholesale and retail trade, transport, tourism, financial and business services. The tiny number of FDI undertaken in the Primary and Mining sector motivated our choice to merge this industry group with that of Heavy Manufacturing. Considering manufacturing as a whole, FDI is primarily directed in food products and beverages, chemical products, textiles, wearing and leather products and metal products. On the one hand, this is in line with the Greek relative specialisation in traditional sectors; on the other hand,

CEECs are expected to be interesting and growing markets especially for these categories of products. High-tech manufacturing, which mainly includes chemicals and pharmaceutical and telecommunication equipment and apparatus, shows that the technological factor is indeed particularly significant in market-orientated FDI, allowing firms to exploit their ownership advantages due to technological competence and know-how (Mutinelli and Piscitello 1996).[10] This provides some *prima facie* evidence that Greek companies have not solely been attracted to the two CEECs by labour costs differentials.[11]

Table 3 reports the type of FDI by motivations perceived as most important in determining the choice to invest. The number of possible motivations was set up equal to maximum 8 answers. Several issues can be raised from the table. Expected economic growth scores highest, as a general expectation from the opportunities created by investing abroad, followed by geographical location, incentives, labour costs and, with a slightly lower frequency, increase in market shares (both domestic and regional), which are attached approximately the same importance in all three type categories. Unsurprisingly, both geographical location and proximity to the EU market are - in relative terms - more significant for exporters than for local suppliers, whilst for the latter relatively higher scores are attached to factors strictly linked to the local social environment, such as cultural similarities and historical links. As expected, source of raw materials is relatively more relevant for exporters than for the other two categories, while, rather surprisingly, labour skills seem to be relevant in none case.

Table 3. Type of FDI by motivation

MOTIVATIONS	**TYPE**			
	Exporters	Local suppliers	Distributors	Total
Expected economic growth	9	41	3	53
Geographical location	9	20	2	31
Investment incentives	8	22	1	31
Labour costs	7	22	2	31
Increase in domestic market share	4	23	2	29
Increase in regional market share	4	23	1	28
Proximity to the EU market	8	8	3	19
Source of raw materials	6	9	0	15

[10] A distinctive feature which emerged from the survey, not reported in the present work, is the relatively high share of Greek firms which stated to have undertaken research and development activities as part of their investment in the CEECs, and particularly in Bulgaria. Although this information needs to be taken with extreme caution, because it is possible to control neither the quality nor the magnitude of R&D operations located abroad, the involvement of some applied research and development activity is nonetheless a relevant characteristic of Greek FDI in the countries considered (see also Iammarino et al. 1998).

[11] Many empirical studies, referred to all economies in transition, are in line with this result (see Lansbury, Pain and Smidkova 1996).

Cultural similarities	4	10	0	14
Transport costs	3	6	1	10
Political and economic climate	2	4	2	8
Country's chance to join the EU	2	3	2	7
Historical links	1	5	1	7
Energy costs	1	1	1	3
Labour skills	2	1	0	3

The constraints and risks faced by investors in undertaking production activities in Bulgaria and Romania, always grouped by type of FDI, are listed in Table 4 (maximum number of possible answers set up equal to 8).

Table 4. Type of FDI by constraint

CONSTRAINTS	**TYPE**			
	Exporters	Local suppliers	Distributors	Total
Bureaucracy/administrative constraint	14	40	9	63
Business infrastructure constraint	9	32	4	45
Legislative constraint	11	25	4	40
General economic climate constraint	11	26	2	39
Incoherent and unstable legal system	8	22	3	33
High investment risk	8	20	5	33
Slow pace transition	7	22	3	32
Uncertain or imprecise property rights	9	18	4	31
Undervalued local currency	8	18	2	28
Political uncertainty	8	17	2	27
Custom tariffs and policy constraint	2	16	6	24
Cultural considerations constraint	2	16	5	23
Technological backwardness	2	9	2	13
High foreign indebtedness	2	6	2	10
Overvalued local currency	2	5	0	7

Bureaucracy and administrative constraints are at the top for all three categories. On the whole, it emerges that general uncertainties of rules are perceived as the most discouraging factors, as shown by the high scores attached to business infrastructure, legislative and economic climate constraints in all three categories. Cultural considerations are again perceived as relatively more important for local suppliers and distributors, as well as custom tariffs, while technological backwardness, foreign indebtedness and local currency strength seem not to be so influential.

Table 5. Control mode of FDI by type, country and industry

		CONTROL MODE			
		Wholly owned	Joint venture	Licensing-franchising	Total
TYPE	Exporters	1	15	1	17

	Local suppliers	21	26	12	59
	Distributors	4	1	4	9
COUNTRY	Romania	12	25	9	46
	Bulgaria	14	17	8	39
INDUSTRY	Heavy Manufacturing	7	7	4	18
	Light Manufacturing	6	11	2	19
	High technology	6	9	3	18
	Services	7	15	8	30

Finally, Table 5 presents the three categories of control mode of Greek FDI, associated with the type of investment, the host country and the industry in which the MNE operates. As emerges from the table, half of investments in our sample are joint ventures, followed by wholly owned (usually *greenfield* rather than based on acquisitions) and then FDI in licensing-franchising. In the case of both Bulgaria and Romania the form of participation in the investment preferred by Greek parents was the establishment of an entirely new firm through joint venture, the share of foreign investor, although not always specified, being usually of majority stake.

5. **Empirical findings from the econometric analysis**

The results of the econometric analysis are reported in Tables 6-9. Table 6 shows the multinomial model, while Tables 7, 8 and 9 refer to the logit models. The tables show the value of the coefficients, the levels of significance measured by t statistics, the number of observations, the percentage of correct predictions on the total number of observations and the value of the likelihood function.

In order to analyse the type of investment by motivation and host country, several multinomial logit models were attempted. In all cases, the probability of having distributors versus both exporters and local suppliers was not affected by the independent variables. Therefore, logit models were estimated to investigate how the motivations and the host location affect the relative probability of being a distributor versus a local supplier, a local supplier relative to an exporter and a distributor relative to an exporter. As for the multinomial logit, results are not significant for the category of distributors. The variables were introduced into the models in different groups to test whether the exclusion or the inclusion of a particular set has an effect on the significance of the variables: all possibilities considered showed the same result. The industry dummies turned out not to be significant and are not reported in the tables.

As emerges from Tables 6 and 7, the significant variables are EUPROX, RAWMAT and BULGARIA, the signs in the logit being the same as in the multinomial model. This is a rather satisfactory result and, as the parsimonious logit model (Table 7) is stable in the variables, at least considering the signs, it provides support for the interpretation attempted. Moreover, the number or percentage of correct predictions over the total number of observations yields a rather high correct prediction rate: 85.5% for the general logit model and 78.9% for the parsimonious specification.

Table 6. Multinomial Logit Model: determination of FDI type by motivation and host country

	Distributors vs. Local suppliers	Local suppliers vs. Exporters	Distributors vs. Exporters
	Coefficient	Coefficient	Coefficient
Constant	0	1.5114*	14.179
DOMESTIC	0	0.96414	-47.847
REGIONAL	0	0.68888	-21.437
GEOLOC	0	-1.0023	-3.6515
TRCOSTS	0	0.52903	-22.695
EUPROX	0	-2.3318***	-13.814
EUJOIN	0	-0.043110	16.463
LCOSTS	0	0.86741	0.46064
LSKILLS	0	-0.92042	-53.098
ENRCOSTS	0	0.26693	85.149
RAWMAT	0	-1.7576*	-26.514
INVINC	0	-0.64330	-29.337
EXPGRWTH	0	0.48980	-24.043
CLIM	0	-1.5972	99.984
HISLINKS	0	2.1204	25.872
CULTSIM	0	-0.98250	-95.426
BULGARIA	0	1.4869*	0.71607
Observations	85		
Log-Likelihood	-30.80225		

*Notes: ***denotes significance at the 1% level, ** denotes significance at the 5% level, * denotes significance at the 10% level*

A negative value of the coefficient of EUPROX means that the effect of a unit change in EUPROX on the log odds ratio of the event occurring - i.e. on the log of the relative probability of being a local supplier relative to an exporter - is negative and of a magnitude equal to -2.3318. In other words, the EUPROX decreases significantly the relative probability of being local suppliers relative to exporters. As expected, proximity to the EU market is likely to foster outward vertical FDI aiming at gaining access to the core EU market from the Eastern European

locations, which provide comparative advantages in terms of availability of relatively high skill, but low cost, labour force.

The motivation of undertaking FDI in order to source raw materials (RAWMAT) decreases significantly the log odds ratio of being a local supplier relative to an exporter. This seems in line with the theory, which predicts that the availability of raw materials and resources would be related to the probability of having export-platform FDI versus market-orientated investments.

Table 7. Logit Model: determination of FDI type by motivation and host country (Local suppliers vs. Exporters)

	Local suppliers vs. Exporters	Local suppliers vs. Exporters
	Coefficient	
Constant	1.5114*	1.5562***
DOMESTIC	0.96414	
REGIONAL	0.68888	
GEOLOC	-1.0023	
TRCOSTS	0.52903	
EUPROX	-2.3318**	-1.6951***
EUJOIN	-0.043110	
LCOSTS	0.86741	
LSKILLS	-0.92042	
ENRCOSTS	0.26693	
RAWMAT	-1.7576*	-0.99664*
INVINC	-0.64330	
EXPGRWTH	0.48980	
CLIM	-1.5972	
HISLINKS	2.1204	
CULTSIM	-0.98250	
BULGARIA	1.4869*	1.581*
Observations (A)	76	76
Correct cases (B)	65	60
% B/A	85.5	78.9
Log-Likelihood	-28.03	-34.14

*Notes: - ***denotes significance at the 1% level, ** denotes significance at the 5% level, * denotes significance at the 10% level*

The empirical evidence gives also some support to the idea that the strategies pursued by Greek MNEs vary considerably between the two host countries, possibly affecting in different directions the home industrial base. The country variable (BULGARIA) has an effect on the relative probability of being a local supplier relative to an exporter: in other words, the choice of

Bulgaria as host country raises significantly the probability that the investment is in the category of local suppliers relative to exports. This might be partially due to the different geographical patterns of trade in the two host countries. Whilst in Romania the proportion of trade with the EU members has risen sharply since the beginning of the liberalisation process, the same proportion accounted for less than two-fifths of the recorded trade of Bulgaria in the middle 1990s. Romania is thus likely to be preferred to Bulgaria as an export-platform to both the EU market and the Central Europe Free Trade Area (CEFTA). The latter in particular provides scope for export-platform investments from a single production location throughout the whole region (Holland and Pain 1998).[12]

Somehow surprisingly, labour costs (LCOSTS) do not seem to have an impact on the likelihood that FDI falls into a particular type category. We would have expected a significant effect on the probability of being an exporter versus local supplier, particularly because of the large number of Greek parents operating in traditional and more labour-intensive sectors. However, as pointed out by Barrell and Pain (1997), since the wages in the two economies in transition were estimated to be the lowest in Europe in the middle 1990s, labour cost differentials may have affected the level of the overall Greek investments (domestic and abroad), diverting capitals from domestic competing locations irrespectively to the type of investment.[13] If this is the case, outward FDI may have been partly "job exporting", with firms moving to lower cost locations (Barrel and Pain 1997).

We turn now to consider the logit model on the constraints faced in investing in Bulgaria and Romania. As for the previous model, we did not find significant results for the relative probability of undertaking an investment in the distribution category relative to an investment in both exporters and local suppliers categories. Table 8 shows that some of the risk perceptions, such as those linked to macroeconomic instability (GENCLIM), undervalued local currency (UNDERVAL) and uncertain property rights (PROPRIGHT), affect negatively the relative probability that FDI falls in the category of local suppliers relative to that of exporters. On the contrary, cultural constraints (CULTCONS) and custom tariffs (CUSTARIF) increase the log odds ratio of being a local supplier relative to an exporter.

[12] Romania joined the CEFTA in 1997. It is worth to recall that Romania's privatisation schemes, as highlighted above, was less foreign-oriented than those of Bulgaria, thus discouraging FDI orientated to serve the local market.

[13] Lansbury, Pain and Smidkova (1996) have investigated the possibility of investment diversion from Southern to Eastern Europe, providing support to the importance of labour costs for the overall level of investment in the CEECs.

However, the model is not very stable and the significance of the different variables is very sensitive to the inclusion/exclusion of sets of variables. Usually, the correlation between the variables has such an effect on the level of significance, sign and magnitude of the coefficients.

Table 8. Logit Model: Determination of the FDI type by constraint (Local suppliers vs. Exporters)

	Local suppliers vs. Exporters	Local suppliers vs. Exporters
	Coefficient	Coefficient
Constant	2.4091	1.8513***
BUREAU	0.34098	
LEGIS	-1.6342	
GENCLIM	-1.6162*	-0.60879
BUSINFRA	1.4371	
POLUNCER	-0.93511	
CULTCONS	2.3237*	1.1556
LEGSYST	0.16519	
CUSTARIF	2.4947*	2.1649**
INVRISK	1.7286	
SLOWTRAN	-0.40096	
TECHBACK	0.16223	
FORDEBT	0.53007	
UNDERVAL	-1.7299*	-1.1254
OVERVAL	-1.8274	
PROPRIGHT	-1.8504*	-1.1585*
Observations (A)	76	76
Correct cases (B)	65	60
% B/A	85.5	78.9
Log-Likelihood	-29.45379	-33.87918

*Notes: - ***denotes significance at the 1% level, ** denotes significance at the 5% level, * denotes significance at the 10% level*

In fact, considering the parsimonious specification, we find that only two significant variables - namely custom tariffs constraints and uncertain or imprecise property rights - are confirmed to have an impact on the likelihood that Greek FDI is either orientated to serve the local market or is an export-platform FDI. More in particular, the tariff obstacle, as expected, affects significantly - with a coefficient of 2.4947 - the relative probability that the investment falls into the category of local suppliers, reflecting the fact that tariff-free trade is a prerequisite to rationalised and export-platform investment (Holland and Pain 1998). As far as the property rights variable is concerned, uncertainty and lack of protection affect the expectations of stability of the context within which MNEs operate, thus influencing the choice between serving the local market and developing export-orientated operations (Holland and Pain 1998).

Turning to the analysis of the control mode, also in this case several models were attempted, but most of them were rather unsatisfactory. As in the case of TYPE, the multinomial logit turned out not to be a useful analysis, insofar as the results are never significant for the category of licensing-franchising relative to both wholly owned and joint venture control modes. Hence, the results of the logit model are reported in Table 9, where only two categories are considered, i.e. wholly owned and joint venture.

Table 9. Logit model – Determination of FDI control mode by type, industry and host country (Joint venture vs. Wholly owned)

	Joint venture vs. Wholly owned	Joint venture vs. Wholly owned
Constant	-3.3622**	-2.7539**
Exporters	5.4977***	5.2454***
Local suppliers	2.6457**	2.6264**
Light Manufacturing	1.3139	
High technologies	1.0237	
Services	2.1626**	1.3677*
Bulgaria	-0.51421	
Observations (A)	68	68
Correct cases (B)	50	47
% B/A	73.5	69.1
Log-Likelihood	-35.27	-36.56412

*Notes: - ***denotes significance at the 1% level, ** denotes significance at the 5% level, * denotes significance at the 10% level*

The independent variables here considered are TYPE, INDUSTRY and COUNTRY. The probability of having joint ventures with local firms relatively to whole ownership is significantly affected by the type categories considered in the model, with a particularly strong effect (for both the level of significance and the value of the coefficient) in the case of export-platform investments. This may confirm that, as highlighted by other empirical studies, especially in the early phase of investing in the CEECs - such is the case of Greek firms - the method of control in order to negotiate favourable conditions, to serve either the local or other market, is indeed the joint venture. The results also reveal that the fact that FDI is in the service sector has a positive effect on the likelihood that investors choose joint ventures relative to full ownership, suggesting a substantial importance of the knowledge of local conditions for FDI in services.

6. **Implications of FDI for the home country and concluding remarks**

Outward FDI has traditionally been seen as an essential factor for economic restructuring and production rationalisation, necessary for the growth of the national economy in the context of global markets. Notwithstanding the widespread assumption that such investment is an indicator of international comparative advantage, some cautions should be applied - especially in the case of FDI outflow from a LFR - on the basis that outward direct investment might be beneficial or detrimental to the home industrial base depending upon the strategy followed by the investor. In particular, some FDI might be opposed for its possible substituting effects on similar exports, reducing effects on domestic capital investment and negative impact on jobs creation. Our econometric evidence in this paper provides some support for this proposition, suggesting a cautious, arguably case by case, pragmatic stance on the part of Greek policy makers.

Our findings also provide a wealth of hints concerning theories of FDI and the MNE. The role of geography, culture, institutions, expected demand growth, etc., and the choice of institutional modes can all be linked to such theories. This is, however, beyond the scope of this paper. Lastly, it is worth noting that our results concern the potential effects of Greek FDI on Greece, not the CEECs LFRs. Whilst we have data on the perceptions of Greek subsidiaries' management on this, such need not be an unbiased indicator. It does, however, provide an interesting avenue for future research.

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APPENDIX: List of Variables

DEPENDENT VARIABLES		
	TYPE	0 = EXPORTERS 1 = LOCAL SUPPLIERS 2 = DISTRIBUTORS
	CONTROL	0 = WHOLLY OWNED 1 = JOINT VENTURE 2 = LICENSING-FRANCHISING
INDEPENDENT VARIABLES		
Industry variables	IND0	= 1 if FDI falls into Primary, mining and Heavy manufacturing, 0 otherwise
	IND1	= 1 if FDI falls into Light manufacturing, 0 otherwise
	IND2	= 1 if FDI falls into High-tech manufacturing, 0 otherwise
	IND3	= 1 if FDI falls into Services, 0 otherwise
Country variables	BULGARIA	= 1 if FDI was undertaken in Bulgaria, 0 otherwise (Romania)
Motivation variables	DOMESTIC	= 1 if it is increase in domestic market share, 0 otherwise
	REGIONAL	= 1 if it is increase in domestic market share, 0 otherwise
	GEOLOC	= 1 if it is geographical location, 0 otherwise
	TRCOSTS	= 1 if it is transport costs, 0 otherwise
	EUPROX	= 1 if it is proximity to the EU market, 0 otherwise
	EUJOIN	= 1 if it is chance to join the EU, 0 otherwise
	LCOSTS	= 1 if it is labour costs, 0 otherwise
	LSKILLS	= 1 if it is labour skills, 0 otherwise
	ENRCOSTS	= 1 if it is energy costs, 0 otherwise
	RAWMAT	= 1 if it is source of raw materials, 0 otherwise
	INVINC	= 1 if it is investment incentives, 0 otherwise
	EXPGRWTH	= 1 if it is expected economic growth, 0 otherwise
	CLIM	= 1 if it is economic/political climate, 0 otherwise
	HISLINKS	= 1 if it is historical links, 0 otherwise
	CULTSIM	= 1 if it is cultural similarities, 0 otherwise

Constraint variables	BUREAU	= 1 if it is bureaucracy/administrative, 0 otherwise
	LEGIS	= 1 if it is legislative, 0 otherwise
	GENCLIM	= 1 if it is general economic climate, 0 otherwise
	BUSINFRA	= 1 if it is business infrastructure, 0 otherwise
	POLUNCER	= 1 if it is political uncertainty, 0 otherwise
	CULTCONS	= 1 if it is cultural considerations, 0 otherwise
	LEGSYST	= 1 if it is incoherent and unstable legal system, 0 otherwise
	CUSTARIF	= 1 if it is custom tariff and policy, 0 otherwise
	INVRISK	= 1 if it is, high investment risk, 0 otherwise
	SLOWTRAN	= 1 if it is slow pace transition, 0 otherwise
	TECHBACK	= 1 if it is technological backwardness, 0 otherwise
	FORDEBT	= 1 if it is high foreign indebtedness, 0 otherwise
	UNDERVAL	= 1 if it is undervalued local currency, 0 otherwise
	OVERVAL	= 1 if it is overvalued local currency, 0 otherwise
	PROPRIGHT	= 1 if it is uncertain or imprecise property rights, 0 otherwise
Type variables	EXPORTERS	= 1 if it is exporter, 0 otherwise
	LOCAL SUPPLIERS	= 1 if it is local supplier, 0 otherwise
	DISTRIBUTORS	= 1 if it is distributor, 0 otherwise