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German Investment in Ireland and in the Central and East European Countries

The accession of Central and Eastern European countries (CEECs) to the EU is expected by many to lead to the diversion of foreign direct investment towards the CEECs and away from other EU countries. The following paper focuses on the investigation of the internationalisation strategies and location choices of German multinational corporations (MNCs) in manufacturing against the background of growing regional economic integration, and particularly the fifth EU enlargement. It draws on the findings of a case study and interview results covering three German MNCs and their location choices for investment in both Ireland and the new EU member countries from Eastern Europe.

The constitution of the European Union (EU) and its subsequent effect on international capital flows have given researchers[1] the opportunity to study the topic of regional economic integration and its connection with foreign direct investment (FDI) allocation within the area. More recently, research on the fifth enlargement of the EU and on the redistribution of intra-EU FDI therein has only started to attract some attention with the completion of the Central and East European Countries' (CEECs) accession process.[2] The analysis of the potential threat of FDI being diverted towards the CEECs, and in particular away from Ireland, has nevertheless been only marginally addressed.[3]

This paper draws on the findings of a questionnaire survey and the results of interviews on German multinational companies' (MNCs) investment location choices in both Ireland and the EU new member countries. It focuses on the investigation of the internationalisation strategies and location choices of German manufacturing MNCs against the background of growing regional economic integration, and in particular the fifth EU enlargement. Based on the examination of FDI data, the study also aims at highlighting the current level of German FDI in the above destinations and at discussing possible future German FDI trends.

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Recent Trends in German FDI – Ireland versus the CEECs

Although German Bundesbank data regarding FDI are readily available, modifications to statistical data entry hamper any comparisons over extended time periods. Beginning in 1999, the threshold value of share ownership was reduced from 20 per cent to 10 per cent. Recorded entries include venture capital, reinvested profits, and short and long-term loans. Data on short-term loans have only been collected since 1996. In addition, the exemption limits for declaring foreign majority interests and minority stakes were modified in 2003. To add to this, the flow of direct investments during certain time-frames was characterised by extraordinarily high transaction amounts that distort data comparisons. The merger of Daimler Benz and Chrysler in 1998 and the Vodafone takeover of Mannesmann in 2000 serve as examples. Accordingly, great care should be taken when interpreting comparisons of direct investment and stocks. Available studies on German FDI and its impact on employment with respect to

[1] For an early account on this issue, cf. H. Giersh: Economic Union between Nations and the Location of Industries, in: The Review of Economic Studies, No. 2, 1949-1950, pp. 87-97.

[2] A. Lejour, R. de Mooij and R. Nahuis: EU enlargement: Economic implications for countries and industries, CPB Document No. 11, Den Haag 2001; C. Altomonte, C. Guagliano: Competing Locations? Market Potential and FDI in Central and Eastern Europe Vs The Mediterranean, LICOS Centre for Transition Economics, Huis De Dorlodot, Deberiotstraat, Leuven, Belgium, 2002; A. Bevan, S. Estrin and H. Grabbe: The impact of EU accession prospects on FDI inflows to central and eastern Europe, Policy Paper 06/01, first published in 2001 by the ESRC "One Europe or Several?" Programme, Sussex European Institute, University of Sussex, Brighton, UK 2001.

[3] F. Barry, A. Hannan: Will Enlargement Threaten Ireland's FDI Inflow, in: Quarterly Economic Commentary, Dublin, 2001, Economic and Social Research Institute, pp. 55-67; F. Barry: EU Accession and Prospective FDI Flows to CEE Countries: A View from Ireland, University College Dublin, August 2002.

individual businesses provide very inconsistent findings.[4]

These limitations notwithstanding, we would like to examine the pivotal development direction of German FDI in both the CEECs and Ireland. German FDI abroad generally shrank in 2002 and 2003. This reflects a weak investment climate in Germany. According to Bundesbank data, the relationship between German direct investment abroad and gross fixed investment in 2003 reached its lowest value since 1970 amounting to 0.6 per cent. In 2003, FDI worldwide decreased by 60 per cent compared with an all-time high in 2000.

Merger statistics for 2002, provided by the Deutsche Bundesbank, indicate that only 6.7 per cent of German FDI took place in the CEECs. Some 85 per cent of the total portfolio took place in all other EU countries. Between 1990 and 2002, direct investment to industrial nations increased by €455 billion while the CEECs saw a surge of €43 billion. Of these, €23 billion went to Poland, the Czech Republic and Hungary. The new EU member states saw an increase in direct investment of over 50 per cent on an average annualised basis. In the other industrialised countries, FDI grew by a "mere" 15 per cent. The regional structure of German FDI abroad has shifted increasingly in favour of both the CEECs and the USA.

Relative numbers employed by foreign affiliates in the CEECs are higher than average, indicating relatively labour-intensive manufacturing activities. This also illustrates that the rationale for reducing cost is increasingly gaining in importance in the manufacturing sector. The CEECs present benefits with respect to production costs and tax burdens, with labour costs[5] in Poland and the Czech Republic amounting to about one third to one quarter of the standards in the new German states.

By the time of EU accession, nearly all of the CEECs' economic sectors were open to foreign investment. FDI has mainly gone into services (banking, telecommunications, retailing, real estate), with manufacturing accounting for less than 40 per cent of the overall stock of FDI responsible for the bulk of exports. Lately, FDI has increasingly taken the form of reinvestment for profits. Foreign penetration of the domestic economy is greatest in the Hungarian manufacturing sector with 45 per cent of the labour force employed by foreign subsidiaries in 2001. In the Czech Republic, Slovakia and Poland, the shares amount to approximately 35 per cent. Foreign affiliates have higher labour productivity and utilise more modern technology than domestic companies. Labour cost advantages relative to the EU-15 will continue for an extended period of time, and empirical studies[6] predict strong increases in manufacturing FDI in the coming years.

Results of statistical and empirical studies are not easy to interpret, however. Many of the scare scenarios concerning the migration of German companies to the East appear to be misleading for the following reasons. Between 1991 and 2002, only one tenth of the increase in German FDI holdings in the manufacturing sector went to the CEECs. The majority of all stock has been tied to other industrialised countries. Moreover, Germany's positioning as an exporting powerhouse contributed to a rise in employment within Germany. Indicative of that are the automobile and auto parts industry as well as engineering, which also plays an important role in the CEECs.

However, some indicators do suggest that in the future German companies will invest more in the new EU member states. This holds true for the manufacturing sector, particularly for its key industries such as metals, electrical goods and motor vehicles. As hinted at above, the advantages in terms of labour costs and tax burdens make cost-motivated (vertical) FDI very attractive. There are lots of noteworthy examples, such as the German car manufacturer Audi's export models, which are manufactured with Hungarian-made engines and Polish-made chassis. It is not unreasonable to assume that companies which relocate their production, or parts thereof, encourage their suppliers to relocate as well. Such industrial clusters already exist in the Czech Republic. Also, the adoption of the comprehensive EU body of rules and regulations has created a stable environment in the newly acceded EU member states and is therefore reassuring to smaller German investors.

The statistical data on German FDI show some evidence of increased German corporate commitment to the new EU member states. Between 1990 and 2002, German direct investment stock in the industrialised nations grew annually by 15 per cent, compared with an annual increase of above 50 per cent in the new EU member states. German direct investors currently favour Eastern Europe and China. According to the

[4] Sachverständigenrat: Annual Report 2004/05, pp. 365-370.

[5] Zukunftsagentur Brandenburg: Comparison of Investment Conditions in Brandenburg, Poland and Czech Republic, May 2003.

[6] M. Landesmann, H. Vidovic and T. Ward: Economic Restructuring and Labour Market Developments in the New EU Member States, The Vienna Institute for International Economic Studies (WIIW), Research Report No. 313, December 2004.

Table 1
Favourite Destinations for German FDI 2002[a]

Rank	Country	Rank	Country
1	USA	14	China
2	UK	15	Sweden
3	France	16	Brazil
4	Austria	17	Canada
5	Italy	18	Mexico
6	Netherlands	19	S. Korea
7	Spain	20	Luxembourg
8	Switzerland	21	Australia
9	Poland	22	Singapore
10	Belgium	23	Portugal
11	Czech Republic	24	South Africa
12	Japan	25	Denmark
13	Hungary		

[a] Based on amalgamated rankings according to numbers of companies, stock, employees and turnover.

Source: Deutsche Bundesbank.

Table 2
Inward FDI flows as % of Gross Fixed Capital Formation

	1992-97 (Annual Average)	1998	1999	2000	2001	2002	2003
EU-15	6	14.8	27.7	41.3	22.3	22.3	14.7
Ireland	14.8	45.4	79.7	112.5	40	90.8	74.7
Czech R.	9.5	22.3	41.3	32.7	33.6	44.5	11.6
Poland	12.2	15.9	18.4	23.8	14.9	11.4	11.1
Hungary	33	34.4	28.8	24.5	32.1	19.1	13.5
China	13.7	13.6	11.3	10.3	10.5	11.5	12.4

Source: UNCTAD: World Investment Report, Geneva 2004.

Deutsche Bundesbank, the lion's share of German FDI flows goes to the EU and the USA, each attracting 40 per cent of the total. Within the group of emerging economies, China accounts for 1.2 per cent, whereas the larger new member countries of the EU (Poland, Hungary and Czech Republic) represent about 4 per cent. Within the EU-15, Germany in particular was found to consign a disproportionately large amount of its FDI to the CEECs. Judging from a historical analysis of the patterns of direct investment in Europe, investors tend to favour large and neighbouring markets. Among the CEECs, countries such as Poland and Hungary have an absolute advantage in terms of market size and proximity, a fact of which German investors are aware. For example, Poland, Hungary and the Czech Republic rank nos. 9, 11 and 12 respectively in the list of favourite destinations for German FDI worldwide (Table 1).

Ireland's investment-friendly policies (in particular, its fiscal incentives) led to a steady increase in capital inflow during the 1990s. FDI inflows in Ireland have been well above 8.5 per cent of GDP since the late 1990s, representing up to 28 per cent of GDP in 2000. Table 2 depicts perfectly the attraction exerted by Ireland on foreign investors in the late 1990s compared with other new EU member countries (and China). Inward FDI flows represented up to 112.5 per cent of gross fixed capital formation in 2000; this contrasts with 41 per cent for the EU-15, and for less than 33 per cent in the case of the new member countries from Eastern Europe. As a result, inward FDI stocks represented more than 129 per cent of Irish GDP in 2003, against roughly a quarter in the case of outward FDI stocks.[7]

For most of the last decade, US firms have been major investors in flow terms, representing up to 84 per cent of all FDI flows in 1997. After the "dotcom" crash, the stock of inward investment from EU-15 countries continued to rise, and at the end of 2003 it represented almost two-thirds (or €113.960 billion) of the overall total (€171.943 billion) (Figure 1). Within the EU-15 countries, the Netherlands has the highest FDI stock in Ireland (€60.044 billion), followed by Belgium & Luxembourg (€15.793 billion). German FDI stock in Ireland stood at €11.389 billion, in contrast to €9, 7.7, 7.2 and 2.45 billion in Hungary, Poland, the Czech Republic and Slovakia respectively at the end of 2002 (Figure 2).

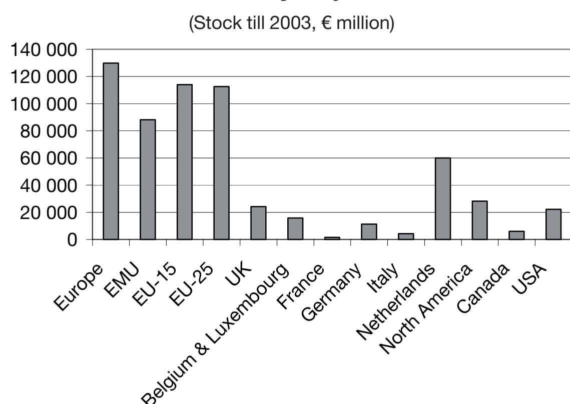
As documented across the board in the literature on FDI in Ireland, multinational firms dominate the "high-tech" sectors, representing more than 90 per cent of total output in pharmaceuticals, chemicals, computers and medical precision instruments.[8] It is difficult to predict to what extent German FDI to Ireland will be affected by the eastward expansion of the EU which began in May 2004, for available data seem inconsistent. For example, a stock survey conducted by the Deutsche Bundesbank[9] concludes that, between 2001 and 2003, direct investment in Ireland and several new EU member states by companies from North-Rhine Westphalia, the largest German state, show considerable variation in growth. While Ireland's growth rate approximated 32 per cent, growth in Hungary and in the Czech Republic was 9 per cent and 98 per cent respectively. Poland, in contrast, experienced a decline of roughly 18 per cent. These statistics, which reflect

[7] UNCTAD: World Investment Report (various years).

[8] F. Barry, op. cit.

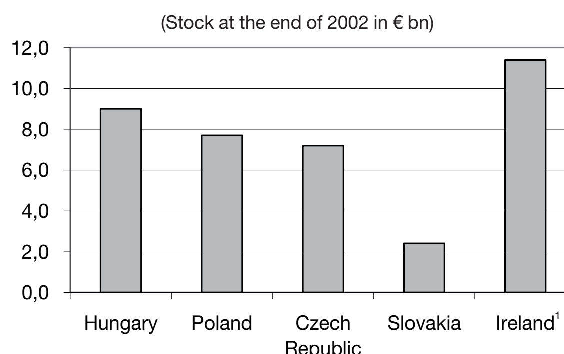
[9] Deutsche Bundesbank: Bestandserhebungen über Direktinvestitionen, Düsseldorf, May 2005.

Figure 1
FDI to Ireland by Major Investors
(Stock till 2003, € million)



Source: Central Statistics Office: Press Release, Foreign Direct Investment, 20 December, 2004, Dublin.

Figure 2
German FDI – CEECs vs Ireland
(Stock at the end of 2002 in € bn)



[1] Figure for Ireland: FDI stock at the end of 2003.

Source: Deutsche Bundesbank.

the situation in one of Germany's important states, suggest that Ireland remains fairly attractive for German companies. Currently, there is no evidence to suggest that Germany is redirecting direct investments towards Eastern Europe. It is noteworthy, however, that employment gains as a result of German FDI are greater in the new EU member states than in Ireland. These data are commensurate with statistics issued by the Deutsche Bundesbank[10] on FDI with respect to companies situated in the state of Baden-Württemberg. While employment numbers between 2002 and 2003 did not rise in German affiliates in Ireland, employment gains in Poland and the Czech Republic registered approximately nine per cent, against 30 per cent in Hungary.

German MNCs' Location Choice in Ireland and in the CEECs

In order to investigate the potential changes of German MNCs' location choice between Ireland and the CEECs after the fifth enlargement, the questionnaire on location choice was restricted to two selected industrial sectors, namely mechanical engineering and chemical & pharmaceutical, given the fact that these sectors attract mainly German FDI inflows in Ireland and also recently in CEE countries like Hungary. The questionnaire design was guided by Dunning's conventional "eclectic" paradigm,[11] which, in spite of its limits has the merit of highlighting the country-specific advantages. In order to investigate the locational choices of German MNCs, a series of host country determinants of FDI were chosen. These variables can be grouped into non-institutional and institutional variables.

- The non-institutional variables are market potential (market size, market proximity and market access), cost factors (labour cost, construction cost, transportation cost, living cost), labour quality (skills and educational level of the workforce, inadequate unskilled labour supply, inadequate technical labour supply, a shortage of specific labour skills which are needed in rapid growth industries), inflation rate, infrastructure and technological infrastructure, availability of raw materials and quality of suppliers.

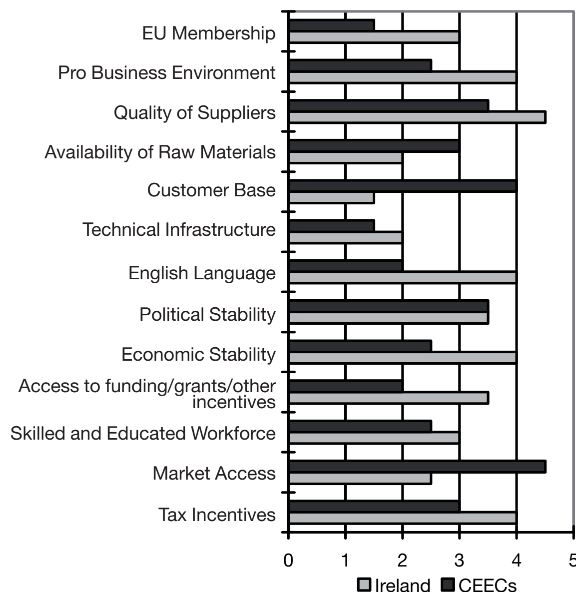
- The institutional variables are political stability, economic stability, pro-business environment, uncertain industrial relations climate, tax incentives, EU membership, English language, other incentives (e.g. access to funding, government grants), quality of life, customer base.

These variables were grouped as competitive advantages and disadvantages of location choice and ranked from 5 to 1 along a Likert scale (with 5 representing the greatest level of significance). In order to explore the internalisation strategy and future investment trends of these German firms, a series of comparative questions on entry mode, ownership arrangements, technical and financial relationships between headquarters and affiliates, linkages with local companies and governmental policy were highlighted. Another 29 more concise and qualitative questions

[10] Deutsche Bundesbank: Direktinvestitionen Baden-Württemberg, Stuttgart 2004.

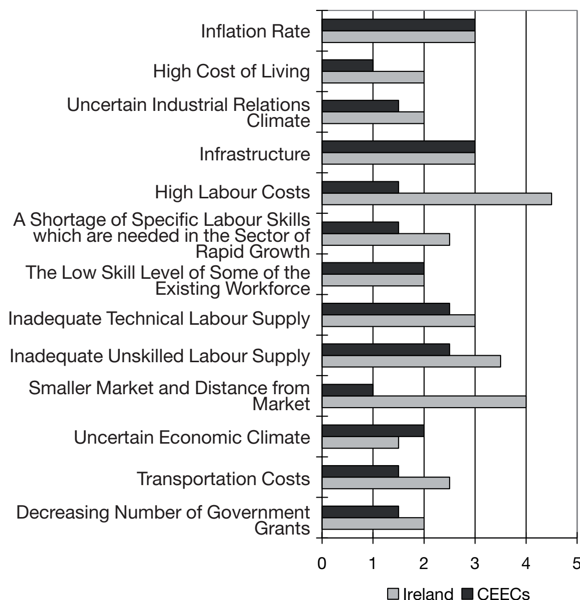
[11] J. Dunning: Explaining the International Direct Investment Position of Countries: Towards a Dynamic or Developmental Approach, in: Weltwirtschaftliches Archiv, Vol. 117, No. 1, 1981, pp. 30-64. The eclectic paradigm does not explain, for example, resource seeking FDI.

Figure 3
Competitive Advantage of Locations – CEECs vs Ireland



Source: Authors' questionnaire results.

Figure 4
Competitive Disadvantage of Locations – CEECs vs Ireland



Source: Authors' questionnaire results.

were designed to bring additional information during the expert interview process.

A questionnaire on the location choice of German MNCs was completed and sent to selected German investors' headquarters, and initial contacts with these investors' German headquarters were made by the research team located in Germany in early 2004. Three companies (one manufacturing pneumatic machines, one producing pumps for mechanical engineering, and one from the pharmaceutical and chemical sector) eventually took part in the case study by answering the complete questionnaires and holding further arranged interviews. All three companies have subsidiaries in both Ireland and CEECs. The final stage relates to the fieldwork and interviews, which took place in October 2004 in the three MNCs' headquarters in Germany, with the relevant managers and experts in these companies. Results from these questionnaires and interviews are illustrative in the sense that the three companies represent two critical industries for Ireland's recent economic growth.[12]

Expert Interview Results

Firms were asked to rank 12 different competitive advantages variables along a scale of 1 to 5, as well as 13 different competitive disadvantages variables along the same scale, so as to highlight the importance of each variable in the investment choice of each location separately. Figures 3 and 4 show the average ranking for each variable. Each result is computed as an arithmetic average of the companies' separate rankings. The results show that variables such as "availability of raw materials" and "market access" are ranked as being important competitive advantages for location choice in the CEECs (Figure 3), whereas "inflation rate" and "infrastructure" are perceived as being important competitive disadvantages in the CEECs (Figure 4). In Ireland, factors such as "access to funding/grants/ other incentives", "quality of suppliers", "pro-business environment", "English language", and "economic stability" are ranked as important locational competitive advantages. Variables such as "high labour costs" and "smaller market & distance from market" are considered important competitive disadvantages. Furthermore, "inadequate technical and unskilled labour supply" are also ranked as important competitive disadvantages in Ireland.

Finally, the results show that "inflation rate", "infrastructure" and "low skill level of the existing workforce" in the CEECs are comparable with those of Ireland. On the other hand, a factor such as political stability is ranked an equally important competitive advantage of location choice in both Ireland and the CEECs.

[12] Another industry would be office machinery and computers.

In short, when evaluating the competition for German FDI in the CEECs compared with Ireland, all firms concede that EU membership and geographic proximity offer countless opportunities for these countries, particularly in certain industrial sectors, albeit many investment opportunities have already been taken up during the CEECs' privatisation process.

Two German MNCs (referred to here as Company A and B) in the mechanical engineering industry as well as one German MNC (Company C) in the pharmaceutical and chemical industry are the focus of the expert interviews. Company A ranks number 2 worldwide in terms of market shares (18 per cent), behind its major Japanese competitor, whose world market share accounts for 28 per cent. It occupies a large market share in the EU-15 (75 per cent) and is positioned as a pioneer and unchallengeable player in the East European market. Company B ranks No. 9 or 10 worldwide. It represents more than 30 per cent of the EU market and ranks No. 3 in the area. Company C positioned itself as a medium-sized company producing mainly pharmaceutical products, although maintaining a chemical plant in Western Europe. The three German MNCs are "Aktiengesellschaften" (AG), i.e. family owned stock companies. The AG is the head company and holds 100 per cent of the shares of the subsidiaries. Most of the subsidiaries, including those from the production site and sales offices, are wholly owned foreign companies because protecting technological know-how is important to them and the subsidiaries are owned by family members as shareholders. In the case of Company C, family members own about 70 per cent of the shares of the stock company. Because of global restructuring in the late 1990s, the legal form of Company C changed from a GmbH (Limited Company) to an AG in 1995, when 100 per cent of its shares became controlled by family members.

Apart from the questionnaire results, expert interviews with the relevant top managers and investment decision-makers in the three German MNCs showed a panorama of their global operation and produced an interactive, vivid and concrete review of their investment decisions. The fruitful results stem from the open discussion based on the interview questions, and also provide a concise testimony of traditional FDI theories, albeit with unique German characteristics. In general, by ranking the weight of 10 categories of FDI determinant variables along a 100 points system, the 3 interviewed companies gave "benefits from lower cost labour and lower tax rate" a 50 per cent weight for their investment decisions. Another 50 per cent weight was attributed to the variable "enter a market in which superior profits are possible" for Companies B and C only. Company A shared the remaining 50 per cent weight between the two variables "react to trade restrictions" (30 per cent) and "neighbouring to important highly developed supply industries" (20 per cent). By responding to the 10 interview questions, each company was finally able to rank its priorities in terms of the importance of location choice determinants in evaluating Ireland and the CEECs as investment locations. A summary of the priorities of determinants is provided in Table 3.

Company A's major investment determinants rely on the growth of sales and market potential in each location by locating close to its customers. Because of market segmentation and a defensive strategy, it follows its main competitor – a Japanese firm – by entering the Asian market and North America. On the other hand, the family members of company A can largely influence both the investment decisions and the strategy. This is demonstrated by the fact that company A is a pioneer in the CEECs, and that it set up production facilities in the Czech Republic and Hungary and a sales office in Poland when the iron curtain came down in 1989, as well as a sales office in China in 1993. Its presence in the Irish market with a sales office and workshop date as far back as 1981. Lately, company A also reacted promptly by arranging the establishment of a production site in Ukraine in order to target the Russian market, and also a production facility in India. Instinct, the sensing of market potential and the spontaneous counter-balance to fierce competition are the key factors in company A's decision-making process. Technology and maintaining high quality are key factors in its global competition.

Due to fierce competition in other markets, company B relies more on market potential and potential investment in Poland, Bulgaria and Romania and its traditional market in Western Europe. In Ireland, the investment strategy changed dramatically towards favouring a decrease in the last decade because of rising costs.

Company C's investment in Poland and in other markets (such as the USA and China) is mainly due to market potential as well as to tight regulations and restrictions on pharmaceutical products (entry barriers) such as the marketing authorisation from the relevant Ministry of Health. The sales office of each EU country has to prepare documents to comply with each country's health regulations to obtain market authorisation;

Table 3
Priorities of Determinants of Location Choice of Three German MNCs in Ireland and CEECs

MNC	Legal Structure of the group company, Turnover and Employees worldwide in 2003	Locations and Type of Investment		Determinants of Location Choice: Ranking of Priorities					Investment Plan in 3 Years	
		Ireland	CEECs	1st Priority	2nd Priority	3rd Priority	4th Priority	5th Priority	Ireland	CEECs
A	AG € 1.2 bn 11,000	Sales office established in Dublin with workshop in 1981 and two branch sales offices set up in early 1990s. (Wholly owned foreign company)	GPC (Global Production Centre) established in 1989 in Czech Republic and Hungary. Sales Office established in 1989 in Poland. (All are wholly owned foreign companies)	Market Size and Profitability	Costs (Labour Costs), Costs (Tax Level and tax Incentives)	Market Proximity (Logistic Concerns: Delivery time of products) Costs (Construction, Transportation)	Qualified Local Suppliers	Market share and segmentation with other global competitors (particularly in Asia)	Decrease	Decrease In Poland, May increase modestly in Czech Republic and Hungary
B	AG € 616.6 m 3,836	Production site and sales subsidiary established in Limerick in 1980s. (Wholly owned foreign company)	Production Site established and sales office set up in Hungary, Poland and Czech Republic in 1990s. (Wholly owned foreign companies)	Market Size and Profitability	Costs (Labour Costs) Costs (Tax Level and Tax Incentives)	Global Production Network, Product differentiation and quality concern	Market Share and Market Potentiality compared with other competitors	Costs (Transportation)	Decrease	Increase in Poland, also increase in EU candidate countries Romania and Bulgaria
C	AG € 1.4963 bn 3853	Production site established after acquisition of local company in Shannon development zone in 1991 (Wholly owned foreign companies)	Production site set up in 1995 in Poland and is specialised in pharmaceutical products to focus on the Polish market only. (Wholly owned foreign companies)	Costs (Tax Level and Tax Incentives)	Market Size, Profitability and market entry	Costs (Construction Costs, R&D costs)	Global Production Network, Product differentiation and quantity concern	Costs (Labour Costs, Transportation Costs)	Increase	Decrease

Source: Questionnaire and Interview Results, Annual Report of the three German MNCs.

this is not the case for either the USA or China. Attracted by large markets such as Poland, the USA and China, production sites were set up in the 1990s in these countries, which are specialised in pharmaceutical products geared for the local market.

With regard to costs, all three investors mentioned the problem of rising costs in Ireland, compared with East European locations. This factor has had a major influence on company A's plan to build a Global Production Centre in China. Other costs, such as construction and transportation costs are viewed as less important, although company C emphasises that construction costs and R&D costs are also decisive factors.

For companies B and C, cost minimisation depends on the intensity of labour or on the capital investment they are controlling. As technology has been upgrading dramatically in both the mechanical engineering and pharmaceutical and chemical industries (against the background of overcapacity of production in the

pharmaceutical industry worldwide), greenfield investment in building new production plants in emerging markets is not planned for companies B and C.

Through restructuring, company B has also started to change its organisational structure, with each subsidiary focusing on special products. This has led to cost reductions. Although company B invested in Ireland because of low labour costs and high fiscal incentives, with tax being negotiable at the time of entering the Irish market two decades ago but this no longer being the case now, the company has been reducing its investment in Ireland since 2002. Its production site in Limerick has been downsized,[13] and it focuses on low-level manufacturing such as assembling operations. Another important reason for reducing its investment has been the problem of workers' disputes (usually on issues such as the amount of working hours and wages). Increasing capacity in France was thus a substitute for the declining Irish production capacity. According to the respondents, it is cheaper to produce in France than in Ireland at present, although there has not been a real competition of locations between France and Ireland.

For company C, labour costs are less important because of the high level of capital intensity. For example, company C recently designed its Irish production site as a strategic location. It planned to invest heavily (about €70 m in the next six years) because the location is a chemical plant and functioning as a sole API[14] production site for the whole group, although labour costs are extremely high compared with locations in emerging markets. Therefore, company B and particularly company C, as medium-sized pharmaceutical and chemical MNCs, are more cautious about large investments in new markets because their investments are more capital-intensive than labour-intensive.

For company A, production requires high labour quality and flexibility. Within the group, the sales office is capable of delivering products within 24 hours (even to North or South America). However, in the case of the Asian market, the delivery time cannot match this standard; that, apart from the dramatic growth of the Chinese market, is also the main reason why it is planned to set up a regional Global Production Centre in Shanghai. The lack of qualified local suppliers in the CEECs compared with Ireland has also been noted by company A. Therefore, the strategy for this company in the CEECs market is that production started at the level of primary products; it may be developed to more sophisticated products through the learning process of the local suppliers.

For company B, the question is whether shifting production to lower cost locations can ensure quality competitiveness vis-à-vis German products. More importantly, company B prefers its competent in-house production to ensure product quality. In the view of company B, to set up a new plant in another country can be risky because of the problem of controlling know-how and technology. For them, quality management becomes more and more important in winning the market. Although ISO standards can testify the quality of the products manufactured in foreign locations, brands should also demonstrate that they belong to German companies, guaranteeing high quality in the sense of being "made in Germany". However, the label "made in Germany" cannot be added to the product because it is a requirement that products made in Europe should use the standard "made in the EU". The brand strategy implies using a German slogan, which is attached to their products worldwide to highlight the German quality.

Company C is more concerned with product quality as well as with the protection of the intellectual property of its patented products. Company C also noted the shortage of qualified workers such as pharmacists working in the industry in Ireland.

Besides the above questions, 19 variables on locational determinants were selected to formulate a comparative picture of Ireland's position as an investment location versus the CEECs; the comparative results from the three German MNCs are diverse in this instance. However, on five variables ("economic stability", "political stability", "infrastructure", "access to funding/other incentives" and "infrastructure"), the CEECs are judged by the three investors to be at least on a par with Ireland. Variables such as "market access", "market size", "proximity to market", "labour costs" and "transportation costs" in the CEECs were unanimously seen as being superior, whereas "technical infrastructure", "tax incentives", "quality of suppliers" and "pro-business environment" in the CEECs are viewed as being inferior. Although some disagreement occurs, the other five variables put the CEECs at the same level as Ireland by the three investors. These variables include "uncertain economic future", "skilled and educated workforce", "technical labour supply", "industrial relations climate" and "quality of life".

[13] At peak time, 150 full-time staff were employed in the plant, and this has been reduced to 30 full-time staff currently.

[14] API stands for active pharmaceutical ingredients; it is produced by a subsidiary for the group as a whole.

In answering the question, “Which aspect of government policy and support is most helpful to your company’s operation in the market?“, companies A and B responded as follows: “financial incentives and taxation” and “providing qualified workers and college graduates”. In particular, the following aspects were singled out as being more helpful in Ireland: “financial and taxation”, “providing local research and development partners”, “establishing good macro-economic environment” and “establishing good business environment”.

Company C found “providing qualified workers and college graduates”, “providing support and admittance to the CEECs’ market”, “establishing good macro-economic and good business environment” more helpful in the CEECs, whereas “financial and taxation”, “good business environment”, “providing qualified workers and college graduates” and “providing continuous education service” were seen as more helpful in the Irish market.

The expert interviews confirmed the significance of cost motivations and market access. Although market oriented considerations remain at the forefront for FDI, cost reduction appears equally imperative. In examining the cost rationale, cuts in labour costs and taxes on profits are of fundamental importance. With the increase in capital intensity, the objective of minimising the tax burden as much as possible is even more important. For instance, a manager at company B reported that wages are less relevant than taxes. Management at the pharmaceutical company in company C made similar statements, and emphasised that the advantage of the Irish location remains largely the tax incentives. Companies A, B and C all agree that tax incentives are becoming more important, and that there will be tax competition among different locations, although the redistribution of profits is not important due to their legal structure. Therefore, in the eyes of these companies, transfer pricing is not designed as a strategy to cut tax but to determine fair price levels between the companies within the group.

Tax considerations are definitely gaining significance in the selection of location and investment. The literature supports this view[15] to the effect that agreed tax rates and an effective marginal tax rate are highly relevant. Apart from considerations with respect to the tariff burden, effective marginal tax rates also cover tax write-off conditions. Discussions on the rationale for FDI may be undergoing a shift, for less than ten years ago Markusen’s survey[16] on the motives for FDI concluded that there is little support for the idea that tax avoidance is important. A substantial body of empirical work has since appeared which concludes that high taxes have a significantly negative effect on the ability of a country to attract FDI.[17]

In the competition for site selection between Ireland and the CEECs, favourable taxation is a definite advantage for either side. Accordingly, tax rates on corporate profits in the new EU member countries range far below the German tax level. Corporate tax planning is ultimately subordinate to the strategic target of increased shareholder value. Our expert interviews reveal that two of the three companies evaluate their investments in accordance with value-based management strategies. In other words, an investment must at the very least generate the cost of capital.[18] Management activity areas and tasks at transnational corporations are currently being reshuffled. It is entities at the financial markets level that increasingly influence business operations via externally financed corporate acquisitions and hostile mergers.

Since the 1990s, value-based management has spread especially throughout the Anglo-Saxon countries and is now changing corporate Germany and France. Cost efficiency and tax burden minimisation has led transnational companies to compare tax conditions of individual countries and exploit incentives for profit shifting. Companies shift their production capacities to areas with low taxation. Studies by Devereux and Griffith,[19] and Devereux, Griffith and Klemm[20] suggest that tax rates play a significant role in selecting a location. There are several developments, the following of which are currently quite spectacular.

First of all, the strategy of multinational corporations is directed at exploiting advantages inherent in the affiliate network structure. The possibilities exist for transferring profits to foreign affiliates with low taxation or to foreign manufacturing sites through trans-

[15] Sachverständigenrat, op. cit.

[16] James R. Markusen: The Boundaries of Multinational Enterprises and the Theory of International Trade, in: Journal of Economic Perspectives, Vol. 9, No. 2, 2005, pp. 169-89.

[17] A. Haufler, S. Stöwhase: Taxes as a Determinant For Foreign Direct Investment in Europe, DICE Report, in: Journal for Institutional Comparisons, Vol. 1, No. 2, 2003, pp. 45-51.

[18] M. von Wuntsch, G. Knacke and G. Neumann: Financing and Valuation Problems of the East German Real Estate Market, in: Real Estate Review, New York University, Vol. 5, 2005.

[19] M. P. Devereux, R. Griffith: The Taxation of Discrete Investments Choices, IFS Working Papers 16, London 1998.

[20] M. P. Devereux, R. Griffith and A. Klemm: Corporate Income Tax Reforms and International Tax Competition, in: Economic Policy, Vol. 35, 2002, pp. 451-95.

fer prices. The strategy is therefore clear. The revenue chain is set so that companies which are positioned in low tax regions will generate high returns. The importing country with high taxation anticipates higher costs and thereby reduces local taxable returns and the tax burden. Revenues accumulate in the low tax country thereby generating great benefits for the corporate network. Considering that trade between corporate affiliates and corporate groups (intra-firm trade) entails a large and growing percentage of total global trade, it becomes clear that the corporate structure of transfer prices currently presents an enormous problem for tax authorities, particularly in those countries with high taxation.

Furthermore, the payment of taxes can be avoided as independent financing companies are established within the corporate group.[21] This is due to the fact that companies which are designed to provide financing will find favourable conditions in several countries. The Belgian coordination centres serve as one such example. A surcharge of three per cent was applied to managerial salaries and recorded as profit until the year 2003. Based on an agreement with the European Commission, Belgian tax authorities are still entitled to assess coordination centres until the end of the year 2010 based on the favourable cost-plus-method, which only covers all operational costs of the company. Advantages once again will fully develop within the framework of the corporate group. Within its structure, the corporate network allows for the realisation of multiple benefits. The objective is to generate as much profit as possible at the coordination centres. Being a financing company facilitates this by extending loans to foreign corporations. While profits from financing transactions in Belgium grow, loan costs for higher taxed corporate groups fall and lower their tax burden. Ireland, too, jumped on the bandwagon and created favourable tax conditions for the International Financial Services Centre in 1987 in the former Custom House Docks in Dublin. The financial services companies there were taxed with a mere ten per cent until the end of 2005. In comparison with tax rates in other countries, the new general surcharge of 12.5 per cent is still an advantage.

Value added activities are distributed to individual sites in accordance with the most favourable cost factors and investment incentives. At Volkswagen AG for example, the percentage of domestic production has meanwhile declined to less than 44 per cent. The trend toward “world products” is thus evident. An individual subsidiary can be built up into a central technology, production or distribution centre within the global network. Local specialisation in individual functions and processes within the global added value chain open up considerable value added potential. When considering that transnational companies are more likely to secure favourable conditions for capital on the international financial markets this potential is amplified.

With regard to the internationalisation strategy and to global production networks for the three companies interviewed, company A has set up a global network which consists of a set of companies in different locations with distance among them not being an important factor. For instance, the subsidiary in Brazil also supplies the European market. The transportation costs are about 10 per cent of the product cost, which is still low when the products are delivered by UPS in company A. In company B, a network is under development between the parent and its foreign subsidiaries and also through cooperation with partners (e.g. compensation of production with partners and learning process of production). As far as the degree of control is concerned, the former relationship within the group is more reliable than the latter. The reason is that the parent company has to try to protect its know-how and technology (intangible assets), which is an important aspect of control. Transportation costs are not an important factor and can be compensated for by economies of scale. This company has, for example, several products made in China and exported to North America. For company C, the redistribution of profits lies mainly in the hands of each location. The AG is the holding company and strategic decisions are centralised there. The network of the group not only includes each location but also integrates contractual partners worldwide. Subsidiaries are free to reinvest their profits. Parent companies charge fees for certain central services such as development costs. All the subsidiaries of the group are aiming at fixing fair transfer prices. Normally, packaging is kept in-house because it is cheaper than outsourcing. Supply chain management is therefore important and it is always safer to keep the packaging in-house to reduce inventory.

Concluding Comments

Because of the integration of the CEECs into the EU, a trend towards eastward expansion of EU MNCs through their FDI activities has been underway. This trend includes the recent heated discussion on wheth-

[21] M. von Wuntsch, S. Bach and H. Trabold: Wertmanagement und Steuerplanung in der globalen Wirtschaft, Munich 2006, Vahlen München.

er enlargement may be perceived as threatening by the EU founding members and to what extent it may affect the EU periphery (such as Ireland) in attracting FDI. More specifically, at the heart of the current heated discussions in Germany is the extent to which globalisation and the eastward expansion of the EU will affect investment and employment in German companies. Several economic analyses predict that German companies will henceforth invest solely in Eastern Europe and Asia. Ireland's role, in contrast, appears marginal. A close analysis of the available data suggests that many questions remain unanswered however.

The impact of eastward expansion on the course of FDI will not necessarily have negative consequences for Ireland, if one is to subscribe to the view, defended by Dunning,[22] that previous enlargements of the EU went in parallel with increased FDI flows to European countries. Similarly, Barry and Hannan[23] contend that direct investments act as complements rather than substitutes. According to this "optimistic" view, Ireland will remain a very important portal to the EU for US companies in particular, and increased competition for FDI in Europe will not be detrimental to Ireland. Barry and Hannan do concede, however, that the accession of the CEECs to the EU implies direct competition between Ireland and these countries. Labour costs are considerably lower in the CEECs, where qualified workers are now relatively easy to find. Labour-intensive and medium-skilled industries in the CEECs are bound to continue to reap great benefits.

As one way of trying to tackle this dilemma, we took the analysis one step further by using company surveys and questionnaires of a selected number of German companies to ascertain whether eastward expansion could present some risk for future inward investment in Ireland. These surveys were conducted in 2004 and affirm that German companies do not intend to relinquish their commitment to Ireland, although the rationale behind German FDI remains largely the opening up of new markets such as the CEECs. Results from our questionnaires and interviews, with respect to a number of determinants of FDI, show that, beyond the diversity amongst the three German investors, the CEECs enjoy some comparative advantages when compared with Ireland, such as the opportunity of the potential CEECs market. Our results also suggest that low production costs as well as low taxes are paramount in the investment decision-making process. The majority of German corporations with subsidiaries in Ireland and the CEECs declared this to be the main raison d'être. When solely considering their rationale in the Irish market, only few companies indicated[24] that considerations such as opening up new markets or gaining scale and synergetic effects were deemed important.

Therefore, although market oriented considerations for FDI remain at the forefront, cost reduction appears equally imperative. Our interviews confirmed the significance of cost motivation and tax avoidance. Which cost and tax strategy is gaining in importance depends on the nature of the investment. While in capital intensive industries minimising labour costs has little effect, avoiding high taxation on profits is the more efficient strategy. This reinforces the finding that the evaluation of motives for foreign investments is undergoing a shift. German MNCs also raised other concerns about quality issues such as labour, products and suppliers. In various degrees, an internalisation strategy is being developed in the three MNCs, since global networks are being further developed at the world level between the parent and their foreign subsidiaries and also through cooperation with partners.

Against the background of attracting high capital (including human capital) investment projects, this leaves the Irish location with tax incentives as the main and unique driver of FDI. This is mirrored in Company C's Irish subsidiary designed as having a strategic role within the group. This subsidiary is proof that Ireland is able to attract much better quality FDI in industries such as chemicals and pharmaceuticals. Two questions arise at this stage. How long will tax differentials between Ireland and its Eastern European counterparts persist? Does corporate planning by and within the emerging global networks of production see Ireland in direct competition with other locations outside the EU, such as China? The corporate strategy of Company A seems to infer that this has indeed been the case.

[22] J. Dunning: The European Internal Market Programme and Inbound Foreign Direct Investment, part 1, in: Journal of Common Market Studies, Vol. 35, No. 1, 1997, pp. 1-30; J. Dunning: The European Internal Market Programme and Inbound Foreign Direct Investment, part 2, in: Journal of Common Market Studies, Vol. 35, No. 2, 1997, pp. 189-223.

[23] F. Barry, A. Hannan, op. cit.

[24] This is further demonstrated by another survey of German investment in Ireland, which Prof. von Wuntsch from FHTW Berlin conducted in the first half of 2004. The survey participants were German companies with subsidiaries in Ireland. These included four companies from the automobile and engineering sector, two companies from the tool manufacturing and metalworking industries, two companies from the chemical and pharmaceutical sectors and one company each from the textile and leather industries as well as the insurance and financial services sector.