



Project B7:

Staying Home or Moving Away? The Effect of Restructuring on Employment in Multinational Enterprises.

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Last update: januari 2012

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Staying Home or Moving Away? The Effect of Restructuring on Employment in Multinational Enterprises*

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Latest update: January, 2012

Abstract

This paper analyzes the geographic dispersion of employment restructuring in multinational enterprises, where we distinguish between headquarters and geographically dispersed affiliates. To this end, we use data of 255 Belgian parents and 1,887 affiliates between 1996 and 2005. We show that for multinational enterprises that restructure headquarters have superior employment performance than their affiliates. This effect seems to be stronger for vertically integrated firms, which is consistent with theories of imperfect information and increased agency costs. We also show that proximity matters: restructuring hurts the most the further the affiliate is located from the headquarter. This effect is consistent with the monitoring difficulties that are associated with vertical FDI firms and with the role of social network effects.

Keywords: employment growth, multinational enterprises, headquarters, affiliates, vertical FDI

JEL Classification Numbers: F23, L25, M51, O32

1 Introduction

Globalization has changed the nature of production drastically, resulting in an increased number of global firms and increased international fragmentation of production. While much of the literature so far has documented that multinational enterprises tend to pay higher wages, are more productive and generate technological spillovers, far less attention has been devoted to the process of employment creation and destruction by multinationals¹. Yet, the recent global crisis has shown the importance of the internationalization of the production process in spreading and amplifying economic shocks throughout the world. The purpose of this paper therefore is to analyze whether geographically dispersed firms, like multinationals, transmit economic shocks in a similar fashion across their locations, in particular their affiliates and headquarter. Casual observation suggests that such restructuring efforts are not always proportionately distributed across all plants of the

*This paper benefited from presentations at the LETC Conference in Ljubljana (FREIT), the CAED-COST Conference at Imperial College, London and the Eastern Economic Association Conference in New York. We thank Francine Lafontaine and Dieter Urban for useful comments and suggestions.

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¹A number of papers have analyzed how employment is substituted between affiliates of the same multinational in response to wage cost differentials. Braconier and Ekholm (2000), Hanson, Mataloni Jr, and Slaughter (2001) and Konings and Murphy (2006) find that employment substitution in response to wage cost differentials between plants occurs mainly between similar plants, located in high income countries, rather than between high income and low income countries.

same multinational enterprise. For instance the recent restructuring of Opel at General Motors implied closure of one plant in Belgium, employment reductions in Germany, but creation of jobs in South Korea. Politicians are also concerned about possible asymmetric responses to shocks by MNEs, as is clear from a recent interview with Lord Mandelson in the Wall Street Journal² where he states that ‘Denuding a country of any headquarters has important consequences, especially for the associated investment in local charities and infrastructures’.

The observation that geographically dispersed firms transmit shocks differently across plants has recently been investigated for the US by Landier, Nair, and Wulf (2009). In particular, they find that geographically dispersed firms are less employee friendly and that there is a bias towards protecting proximate employees when the firm engages in divestments. Similarly, Cappariello, Federico, and Zizza (2009) use Italian multinational enterprises to show that home-country effects of FDI tend to be biased in favor of the headquarters investing firms. Dischinger and Riedel (2009) focus on the profitability gap in European MNEs and find that headquarters are around 25% more profitable. Also, Kalnins and Lafontaine (2010) find for the American lodging industry that affiliates which are located further away from their headquarters have lower revenue. There are various reasons why geographic dispersion and corporate decision making might be related. First, imperfect information and agency costs may result in a home bias. In particular, if monitoring and control of valuable assets, such as R&D, is difficult, multinational enterprises may want to concentrate their most valuable assets at, or close to, headquarters to avoid ‘leakage’ (e.g. Chang and Taylor, 1999; Petersen and Rajan, 2002). Such cost considerations are more likely to be important when MNEs engage more in vertical FDI, i.e. when firms locate part of their activities in other countries because of lower production costs. Second, there may be certain advantages investing more at home due to better knowledge about language, culture and local customs than at more distant locations (e.g. Brakman and Garretsen, 2008). This would be important when MNEs main motivation for investing is related to horizontal FDI, i.e. they invest to access the market of foreign consumers and exploit the market size abroad. A third reason is that managers are more concerned about proximate employees, with whom they have more frequent social interactions. In addition, managers may also care more about their social standing in geographically concentrated firms. Glaeser, Sacerdote, and Scheinkman (1996) find a relation between proximity and social network effects in studies of individual decisions, such as residence in cities, and aggregate outcomes, such as crimes.

To analyze employment performance of multinational enterprises we make use of a panel dataset of Belgian firms active in manufacturing as well as in non-manufacturing. The data include information on total employment at headquarters as well as employment at their affiliates. By analyzing what happens within the same multinational firm, we can control for all the unobservable specificities that may affect the strategy of the particular multinational enterprises. Furthermore, we control for shocks affecting plants of the same multinational enterprise. This allows us to control for potential selection issues. As we have information on the industry in which each firm operates, we are able to make a distinction between horizontal and vertical measures of FDI. This will help us to explore some of the reasons of why headquarters might behave differently than their affiliates. Our results indicate that the employment performance at headquarters is superior than at their affiliates. Furthermore, we find that multinational enterprises that engage in restructuring protect more the employment at headquarters than at their affiliates. We present evidence which suggests that this effect is largely due to increased agency costs for vertical FDI. We also find that restructuring hurts most in more distant locations. This result is both in line with the monitoring difficulties vertically integrated firms face and the role of social network effects. The rest of the paper is structured as follows. In section 2 we describe the data and the econometric approach we pursue. Section 3 discusses the results. We first present our basic results on the superior employment performance at headquarters; then we continue by providing explanations that could drive these effects. We also present some additional robustness checks. Section 4 concludes.

2 Data and Econometric Approach

Our data are derived from a commercial database named Amadeus, collected by Bureau van Dijk. The data consists of company accounts of European companies for which at least one of the following

²Wall Street Journal, March 3, 2010, page 2.

criteria is satisfied: total turnover or assets of at least \$12 million, or total employment of at least 150. The database is organized by country with records for firms within each country. In addition to the financial and operational information of the company, the records include information on whether the company is owned by another company and whether it has an ownership stake in another affiliate. Information on direct and on indirect ownership is available. In addition, the name and a unique identification number of the parent company and its affiliates is available.

We will restrict our analysis to companies which have headquarters in Belgium and affiliates elsewhere in Europe. We focus on Belgian multinational enterprises as all incorporated companies in Belgium are required, by law, to submit full company accounts to the Central Bank. Following the IFRS standards, we define a headquarter as a global ultimate owner with at least 50.01% direct ownership in its affiliates. We have information for 1996 through 2005 and we retrieve all companies for which unconsolidated accounts were available for the Belgian parent headquarters and its affiliates located elsewhere in Europe.

Matching parent companies to foreign affiliates yields an unbalanced panel of 255 Belgian parents and 1,887 affiliates over 10 years. This results in roughly 13,000 firm-year observations. The ownership information we use is based on one edition of Amadeus only. By using a fixed time point, we assume that the ownership structure has remained the same in the other years as well. One could look at earlier editions of Amadeus in order to pick up changes in ownership percentages or structure. However, as the coverage of Amadeus in the past was less complete than more recent editions, it becomes unclear whether a missing observation is due to a non-existing link between the owner and the affiliate or to some coverage issues³. For instance, of the 1,382 affiliates that were already active in 1996⁴, only 376 firms were covered in the 1997 version. Turning to the 2001 edition, we see an improvement in the coverage level: 1,675 affiliates in our sample were active in 2000. Of these firms, we were able to retrieve 89% or 1,499 firms. Linking these firms with their ownership structure, we were able to match 509 firms successfully with the id of their owner, observing some changes in ownership⁵. Missing data would mean that either the information was not disclosed or that the firm is considered to be independent. We will keep these observations in our sample. However, firms that had a different ultimate owner prior to 2001 will be omitted from our sample. We will also perform an additional robustness check using only the subsample of firms which reported the same ultimate owner of 2007 in the 2001 version of Amadeus.

Table 1: Distribution of Affiliates

Country	Observations	Frequency	Country	Observations	Frequency
Austria	24	1.29	Hungary	5	0.27
Belgium	864	46.35	Ireland	11	0.59
Bulgaria	1	0.05	Italy	45	2.41
Suisse	19	1.02	Lithuania	1	0.05
Czech Republic	21	1.13	Luxemburg	2	0.11
Germany	141	7.56	Netherlands	136	7.3
Denmark	19	1.02	Norway	12	0.64
Estonia	1	0.05	Poland	19	1.02
Spain	61	3.27	Portugal	2	0.11
Finland	7	0.38	Romania	19	1.02
France	299	16.04	Republic of Serbia	1	0.05
United Kingdom	114	6.12	Russia	2	0.11
Greece	8	0.43	Sweden	26	1.39
Croatia	2	0.11	Slovakia	2	0.11

Source: Amadeus BvD

³Detailed ownership information started to be available from the Amadeus 2001 version.

⁴We obtain the number of active firms by looking at the incorporation date of the firm, which is also available from Amadeus.

⁵We were able to identify 92 affiliates that had a different owner in the 2001 edition and 417 that reported the same owner.

Table 2: Summary Statistics

Variables		Headquarters	Affiliates	Total
Employment	Mean	291.347	139.532	149.74
	Std. Dev.	1.094.218	1.120.075	1.087.206
Employment growth	Mean	0.047	0.032	0.034
	Std. Dev.	0.34	0.443	0.428
Total assets	Mean	130,817	89,771	90,334
	Std. Dev.	507,725	1,727,842	1,594,836
Sales	Mean	90,334	38,369	46,684
	Std. Dev.	332,922	260,273	273,852
Pct Intangible assets in group	Mean	0.545	0.096	0.146
	Std. Dev.	0.449	0.244	0.309
Pct Total assets in group	Mean	0.622	0.1	0.168
	Std. Dev.	0.389	0.204	0.294

Notes: Total assets & sales in thousand of euros

Table 1 shows the final country distribution of affiliates in our panel, where each parent has an average of 9 affiliates. The parents are clustered around some of the major cities in Belgium, being Antwerp, Brussels and Ghent, and their foreign affiliates are mainly located in France, the Netherlands, Germany and the United Kingdom. We provide summary statistics in table 2, where the variable of interest is employment. Headquarters employ on average more people, have more sales, higher total assets and have a higher average employment growth than their affiliates. In addition, we look at some proxies for the R&D and capital intensity in the firm: the intangible and tangible fixed assets. The share of a firms's tangible and intangible fixed assets in the total of tangibles and intangibles for its group is higher if that firm is a headquarter. The data cover firms active in manufacturing and non-manufacturing. Further statistics on the distribution of industries can be found in table 3. Note that about 30% of all firms in our sample are active in manufacturing.

Table 3: Summary Statistics

	Affiliates	Headquarters	Total
Non-Manufacturing	1,322 (71%)	173 (68%)	1,495 (71%)
Manufacturing	542 (29%)	80 (32%)	622 (29%)
Total	1,864	253	2,117

Source: Amadeus BvD

To analyze the evolution of employment in multinational headquarters relative to their affiliates we will use a standard firm level employment growth equation. We use the information available in Amadeus on the group structure of firms by taking into account that various affiliates may belong to the same multinational enterprise. By controlling for multinational fixed effects we are able to capture various unobservable factors, such as similar technology or management practices that are shared by the same MNE across its affiliates. It also controls for unobservable self-selection effects. Additionally, we control for sectoral sales and productivity growth, defined at the 2 digit NACE level. We do this to control for exogenous shocks in demand and technology⁶. To estimate whether headquarters behave differently in terms of their employment decisions we control in our specification for a headquarter dummy, HQ , equal to 1 if the firm is a headquarter and zero else. This results in the following specification for firm i , belonging to MNE j and sector ss in year t , located in country c and n denoting log employment:

$$n_{it}^{jcs} = \rho n_{it-1}^{jcs} + \beta_1 HQ + \beta_2 X_t^s + \gamma_j + \epsilon_{it}^{jc}$$

⁶This information is obtained from the EU KLEMS database.

We take into account that firm level employment is persistent over time by adding the lagged logarithm of employment. ϵ is a white noise error term. When we subtract lagged employment from both sides, the equation boils down to estimating a standard firm level employment growth equation, controlling for lagged size. This will form the basis of our analysis⁷. Headquarters might have a different labor composition than their affiliates, which could explain potential differences in employment performance. By looking at a subsample of manufacturing headquarters, we aim to exclude those headquarters which have a purely administrative function. Also, using industry information at the firm level, we will distinguish between horizontal and vertical FDI. We run some additional tests in which we further explore the effect of distance on performance. We include a dummy for Belgian firms and introduce the distance between headquarter and affiliates in our analysis, using information at the country level. To check for asymmetric responses in employment growth we split the sample of firms in a subsample of multinational enterprises with expanding employment and a subsample of companies that are restructuring. A multinational company is expanding if the combined employment of the affiliates and the headquarter increased on average in the period 1996-2005. The multinational enterprise is considered to be restructuring if the reverse holds. As a robustness check, we will consider a different definition of restructuring using annual employment growth instead of a ten year average. All equations include year dummies and standard errors are adjusted for heteroskedasticity within the same multinational enterprise (Moulton, 1990).

3 Results

3.1 Basic Results

Table 4 and 5 report the baseline results. In the former we consider expanding multinationals and in the latter multinationals with declining employment. Column (1) pools both manufacturing and non-manufacturing headquarters together; the following two columns include the productivity and sales growth controls. Column (4) reports the estimations for the subsample of non-manufacturing headquarters and their affiliates. Note that we place no constraint on the activity of the daughter firms. Column (7), both in table 4 and 5, concludes with the results of the manufacturing head-quarters and affiliates. The regression coefficient on the headquarter dummy for these specifications reports one of the main findings of this paper: employment growth in headquarters is on average higher than in its corresponding affiliates. We find some evidence that the coefficient of the headquarter dummy is larger for the restructuring companies as for the expanding multinationals⁸. In other words, affiliates might suffer more than headquarters offices from job cuts that are taking place in restructuring companies. In contrast, when there is expansion, the increase in employment will be more moderate at headquarters. Our results indicate that the headquarter employment effect is driven by manufacturing MNEs. In contrast, the headquarter effect for non-manufacturing firms is small and statistically not significant different from zero. We also observe that large firms on average grow less than small firms. This is a standard result in the firm growth literature, which will hold in the following specifications.

3.2 Analysing Restructuring MNEs

In this section we turn to some of the theories that can explain these results, focusing on restructuring MNEs. We start by exploring the possible role of horizontal versus vertical FDI. In horizontally integrated firms, investments and activities in the parent location might be more profitable as multinationals have advantages in their home market regarding local customs and culture (Brakman and Garretsen, 2008). Vertically integrated firms, however, face increased agency costs when their valuable assets are located within geographically separated affiliates. This may prove difficult to monitor. (e.g. Chang and Taylor, 1999; Petersen and Rajan, 2002). In order to avoid these costs, MNEs may wish to concentrate their most valuable functions close to their headquarter. We explore the effect of horizontal and vertical FDI by creating a subsample of affiliates that have

⁷Similar approaches have been used in the firm growth literature. See for instance Sutton (1997) and Konings (1995).

⁸Pooling expanding and restructuring manufacturing MNEs, we find that the additional headquarter effect for restructuring MNEs is positive with a p-value between 0.10 and 0.20.

Table 4: Basic Results: MNE Expanding

Dependent Variable:	All Sectors			Non Manufacturing HQ			Manufacturing HQ		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment Growth									
Log Employees t-1	-0.0494*** (0.00587)	-0.0516*** (0.00636)	-0.0506*** (0.00603)	-0.0477*** (0.00520)	-0.0494*** (0.00561)	-0.0493*** (0.00548)	-0.0569*** (0.0135)	-0.0595*** (0.0145)	-0.0565*** (0.0136)
Headquarter Dummy	0.0228 (0.0172)	0.0307* (0.0177)	0.0289 (0.0176)	-0.00742 (0.0223)	0.00144 (0.0232)	0.000138 (0.0233)	0.0934*** (0.0317)	0.0941*** (0.0316)	0.0975*** (0.0324)
Productivity Growth		0.779*** (0.292)			0.530 (0.343)			1.106** (0.529)	
Sales Growth			-0.0934 (0.254)			-0.239 (0.277)			0.468 (0.467)
Constant	0.193*** (0.0174)	0.187*** (0.0173)	0.197*** (0.0210)	0.197*** (0.0178)	0.193*** (0.0180)	0.208*** (0.0208)	0.190*** (0.0386)	0.179*** (0.0373)	0.161*** (0.0447)
Observations	11246	10797	10797	7853	7479	7479	3393	3318	3318

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions. *, **, *** reports significance at the 10%, 5%, 1% level.

Table 5: Basic Results: MNE Restructuring

Dependent Variable:	All Sectors			Non Manufacturing HQ			Manufacturing HQ		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment Growth									
Log Employees t-1	-0.0410*** (0.00711)	-0.0412*** (0.00723)	-0.0405*** (0.00716)	-0.0381*** (0.00832)	-0.0392*** (0.00898)	-0.0393*** (0.00873)	-0.0494*** (0.0109)	-0.0502*** (0.0105)	-0.0481*** (0.0103)
Headquarter Dummy	0.0549* (0.0302)	0.0480 (0.0325)	0.0439 (0.0329)	0.0320 (0.0348)	0.0174 (0.0389)	0.0117 (0.0404)	0.124** (0.0478)	0.122** (0.0451)	0.119** (0.0463)
Productivity Growth		-0.0441 (0.523)			-0.484 (0.807)			0.525 (0.561)	
Sales Growth			0.450 (0.503)			0.533 (0.555)			0.333 -1.022
Constant	0.158*** (0.0357)	0.161*** (0.0376)	0.140*** (0.0416)	0.141*** (0.0478)	0.149*** (0.0355)	0.126*** (0.0458)	0.245*** (0.0509)	0.250*** (0.0522)	0.181*** (0.0551)
Observations	2361	2254	2254	1508	1429	1429	853	825	825

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions. *, **, *** reports significance at the 10%, 5%, 1% level.

the same industry classification as their headquarter (Horizontal FDI) and one where the affiliates are active in a different sector than their parent firm (Vertical FDI). This identification is based on the 4 digit NACE industry classification. Table 6 summarizes the results for the horizontally integrated firms. Although the coefficients remain positive, we do not see a significant effect of the headquarter dummy variable in any of our specifications. Turning to the vertically integrated firms in table 7, however, we see a confirmation of our earlier findings: the results seem to be driven largely by manufacturing MNEs and the coefficient of the headquarter dummy remains positive and significant. In order to fully identify the importance of the agency costs associated with vertical FDI, we run some additional tests. First, we include the percentage of intangible fixed assets each firm represents within the multinational. This balance sheet item contains e.g. goodwill and R&D investments, which is why we use it as a proxy for the more valuable assets of a company.

Table 8 gives an overview of our findings. In column (1) we only include the IFA variable, effectively dropping the headquarter dummy. Firms that have more intangibles than the other firms in the MNE have a superior employment performance. Including the headquarter dummy in columns (2), (3) and (4), this effect does not disappear. Moreover, the headquarter effect is weaker than in our earlier specifications and does not become significant. Note that on average 54% of the multinational’s intangible assets are concentrated in the headquarter. We add one additional check in table 9. We use the same subsample as in table 8 with the same definition of restructuring, but exclude the parent firms of the multinational from our specifications. The IFA variable has increased in size and remains significant, giving evidence to the notion that multinationals protect the more valuable functions and assets within their company.

In a second test we investigate the role of distance. This could play a role when agency costs matter, as multinationals need to monitor their assets, but might be equally important regarding social network effects: fear for reputational loss and social standing might induce managers to protect employees closer to them, i.e. closer to the parent firm (e.g. Landier, Nair, and Wulf, 2009). We include the logarithm of distance to our estimation equation⁹. Table 10 summarizes: the headquarter effect disappears, but we gain a negative and significant coefficient on the distance variable. We find this result for all our manufacturing and pooled industry specifications. Here, restructuring hurts the most the further the affiliate is geographically located from its parent firm. The fact that we no longer pick up an effect for the parent firms can be explained by the correlation between distance and headquarters, as all headquarters are situated within Belgium. In a final check, we reconsider the effect of proximity by making a distinction between affiliates located in the same country as the headquarter, Belgium, versus affiliates abroad. About 50% of the affiliates in our sample are located in Belgium. The institutional setting of those affiliates is the same and the distance to their headquarters may be equally important when agency costs matter. Table 11 presents the results where, in addition to a headquarter dummy, we also include a dummy equal to 1 if the affiliate is based in Belgium and zero else. Looking at columns (7), (8) and (9), we find that the effect is similar to the effect of distance. In particular, we find that in addition to a positive headquarter effect, affiliates that are located in the same country as the headquarter suffer less from restructuring. This is again consistent with theories that indicate that geographic dispersion and proximity to headquarters matters for employment restructuring.

3.3 Robustness Checks

The results in table 4 and table 5 were based on an unbalanced panel of Belgian MNEs. Some firms are only observed for a few consecutive years, while data for the other companies are available for the full sample period. The attrition in the data is mostly related to missing observations due to differences in reporting requirements across countries. To check whether this attrition would bias our results we run the same regression for a balanced panel for which we observed data for the full 10 year sample period. This, in turn, means that we are neglecting new startups or closures in the multinational and lowers our number of observations considerably. We report these results in table 12 and table 13. While the overall headquarter dummy remains positive for restructuring MNEs, it is only statistically significant for the pooled sample. Looking at the subsample of manufacturing headquarters, the significance of the headquarter coefficient drops: we obtain a p-value of about

⁹Note that the average distance of affiliates to their headquarters is 500 km and that we use distances calculated on the country level.

Table 6: Basic Results: MNE Restructuring: Headquarter vs Same Sector Subsample (4D NACE-Horizontal FDI)

Dependent Variable:	All Sectors			Non Manufacturing HQ			Manufacturing HQ		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment Growth									
Log Employees t-1	-0.0325** (0.0145)	-0.0320** (0.0144)	-0.0321** (0.0144)	-0.0783*** (0.0200)	-0.0778*** (0.0209)	-0.0784*** (0.0213)	-0.0117 (0.0131)	-0.0117 (0.0131)	-0.0117 (0.0131)
Headquarter Dummy	0.0683 (0.0510)	0.0671 (0.0537)	0.0666 (0.0537)	0.115 (0.0858)	0.110 (0.0961)	0.110 (0.0961)	0.0241 (0.0513)	0.0240 (0.0514)	0.0241 (0.0515)
Productivity Growth		-0.298 (0.440)			-0.200 -1.137			0.0798 (0.287)	
Sales Growth			0.382 (0.355)			1.313* (0.760)			-0.00641 (0.411)
Constant	0.0279 (0.0509)	0.0614 (0.0676)	0.0458 (0.0624)	0.0626 (0.0971)	0.114 (0.158)	0.0344 (0.152)	0.0389 (0.0632)	0.0380 (0.0641)	0.0391 (0.0591)
Observations	604	562	562	334	292	292	270	270	270

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions.
 *, **, *** reports significance at the 10%, 5%, 1% level.

Table 7: Basic Results: MNE Restructuring: Headquarter vs Different Sector Subsample (4D NACE-Vertical FDI)

Dependent Variable:	All Sectors			Non Manufacturing HQ			Manufacturing HQ		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment Growth									
Log Employees t-1	-0.0423*** (0.00856)	-0.0422*** (0.00868)	-0.0416*** (0.00852)	-0.0383*** (0.00938)	-0.0399*** (0.0101)	-0.0399*** (0.00939)	-0.0610*** (0.0132)	-0.0625*** (0.0126)	-0.0599*** (0.0121)
Headquarter Dummy	0.0454 (0.0330)	0.0355 (0.0356)	0.0304 (0.0360)	0.0102 (0.0350)	-0.0125 (0.0387)	-0.0246 (0.0397)	0.181*** (0.0606)	0.180*** (0.0564)	0.175** (0.0596)
Productivity Growth		-0.131 (0.543)			-0.651 (0.782)			0.679 (0.661)	
Sales Growth			0.545 (0.550)			0.892 (0.546)			0.159 -1.226
Constant	0.199*** (0.0305)	0.204*** (0.0309)	0.177*** (0.0419)	0.169*** (0.0325)	0.182*** (0.0348)	0.146*** (0.0456)	0.290*** (0.0579)	0.298*** (0.0611)	0.233*** (0.0586)

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions. *, **, *** reports significance at the 10%, 5%, 1% level.

Table 8: MNE Restructuring: Manufacturing HQ only-Including IFA

Dependent Variable:				
Employment Growth	(1)	(2)	(3)	(4)
Log Employees t-1	-0.0390** (0.0154)	-0.0397** (0.0165)	-0.0416** (0.0186)	-0.0407** (0.0174)
IFA/ Total IFA Group	0.119* (0.0586)	0.110* (0.0542)	0.111* (0.0541)	0.117** (0.0528)
Headquarter Dummy		0.0140 (0.0507)	0.0159 (0.0532)	0.00597 (0.0512)
Productivity Growth			0.938** (0.386)	
Sales Growth				-0.909 (0.617)
Constant	0.223** (0.0769)	0.160** (0.0672)	0.236** (0.0904)	0.277** (0.0996)
Observations	656	656	635	635

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions. *, **, *** reports significance at the 10%, 5%, 1% level.

Table 9: MNE Restructuring: Subsample Affiliates of Manufacturing HQ-Including IFA

Dependent Variable:			
Employment Growth	(1)	(2)	(3)
Log Employees t-1	-0.429*** (0.0849)	-0.437*** (0.0931)	-0.438*** (0.0903)
IFA/ Total IFA Group	0.231*** (0.0681)	0.230*** (0.0684)	0.233*** (0.0728)
Productivity Growth		0.536 (0.747)	
Sales Growth			-1.522 -2.077
Constant	1.518*** (0.322)	1.533*** (0.339)	1.613*** (0.337)
Observations	578	557	557

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions. *, **, *** reports significance at the 10%, 5%, 1% level.

Table 10: MNE Restructuring: Distance Effect

Dependent Variable:	All Sectors			Non Manufacturing HQ			Manufacturing HQ		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment Growth									
Log Employees t-1	-0.0427*** (0.00731)	-0.0432*** (0.00743)	-0.0425*** (0.00733)	-0.0384*** (0.00838)	-0.0396*** (0.00903)	-0.0396*** (0.00880)	-0.0525*** (0.0108)	-0.0546*** (0.0101)	-0.0521*** (0.00978)
Headquarter Dummy	0.0229 (0.0311)	0.0140 (0.0335)	0.0103 (0.0345)	0.0187 (0.0396)	0.00248 (0.0437)	-0.00277 (0.0457)	0.0682 (0.0463)	0.0666 (0.0446)	0.0641 (0.0458)
Log Distance	-0.0355*** (0.0110)	-0.0365*** (0.0110)	-0.0362*** (0.0109)	-0.0184 (0.0200)	-0.0196 (0.0203)	-0.0194 (0.0201)	-0.0465*** (0.00943)	-0.0486*** (0.00841)	-0.0477*** (0.00849)
Productivity Growth		0.0112 (0.541)			-0.475 (0.812)			0.728 (0.573)	
Sales Growth			0.406 (0.524)			0.512 (0.546)			0.179 -1.135
Constant	0.336*** (0.0755)	0.344*** (0.0765)	0.324*** (0.0701)	0.225** (0.105)	0.240** (0.108)	0.218** (0.103)	0.511*** (0.0900)	0.532*** (0.0780)	0.508*** (0.0599)
Observations	2361	2254	2254	1508	1429	1429	853	825	825

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions. *, **, *** reports significance at the 10%, 5%, 1% level.

Table 11: MNE Restructuring: Belgian Effect

Dependent Variable:	All Sectors			Non Manufacturing HQ			Manufacturing HQ		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment Growth									
Log Employees t-1	-0.0432*** (0.00722)	-0.0434*** (0.00726)	-0.0427*** (0.00717)	-0.0387*** (0.00842)	-0.0399*** (0.00907)	-0.0399*** (0.00884)	-0.0527*** (0.0103)	-0.0541*** (0.00942)	-0.0516*** (0.00915)
Headquarter Dummy	0.110*** (0.0345)	0.100*** (0.0354)	0.0961*** (0.0352)	0.0693 (0.0419)	0.0560 (0.0445)	0.0503 (0.0438)	0.180*** (0.0518)	0.178*** (0.0463)	0.173*** (0.0477)
Belgian Affiliate Dummy	0.0974*** (0.0258)	0.0955*** (0.0250)	0.0953*** (0.0248)	0.0585 (0.0435)	0.0620 (0.0443)	0.0620 (0.0436)	0.130*** (0.0185)	0.126*** (0.0151)	0.124*** (0.0157)
Productivity Growth		0.00752 (0.542)			-0.467 (0.813)			0.691 (0.613)	
Sales Growth			0.436 (0.514)			0.520 (0.549)			0.258 -1.074
Constant	0.0970*** (0.0334)	0.101*** (0.0360)	0.0809* (0.0420)	0.0951** (0.0410)	0.101** (0.0428)	0.0800 (0.0556)	0.144*** (0.0350)	0.207*** (0.0495)	0.185** (0.0677)
Observations	2361	2254	2254	1508	1429	1429	853	825	825

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions. *, **, *** reports significance at the 10%, 5%, 1% level.

0.15. We do not pick up any effect for the expanding MNEs, which reconfirms our belief that multinationals transmit shocks differently in times of restructuring than when they choose to expand operations.

In a second test, we experiment with our definition of restructuring: instead of using the average growth rate of the period 1996-2005, we look at the yearly growth rate of the MNE. If this is negative, we consider the multinational to be restructuring. Results are presented in table 14. It confirms the earlier findings of table 5: headquarters experience superior employment growth in restructuring manufacturing MNE, but our obtained coefficients are smaller. In a final check we consider the ownership structure of the multinational. As our ownership information is collected at a fixed point in time, it is unclear whether certain firms were always part of the multinational in the past, or joined more recently. We redefine the multinational by using a subsample of affiliates that reported the same global ultimate owner in 2007 as in 2001. We choose this reference point as earlier copies of Amadeus have a considerably lower coverage level and contain less detailed ownership information. Due to a decrease in our sample size, we are only able to report the results for the manufacturing multinationals. Restructuring is again defined using the average growth rate in the period 1996-2007. The results are presented in table 15. We note an increased coefficient on the headquarter dummy, which has remained positive and significant in all specifications.

4 Conclusions

This paper analyzed employment growth in multinational enterprises, where we distinguished between employment growth in headquarters versus employment growth in their affiliates. To this end we used a panel data set of Belgian income statements of headquarter firms matched to their affiliates. By analyzing what happens within the same multinational firm, we can control for all the unobservable specificities that may affect the strategy of the particular multinational enterprises. Furthermore, we are able to control for shocks affecting plants of the same multinational enterprise and hence this allowed us to control for potential selection issues. Our results indicate that the employment performance at headquarters is better compared to their affiliates and that this is more likely for restructuring MNEs. Looking into the possible reasons of this effect, we find that these results are stronger within vertically integrated firms. This is consistent with the theories of imperfect information and agency costs: as MNEs find it more difficult to monitor their most valuable assets and functions, they may choose to locate these at or close to the headquarter. Concerning the effect of proximity, we find evidence that restructuring hurts most in affiliates located further away from their headquarters. This is again in line with the theory on agency costs, but is also consistent with the theories that focus on social capital and social interactions to explain the home bias for employment.

Table 12: Balanced Sample: Multinational Expanding

Dependent Variable:	All Sectors			Non Manufacturing HQ			Manufacturing HQ		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment Growth									
Log Employees t-1	-0.0275*** (0.00626)	-0.0276*** (0.00670)	-0.0279*** (0.00681)	-0.0291*** (0.00641)	-0.0281*** (0.00676)	-0.0290*** (0.00699)	-0.0230 (0.0217)	-0.0271 (0.0240)	-0.0263 (0.0243)
Headquarter Dummy	0.00581 (0.0280)	0.0127 (0.0287)	0.0134 (0.0287)	-0.00537 (0.0398)	0.000971 (0.0405)	0.00739 (0.0409)	0.0170 (0.0481)	0.0259 (0.0536)	0.0272 (0.0547)
Productivity Growth		-0.229 (0.439)			-0.856 (0.841)			0.151 (0.270)	
Sales Growth			-0.103 (0.390)			-0.449 (0.691)			0.281 (0.345)
Constant	0.179*** (0.0317)	0.0732** (0.0308)	0.0748** (0.0353)	0.0661* (0.0367)	0.0619 (0.0385)	0.207*** (0.0647)	0.155** (0.0637)	0.0972 (0.0718)	0.144** (0.0667)
Observations	2241	2151	2151	1548	1485	1485	693	666	666

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions. *, **, *** reports significance at the 10%, 5%, 1% level.

Table 13: Balanced Sample: Multinational Restructuring

Dependent Variable:	All Sectors			Non Manufacturing HQ			Manufacturing HQ		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment Growth									
Log Employees t-1	-0.0225*** (0.00819)	-0.0236*** (0.00957)	-0.0218** (0.00880)	-0.0161** (0.00672)	-0.0144* (0.00772)	-0.0165*** (0.00574)	-0.0324** (0.0154)	-0.0345* (0.0175)	-0.0322* (0.0168)
Headquarter Dummy	0.0318* (0.0185)	0.0334 (0.0212)	0.0291 (0.0200)	0.0185 (0.0172)	0.0113 (0.0202)	0.00582 (0.0171)	0.0787 (0.0499)	0.0781 (0.0515)	0.0774 (0.0518)
Productivity Growth		0.362 (0.448)			-0.694 (0.419)			1.122 (0.665)	
Sales Growth			0.504 (0.368)			1.289*** (0.418)			-0.134 (0.633)
Constant	0.0532* (0.0267)	0.0179 (0.0280)	0.00923 (0.0355)	-0.00199 (0.0304)	0.0289 (0.0354)	-0.0355 (0.0374)	0.135** (0.0581)	0.107 (0.0671)	0.0928 (0.0612)
Observations	2061	1962	1962	945	855	855	1116	1107	1107

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions.
*, **, *** reports significance at the 10%, 5%, 1% level.

Table 14: MNE Restructuring: Yearly Employment Decline

Dependent Variable:	All Sectors								
	Non Manufacturing HQ			Manufacturing HQ			Manufacturing HQ		
Employment Growth	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Log Employees t-1	-0.0425*** (0.00614)	-0.0445*** (0.00673)	-0.0430*** (0.00650)	-0.0455*** (0.00805)	-0.0476*** (0.00870)	-0.0478*** (0.00891)	-0.0398*** (0.0101)	-0.0427*** (0.0112)	-0.0384*** (0.0101)
Headquarter Dummy	0.0340 (0.0213)	0.0285 (0.0220)	0.0264 (0.0221)	0.0137 (0.0292)	0.00132 (0.0307)	0.00280 (0.0309)	0.0641** (0.0277)	0.0644** (0.0273)	0.0678** (0.0284)
Productivity Growth		0.778* (0.424)			0.486 (0.522)			1.253* (0.716)	
Sales Growth			0.0881 (0.385)			-0.371 (0.477)			0.807 (0.574)
Constant	0.123*** (0.0385)	0.102*** (0.0342)	0.102*** (0.0356)	0.121*** (0.0334)	0.129*** (0.0356)	0.148*** (0.0508)	0.0780* (0.0432)	0.0468 (0.0378)	0.0307 (0.0461)
Observations	4962	4782	4782	3236	3092	3092	1726	1690	1690

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions. *, **, *** reports significance at the 10%, 5%, 1% level.

Table 15: MNE Restructuring: Subsample Affiliates of Manufacturing HQ-Including IFA

Dependent Variable:			
Employment Growth	(1)	(2)	(3)
Log Employees t-1	-0.0678*** (0.0163)	-0.0675*** (0.0132)	-0.0695*** (0.0112)
Headquarter Dummy	0.211** (0.0659)	0.211** (0.0620)	0.212** (0.0652)
Productivity Growth		-0.226 -1.443	
Sales Growth			-0.680 -2.320
Constant	0.278*** (0.0493)	0.280*** (0.0519)	0.318** (0.0811)
Observations	375	358	358

Heteroskedasticity robust standard errors adjusted for MNE group clusters in parentheses. Firm fixed effects and year dummies are included in all regressions. *, **, *** reports significance at the 10%, 5%, 1% level.

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