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Quantification and strategic analysis of foreign relocations

Empirical research based on company data.

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Since the late 1970s, foreign relocations have been a subject of public concern in the industrialised countries. In spite of the numerous studies carried out in the field of international industrial economics, however, decision-makers, and even economists, remain divided in their opinions regarding appropriate policy measures (e.g., in the US, Cohen and Zysman, 1987; Dertouzos et al., 1989; Brainard and Riker, 1997; Berger, 2005). Some analysts interpret foreign relocations as a sign of economic decline, while others see them as an efficient response to commercial and financial globalisation (Magaziner, 1982; Magaziner and Patinkin, 1989; Reich, 1991; Thurow, 1992; Luttwak, 1993; Krugman, 1994; Mankiw and Swagel, 2005).

In France, the debate on foreign relocations has followed similar lines. It is often remarked that France ranks third worldwide for its outward FDI flows since 1998, but the fact that it ranks fifth for its inward FDI flows is less well known. Foreign relocation has been a recurring political issue in France: after the protectionist 'made in France' campaigns of 1977-1979 led by both the French Communist Party on the left and the Rassemblement pour la République (RPR) on the right, the Devedjian report presented to the National Assembly in 1993 came out against certain protectionist views advanced a few months earlier in the Arthuis Report to the Senate, which predicted the number of job losses as 3 to 5 million. In recent years, while several reports have concluded that the number of foreign relocations is limited (Fontagné and Lorenzi, 2005, p. 91), others estimated that, directly or indirectly, they could result in a 22 % loss of net employment creation for the years 2006-2010 (Arthuis, 2005) and thus called for industrial and fiscal policies to combat such relocations abroad.¹

Ultimately, the effect of foreign relocations remains all the more controversial (Lorenzi, 2005) because there is so little empirical evidence. The aim of this article is therefore to provide a quantitative measure based on company data and thus contribute to recent advances in this area of research (Aubert and Sillard, 2005). We

¹ For example, the Finance Act of 2005 created : a four-year tax credit for companies established in 'areas exposed to foreign relocations'; a corporate tax credit for companies choosing to 'transfer their activities back to France'; and policies in favour of 'competitiveness clusters'. See, among others, the following reports: DATAR 'La France, puissance industrielle' (2004); CAE, 'Désindustrialisation, délocalisations' (February 2005); CGP, 'Localisation des activités économiques et stratégies de l'Etat à l'horizon 2015' (June 2005); French Senate, 'La globalisation de l'économie et la délocalisation des activités et des emplois' (June 2005); OFCE, 'Attractivité, délocalisations et concurrence fiscale' (July 2005).

begin by presenting the methodology (part I) and the results obtained for a sample of some 15,000 business establishments (part II). We then attempt to interpret these findings in terms of determinants identified at company level (part III) or in the broader context of the companies' transnationalisation strategies (part IV).

I. - Methodology

I.1. Definition of a foreign relocation

A foreign relocation is defined as a *transfer of economic production activity from a domestic site onto another site abroad*.² This transfer can concern an entire establishment or only a part of it; the receiving establishment can be either existing or newly created. In terms of territory, relocation can be either an incoming or an outgoing activity (in a particular case of repatriation in the country of origin, the 'further' relocated activity, we are said to be dealing with 'delocalization'³). Several organizational options: filialization or outsourcing and financial options (capital investment by international flows of local financing) are possible:

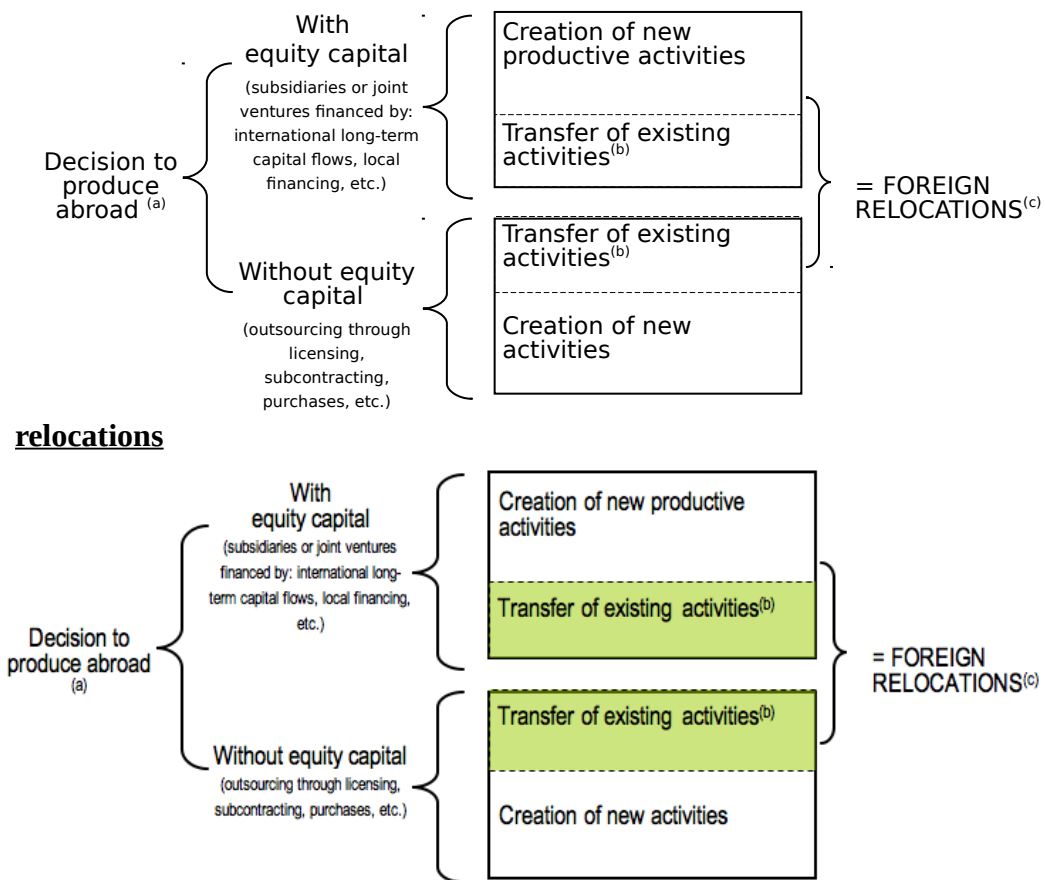
The choice of this definition is justified in three ways. For a firm, a decision process leading to a relocation (*i.e.* deciding on a relocation as a result of a previous business or corporate decision) is by its nature different from the one leading to the setting up of a new activity. Notably, the relocation of an existing activity leads to specific restructuring costs (existing asset management, reorganization of logistic flows, etc.) and crisis management related to internal professional relations. Secondly, it is important to distinguish mobility of firms and mobility of activities. Modification of company's geography corresponds to the "relative" relocation of Mouhoud (2006) and can be made without geographical relocation of activities when the company is buying existing activities or when other companies buy out its establishments. Therefore, the definition of 'relocation' as an international mobility of economic *activities* leads to a growing economic analysis of the globalization process of firms and their impact on national economics, notably by better specifying the level of instability of relocation choices and the reversibility of foreign relocations.

Finally, in terms of territory of origin (national or local), a foreign relocation produces a more significant socio-political shock than a "non-localization". Therefore it provokes a different problematic of public action (in fact, the priority which has been given in the last two decades to attractiveness policies rather than to industrial ones shows why mobility issues are dominating localization issues.)

² This definition is identical to the one of Aubert and Sillard (2005, p.64).

³ See Mouhoud, for example (1989, 2006).

Diagram 1. Organizational and financing possibilities for foreign



(a) Sometimes named “relative foreign relocations” [Mouhoud: 2006]. (b) Sometimes named “strict foreign relocation” [DREE: 2004]. (c) Sometimes named “absolute foreign relocation” [Mouhoud: 2006].

I.2. Definition of sample and its construction

a) Construction of a sample

Assessing the number of relocations requires taking census of all industrial operations corresponding to a transfer of production activities abroad (including the cases when the original establishment is not closed). The problem is that this type of operation does not figure in administrative declarations or statistical investigations.

Several indirect methods were employed to solve this issue. These methods are based on measuring the scale of these relocations in relation to their presumed impact. Modeling (for example: Artus, 1995; Villa, 1998) was particularly focused on assessing which conditions might create a positive or negative impact on foreign relocations. Much research dealt with external trade statistical data (depending on the authors: TPA/TPP data, imports, balance-employment methods...), sometimes involving several variables such as the import rate of intermediary intra-branch consumption, the flow of outward processing relief and FDI (Mouhoud, 1990). The first order of magnitude was defined in this way, in spite of the fact that it was considered unable to distinguish between relocations and the creation of new activities abroad. This disadvantage brought about a greater interest in the econometrical processing of company data, linking significant variations of a

company's or a group's personnel to the imports of that company or group (Aubert, Sillard, 2005). This approach serves from now on as a reference in this field.

Direct quantification was also attempted, basing on the selection of microeconomic events by surveys held among the panel of experts (ERM, 2006; Katalyse, 2005). However its construction makes this type of survey lack sufficiency and objectivity, as it refers to the "opinion" of experts and not to empirical data.

Driven by the same objective, we obtained access to companies' data, which was very well detailed, notably at the infra-establishment level. This detailed data made it possible to use our relocation definition more efficiently. The interest in this approach, in comparison with statistical method that "allows but to spot the assumptions of foreign relocations" (Aubert, Sillard, 2005, p.87), lies in its ability to acknowledge recognized facts concerning foreign relocations.

The database used was created by the agency for professional information *Bref Rhône-Alpes*. This agency systematically collects legal, financial and industrial information regarding the companies that possess establishments in the Rhône-Alpes region and the turnover of which exceeds 20 million francs (3 million euros since 2001), excluding textile industries, whose companies are smaller with a threshold value reduced by half. This information was obtained in the following ways:

by going through authorized journals of legal announcements and the Official bulletin of civil and commercial announcements (BODACC), as the companies are subject to legal obligation of publicity (decree n°67-236 of 23rd of March, 1967) in order to get information on all modifications affecting obligatory mentions of their registration. Notably, in compliance with the Register of trade and companies, the BODACC publishes all legal announcements regarding creation, modification, and transformation and liquidation of activity, including (edition A of BODACC) selling, cession and creation of establishments as well as collective procedures.

by spontaneous company declarations in *Bref Rhône-Alpes* as well as in the professional and local press (consular press, business press, internal press).

by daily surveys among different professional networks: consular organizations (Chamber of Craft, Chamber of trade and industry) and economic development structures (Regional investment funds, basin committees, intercommunity syndicates, etc.), banks, consulting agencies, real estate management services (managers of industrial zones or companies' property), syndicates of employer and employees. This survey among experts allows completing, cross-checking and updating quantitative and qualitative data gathered with the help of the two above methods⁴ with their financial and industrial operations (investments, public infrastructure programs...).

The cross-checking of these three techniques as well as the diversity of experts engaged assures a good quality of information (besides, this database was used by the future work for the DATAR or the CGP).

Apart from the complexity of working with this database, one of its main limits lies in the fact that it relies on the declaration of events by the companies or experts (union activists, Chambers of commerce and industry, etc.). Therefore, it depends, on the one hand, on the informants picturing of relocation, and on the other hand, on the limits of their perception. The picturing problem is not as harmful, because our definition is recognized by everyone as a case of foreign relocation. So, the correction of this bias consists in eliminating the facts of relocation that do not correspond to our definition (moving of the business to another region in France, for instance). However, certain events that should have been counted as relocation can appear unnoticed, due to their small scale (for example: cutting one or two jobs followed by a transfer of

⁴ French agency of international investment (AFII) that also uses the same approach for the study calculated that comparing declarations and realizations the probability of realization of operation is 95%.

corresponding workload abroad). This minor bias, also noticed by Aubert and Sillard (2005) cannot be quantified. Its impact is however reduced in our methodology⁵.

b) Relevance of measures on Rhône-Alpes region

At first we tested the suitability of this regional territory for the research (*a priori* relying on the small differences among regions in the face of relocations (Aubert, Sillard, 2005):

The Rhône-Alpes region occupies the second position the national economy (about 11% in the number of establishments, of employment and of added value, according to annual companies survey data).

The Production structure of Rhône-Alpes is similar to that of the country regarding the distribution of the size of establishments and sectors and their foreign penetration rate. Sectoral bias is weak (a minor over-representation of industry: +1.3 points in comparison with national mean in the end of period; and an under-presentation of trade: -0,9 pt that could lead to an overestimation of foreign relocations if it appears that trade is less exposed. Large establishments of more than 50 employees account for less employment than the national mean (43% against 45%), whereas, those with less than 20 employees account for additional points in comparison with the national mean. This may lead to an underestimation of the number of foreign relocations, as the latter tend to concern establishments with 50 to 500 employees (Aubert, Sillard, 2005, p.74).

Finally, economic diversification in the region leads to the existence of industry pools *a priori* exposed to relocations (textile or clothing industry: Roanne [42]; leather: Romans [26]; electrical goods industry, consumer electronics: Rhône, Isère; sporting goods: Annecy [74], highly concentrated globalized sectors (chemistry, automotive) or dispersed sectors (food industry); etc.

c) Representativeness of the database

Using such a resource, allowing an in-depth research on the subject, implies high costs, firstly, in terms of the money paid for access to it, and secondly, in terms of work on its analysis (about ten thousand text blocks to go through for each year of observation, followed by manual entering of data). The latter cost has obliged us to limit the research, which is why only three years have been analyzed so far. There is a gap between the chosen years in order to allow a minimum historic overview (1993, 1997, 2003). These years also correspond to the periods of significant foreign relocations (*cf.* Hoover-Dijon operation and employment decrease in 1993, Renault-Vilvorde in 1997 and Moulinex-Argentan in 2003).

Afterwards, we tried to specify the representativeness of our database with regard to the regional economy. In order to do this, we tested the selection criteria of *Bref Rhône Alpes* (threshold of turnover) on SUSE-INSEE, EAE-SESSI and ASSEDI-UNISTATIS data, which allowed evaluation of corpus weight in the number of establishments and employment in the region:

We assess therefore that our corpus correctly represents regional private sector companies with more than 20 employees (agriculture except farming, energy, manufacturing, trade services). That provides us with 15000 establishments, representing on average 10% of the region's establishments with at least one employee, and accounting for about 65% of regional employment.

Coverage of concentrated sectors (automotive, consumer goods, equipment, and intermediary goods) is evidently better: 20% and 60% of a sector's establishments in

⁵ Unlike the study of Aubert-Sillard, our method does not exclude the foreign relocations with employment impact that is spread in time, because it is not the job cutting that causes foreign relocation but rather a decision of activity transfer: the decision has to be important enough to be declared by the company or to be recognized as important by experts; it is taken into consideration even if its application is spread in time and does not impact employment and production of the establishment. However, a "creeping" foreign relocation is not taken account by our method.

Rhône-Alpes). It is worse for automated sectors (food, business and private individual services, building): between 4% and 10% of establishments.

II.- Quantification of foreign relocations : 0,15% of establishments are involved each year

II.1. Empirical report covering ten years

First, in order to verify the corpus and position international mobility among all types of production activities mobility (international and international) we took census of all industrial operations that modified geographical mobility of these activities. That is, either the creation of new activities or relocating of existing activities (by expansion or intensification of existing site or by creation of a new site). However, only the *inward transfer of activities* (or coming from abroad) will be counted as foreign relocations (keeping in mind that the transfer of an establishment's activities can be either total or partial).

908 events were thus taken census of. Table 2 presents the results of these structural activities:

Table 1. Report on the mobility of production activities in Rhône-Alpes (2003, 1997 and 2003)

| | | | |
|--|----------|---------|-----------|
| Moving of activities 1993 | Outward* | Inward* | Total net |
| by creating activities and relocations in the region | 145 | 145 | 145 |
| by creating activities outside the region but within France | 16 | 32 | 48 |
| by creating activities and relocations abroad <i>including foreign relocations</i> | 54 14 | 23 9 | 77 23 |
| Total | 215 | 200 | 270 |
| Moving of activities 1997 | Outward* | Inward* | Total net |
| by creating activities and relocations in the region | 168 | 168 | 168 |
| by creating activities outside the region but within France | 21 | 22 | 43 |
| by creating activities and relocations abroad <i>of which foreign relocations</i> | 98 11 | 15 2 | 113 13 |
| Total | 287 | 205 | 324 |
| Moving of activities 2003 | Outward* | Inward* | Total net |
| by creating activities and relocations in the region | 171 | 171 | 171 |
| by creating activities outside the region but within France | 27 | 24 | 51 |
| by creating activities and relocations abroad <i>of which foreign relocations</i> | 78 21 | 14 7 | 92 28 |
| Total | 276 | 209 | 314 |

Source: author's calculation based on Bref Rhône-Alpes data.

Field: private companies of more than 20 employees in agriculture (except farming), energy, industrial and trade services sectors (Approximately 15000 establishments).

*** « Outward » (or « inward ») of the site location in Rhône-Alpes.**

One can observe that:

Average mobility is stable. Overall level of mobility related to the number of establishments in the region reflects the national average (Delisle and Laîné, 1996, 1998)⁶. Each year, about 2% of establishments modify the location of their activities. Interestingly, facing different localization problems (optimization of costs, growth or recession of activity...) companies' responses are quite stable: in 2003, as in 1993 and 1997, "only" a third of them reorganize on an international scale. In the context of growing globalization, this surprising stability can be considered as a remarkable fact.

Careful mobility. A number of companies preferred expanding their existing site rather than open a new one, including the cases of expansion on the foreign markets. This geographical inactivity is due to the fact that all relocations lead to an initial cost (research, canvassing of potential suppliers, reorganization, etc.) and additional operational costs (long-term coordination, more complex coordination...). These costs are even more dissuasive due to the fact that some items are unrecoverable. This explains why exportation remains the most popular way to globalize companies. However, concentrating activities on the same site can lead to additional costs (in the short term: costs resulting from compliance with regulations, insufficient surface to increase production, stocking...; in long term: costs of delay in delivery making it harder to conquer new markets, etc). Therefore, the choice of such expansion might not always be the best solution.

Relative but active foreign attractiveness. More than a half of the changes in the geography of activities take place within the limits of the region. However, when the regional border is crossed, it is more likely to cross the French border as well: 77 international operation out of 125 regional ones in 1993; 113 out of 156 in 1997; and 92 out of 143 in 2003. Foreign relocations (64 operations for the three years) represent only 7% of this total mobility of activities, but 23% of international mobility.

II.2. A very limited number of foreign relocations

Only 64 foreign relocations (Table 2) took place in 15000 establishments in Rhône-Alpes during the period (23, 13 and 28 accordingly in 1993, 1997 and 2003), which represents 23% of the whole regional corpus within the annual average. This result is of the same scale than that of France.

Convergence of these results can be considered as satisfactory:

Assessment of the impact on employment or on production varies between -2,7% and -0,15% a year. However, more recent results (excluding De Gimel, 2005⁷) do not exceed -1%;

Differences in the research fields do not lead to changes in the order of magnitude of quantification (for example: between -0,15% and -2,7% for the manufacturing sector, and between -0,1% and -2,6% for trade services);

Assessments made basing on FDI data (Drumetz, 2004; DREE, 2004) provide an order of magnitude that is compatible with these results. However, these kinds of assessments are sometimes not accurate, which is why we did not include them in the table.

Our results are in the lower level of the assessment range, which is explained for three reasons:

most methods, apart from balance-employment, do not take into account inward foreign relocations, which results in an overestimation of the negative effect of foreign relocations;

geographical bias of imports and balance-employment (CAE) methods, when applied to exchanges with only "relocation countries" or "emerging and low salary costs countries",

⁶ Regional data of Delisle and Laîné also confirm the results that issue from our method.

⁷ Katalyse estimation (2005) is higher. However, this method is one of the less exhaustive and weakest.

results in an overestimation of the negative effect relocations, taking into consideration the evolution of French trade balance with these countries (NB: for a critical summary of balance-employment method see: Guimbert and Lévy-Bruhl, 2002; Daudin and Levasseur, 2005⁸);

threshold effects: just as Aubert and Sillard (2005, p.69) our method narrows foreign relocation to an incremental phenomenon, not considering its time-spread. Thus, a progressive transfer of activity (for example: subcontracting 5% of an internal product) will not be considered as a foreign relocation (because it is neither regarded nor reported as such by companies or the informants of *Bref Rhône-Alpes*). This bias is avoided by an indirect method of measuring by imports (SESSI, Sénat) that allows integrating indirect effects of relocation following it in a long term (taking the risk of confusing initial choc and accumulated effect). Therefore, our method underestimates the number of foreign relocations. However, this bias takes effect on the macroeconomic level only if the balance of inward/outward relocations is not balanced.

Finally, our method leads to minor and major biases in comparison with the reference model of Aubert-Sillard, even though the results are similar (biases reduced when using “corrected Aubert-Sillard” model):

underestimation factors for our model: Aubert and Sillard integrate companies with less than 20 employees⁹;

underestimation factors for Aubert-Sillard method: excluding relocations that (1) affect less than 25% of company’s personnel¹⁰, (2) the production of which is not re-imported to France or (3) which leads to re-imports of different products (branch, range).

In more detail, our results are decomposed as follows:

Table 2. Quantification of inward and outward foreign relocations (Rhône-Alpes: 1993, 1997 and 2003).

| | 1993 | 1997 | 2003 |
|---|------|------|------|
| Total gross of foreign relocation operations | 23 | 13 | 28 |
| of which “outward” (<i>France => Abroad</i>) | | | |
| by foreign relocation of activities based on establishments of companies resident in France | 13 | 9 | 18 |
| by foreign relocation of activities based on establishments of foreign resident companies | 1 | 2 | 3 |
| of which “inward” (<i>Abroad => France</i>) | | | |
| by foreign relocation of activities based on establishments of companies non-resident in France | 5 | 1 | 4 |
| by foreign relocation of activities based on establishments of foreign non-resident companies | 4 | 1 | 3 |
| Balance (<i>inward-outward</i>) of foreign relocations operations | -5 | -9 | -14 |

Source: same as Table 2

It is important to note that foreign relocation is not necessarily an outward move of activity from the territory: for 1993, 1997 and 2003 we can count 9, 2 and 7 inward moves of activities out of 23, 14 and 28 foreign relocations accordingly.

The importance of these inward moves underlines the fact that we cannot overestimate the negative impact of relocations on the national level (which can be an expected result of taking into account only outward relocations). This also raises the

⁸ That remind, notably, that some of its studies produce a positive summary for employment, while others reveal a negative one.

⁹ But the bias is limited by the fact that foreign relocations concern mostly the large groups (more than 5000 employees) and the establishments from 50 to 500 employees (Aubert, Sillard, 2005).

¹⁰ This barrier effect also impacts our method but to the smaller extent (*cf. supra*).

question of “anti-relocations” public actions relevance. Notably, can we block outward relocations without depriving the territory of inward relocations? However, we can see that the balance of relocations is more and more unbalanced to the detriment of the region: the issue of international attractiveness is therefore well considered, in spite of the low number of relocations.

In addition, the small weight of foreign relocations in the overall mobility of production activities can refer to the notion of “footloose” companies, as already suggested by the level of average mobility of activities in Rhône-Alpes (Table 2). This result can be interpreted as a risk that represents this mobility: it implies a certain immediate cost, whereas the profit is long-term and not certain, as showed some cases of foreign relocations.

II.3. Financing methods of foreign relocations

The analysis shows the variety of financing methods of foreign relocations, keeping in mind that FDI data is not an imperfect indicator of the volume of foreign relocations.

Less than half of foreign relocations can be considered by using only FDI data. In general, those are the companies who, after a period of growth and geographical relocations of their strategic markets that made them experience a necessity to produce abroad, experimented with partial international subcontracting and then ended up deciding to buy out an establishment. In other words, FDI partly finances a replacement of the form of production abroad (under commercial contract) by another form (under capitalistic capital). This international flow of FDI generally accounts only for the initial setting up of activity (and more rarely for the further transfer of activity).

In addition, analysis of the corpus of the overall international mobility confirms that the establishments abroad which are financed by FDI represent for the most part the creation of new activities rather than foreign relocations, that satisfy a new demand abroad (as in the case of automobile production in Latin America or in Asia; mass production). These new establishments are made in response to the growth of foreign market parts of a company that result in exports of complementary product range production, explaining the short term negative effect of FDI on domestic production. Therefore, the analysis confirms the fact that establishment abroad and exports complete one another on the microeconomic level.

Beyond this, the diversity of methods of the financing of foreign relocations (local financing, NFI, offshore outsourcing...) shows the possible diversity of strategies and problems that need to be clarified while dealing with company globalization.

III. – Determinants of Foreign relocations

Adhering to the classical framework of industrial analysis (Porter, 1980; Dunning, 1988; Salais and Stroper, 1993), we processed a pool of information on foreign relocations available from our database. The objective was to clarify the factors influencing the dynamics of foreign relocations: strategic and macroeconomic factors, supply and demand factors... (*cf.* annex 1). The focus of the analysis is now the companies which possess relocated establishments.

III.1. Geography of foreign relocations and nomadism of firms

The geography of foreign relocations that concern Rhône-Alpes establishments appears as follows:

Table 3. Geography of foreign relocations of Rhônes-Alpes (1993, 1997, 2003)

| 5a. Outward destinations | 1993 | 1997 | 2003 |
|---|--|------------------------------|---|
| Industrialized countries | 10 | 8 | 5 |
| of which EU (excluding CEE countries) | 8 (Germany, Belgium, Spain, Italy, Lux., Portugal) | 6 (Germany, Spain, Portugal) | 4 (Germany, the Netherlands) |
| of which other OECD | 0 | 1 | 4 |
| Emerging countries excluding China ^(a) | 4 | 2 | 11 |
| of which CEE countries | 1 (Romania) | 1 (Poland) | 8 (Croatia, Hungary, Poland, Romania, Slovakia, Czech Republic) |
| of which South Mediterranean | 3 (Tunisia) | 0 | 3 (Algeria, Tunisia, Turkey) |
| of which South East Asia | 0 | 1 (Thailand) | 0 |
| Other | 0 | 0 | 1 |
| TOTAL | 14 | 11 | 21 |
| 5b. Inward of origin | 1993 | 1997 | 2002 |
| Industrialized countries | 8 | 1 | 6 |
| including EU (excluding CEE countries) | 5 (Germany, Belgium, Italy, the UK) | 0 | 6 (Germany, Italy) |
| of which other OECD | 3 (Switzerland, Japan) | 1 (the USA) | 0 |
| Emerging countries excluding China ^(a) | 0 | 1 | 0 |
| of which CEE countries | 0 | 0 | 0 |
| of which South Mediterranean | 0 | 1 (Morocco) | 0 |
| of which South East Asia | 0 | 0 | 0 |
| Other | 1 (Mauritius) | 0 | 1 (Russia) |
| TOTAL | 9 | 2 | 7 |

source: same as Table 2. (a) defined as countries with low salaries and technological capacities (Giraud, 1996)

Again our results converge with those of Aubert and Sillard¹¹ (2005, p.80). Following are remarks resulting from observation of destinations of outward relocations (Table 6a):

Salary costs do not explain everything. A big part of industrialized countries (10 destinations out of 14 in 1993; 8/11 in 1997; 5/21 in 2003), being in recession, contradict the general idea of relocations that result only from an attraction by the low cost of labor¹². Moreover, the significant number of “cross-flows” (inward and outward relocations) among industrialized countries, notably Germany, Belgium and Italy, for the same years and same sectors implies an important role of other relocation factors.

Companies’ globalization remains regional. More than two thirds of foreign relocations are focused on Europe (EU, CEE, South Mediterranean). The role of CEE countries that are either the part of EU or preparing to enter (Romania) is growing in regard to their participation in these relocations. The last two of these do not replace the establishments existing in Maghreb countries, even though the existing East European industrial base is likely to maintain such a threat. The double objective of this is the following: to settle on the emergent CEE markets (multi-domestic horizontal logic¹³); and to develop a production base on a European scale within a globally vertical logic gaining from economies of scale and economies of proximity¹⁴.

China effect. China is an idiosyncratic country because it is not only a production base but an attractive final market thanks to its scale effect. In fact, observed outward foreign relocations serve sometimes as a global strategy (replacing the original resident activities), or as a multidomestic strategy (as a substitute to the activities destined solely for exports)¹⁵. This tendency is validated by the growing Chinese labor costs (2005: +9,6% in the cities and +6,2 in the country¹⁶):

In total, most of the foreign relocations of the Rhône-Alpes region during the period of time in question concern neighbouring countries (Germany, Belgium, Italy, Spain), with CEE countries and China.

Two additional hypotheses can explain this fact:

i) a path dependency effect of Rhône-Alpes companies in regard to their history, which socially fits European networks and can be relevant either to functional networks (recognized commercial partners, financial partners, etc.) or to personal network of managers (family, acquaintances...). Another factor is an economic and geographic distance constraint: strategic area of the companies in question (previous

¹¹ However, two major differences appear in their results. For them: *i)* The weight of CEE countries is less than the one of Maghreb: we can think of a calendar effect as our study shows that CEE countries emerged in the beginning of 2000; *ii)* the weight of Spain is higher: a geographical bias concerning Spain is manifested in Rhône-Alpes.

¹² Aubert and Sillard (2005, p.72) obtain the same result (53% of jobs relocated towards developed countries).

¹³ The distinction between horizontal multidomestic and vertical global transnationalisation is taken from Perlmutter (1969) and Markusen (1995).

¹⁴ “Logan” Renault strategy serves as an example.

¹⁵ In addition, we observe that on the level of general mobility (Table 2) multidomestic strategy in China encouraged the companies based in Rhône-Alpes to realize there an additional production rather than relocation, via greenfield investments due to the newness of the Chinese market and its high growth: 8 creations of activities in China in 1997 (against 1 foreign relocation); 10 creations in 2003 (against 4 foreign relocations). This does not exclude the fact that China also takes advantage of foreign relocation coming from other Asian countries, for example, having attracted French relocations in 1970-80s.

¹⁶ National commission for the reform development (*China Daily*, quoted in *Le Monde*, the 18th of April, 2006, p.10).

geography of the headquarters, of the group, of production base, of historic markets...) is in half of the cases represented by the European continent.

ii) “demand” effect (of “stars” type in the BCG matrix): in the short term shortage of capital and labor resources the company prefers geographical zones the markets of which are increasing in *absolute* terms (not only China, but also UE and the U.S.A), and not only in *relative* terms (growth rate).

This relative geographical inertia justifies “nomadism” rather than “volatility” of companies (Chanteau, 2001). Moreover, as we will see below, destinations of foreign relocations often depend on the already existing company locations (own sites or those of contracted suppliers). From this perspective, foreign relocations can be also characterized by certain predictability.

III.2. Foreign relocations and building of market force

Three foreign relocations strategic objectives

Analysis of motives of foreign relocations (Table 8) results in the discrimination of several managerial objectives. Short-term commercial objectives are dominant: the company relocates in most cases to grow its market parts (“offensive” relocation) or to defend them (“defensive” relocation facing a demand in recession or aggressive rivals).

Also, we can distinguish “structural” relocations¹⁷: without any particular commercial objective, they tend to increase the profitability of the group in the short term (costs management) or in the long term (innovation efforts), by the restructuring of internal sites or after a merger/acquisition. This type of relocation represents almost one out of three cases. They can have weak macroeconomic effects (their inward-outward relocation balance is rather equilibrated in contrast to the two previous strategies, however their microeconomic effects are significant (a high number of personnel is concerned).

Table 4. Strategic factors of foreign relocations (Rhône-Alpes: 1993, 1997, 2003)

| | “outward” | | | “inward” | | | TOT AL | |
|------------------------------------|-----------|-----------|-----------|--------------------------------------|----------|----------|-----------|-----------|
| | 199 | 199 | 200 | 199 | 199 | 200 | | |
| | 3 | 7 | 3 | 3 | 7 | 3 | | |
| TOTAL “outward” | 14 | 11 | 21 | TOTAL “inward” | 9 | 2 | 7 | 64 |
| Defensive | 5 | 2 | 3 | Defensive | 3 | 1 | 3 | 17 |
| unitary cost reduction | 4 | 2 | 3 | unitary cost reduction | 3 | 0 | 3 | 15 |
| <i>economies of scale</i> | 1 | | 1 | <i>economies of scale</i> | 3 | | 3 | 8 |
| <i>salary costs</i> | 2 | 2 | | <i>salary costs</i> | | | | 4 |
| <i>“mixed”</i> | 1 | | 2 | <i>“mixed”</i> | | | | 3 |
| <i>access costs (transport...)</i> | | | | <i>access costs (transport...)</i> | | | | 0 |
| non-cost factors | 1 | 0 | 0 | non-cost factors | 0 | 1 | 0 | 2 |
| <i>differentiation</i> | | | | <i>differentiation^(a)</i> | | 1 | | 1 |
| <i>specific demand</i> | 1 | | | <i>specific demand</i> | | | | 1 |
| Offensive | 3 | 6 | 13 | Offensive | 4 | 0 | 1 | 27 |
| unitary cost reduction | 3 | 6 | 10 | unitary cost reduction | 3 | 0 | 1 | 23 |
| <i>economies of scale</i> | | | 2 | <i>economies of scale</i> | 2 | | 1 | 5 |

¹⁷ This category should not be compared to the “restructuring” item of the European Monitoring Center on Change that includes “bankruptcies”, “international relocations”, etc.

| | | | | | | | | |
|-----------------------------|----------|----------|----------|--------------------------------|----------|----------|----------|-----------|
| salary costs | 1 | 1 | 1 | salary costs | | | | 3 |
| "mixed" | | 1 | 5 | "mixed" | | | | 6 |
| access costs (transport...) | 2 | 4 | 2 | access costs (transport...) | 1 | | | 9 |
| non-cost factors | 0 | 0 | 3 | non-cost factors | 1 | 0 | 0 | 4 |
| differentiation | | | | differentiation ^(b) | 1 | | | 1 |
| specific demand | | | 3 | specific demand | | | | 3 |
| Structural | 6 | 3 | 4 | Structural | 2 | 1 | 3 | 19 |
| unitary cost reduction | 6 | 3 | 4 | unitary cost reduction | 2 | 0 | 3 | 18 |
| economies of scale | 5 | 2 | 4 | economies of scale | 2 | | 3 | 16 |
| salary costs | 1 | | | salary costs | | | | 1 |
| "mixed" | | 1 | | "mixed" | | | | 1 |
| access costs (transport...) | | | | access costs (transport...) | | | | 0 |
| non-cost factors | 0 | 0 | 0 | non-cost factors | 0 | 1 | 0 | 1 |
| differentiation | | | | differentiation ^(c) | | 1 | | 1 |
| n.k. | 0 | 0 | 1 | n.c. | 0 | 0 | 0 | |

source: same as table 2. (a) Quality of production. (b) Local brand image. (c) Personnel competencies for technical innovation

Means sought after: factors of cost competitiveness

The observation of the above named motives for relocation underlines the importance of cost advantages. An enforced competitiveness by the reduction of *unitary costs* motivates 85% cases of observed foreign relocations, against 15% that are due mainly to demand constraints or differentiation strategies (quality, brand, innovation capacities). As we will see further, this does not mean that companies are free from demand constraints but rather that the location of their offer is relatively free from the location of demand.

The search for unit costs decreasing lies in three dimensions:

Economies of scale. In spite of what most people think, the first reason for foreign relocations invoked by the companies (in almost 50% of cases) is the reduction of their fixed costs (notably, by an increase of use rate of existing infrastructures and equipment), rather than the reduction of labor costs. This fact explains "inward" foreign relocations (80% of cases) but also plays a role in a third of outward foreign relocations¹⁸. So, a typical example of a foreign relocation is the displacement of an activity (between two subsidiaries or by reinitializing subcontracting) in order to increase the productivity rate of a company's site and therefore reduce its unitary production cost with the help of economies of scale. That is particularly the case of "structural" relocations. In this perspective foreign relocations do not serve as indicators of competitiveness of the territory of origin but rather imply a choice of industrial organization made by firms.

Labor costs. Labor cost savings are the second dominant motive for foreign relocations. Rarely being the only decisive criterion (8 cases out of 64), it is more often "mixed" in an attempt to achieve global productivity (the receiving site offering a combination of capital and labor productivity superior to the one of the site of origin). In other words, the relevant decision criterion is unitary cost and not only hourly labor cost (Bouba-Olga, 2006). In total ("labor cost" + "mixed" motives), labor costs motive accounts for more than a third of foreign relocations. It is, in particular, an important motive for "defensive" foreign relocation (41% of this type of foreign relocations).

Market distance. The idea of reducing the market distance (delivery deadlines, transportation costs...) is seen as a priority in nine cases of foreign relocations. This motive usually stems from "offensive" strategies that anticipates an increase in sales on a distant market (a typical reason for the transition from exporting activities to production abroad: 7 cases out of 9)¹⁹.

¹⁸ Detailed understanding of this logic is provided by monographic studies on foreign relocations Hoover in 1993, from Bourgogne to Scotland (for the summary: Chanteau, 2001, pp.170-172).

¹⁹ By definition, this type of foreign relocation is not taken into account by Aubert-Sillard method, however it could be considered by looking also for correlations between the decrease in personnel and decrease in exports (instead of decrease in imports) of a company.

c) Other means sought after: non cost-related factors of foreign relocations

Non cost factors of competitiveness (7 cases observed) were given priority to in three types of situations:

relocation while facing an existing risk (quality problem): 1 case

attractiveness to a local factor of differentiation (national brand, public research center): 2 cases

access to a protected market, represented here by distance from the site of origin to the demand in question (Salais and Stroper, 1993): maintenance or obtaining of a subcontracting contract is often possible only by means of establishment in the zone of geographical proximity with the contractor in order to satisfy the need of reactivity (synchronized production...), or a local adaptation of a product: 4 cases observed.

In the half of the cases the dominance of these non-cost factors signifies a strategy of an “offensive” relocation strategy.

d) The three typical foreign relocation strategies

In total, our study defines three types of foreign relocation strategies, according to their motives and management style:

Table 5. The three typical foreign relocation strategies

| | “Offensive” (28 cases) | “Structural” (18 cases) | “Defensive” (17 cases) |
|--------------------------------------|---------------------------|----------------------------|---------------------------|
| Cost advantage type | cost of market access | fixed cost | fixed+labor cost |
| Search for non-cost advantages | yes (if access barriers) | | |
| Dominant logic | Multi-domestic | global | global |
| Dominant type of receiving countries | similar or in recovery | similar or in recovery | low labor cost countries |

Such diversity, being normal for strategically analysis of firms, is a remarkable result, finding itself in contrast with common views on foreign relocations.

IV. – Foreign relocations strategies : different options

Economic analysis of foreign relocation has most often adopted the approach in terms of allocations of firms and countries (Mucchielli, 1998; Saluelson, 2004; Bhagwati *et alii*, 2004). In their simplified version, foreign relocations (assimilated to FDI) would be determined by matching of specific advantages (initial allocation of a firm) and comparative advantages (initial allocation of host country and the country of origin) until the exhaustion of possibilities of production factors mobility, as in the specific factor models of the Ricardo-Viner-Jones type.

On the contrary, the contribution of international industrial economy and spatial economy (McCann, Mudambi, 2004) leads to the approach in terms of competitive advantages construction, rather than initial allocation, with a possible instability and even an inversion of these advantages. In fact, our study shows a non-determinism and heterogeneity of foreign relocation process: auto-reinforcing and auto-limiting factors simultaneously slow down relocations. The weighting of these factors depends on the type of transnationalisation (multi-domestic vertical or horizontal logic), which varies according to the positioning of the firm in its sector (range level, innovation capacity, access to factors, etc.). This strategic diversity of foreign relocation can be *a priori* seen as counterintuitive, however, many of those who came to the conclusion that the pursuit of economy on costs was the only motive for a foreign relocation

limited their observations only to emerging countries with low labor cost. In addition, our result corresponds to the one of Aubert and Sillard (2005) and, moreover, to the idea of the diversity of ways of the globalization of firms (Mouhoud, 2006)²⁰.

Therefore, we tried to investigate how offer and demand interact in order to understand the dynamics of foreign relocations. In fact, even when it complies with the idea of cost advantage, a foreign relocation is not an entirely autonomous strategy, because it can be limited by the exogenous demand regimes (sectoral or territorial). The analysis will now focus on the respective weight of these determinants on the macroeconomic level or on the level of a group.

IV.1. The weight of geographical differentials of demand

The structure of demand remains a fundamental determinant of transnationalisation. Therefore, all the models of investment localization (“horizontal”, “knowledge capital”, “gravitational”) include this aspect (Ferrara and Henriot, 2004). It is known that since the end of the 19th century the transnationalisation of firms has corresponded to the multidomestic logic. However, we can note that today the question of localization and access to demand comes before the one of localization of production.

In our study, this demand structuring can be particularly observed with the help of “cost of access to demand” and “proximity to specific demand” criteria, while analyzing the motives of foreign relocations (13 cases out of 64). Sensibility to demand dynamics is a characteristic of “offensive” foreign relocations (which are often declared as substitutes to exports), but is also observed in the case of “defensive” foreign relocations²¹ (as a response to demand recession, imposing either an effort of price competitiveness or a market diversification: 7 cases out of 17) and “structural” foreign relocations (production restructuring following a commercial error on a line of products or an R&D restructuring in order to anticipate or build a new demand: 3 cases out of 19). Thus, a foreign relocation cannot be defined as a disassociation between the place of production and consumption.

In total, a third of foreign relocation is structured by demand limits (two thirds of which by final demand). Food and machinery sectors (serving automobile industry, construction and household equipment) are good examples of this conclusion.

IV.2. An increase of the importance of global strategies

Yet, globalization of transnationalization (search for better conditions of supply disregarding *localization* of demand) has become a dominant way of action for certain standard final products and for intermediary products. If we evaluate its weight by the appearance of “labor costs” and “mixed: labor costs + fixed costs” motives and “structural” foreign relocations (that by definition are rather indifferent to *localization* of demand), the global logics explains 35 cases of foreign relocations out of 64. It characterizes “structural” foreign relocations and is a symptom of “defensive” foreign relocations (7 cases out of 17).

However, destination of foreign relocations is not a certain proof of the tendency towards globalization. As indicated *supra*, relocations take place for the most part in the countries likely to represent the zones of fast growing final demand (CEE, East Asia) and can therefore serve as a double objective of a global strategy (for the

²⁰ In this way our approach rather agrees with knowledge capital models (Carr *et alii*, 2001).

²¹ That are often “inward” foreign relocations, searching for scale economies on the existing site in Rhône-Alpes.

demand of the country of origin) and multi-domestic (for the demand of the receiving zone).

IV.3. Choice of the foreign relocation place managed by network effect

We know that the choice of the host country comprises a certain number of pre-conditions that allow to the decision-maker elaborate a short-list of eligible countries (Michalet, 1999; Mayer and Muchielli, 1999), before clarifying these criteria in order to make a final choice. In our study this choice largely depends on the industrial network of which the foreign relocation decision-maker is already a part.

This network effect can be seen on several levels:

“structural” foreign relocations that result either from relocation of activities between existing sites in subsidiaries and subcontractors or from re-insourcing (19 cases); certain criteria restricting the destination of offensive and defensive foreign relocations: i) “an existing site” within a group (5 cases), within co-investors in a joint venture or in an economic grouping (3 cases) or within subcontractors (2 cases); ii) “moving of the contractor”: 2 cases.

In total, network effect concerns 31 cases of foreign relocation. It is often organized into a hierarchy (group, contractor/subcontractor...). More importantly, in our study it appears as a major structural factor for the progress of foreign relocations, and, beyond that, for the transnationalisation of firms: a successful foreign relocation makes future foreign relocations easier (to a certain degree in the beginning, and more thoroughly after) that benefit from internal scale effect (depreciation of initial fixed costs, know-how), or external scale effect (a denser industrial base for the relocated activities). This is a typical process for the clothing industry (notably in Tunisia) and for foreign investment in CEE (mechanics, technology of plastics...). As a foreign relocation is more often just a way of adjusting the residual of a firm’s production forces (for example, when the activity is slowed down following a drop in demand to the breakeven point of the establishment), it can also serve as a support for the development of new industrial strategies.

V. – Conclusion

In total, foreign relocations do not appear as a frequent and general practice for the observed period and for our corpus (increase observed in 2003 compared with 1997 is only a *trend* of growth). Foreign relocation can stem from a diversity of motives beyond cost advantages, which is a counterintuitive observation. The latter motive is not surprising: representing an adjustment variable for the management of evolution of production tools, it provides the possibility to newly create a diversity of organizational strategies and modalities of globalization. In this way foreign relocations take part in a structural tendency to move geographically the strategic “centre of gravity” of firms’ sales and production activities. The latter tendency facilitates these activities without however accelerating them.

Thus, the role of foreign relocation cannot be marginalized. In fact, the analysis of the three identified typical foreign relocation strategies highlight the interpretation of global and multidomestic logics, which is a major but recent feature of company globalization.

a global strategy (in some elements of the value chain) can serve as a multidomestic strategy (reducing the cost of the part realized abroad to the level demanded by conditions of local demand for the final product). This possibility depends on the modularity of the end-product and the company’s capacity to manage international segmentation of its value chain.

Inversely, a multidomestic strategy can be assimilated to a global strategy: this is a case where a demand abroad that leads to a company's foreign relocation comes from a globalized activity of another company (for example, a subcontractor relocating in order to respond to an international segmentation of his contractor).

The resultant of different dynamics in action lies essentially in the *continentalisation* of industrial production systems (Frankel, 1998) according to the "meshing" process of the world economy (Dollfus, 1992). At this point it would be useful to better clarify the dynamics of interactions between the productivity benefits, supply and demand strategies, not mentioning the future evolution of foreign relocations, public policies that are relevant facing globalization of firms. In this perspective, it is necessary to extend the research to a longer period and to more detailed measures of employment changes.

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