The Decision-Making Process of Relocations:
What, Where, How and Why?

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Les choix de délocalisation : quoi, où, comment et pourquoi ?

Résumé

Récemment, l'évolution qualitative des mouvements de délocalisation (des délocalisations motivées par les différenciels de coûts des facteurs aux mouvements touchant des activités intensives en technologie) est devenue une préoccupation centrale dans le débat politique. En plaçant la focale sur ces nouvelles tendances, l'objectif de ce papier est de mieux comprendre les délocalisations en resituant les décisions des firmes dans leur contexte sectoriel et spatial. Dans une première partie, nous proposons d’adopter une définition large des délocalisations, considérées comme une dimension spécifique de la mobilité des entreprises. En posant que ces mouvements sont issus de processus temporel et décisionnels, nous croisons trois dimensions analytiques pour en rendre compte : les délocalisations s’inscrivent dans une problématique productive (l’« espace relationnel» de la coordination); elles doivent être resituées dans leur dimension territoriale (l’« espace géographique») et elles sont le résultat d’un processus de décision complexe (l’« espace politique» des rapports de force). La question productive est analysée dans la deuxième partie de l’article à travers la grille proposée par l’économie de la proximité. Nous croisons ensuite cette approche avec une conception plus institutionnaliste de la firme permettant de tenir compte des rapports de force entre les quatre principales parties-prenantes de la firme (relation financière, relation salariale, relation commerciale et relation d’approvisionnement). La grille est finalement appliquée au cas particulier de l’Aquitaine, afin d’identifier les conditions d’ancrage et mobilité des entreprises dans cet espace régional.

Mots-clés : Délocalisation, Mobilité, Coordination, Proximité, Economie politique


Abstract

In the recent years, the qualitative evolution of relocations (from low cost offshoring to more technological intensive relocations) became a new concern in the political debate. Focusing these new trends, the aim of this paper is to better understand relocations from the firms’ point of view within their regional and sectoral contexts. In the first part, we reformulate relocations by adopting a broad definition of them, considered as a specific dimension of firms’ mobility. Considering that relocation is a temporal and a decision-making process we then cross three analytical dimensions (referring to three analytical spaces): relocations as a productive problem (“relational space” for coordination); relocations in a territorial dimension (“geographical space”) and relocations as a complex decision process (“political space”). The relational space for coordination is analysed in the second part through the concepts of the economics of proximity. We then cross this approach with an institutional conception of the firm by articulating the four main relations at the firm and sectoral levels (financial, labour, commercial and purchasing relations). The grid is finally applied to the specific case of Aquitaine in order to identify the conditions of anchoring and mobility of firms in space.

Keywords: Relocation, Coordination, Proximity, Mobility, Political Economy

JEL: F23, L23, R30


Introduction

The phenomenon of relocation is not new. According to Michalet (2007), it was first spoken of in the 1960s to describe production sites set up to supply local markets while minimising transport costs and avoiding protectionist regulations. Relocations motivated by the desire to reduce wage costs first appeared in the 1980s. The growth in number of such relocations has been interpreted as a manifestation of the globalisation of economies associated with the geography of Fordism or with the life cycle of products. Relocations are thus no longer seen in terms of being a “problem” but as a solution to cope with international competition.

According to traditional theories of international trade, relocations thus form part of a process which is normal and globally beneficial for growth. The choice of locality being made on the basis of a rational calculation depending on the factor endowments of a given space, companies from developed countries have tended to relocate production processes which require a low level of technology and which have arrived at maturity. Developing countries, which do not carry out much innovation, take on these processes whereas the developed countries, which continue to innovate, find it advantageous to specialise in the production of goods with higher added value. Such reciprocal specialisation leads to an exchange which is beneficial to all the partners. This effect, known as a substitution/compensation effect, acts over time: relocations are, in the short term, destructive of jobs among low-qualified workers at the local level (certain regions) in the country of origin, but these losses are compensated for at the macro level (the whole country) in the longer term because the improvement in competitiveness of companies leads to an increase in market share and the creation of new jobs for more highly qualified workers. Relocations thus form part of the normal activity of a global economy.

This premise is the basis of recommendations for economic policy on the subject (OECD, 2007) which are limited to a series of corrective measures occurring naturally during the transition phase (minimisation of the social and economic costs of the relocations) but which assume that the country concerned will proceed to a structural adjustment of its economy in the longer term (more flexible labour markets and products, adaptation of the economy to the new productive specialisations which globalisation opens up for them, etc.). By focusing on short-term effects, relocations are exploited by politicians in order, ultimately, to justify a programme of structural adjustments through flexibility. This exploitation is particularly visible in times of economic crisis.

This reading is based on an appreciation of relocations which is too restrictive, leading, on the one hand, to an erroneous estimation of the importance of such economic restructuring and, on the other hand, to a demonization of these same processes by over-publicising the operations which are, in reality, not very numerous.

This paper puts forward the idea that, in order to talk about relocations, it is imperative that one goes beyond the question of measuring the phenomenon to favour an analysis of the processes of delocalisation and their rationality (section 1). This implies having an interpretive framework enabling one to articulate the temporal, spatial and political dimensions of these processes. This framework is explained in two parts in this paper. First (section 2) the desire to break away from the allocative or contractual vision of companies to privilege a more productive approach leads us to consider the contribution of the French School of Proximity which offers an analytical framework centred on questions of coordination (geographical and relational spaces). It is then possible to formulate a certain number of hypotheses on the sectorial potential of relocation (the “what?”), on the choice of location (the “where?”) and on the organisational systems adopted for the relocations.

The empirical elements presented in the paper come from the first results of the ESCAPE research project whose principal objective is to provide an analysis of relocations by sector (approached through the strategies and behaviour of companies) and at the Regional level based on interviews with those concerned (managers of parent companies and of relocated entities, local authority managers, industry experts, etc.). A presentation of ESCAPE and of its enquiries is contained in Appendix 1 (forthcoming).

1. The reformulation of relocation: from the quantification of operations to the qualification of processes

Empirical studies carried out on relocations reveal a certain number of preconceptions and new trends which, on the one hand, go against traditional understanding of them in terms of the compensation effect and the core-periphery model and, on the other hand, encourage their reformulation in terms of mobility processes. As a consequence the question must be asked as to which analytical frameworks allow one to have a comprehensive view of the phenomenon.

1.1 Preconceptions and reformulation

The demonization of relocations by the media and politicians is based on an initial preconception: relocations are an important factor in destroying jobs. Now, according to the various statistical evaluations and as far as one can measure it, the direct impact of relocations on the level of employment remains marginal at the macroeconomic level. Although recent trends show an acceleration of the phenomenon, it appears to have little impact on employment. However, one must remember the extent to which the notion of relocation is vague and presents problems of measurement (Arthuis, 2005; Aubert and Sillard, 2005; Boubat-Olgla, 2006; Mouhoud, 2006; OECD, 2007). Quantification pre-supposes that the phenomenon can be identified and the only identifiable relocation operations are those which relate to the definition stricto sensu which considers that there is relocation if a “foreign” production site totally replaces a national production site. Since this quantification underestimates the phenomenon (Chanteau, 2008; Coris et al., 2010) it should not be used as the only basis for political recommendations on the subject.

It is, moreover, even more difficult to evaluate relocations given that the analytical level chosen, that of the nation, is not necessarily the level at which their impacts are felt. A strong trend emerges from all the studies carried out into the question (in particular those of the INSEE and the OECD): the impacts of, and the issues relating to, relocations are local. The positive and negative impacts on employment and on the productive base, whether or not they are compensated for at the national level, are felt differently, and can last for a long time at the local level (relocations affect different classes of workers differently, the least qualified not always being able to retrain for more
highly-qualified jobs). The interest of a purely quantitative approach carried out at the national level may already be seen to be questionable.

Beyond this reconsideration, the very mechanism of the effect of substitution/compensation in the association between relocations and low-tech industries is contradicted by three recent trends: new forms of relocation that affect activities with high added value and highly-qualified jobs (R&D centres, decision-making centres, etc.); the rise of emerging countries which are beginning to compete with companies from developed countries in markets which the latter believed to be protected (Coris and Rallet, 2008) and relocation of production activities from the South to the North. It would thus appear that relocations are more complex than simple transfers of low-tech activities motivated by differences in wage costs.

The next idea refuted by a reading of the empirical analyses is that relocations are always carried out towards “low-cost” countries. According to the INSEE (Aubert and Sillard, 2005) a slight majority (53%) of relocations take place between developed countries. We can thus note that however counter-intuitive it may appear, just as many relocations take place towards developed countries as towards low-cost ones.

But the direct surveys\(^3\) of companies contradict in particular the explanation of relocation by differences in wage costs. If this motivation does affect the decision, the hierarchy of criteria given by the companies to justify their “relocation” does not show wage costs as being the predominant motivation, even when the relocation is towards a low-cost destination and corresponds purely to a process of substitution\(^4\). On the contrary, the surveys show that there is a large range of determining factors, including the company wishing to re-centre on its core activities and the search for complementary external skills. Above all, a significant proportion of relocations are carried out under constraint from the stakeholders in the company, shareholders and clients (prime manufacturers and final clients).

These few facts lead one to question the rationality of relocations. In our opinion the reformulation of relocation in terms of a mobility process leads in two directions.

Firstly, a wide and open definition of relocation should be favoured. One might adopt, for example, that of the French Finance Commission (Arthuis, 2005): at the microeconomic scale, relocation includes all the arbitrages made by companies which are unfavourable to the localisation of activities and/or jobs within the country. This definition (extensive in the sense of the OECD, 2007) only increases the problem of measurement because it becomes even more difficult to quantify that which really relates to relocation in companies’ internationalisation strategies. But it has the undeniable advantage of reflecting the complexity of the phenomenon, in other words placing the phenomenon within the totality of the decision-making process of the company.

Secondly, it is necessary to question this very decision-making process by considering that relocations are only a stage in the mobility of companies, often the results of a long process over time (partial outsourcing, establishing local sites...). It becomes impossible to try to understand them in terms of strict relocation operations. The refusal of relocation, aborted projects, reverse relocations, relocations “masked” by sub-contracting: these are all manifestations of the same phenomenon. In this case the whole decision-making process must be analysed.

\(^3\) A synthesis of these studies is presented in Coris et al, 2010. The main ones were carried out by the AFCCI in 2005, by KPMG in 2003, 2004 and 2005, by A.T. Kearney (OECD, 2007) and by Ernst and Young in 2009.

\(^4\) These results are confirmed by our study: the cost argument (in a more general sense than purely wage costs) is systematically evoked or invoked by company managers... but is accompanied by a chronically imprecise ex-ante calculation.
1.2 Which analytical frameworks to use?

From an analytical viewpoint, as indeed from that of political recommendation, a direct implication of what we have said above is that the rationality of the decision-making process must be questioned. Relocations being only one stage in the choice of localisation (of the process), they must be considered as part of the mobility of companies. This can be done by analysing four questions: which activities are potentially re-locatable, where do companies choose to relocate, under what organisational structure and why is the decision to relocate taken? The company is thus understood at the same time as a productive entity (coordination of activities, internally or externally, distant or not) and as a decision-making entity (relocations are decisions made by companies, the result of a negotiated decision-making process).

The choice of localisation of companies is the subject of numerous analyses from at least three fields of economic analysis: international trade theory, economic geography and strategy and international business. Beugelsdijk, McCann and Mudambi (2010) show how these three fields, each initially centred on questions that were specific and independent of the two others (relationship between location and comparative advantage for international trade theory, relationships between location and space for traditional economic geography and relationships between location and the organisation of economic activity for strategy and international business), progressively opened up from the 1990s.

As is well known, the introduction of geography into mainstream economic models has given rise to the New Economic Geography (Krugman, 1991) analysing in particular the micro-economic fundamentals of spatial heterogeneity in a framework of general equilibrium (Fujita et al., 1999). One of the main pillars of this school is the core-periphery model (Krugman, 1991) for which the application to relocation consists of analysing the distribution of economic activities between “north” and “south”, design being carried out in the “north” (the core) while the production can be sent to the “south” (the periphery). The model is based on the assumption that design and production are separable: this assumption appears questionable to us.

For its part International Trade Theory, which focused traditionally on macroeconomic questions and only considered companies as representative types, now includes the strategic behaviour of multinational companies to make models of general equilibrium more realistic (Markusen, 2002; Barba, Navaretti and Venables, 2004); Ravix and Sautel (2007) provide a critical review. A certain number of questions are identical to those that we have asked, particularly those relating to organisational structure (make or buy) and to the choice of localisation (in a north/south dichotomy). The heterogeneity of the behaviour of companies is introduced by differences in productivity. This approach has given rise to a multitude of papers (Beugelsdijk et al., 2010) among which those of Antras (Antras, 2003 and Antras and Helpman, 2004), emblematic of the introduction of the logic of companies in the sense that he affirms that the choice of locality and the choice of an organisational structure are indissociable. He concurs with Vernon’s (1966) theory of product life cycle according to which relocations take place progressively during the product life cycle but, although our approaches differ fundamentally, he highlights above all two results which are close to...
those which we propose (section 2): the diversity between industries and the within-industry heterogeneity of company strategies.

In effect, apart from the systematic reference to the core-periphery model which prevents the consideration of recent trends in relocations, it is above all the reference to the contractual approach of the company (in the sense of property rights in an approach similar to that of Hart and Moore, 1990) and to the hypothesis of underlying rationality which poses problems for the analysis which we think should be made. The reference to substantive rationality (or limited to the sense of informational limits alone) does not allow decision-making procedures to be analysed, in particular over time (the approaches are in fact static) in the same way that the making of decisions, seen only in terms of the arbitration between different production and transaction costs, does not allow one, for example, to take into account “relocations under constraint” imposed by clients or manufacturers.

These contributions are certainly important, in particular in relation to traditional theories of international trade which these approaches tend to make more realistic (Ravix and Sautel, 2007). But if their objective is to introduce companies’ strategies into models of general or partial equilibrium (which of necessity requires the reduction of complexity to a few major facts which are stylised and can be modelled), our ambition is quite different because we wish to reverse the approach, in other words to start from the complexity of real trends in order to, if possible, feed into the stylised facts which form the basis of these hypotheses.8

The reference to rationality and to contractualist approaches (this time in the sense of the theory of transaction costs following the work of Williamson) is also what will differentiate us from Strategy and International Business approaches. In their introduction to the special issue of the Journal of Economic Geography devoted to economic geography and the multinational company, Beugelsdijk et al (2010) underline the fact that international business, by “integrating a discussion of firm organisational issues with the characteristics of the sub-national region is essential for better understanding the interplay between the MNE and its spatial environment” (p.489). Moreover Dunning (2009, p.30) explains himself that the OLI paradigm has become progressively detached from an analysis undertaken in terms of minimising costs to focus “on the ways in which the global competitive advantage of firms can be enhanced by learning and clusters; and on the reduction of cross-border transactions costs in a complex MNE system”. One finds a certain number of hypotheses and results of analyses which we propose in terms of coordination (section 2), in particular: the taking into account of a distance (proximity in our terms) as a multidimensional construct (cultural, administrative, geographical and economic distances, see Ghemawat, 2001); the empirical evidence that increasing levels of cultural, institutional and geographical distance not only lead to lower levels of cross-border investment (Beugelsdijk and Frijns, 2010) but also that the different notions of distance affect market-seeking FDI and efficiency-seeking FDI in different ways (Slangen and Beugelsdijk, 2010).

Our comprehensive analysis of relocations thus tends to differentiate itself from all these approaches on the question of rationality. Our approach is to elucidate the behaviour of companies by reconstructing their trajectories in space and in time (before and after relocation operations). Following on from what was underlined in section 1.1, it emerges that the rationality credited to agents can only be procedural in Simon’s sense because it involves analysing the processes of decisions which lead to and which accompany relocations. These decisions are taken in an uncertain world and may be revised (reverse relocation, ex post rationalisation). They may thus be judged to be

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8 It is highly fortunate that certain of our results converge.
unsatisfactory or irrational from the point of view of the organisation, but also in terms of their aggregation at the level of a region, an industry or group of activities. For example, if certain relocations are “rational” from an individual point of view, they may, when viewed as a whole, lead to deindustrialisation or to the loss of specific skills in a given region (we think here in particular of the knock-on effects on the network of sub-contractors, often underestimated, because indirect, in quantitative analyses). In the same way, considering relocations as processes can lead one to question the public policies that should be put into place. In effect, public action does not necessarily need to intervene before the operation (in the form of prohibition, or more generally condemnation) or after the relocation (for example relocation subsidies) but during the process which leads, or not, to the relocation.

This objective requires that the three “spaces” that we have proposed in this first section be considered together: the physical (or geographical) space, the relational space (coordination) and the political space (the struggle for power and control). It would thus seem to us that, in order to give a full account of relocations, it is necessary to give priority to a more productive vision of the firm, leading to the question of the coordination of the entities engaged in economic activity, and a more political vision, allowing one to take into account competition and power struggles in the decisions concerning relocation. The necessity to change the geographical scale leads us to place the analysis from the start at the subnational level; because it is at this level that the effects of relocations become manifest and that the decisions of companies may be placed in context.


The French School of Proximity provides a response to the first issue relating to the meeting between the physical space and the relational space by introducing the notion of situated agents: the agents are situated in the sense of their localisation but also in the sense of their position in a network of inter-relationships which conditions their activities (Rallet, 2000).

Applied to the theme of relocations, the analytical grid meets two objectives. In the first place, it allows one to draw up a typology of activities which are potentially re-locatable, taking into account variation between industries. The typology is based on an analysis of the links between the characteristics of the industries (including factor endowments) and factors relating to coordination at a distance. In the second place, the approach takes into account the within-industry diversity of relocation strategies, particularly in terms of place (countries, regions) and organisational structure (sub-contracting, greenfield investment, etc.) of the relocations.

2.1 Overview of the analytical grid: from proximity to location

By articulating the two dimensions – spatial and organisational – of coordination, the French School of Proximity permits the analysis of agents who are spatially and organisationally located, the role and the weight of local and non-local being deduced from the analysis of the activity. Two notions, geographical proximity and relational proximity are brought into play: the first corresponds to the objective conditions of location of the agents and the second to the conditions necessary for their coordination (Torre and Rallet, 2005).

Adding in the factor endowments of the spaces (allocative vision), geographical proximity translates the distance in kilometres which separates two entities (individuals, organisations...) weighted by the time required and the transport costs. At the same time geographical proximity is a

9 For recent syntheses see Bouba-Olga, Corris and Carrincazeaux (2008) or Carrincazeaux, Lung and Vincente (2008)
social construct (Gilly and Torre, 2000), notably dependent on the policies implemented in order to modify physical access time (transport infrastructures) and virtual access time (IT infrastructures), but above all related to the type of activity concerned. Relational proximity is described in relation to two dimensions (Kirat and Lung, 1999): institutional proximity, defined as “adherence of agents to a common set of representations, rules for action and ways of thinking”; organisational proximity, referring to the mode of coordination within an organisation, considered as a: “space for the definition of practices and strategies of agents within a set of rules underwritten by institutions”.

The basic hypothesis is that proximity supports interactions, and that the need for interactions depends on the complexity of the knowledge base (Carrincazeaux et al., 2001). This idea is inspired by the evolutionist tradition (notably Breschi and Malerba, 2000) by using the distinction between knowledge of components and systemic (or architectural) knowledge to understand the role of proximity in product development. Following Veltz (1996), these two main knowledge types can be converted into complementary dimensions of complexity in the knowledge base: combinatorial and technological complexity.

Technological complexity, defined as the renewal frequency of the knowledge base, refers to the technological aspects of learning. This implies taking into account the degree of skills novelty that may affect existing routines for coordination. The frequency of such renewal depends on the level of technological opportunities, and on the degree of standardisation of production. Symmetrically, combinatorial complexity reflects the difficulty of ensuring the consistency of diverse and numerous pieces of knowledge. This complexity has two quantitative (the number of people to be coordinated modifies the organisational constraints and the possibility of coordination at a distance) and qualitative dimensions. The qualitative side is fundamental, because the difficulty of combination is mainly due to the heterogeneity of skills: the problem then lies in the establishment of a common language necessary to the coordination of practices and routines which may be very different. The need for interactions can be inferred by associating these two dimensions of knowledge complexity. When the productive process relies on the association of different fields (from a technical or functional point of view) of emerging knowledge, interactions are frequent and may need face-to-face contacts. Of course, when combinatorial and technological dimensions are weak, proximity is not a condition for coordination. Other intermediary situations may lead to different proximity arrangements (for a synthesis, see Carrincazeaux and Coris, 2011), but what is central is the interplay between the complexity of the knowledge base and interactions.

Then comes the problem of the actors involved, agents or institutions that are in interactions, e.g. the articulation of different functions; both internal and external to the firm. We thus define critical interfaces as critical nodes of coordination in which proximity relations can be critical in the direction of learning processes (Pavitt, 1998). This definition is designed to take into account the diversity of the sources of technology and the specific modes of coordination developed. Critical interfaces allow the passage from proximity to location by specifying the actors involved in the interactions. The first level concerns interactions internal to the firm: the link between research and production (separation of design and production) or type of production and relation to the market (dedicated or generic products) in the tradition of the chain-linked model of Kline and Rosenberg (1986). These interfaces correspond then to the articulations between the different functions within the firm. At a second level, the critical interfaces concern external relations in the functional sense (position and interactions in the value chain) but also in the more generic sense of external

10 Quite simply, the judgement made in terms of proximity is not the same depending on whether one considers, for example, the accessibility of a bakery (immediate proximity) or of a specialised supermarket (suburb).

11 This distinction, close to that of synthetic and analytical knowledge (Asheim, 2007 and Cooke et al., 2007), is more oriented towards a distinction between technological and organisational skills, in order to take into account the context of coordination.
technological sources (horizontal relations or links to science in the evolutionist tradition). In this way, location analysis is deduced from the organisation of the firm in the tradition of Kenney and Florida (1994) and Malecki (1985). At the level of each interface there may be substitutability between the forms of proximity (between face-to-face and distant relations) and dynamic evolution over time (temporary geographical construction of proximities authorising distant relations). Localisation becomes the outcome of the different forms of proximity at the level of each critical interface.

Initially developed for the analysis of innovation activities (Carrincazeaux et al., 2001), this grid may be applied to relocations because the problem really is that of coordination at a distance. In particular, the notions of critical interfaces and knowledge base are at the heart of the debate on the design-production divide.

2.2 Proximity and relocation: variation between industries and within-industry variability

The following proposition may be formulated: factors leading to a reduction in the requirement for geographical proximity favour relocations, which must however be supported by an organisational proximity and an institutional proximity in order to ensure the effective coordination of entities and individuals (Coris, 2008). Broadly speaking, geographical proximity mainly answers the question “what?”, while organisational and institutional proximity answer the questions “where?” and “how?”. Table 1 synthesises the detailed propositions.

Table 1

<table>
<thead>
<tr>
<th>WHAT</th>
<th>WHERE</th>
<th>HOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of ICT (extends distant relations)</td>
<td>History of the firm and previous locations (institutional learning about space)</td>
<td>Trade-off on outsourcing (organisational distance, specific assets)</td>
</tr>
<tr>
<td>Increasing mobility (temporary proximity)</td>
<td>Norms and certification (institutional and organisational dimensions)</td>
<td>Control of technology and knowledge (need for shareholder control of IPR, secrecy…)</td>
</tr>
<tr>
<td>Modularity (interfaces for coordination)</td>
<td>Regional characteristics (proximity of the educational system, language - institutions)</td>
<td>Institutional and organisational proximities (common language, rules, “cognitive” proximity or asset complementarity)</td>
</tr>
<tr>
<td>International norms and certifications (facilitate distant coordination)</td>
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Working on the hypothesis that the spatial organisation of the firm depends on the ability to coordinate distant functions, four factors relating to coordination at a distance, acting differently depending on the industries and the functions under consideration, facilitate, à priori, the decoupling between choice of location and geographical proximity:

- **use of IT**, which means that a significant quantity of the interactions necessary for coordination may be carried out at a distance;
- the (physical) **mobility** of agents, taking into account the complexity of the interactions, is one of the determining factors in the choice between distant relationships and face to face relationships (Carrincazeaux, Lung, Rallet, 2001);
modularity, which favours remote coordination because the breaking down of products into independent modules, both in terms of design and production, allows spatial disjunction of the teams responsible for the development of products and for their manufacture (Moati and Mouhood, 2005; Frigant, 2005);

- the existence of international certification and standards, which facilitate the division of work between different production sites and remote control by means of evaluation on the basis of objective criteria.

These four trends affect the spatial organisation of activities in terms of critical coordination interfaces, particularly because the requirements for geographical proximity may be expressed not in a permanent way but temporarily, during certain phases or at certain stages of the activity. Geographical proximity becomes temporary (Rychen and Zimmermann, 2008; Torre, 2008) and it may, for example, take the form of delegation of personnel or of meetings at different stages of the production process. It allows coordination at a distance at a distance of certain functions, according to variable industry-related logic dependent on the main knowledge dynamics and critical interfaces involved. Table 2 synthesises the first results of industry-related studies carried out as part of the ESCAPE project and provides an industry-by-industry typology of the potential for relocation.

### Table 2

<table>
<thead>
<tr>
<th>Sectors under study (Typical sectors)</th>
<th>Main knowledge dynamics</th>
<th>Critical interfaces</th>
<th>Relocations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Automotive (Assembly industries)</strong></td>
<td>High compositeness, exploration and exploitation (depending on products)</td>
<td>Production / design, related variety, link between other industries (for instance between automotive and electronics industries). Growing modularity</td>
<td>Low cost relocations for “simple” products or components (modularity), follow sourcing logic</td>
</tr>
<tr>
<td><strong>Aeronautics (Systemic industries)</strong></td>
<td>High compositeness and exploration</td>
<td>Production / design, co-design and development – Search for modularity</td>
<td>Difficult in low cost countries except for some “simple” components</td>
</tr>
<tr>
<td><strong>Pharmaceuticals / biotechs (Science-based industries)</strong></td>
<td>Growing compositeness but inside firms, high technological complexity, accessing external knowledge (knowledge modularity)</td>
<td>In the biotech paradigm external relations (and notably with science) are more important, growing links between design and production also</td>
<td>Access scientific knowledge, generic products in low cost countries. Relocations for some tests</td>
</tr>
<tr>
<td><strong>ICT, software, KIBS (Engineering services)</strong></td>
<td>Depending on product type: dedicated or generic. High compositeness through modularity.</td>
<td>Users for dedicated products. Conception/production, technical interfaces</td>
<td>Relocations on generic products, textile “model” thanks to modularity</td>
</tr>
<tr>
<td><strong>Textile and « textile model » industries (Supplier dominated industries)</strong></td>
<td>Generally low compositeness, more exploitation knowledge</td>
<td>High separability between design and production. Proximity to markets is important</td>
<td>Emblematic sector for relocations</td>
</tr>
</tbody>
</table>

Here we are concerned with potential: that which is or which could be re-located. For relocations to be effective, they must be supported by two other forms of proximity (organisational and institutional). These can thus limit the potential for relocation but, above all, they provide information about the geographical location and the organisational form of relocations. Beyond the within-industry consistency which seems to appear in Table 2, it is now possible to take account of variability within each industry.

Approaching the problem through the spatial dimension of coordination (geographical proximity) gives some indications about the destination of relocations, in particular by taking into account the factor endowments of spaces and because the nature and frequency of the interactions...
are closely linked to questions of geographical distance (the possibility of offshore when the interactions are rare and a preference for nearshore when they become frequent, in a compromise between labour costs and the cost of remote coordination, for example). But the choice of the place to which to relocate is also guided by at least three series of factors relating to the relational space of coordination:

- the historical location of companies or pre-existing relationships, in the sense that companies will relocate within their existing subsidiaries (generally set up to supply a local market) where organisational and institutional proximities already exist for remote coordination;
- standards and certification orientate the choice of location towards certain specific places, organisational proximity in this case being identified in terms of sharing of such standards. In effect it may be noted that there are trends towards the agglomeration of relocations in certain activities (for example software development in Bangalore) into certain zones (clusters) which are reputed and identifiable according to these standards;
- institutional proximity may orientate the choice of location of new production sites or of partners. For example, a similar system of education and training facilitates remote coordination: employees can bring to bear a similar range of skills which allows them to interact at a distance because each acts and evaluates the action of the other on the basis of a common framework without needing to explain things during the activity.

Within a single industry characterised by the same competitive dynamic, not all of the companies concerned by relocation will necessarily choose the same destination. In the case of the software and computer services industry (see Coris, 2008 for a detailed study of this case), India, and Bangalore in particular, are seen as the “norm” for relocations. This power of attraction is notable in terms of financial software (global activities relating to a single, globalised market). On the other hand, this is less clearly the case for other types of activity (more or less specific to the client, such as the development of dedicated software): in such cases American and British companies turn to India, whereas French companies tend to prefer to relocate to Morocco. It would thus appear that companies relocate to countries which are “institutionally” close. The notion of nearshore (relocation nearby) can, in addition to the geographical sense which is attributed to it, be extended to the institutional sense (India being considered as nearshore from the point of view of the USA). Among French companies, some have preferred to supply relocated services from Madrid despite the cost of labour being higher than Morocco (and thus than India), by modifying a pre-existing subsidiary formerly dedicated to the Spanish market. Thus the first elements of within-industry diversity appear, depending on the origin and history of the companies for which it is useful to retrace the mobility in terms of temporal trajectories.

For its part, the choice of the organisational structure of the relocation depends mainly on three factors:

- the degree of outsourcing of the function under consideration: the more the organisational routines are specific to the company, the less the work can be coordinated at a distance. This explains the observation which is often made in which tasks relating to execution (international sub-contracting) are more easily and frequently relocated than design activities (creation of subsidiaries);
- the issues in terms of control of technology and knowledge (organisational proximity in the sense of what should remain “internal” to the company and be shared only by its members) represent a brake on the relocation of certain activities or functions which are potentially relocatable but which shareholder control can overcome;
- institutional proximity favours coordination within the company and in its external relations and helps with its durability inasmuch as it brings common references (languages, rules, objectives...) particularly necessary for reaching compromises.
These three points, apart from the question of the choice of organisational structure, bring out questions at the strategic level, specific to companies and their management and allowing us to envisage new elements of intra-industry or intra-regional variability. They thus suggest taking into account the political space with its struggles for power and control for which the analysis of the economy of proximity is unsatisfactory (if the question is indeed institutional, it cannot be reduced to a vision in terms of “proximity”). The hypotheses that we have made so far allow us to construct a framework for interpreting relocations which will vary according to industry and even between the firms within the same industry. They do not, however, shed any light on the question, nevertheless fundamental, of “why?”, which is capable of calling into question the sequential nature (“which activities?”, “where?” then “with what organisational structure?”) which could be deduced from this approach in simple terms of coordination.

3. An approach through the decision-making procedure: why relocations?

Relocations are decided upon by companies, and it is all the more necessary to answer the question “what are their motivations/reasons” for relocating because we have seen above that the choice does not necessarily result from a rational calculation relating to minimising production costs. The decision-making process is most probably imperfect, unfinished, subject to revision and embedded in production-related and regional contexts. In order to take this into account, it is necessary to compare the grid in terms of proximity with a more institutional, even regulatory approach to the company along the lines of the founding works of the behaviourists (Cyert and March, 1963; Simon 1959). In effect, if the latter represent an alternative to contractual approaches, the main fault of approaches in terms of competencies such as the evolutionist theory to which we referred in section 2, is to have deprived the theory of the firm of one of its main components: conflict (Coriat and Weinstein, 2010). The grid that we finally propose is then applied to a case study based on relocations in the Aquitaine (south west France, section 4).

The questions of relocation are indissociable from companies’ strategies. Now, in order for a strategy to be efficient, it must be put into practice profitably within its socio-economic context. The execution of such a strategy (the productive model of the company in the sense of Boyer and Freyssenet, 2002) involves the establishment of routines which are more or less efficient and viable in the medium term, giving it an internal coherence (between the elements of the model: policy-product, relation between employers and employees and the organisation of production) and an external relevance (Boyer, 1998). The relevance of a model is judged with regard to the competitive context of the firm (relative to the results and the strategies of the other firms in the industry) and to the institutional context (regulations, legislation in force, etc.) which fixes the constraints at the same time as it evolves in response to the actions of companies.

The question of mobility (just like all other questions) arises when the conditions of internal coherence or external relevance are no longer satisfied, in other words, when the model (routines and organisational choices) is judged to be “unstable”. In a direct reference to the notion of procedural rationality, the question will be posed as soon as one element – and one can directly imagine the argument relating to differentials in wage costs or the revelation of fiscal incentives in certain regions or certain countries – could lead to a revision of the level of aspiration of the firm, the existing routines no longer enabling it to obtain a result which it considers to be satisfactory. Given

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12 When the question is posed independently of any other consideration, for example when a client or a prime manufacturer imposes, in his tender documents or to his supplier, “nearshore” services
that the only environment (competitive, even institutional) is that perceived by the actors, phenomena of “belief” may destabilise the strategy of a company and lead to “non-rational” relocations. Now, strategic choices are made by actors who are in conflict, the quasi-resolution of the conflict depending on a compromise in the government of the company between the various forces present (managers, shareholders, employees, banks, suppliers, headquarters and other sites, etc.). There is not, therefore, an optimum choice from the point of view of all of the forces present, “conflict” being the normal state of the company (March and Simon, 1993). If decision-making is an unpredictable process, the whole issue at stake is to reach a compromise allowing this conflict to be managed, at least temporarily and to thus ensure the maintenance of the activity of the firm.

Thus the productive and policy-making roles of the four categories of “purveyors of resources” (the stakeholders) of the company articulate: the relationship with employees (the labour market), the relationship with supplies (suppliers and sub-contractors), the commercial relationship (with final clients or prime manufacturers) and the relationship with financiers. Following Jullien and Smith (2008 and 2011), it is possible to offer a global vision of these four fundamental relationships (figure 1). The four relationships are defined both at the level of the firm (in the relationships that it maintains with its partners) and at the level of the industry because they define the structure of the competitive arena. Taking into account vertical relationships, the grid enables us to understand the whole of the value chain in order to take account of the systemic nature of competitiveness (Lung, 2008). This grid can be used at different geographical scales, thus defining the local and institutional context within which the firms operate.

**Figure 1**

- **Purchasing relationship**
  - Coordination and proximity
  - Control and power in users / producers relationships
  - Control by proximity

- **Financial / governance relationship**
  - Shareholder pressure
  - Distance to headquarters
  - Local autonomy of facilities

- **Commercial relationship**
  - Proximity to the market

- **Employment relationship**
  - Labour relations
  - Qualifications

- **Firms and sectors compromises**
  - Territorial compromise

**Source**: Adapted from Jullien et Smith (2011)

The institutionalist approach overlaps with that of proximities since the question of coordination may be posed directly in terms of relationships. Above all this question gives us the opportunity of completing the analytical diagram by including the political space and its struggles for power and control between the stakeholders of the firm, following the example of the financial relationship, and the question of local autonomy of decision-making (in the compromise reached for the government of the company) which are absent from an analysis based only on proximity.
Taking into account the more political dimension of the process of making choices of locality sheds light on the diversity of “motivations” in a situation of limited rationality. Table 3 gives an initial synthesis of all the factors related to relocation according to the dimension (or relationship) to which they refer.

These factors are not structural elements of spaces, but develop and evolve according to the behaviour of the actors. They must, therefore, be read, and readable, according to their spatial and temporal dimensions. The evolution of the process over time can show how the strategic choices of location of the company may be influenced by the stakeholders and, reciprocally, that the choice of location of the company has impacts on the choices of its partners. Beyond a rational choice of optimisation of production costs and of coordination (supposing that the company has anticipated all the direct and indirect costs over time), the relocation may be experienced by the company as a constraint more or less imposed by its partners. It may be guided by pressure from prime manufacturers or final clients or equally by pressure from shareholders seeking to maintain or improve the (more or less) short-term profitability. But, on the other side of the coin, one must think about the impacts of relocations on relationships with employees (creation of local unemployment, particularly in the case of a relocation sensu stricto) and/or on the existing network of subcontractors (including “masked” cases of relocation by “subcontracting”). The factors presented in Table 3 may also be read as curbs on relocations (if they are revealed to the firm before the relocation) or as driving forces for relocation (if they come to light over time).

Table 3. Principal factors for relocation according to the four relationships of the company

<table>
<thead>
<tr>
<th>Commercial relationship</th>
<th>Supply relationship</th>
<th>Employment relationship</th>
<th>Financial relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure from clients</td>
<td>Supply costs</td>
<td>Labour costs</td>
<td>Access to finance</td>
</tr>
<tr>
<td>(final or prime</td>
<td>(materials, logistics, total</td>
<td>(not only the hourly rate</td>
<td>Access to finance</td>
</tr>
<tr>
<td>manufacturers, including</td>
<td>purchase cost in cases of</td>
<td>but productivity, redundancy costs...)</td>
<td></td>
</tr>
<tr>
<td>cases of temporary</td>
<td>relocation by</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relocation related to</td>
<td>subcontracting)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>requirements of tenders)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positioning in the</td>
<td>Product/process</td>
<td>Skills</td>
<td>Public aid</td>
</tr>
<tr>
<td>market</td>
<td>characteristics</td>
<td>(access to skills, but in the</td>
<td></td>
</tr>
<tr>
<td>(price, quality, delivery</td>
<td>(quality, delivery time, size</td>
<td>wider sense including</td>
<td></td>
</tr>
<tr>
<td>time)</td>
<td>of series…)</td>
<td>issues of dependence and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>loss of skills)</td>
<td></td>
</tr>
<tr>
<td>Following clients</td>
<td>Following sub-</td>
<td>Size and availability of</td>
<td>Shareholder pressure</td>
</tr>
<tr>
<td>abroad</td>
<td>contractors abroad</td>
<td>labour pool</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(including staff turnover, power of trade unions…)</td>
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</tr>
</tbody>
</table>

The factors cited above act not only at the scale of the firm but at the scale of the industry. They thus influence the decisions of all the companies in an industry. In parallel with this, companies may also be influenced by prescriptions given by consultants (benchmarking, for example) or by the

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13 The principal determinants of the choice of relocation are grouped according to a limited number of classes of factors. For example, the class “position in the market” includes relocations whose objective is to improve (or maintain) the company’s market share whether they act, in order to achieve this, on price, on quality (including of services) or delivery time.

myth that “it’s better elsewhere” sometimes spread by the media. The geographical space is thus directly brought back into the analysis through the capacity of attractiveness of certain places which become, over time, “standards” for the location of companies (Silicon Valley) or for relocation (Bangalore). The literature on the subject (Vicente and Suire, 2007) underlines the fact that the choice of (re)location is globally generated by two sorts of behaviour:

- a mimetic behaviour (the term “penguin effect” is used) which results from the inability of economic agents to collect all the information necessary in order to take a decision. The observed agglomeration of economic activities acts as a positive signal in the choice of site. Mimicry is the main factor in choosing a location and it is often a question of attractiveness without a priori allegiance. The nomadic behaviour of call centres would seem to illustrate this effect in the case of relocations

- a type of behaviour linked to the presence of positive external factors for localisation, or specific skills which develop with the presence of companies in a given region. The greater the number of companies present, the greater the positive effects: availability of a specialised workforce, the possibility of cooperation between companies (sharing of information) and the presence of specialised suppliers, relationships between science and industry, local image and, in a general way, the presence of shared resources. In the software industry, the Indian configuration confirms this observation (Coris and Rallet, 2008).

4. Analysis of trends in relocation: a regional case study (Aquitaine)

The illustration that we offer here is based on the Aquitaine region. In order to understand and situate the choices of localisation (relocations and reverse relocations) in their industry-related and spatial contexts, fifty in-depth interviews (between one and three hours) were carried out with senior managers in around thirty companies, industry experts and with representatives of institutions and organisations responsible for the economic development of the region. This enquiry includes the double dimension of the dynamics of a whole industry and the more “individual” strategies of different companies, both situated in one region – Aquitaine.

Faced with the complexity of the phenomenon, the analysis of the four relationships allows an orderly identification of the factors which are favourable or unfavourable to the mobility and relocation of companies. The “fight” against relocations (loss of activities from the region) implies a need to emphasise the attractiveness of the region (ability to attract and maintain activities). The risk of mobility, qualified in terms of the degree of anchorage, is thus a function of the combination in time and space of the four relationships previously referred to. The whole difficulty lies in the interpretation and the relative importance of these relationships: for example, the financial relationship may push companies towards relocating whereas the commercial relationship may restrain the movement. The diversity of situations which may be envisaged thus only adds to the initial complexity. But it is, of course, through their dynamic articulation that we can understand the logic behind the relocation/reverse relocation of companies.

The synthesis proposed for Aquitaine assumes all other things to be equal: the approach being regional, the national regulatory framework is taken as given. Although the local context is resituated in terms of more global trends (industry-wide or macroeconomic) and although certain results would seem far from being specific to the Aquitaine, the scope of the study should prevent any attempt at generalisation.
4.1. Financial relationships and shareholder pressure: accelerating relocations?

The interviews carried out in Aquitaine clearly confirm what the literature on the subject regularly affirms: shareholder pressure comes out as a major factor in the weakening of local ties (i.e. as a factor promoting relocation).

However, there are essential differences depending on the structure of the capital of each company. Despite the scale of irrecoverable costs (quantity of physical capital in particular), establishments forming part of big companies show a potential for mobility which is considerably greater than that of independent SMEs (family firms, cooperatives, companies owned by directors and/or employees). Three arguments allow big companies to approach mobility in a less brutal fashion: the pressure on costs is not the same, the requirement for profitability does not operate in the short term and it is possible to develop a real industrial strategy.

Attachment to a geographical locality (because the directors have their roots there or the lifestyle is considered to be better “in the regions”) associated with a more “local” ownership structure plays its part as an anchoring factor: sites belonging to multi-national companies undergo greater pressure to cut costs, including putting different sites into competition with each other, be they nationally- or overseas-based, without any attachment to a locality entering into the decision (apart, of course, from the employment aspects, which would come within the current legislation). On the contrary, for independent companies, the attachment to a locality is a strong element in the anchorage of certain activities. This last aspect is coherent with contemporary analyses of the processes of localisation of economic activities: the local anchorage of social networks (Breschi and Lissoni, 2009) may be used to explain a major part of the dynamics of the local economy.

The financial relationships also include the role of public finance in the attractiveness and the anchorage of activities in a given region. Public aid is acclaimed by SMEs (in particular tax credits for research) but certain types of aid may have macroeconomic (national) effects which are limited and moderated by the action of local competition.

An approach through the financial relationship thus allows us to underline the fact that the distinction between SMEs and big groups is essential to an understanding of the mobility of regional companies, but the relevance of this distinction also depends on the context of the particular industry concerned and the power balance between SMEs and prime manufacturers which itself depends on other relationships.

4.2. The purchasing relationship and the paradox of “cost dictatorship”

The cost argument was certainly the first factor evoked during all the interviews. Nevertheless, whereas this theme was always introduced, there was generally a lack of precision concerning it. Two interpretations are possible for us: either the strategic dimension makes it impossible to give a precise answer to the question, or the notion itself of cost is not so clear. The real global cost is only revealed during the experience once the decision has been taken and the relocation has become effective. In other words, the “real cost” is impossible to calculate ex ante, although some companies have been able to measure the indirect costs a posteriori.

In terms of the regional study, three types of indirect cost were quoted, allowing us to measure the gap between the “official” justification by cost-saving (production will clearly be cheaper) and the reality, which is less certain (when all the costs are taken into account the benefit
appears less obvious): the costs of a lack of quality, which can be expressed by manufacturing defects or only approximate conformity to the initial specifications\textsuperscript{14}; the difference in culture (institutional proximity), in particular in Asia, which can lead to problems with the interpretation of the specifications before production\textsuperscript{15}; the transport costs, which may be significantly underestimated. The development of offshore relocation creates tension in the logistics of transporting goods which extends delivery deadlines as well as the competition between companies.

The size of the company plays a big part in the conditions of negotiations: a big company requiring large quantities will have a much stronger negotiating power than a SME requiring less regular supplies. This negotiating strength is one of the main reasons for the reverse-relocation of certain types of production whereas, for the majority of big groups, the increase in the initial estimated cost does not seem to call into question the benefit justifying relocation.

Apart from the question of cost, two other major results emerge from the analysis of the supplier relationship: the importance of relocations carried out under the constraint of prime manufacturers and the calling into question of the presumed separability between design and production.

In effect it emerges that the dependence of a company on a prime manufacturer may be such that the “decision” does not depend on a calculation in terms of costs. The dependence of suppliers on their prime manufacturers is a major explanation of the relocation of certain companies, including SMEs which had not \textit{à priori} adopted such a strategy. This puts into perspective what we said above about the independence of autonomous SMEs.

The received wisdom on the separability of design (in the North) and production (in the South) does not appear to be borne out by the facts either: control of innovation generally comes from control of production. In the case of relatively simple items, the production of prototypes or of a few series remains important for the development of the products (a situation which one can observe in industries such as textiles, but also in the production of specific electronic components or in biotechnology). In effect, the link between production and innovation reinforces the control of the two functions and the issue of keeping production local may be important. In addition, as soon as innovation strategies imply specific technological know-how, questions of confidentiality become decisive. Proximity is not necessary for the coordination of companies, but it is a means of managing confidentiality. This acts as a significant brake on the relocation of certain production or innovation activities because it involves maintaining the specificity of the assets of the company concerned. These considerations are not generally taken into account in relocations carried out under pressure from shareholders or prime manufacturers and may, in time, lead to the relocation of strategic activities and innovation, design thus following production.

Any offshore outsourcing of production is thus associated with strong uncertainty. The calculation of the global cost certainly reduces this uncertainty, but apparently insufficiently so.

\textsuperscript{14} On this point views diverge between those who have a very negative vision of \textit{low-cost} production (defects in parts in the electronics and aeronautical industries, defects in specifications in furniture and textiles, defects in food compliance, in adherence to standards or in the nature of components in the pharmaceutical and food industries, etc.) and those who concede that problems of quality are not so much greater than those which are found in all forms of external supply.

\textsuperscript{15} These problems may lead those companies which have the means to set up an on-site quality control system
4.3. The commercial relationship or the need for quality

The commercial relationship is involved in the whole range of possible strategies of positioning/differentiation in relation to the competition. In general, this relationship is an important factor which anchors companies through the need to remain close to the market. However, this relationship acts in two opposite directions: firstly, mobility leading to a departure from the region, secondly, anchorage.

The commercial relationship is a factor in mobility for two reasons. The first motive is, of course, access to new markets. The learning process linked to these installations may facilitate possible future relocations: once a critical mass of installations in offshore markets is reached, the disadvantage of cultural and logistical distance recedes to the point where it can become an accelerator of relocations. The second motive is that of “following” manufacturers: the mobility of the big prime manufacturers is generally accompanied by that of their principal suppliers. This leads to a reinforcement and amplification of the degree of mobility, and this is the case whatever the reason. The commercial relationship is thus a relationship of power through which the need to satisfy the client imposes mobility.

As an anchoring factor, the commercial relationship acts first through the need for geographical proximity to one’s clients. Now, this requirement for proximity to the market may be managed in a temporary manner (simple commercial installation or delegation of personnel at the client’s premises), which puts into perspective its role as an anchoring factor, the nearshore (relocation nearby) being compatible with the constraint of proximity to the market. Thus the anchoring strategy the most often observed is that based on moving up the quality scale by differentiation. In this case the cost strategy is not abandoned, but sidestepped. The cases which we have observed where relocation or reverse relocation have been avoided are quasi-systematically associated with strategies involving moving up the quality scale which may be associated either with niche strategies or with strategies of production of short, dedicated series with strong constraints in terms of delivery times. Innovation plays a determining role in these cases, not only in technological terms of course, but above all in terms of organisation and service-provision.

Finally, standardisation appears to be central to the understanding of the commercial relationship in its role as a strong barrier to entry limiting the scope of relocations. Without going into the debates around the nature of these standards and their justification (the drawing up of standards and certifications being often associated with a slide towards protectionism), it is necessary to remember that standards act at a national level as an anchoring factor through the commercial relationship, but also as a factor favouring relocation linked to a desire to avoid other standards (for example countries which are havens for pollution).

4.4. The employment relationship or anchoring through skills

The debates around labour costs are obviously at the heart of the motivations for relocations. Globally, the regional study confirms that relocations affect first and foremost the parts of the production process which are the most labour-intensive.

The question of local skills must then be immediately asked, whether relocations take place by outsourcing or by greenfield investment. In the case of outsourcing, the lack of skills and qualifications in the labour force is measured by the quality of the products, whose cost is generally measured and built in as the relationship develops. In the case of relocation by greenfield investment or by buying out an existing company, the problem is faced directly by the company which wishes to

relocate. The experiences which have been analysed show that the need for control of the production process imposes nearshore relocation with exchanges of personnel. In this case, the question of skills does not appear to pose a direct problem because the only activities which are relocated are those which can be run at a distance, taking into account the abilities of the local labour force.

At the same time, the use of a qualified labour force and the development of the regions concerned have the effect of creating tension in local salaries which tends to reduce the gap between lowest and highest: the increase in the level of qualification of the labour force in developing countries results in an increase in its cost. The coordination of tasks, depending on the type and the scale of supplies from relocated sites, may translate into significant requirements for control and displacement of the labour force, the direct effect of which is an increase in the cost of control.

The anchorage of productive activities in the regions and the control of relocation by the labour force could then be considered in three parts: the issue of the quality of the training available as a factor of attractiveness and anchorage (the region, seat of production and attraction of talents); the capacity of the training system (schools and universities) to favour and structure the emergence of innovative social networks; the necessity to improve the means of transport in order to favour links with other French and European cities (temporary mobility of the labour force).

Conclusions

The reformulation of relocations within the wider framework of the mobility of firms and economic activities questions the conceptual framework (theories of the firm) in order to provide an answer. We have used an institutionalist approach to the firm which has allowed us to meet the objective of completing an analytical grid centred on the understanding of the processes of relocation including the three spaces – geographical, relational and political – of decision-making and of deployment of economic activities. In this objective of elucidation rather than causal explanation in the orthodox sense, we have privileged qualitative approaches – interviews – just because they aim to reconstruct the decision-making process of the actors and the trajectories of the companies. We have tried to show the complexity of the phenomenon by bringing out, from the field data, a limited number of major, stylised, facts (notably: the variation between industries and within industries and trends depending on the relationship examined) without falling into the trap of overdoing reductionism with which orthodox approaches may sometimes be criticised. On the other hand, our results remain very limited and contextual (dependence on the local and temporal context). The results are, in their current state, still too fragile to be generalised or to be tested on bigger populations through statistical data. If the reformulation of relocations seems indispensable to us, one can ask whether such reformulation is compatible with the more macroeconomic approaches used in the theory of international trade. In fact, our respective approaches are based on behavioural hypotheses (actors assumed to be rational) which are radically different, even irreconcilable. The field is still open for a discussion of the methodological tools which would allow us to gain in generality.

The proposed reformulation and the results which emerge from it also permit a direct response to the question of public policies because, in its exposition, the grid brings to light the diversity of situations and their complexity. From this point of view, one of the principal contributions of the study carried out for the DIRECCTE and the Aquitaine Region consists of presenting relocations as a process of uncertain decision-making which does not correspond to the usual image of a binary decision (relocate or not). The choice (or the obligation) of mobility is in fact a
question of degree: to what extent can certain activities be relocated depending on the weight of the different structural relationships? This uncertainty leaves room for local authority intervention. This should not be thought of in negative terms (“fighting against relocations”), considering that the reasoning is carried out based on a constant perimeter of activity (mobility of a given “stock” of activities between regions and nations), but rather as part of a dynamic of creating new activities. If companies continue, logically, to welcome public financial aid, the latter is only one element of a local policy which seeks to reinforce the singularity and the competitiveness of the region: moving from an approach of trying to attract investment to the area as it is, to an approach of first rendering the area attractive so that investment will come naturally.
Appendix

The ESCAPE project

ESCAPE is a research project (CCRDDT Aquitaine Region, 2009-2012; fifteen researchers) coordinated by one of the authors of the paper within the GREThA. ESCAPE is currently run in partnership with the teams of Oliver Bouba-Olga (Poitiers), Catherine Mercier-Suissa (Lyon) and Jean-Pierre Chanteau (Grenoble). Analysing the relocation strategies at the sectoral and the regional levels, ESCAPE aims to meet two objectives defining its two research questions:

- Understand the factors which permit relocations and ensure their permanence by identifying and measuring, beside the factor endowments, the role and the weight of organizational and institutional factors in the remote coordination of individuals and activities.

- Investigate the processes leading to decisions concerning (re)location within a framework of procedural rationality, putting the role of time and of uncertainty at the centre of the analysis.

Sectoral analysis

Six sectors under study:

Automotive / Aerospace / Software / Pharmaceuticals / Call centres / Textile

General scoping (all sectors under analysis): each “sectoral responsible” (according to researchers’ specialisation) have done a general scoping of the sectoral dynamics of relocation according to our common grid by mixing database (mainly *FDI Markets* database, which lists all the greenfield investment projects throughout the world on the basis of press cuttings) and sectoral knowledge/expertise.

In-depth interviews (mainly Aerospace, Software, and Textile) have been realised in France (forty interviews between 2008 and 2010) and abroad (Morocco and China between 2008 and 2010, forty interviews).

Regional analysis

Two regions under study:

Aquitaine and Rhône-Alps.

We only present the Aquitaine case study here.

Creation of an original database on the mobility of companies in the Aquitaine region from data compiled by Aquitaine Press Service (information more exhaustive than that provided by FDI Markets or ERM European database, similar methodology) for the period 2006 - 2010. Qualification of cases of mobility by further investigation (in line with our analytical framework) and selection of the firms to be interviewed.

In-depth interviews of firms that have been confronted with the issue of mobility (all types of relocations) and of main institutional actors: fifty interviews conducted in 2009-2010.
Very short version of our interview guideline (available on demand in long version combining analytical issues, but in French)

The interview guideline is common to regional and sectoral analyses and for national or foreign interviews. It is more or less focused on some issues according to the situations (regional political issues, decision making process in headquarters, coordination issues in relocated entities, etc.)

<table>
<thead>
<tr>
<th>Point 1) Contextualisation of the interview: presentation of the interviewed and its company</th>
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</thead>
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<tr>
<td>Point 2) Mobility of business activities</td>
</tr>
<tr>
<td>Item 2.1. Characterisation of the mobility (intended or actual)</td>
</tr>
<tr>
<td>Item 2.2. Context and motivations</td>
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<td>Item 2.3. Effective conditions of mobility (coordination issues to be underlined)</td>
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<td>Item 2.4. Impacts of mobility (for each relationship)</td>
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<td>Item 2.5. Projects/continuation of mobility</td>
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<td>Item 2.6. Collection of opinions (if necessary)</td>
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<tr>
<td>Point 3) The company and its fundamental relationships</td>
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<tr>
<td>Item 3.1. Strategic positioning</td>
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<td>Item 3.2. Positioning in the value chain (upstream / downstream) and location issues</td>
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<td>Item 3.3. Financial constraints</td>
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<td>Item 3.4. Employment and labour market</td>
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<tr>
<td>Point 4) Your expectations (public policy) and recommendations</td>
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