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Is it time to relocate? An empirical investigation on the effects of institutions and economic crises on Headquarter mobility

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Contents

1 Abbreviations

Abbreviation	Description
CHQ	Corporate Headquarter
CME	Coordinated Market Economy
DHQ	Divisional Headquarter
EFA	Explanatory Factor Analysis
EMT	Executive Management Team
Et al.	Et altera
EU	European Union
GDP	Gross Domestic Product
HQ	Headquarter
ICT	Information and Communication Technology
IT	Information Technology
KMO	Kaiser Meyer Olkin
LME	Liberal Market Economy
MNC	Multinational Corporation
PCA	Principal Component Analysis
POLICONV	Political Constrain Index
R&D	Research and Development
RHQ	Regional Headquarter
ROA	Return on Asset
RSE	Robust Standard Error
SIC code	Standard Industrial Classifications Code List
Std	Standardized
Sub(s)	Subsidiary, Subsidiaries
Th	Thousand
UCM	Unobserved Components Model
USD	US Dollar
VIF	Variance Inflations Factors
WDI	World Development Indicators
WGI	Worldwide Governance Indicators

WTO	World Trade Organization
WVS	World Value Survey

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3 Abstract

Building on prior research, I examine institutional factors that influence a firm's choice to relocate HQ units abroad. I argue that coercive, isomorphic, and normative pressures affect HQ relocation decisions in addition to more traditional factors such as tax differentials for which I control. Furthermore, I investigate how the relocation patterns differ during times of economic crises vs. economic stability. I argue and find statistically that economic crises have a dual effect on the international configuration of HQ activities. First, during times of crisis, firms react stronger to coercive, isomorphic, and normative pressures. Second, economic crises directly influence the decision of firms to move away. My analysis builds on a hand-collected international dataset of HQ relocations in Europe between 2000 and 2012. My study contributes to an improved understanding of how institutional factors influence firm behavior under varying environmental conditions. Furthermore, I contribute to the literature on the role of economic crises in shaping economic organization, as well as to the literature on the neglected role of HQ units in recent MNC research.

4 Problem statement

The relocation of their headquarters (HQs) is one of the most important strategic decisions a multinational corporation (MNC) can make (Birkinshaw et al., 2006). The geographical location influences the ability of firms to create value and competitiveness. Any decision to shift the location of specific activities in a different country can influence the success or the survival of a MNC (Birkinshaw et al., 2006). A shift in HQ location reorganizes critical parenting activities, changes the interaction between HQs and subunits, and moves key decision makers of the firm (Barner-Rasmussen et al., 2007; Birkinshaw et al., 2006). As such, the relocation of HQs is often assumed to have a major impact on the strategy and

competitiveness of the firm (Campbell, Goold, & Alexander, 1994; Cantwell, 2009; Dunning, 1998; Rugman & Verbeke, 2008). It influences the administrative and entrepreneurial role of HQ, and also its "*vital role in mediating the relationship between the business units of the MNC and its external stakeholders*" (Birkinshaw et al., 2006 p. 682). From a strategic perspective, the relocation of HQ can be considered as the last international business decision, "*where a firm's historical roots are revisited and challenged in order to optimize the firm's global operations*" (Laamanen et al., 2011 p.1). Forsgren et al. (1995) define the relocation of HQ as the "*third degree of internationalization*". After the internationalization of sales, marketing and R&D functions (the first degree of internationalization), and the creation of centres of excellence (the second degree), the relocation of HQ units is the third stage to foster the MNC's international involvement and configuration.

Relocation decisions form an increasingly relevant area for international management research, as there is a clear and recent trend towards more frequent HQ relocations, especially across borders (Baaij et al., 2012; Benito et al., 2011; Birkinshaw et al., 2006; Laamanen et al. 2011; Wanner et al. 2004). Over the years, the number of HQ relocations has grown steadily and considerably (Birkinshaw et al., 2006; UNCTAD, 2003; Wanner et al., 2004). Wanner et al. (2004) show a high mobility of HQs to Switzerland before 2003. Most of these were regional or divisional, while few ones were global corporate HQs. The "World Investment Report" (UNCTAD, 2003) suggests that a "world market for division headquarters" is emerging. One example is Nokia that moved its corporate finance from Finland (home country) to New York in 2004. Tetra Pak moved its corporate headquarter from Sweden to Switzerland in 1981; instead, Ikea to Denmark in 1975 before to establish it definitely in Netherlands in 2001. Furthermore, Nissan, the Japanese automotive MNC, moved its European HQ from Netherlands to France in 2000 and its Divisional HQ (the truck division) from France to Switzerland in 2008. Other anecdotal examples are: Philips, SKF,

Australia's BHP-Billiton, etc. (Birkinshaw et al., 2006, p.682). Companies are redefining their homes by unbundling their parenting activities and reallocating them opportunistically across nations (Desai, 2009). Desai (2009) identifies different "homes", that are not necessarily co-located: financial, legal and managerial talent.

While there is a well-established literature on the location of business activities such as manufacturing, sales, R&D and so on (Contractor et al., 2010; Dunning, 1981; Hennart, 1982; Johanson & Vahlne, 1977; Kogut & Zander, 1993; Vernon, 1966), little is known about the (re)-location of HQ units. Even if empirical investigations highlight the relevance of this phenomenon, only recently scholars have begun to investigate it. Some studies focus on domestic relocation (relocation within the same country)(Aarland et al., 2007; Davis & Henderson, 2008; Henderson & Ono, 2008; Holloway & Wheeler, 1991; Klier, 2006; Klier & Testa, 2002; Ono, 2006; Strauss-Kahn & Vives, 2009); others on cross-countries relocations (Baaij et al., 2012;Forsgren et al., 1995; Birkinshaw et al. 2006; Barner-Rasmussen et al., 2007; Benito et al. 2011; Laamanen et al., 2011). As extant research highlights, the increase in relocations is partly driven by firm-specific variables, such as increased internationalization (Baaij et al., 2012; Benito et al. 2011; Birkinshaw et al. 2006; Forsgren et al., 1995; Laamanen et al., 2011). Furthermore, relocation decisions also appear to be driven by country-specific variables, such as differences in wage and tax levels, and access to higher quality strategic resources (Baaij et al., 2012; Barner-Rasmussen et al., 2007; Birkinshaw et al., 2006; Laamanen et al., 2011).

Although extant work has contributed substantially to our understanding of this rather recent but relevant phenomenon, building on transaction cost economics and agency theory, it has, so far, predominantly focused on the **managerial drivers** and **efficiency-enhancing effects** of relocation decisions (Benito et al., 2011; Birkinshaw et al., 2006; Forsgren et al., 1995; Laamanen et al., 2011). Instead, little attention has been paid to behavioural and institutional

factors, even if some scholars mention the legitimacy-enhancing effects of imitating competitors (Laamanen et al., 2011), while others discuss the benefits to follow shareholders and stakeholders (Benito et al., 2011; Birkinshaw et al., 2006). Such studies represent an important attempt to move away from a myopic focus on efficiency motives to explain HQ relocation, but they focus only on mimetic institutional pressures. This lack of attention to a comprehensive institutional and behavioural approach implies that potentially important drivers and barriers of relocation decisions remain overlooked. Examples are the notion that MNCs often struggle to maintain legitimacy, and that important corporate decisions, such as HQ relocations, are subject to the scrutiny of different internal and external actors (Di Maggio & Powell, 1983; Kostova et al., 2008; Kostova & Zaheer, 1999). In host countries, MNCs are exposed to different legitimacy standards and should behave in a different way with respect to domestic firms to establish reputation (Kostova & Zaheer, 1999). Furthermore, they are critically involved in establishing and maintaining legitimacy in their multiple host environments (Kostova & Zaheer, 1999). According to institutional theory, firms interact with several entities in their organizational field, such as competitors, suppliers, customers, regulators, trade unions, employees, etc. (Deephouse, 1999; Di Maggio & Powell, 1983; Thompson, 1967), that can influence or modify their decisions.

The lack of attention to institutional influences on relocation decisions is particularly problematic in the light of the current economic crisis. As extant work highlights, institutional pressures are often amplified during economic crises, leading to organizational and strategic reconfigurations (Chung & Beamish, 2005; Chung et al., 2010; Chung et al., 2008; Grewal & Tansuhaj, 2001; Lee & Makhija, 2009), and pushing organizations to seek compromise with key constituent groups (Dacin, Goodstein, & Scott, 2002; Di Maggio & Powell, 1983). By their nature MNCs operate in different environments characterized frequently by anomalous events, referred to as crises, that generate high level of external

uncertainty and influence the MNCs' behaviour (Grewal & Tansuhaj, 2001; Smart & Vertinsky, 1984). Moreover, in their strategic decisions, firms emphasize institutional and behavioural considerations in these environments characterized by uncertainty and ambiguity (Lieberman & Asaba, 2006). While a focus on institutional factors may therefore contribute to a better understanding of how recent environmental dynamics impact HQ relocation decisions, such effects have yet to be investigated.

5 Aims of the study

In my research project, I aim to address these gaps by developing an institutional perspective on HQ relocations. The main focus will be set on the institutional reasons of HQ relocations. To this end, I develop a model of how institutional factors influence the decision of firms to relocate their HQs outside domestic boundaries. In particular, I investigate how coercive, normative and isomorphic pressures may differentially affect such decisions.

Furthermore, I theoretically and empirically argue how economic crises influence the effect of the institutional factors in my model. Economic crises are unpredictable events that generate a turbulent, uncertain, and hostile environment posing a threat to MNCs' growth and survival (Smart & Vertinsky, 1984). Following previous work, economic crises can be defined as situations in which real output (measured usually by gross domestic product (GDP) and employment rates decrease, levels of inflation increase, and many different macroeconomic indicators move (Lee & Makhija, 2009; Foss, 2010; Chung et al., 2010; Chung & Beamish, 2005; Fratzscher, 2009; Hoshi & Kashyap, 2004). I argue that an economic crisis situation affects the international configuration of HQ activities. During a crisis situation I predict that firms react more strongly to coercive, isomorphic, and normative pressures.

Expected contributions

Although extant work has given valuable insights into the topic of HQ relocation (Benito et al., 2011; Birkinshaw et al., 2006; Forsgren et al., 1995; Laamanen et al., 2011), the understanding of the conditions under which MNCs move out their HQ units have received only little and mono-perspective attention. Thus, my research project addresses several questions pertinent in the recent literature, and tries to investigate them in a theoretical model:

- **Institutional perspective of HQ relocation**: I want to contribute to the re-location literature, providing a complementary explanation of HQ relocation by drawing from institutional and behavioural theory. Starting from the assumption that firm decisions are not always based on purely efficiency motives, I argue that the relocation of parenting activities can be considered as an answer to multiple institutional pressures faced by MNCs in their multiple institutional environments. I argue that international reconfiguration of HQ activities is driven by the need to answer to coercive, isomorphic and normative pressures that come from MNC institutional environments. I stress the legitimacy need of MNCs, as a complementary explanation of relocation decision.
- **Institutional theory**: I want to contribute to institutional theory by addressing some provocations of Kostova et al. (2008). In particular, I conceptualize a different definition of organizational field for MNCs and testify the isomorphic behaviour of MNCs in taking strategic and organizational decisions. Moreover, I contribute also by explaining how institutional factors act on firm behaviours under varying environmental conditions. In particular, I suggest that unexpected external events (like economic crises) influence institutional factors and impact on firm decisions, increasing institutional complexity. I argue that the increase in complexity of

institutional environment due to economic crises pushes MNCs to react more strongly to isomorphic, coercive and normative pressures. Economic crises de-legitimize MNCs, for nature un-proactive and un-flexible to rapid changes (Massey, 2001).

- **The role of economic crisis**: I shed more light on the role of economic crises in shaping organizational behaviours. I argue that economic crises create an uncertain and turbulent environment that influences organizational actions and configuration. Economic crises play a dual role on the international configuration of HQ activities. Although they influence the relation between institutional factors and the likelihood of relocation, thereby exacerbating isomorphic, coercive and normative pressures as a consequence of growing external uncertainty, economic crises may also change negatively the characteristics of external environment, directly pushing firms to move out.

6 Literature review

Over the past decades, many scholars have concentrated their studies on the internationalization process and the early stages have received a huge amount of knowledge (Forsgren et al., 1995; Johanson & Vahlne, 1977, 2003; Johanson & Wiedersheim-Paul, 1975). The internationalization process starts from the transfer of firm functions such as sales and marketing overseas, i.e. the transfer of these functions to subsidiaries beyond the home boundaries. As it goes ahead, also other functions, such as production or research and development, are located abroad (Barner-Rasmussen et al., 2007). Forsgren et al. (1992) define the first part of internationalization process as the first degree and Benito & Larimo (2002) label it as strategic internationalization. In the more advanced stages, the proliferation of foreign subsidiaries increases and some subsidiaries receive world product mandates or evolve into strategic centres or centres of excellence with responsibilities that go over the home market (Andersson et al., 2002; Frost et al., 2002; O'Donnell, 2000). It is considered as the second degree of internationalization process. But, recently scholars have started to investigate new internationalization stages. In this research stream, the relocation of HQs beyond national boundaries is labelled by Forsgren et al. (1995) before and Barner-Rasmussen et al. (2007) later as "*the third degree of internationalization process*".

6.1 Previous studies on HQs relocation

Many studies are about geographical location decision (Bel & Fageda, 2007; Feinberg & Gupta, 2004; Garcia-Canal & Guillèn, 2008; Guillèn & Garcia-Canal, 2009; Holloway & Wheeler, 1991; Porter, 2000). They pay attention exclusively on the location advantages and on foreign market characteristics. However, these factors explain partially the relocation of HQs that is the result of deep connections between the characteristics of external context and

the evolving internal organizational configuration. Only recently scholars have started to investigate this phenomenon in detail, focusing especially on efficiency drivers. Efficiency is defined like the minimization of operation costs (for example, production or logistic) and organization costs, divided in transaction costs (in market governance modes) and in governance costs (in internal governance modes). MNCs choose the organizational design that minimizes costs in the long run (Williamson, 1985). So, considering the relocation of HQs as a way to modify MNC organizational configuration, they investigate how cost minimization affects the likelihood of a firm to move its HQ to different countries. Following a political and agency perspective, some scholars focus their attention on internal or governance costs (Forsgren et al., 1995; Birkinshaw et al., 2006; Benito et al., 2010), divided in bargaining, information, monitoring and bonding costs (Tomassen et al., 2012; Tomassen & Benito, 2009); while others focus on macro-economic country variables like taxation or employment rate (Baaj et al., 2012; Laamanen et al., 2011). Furthermore, previous study identifies relocations within the same country (domestic relocation), or across different countries, such as from a peripheral to a more central country. Following this classification, I divide previous studies in two main groups: domestic relocation, and cross-countries relocation.

The first group is based on American studies that investigate the relocation of HQs within USA. These studies go back to Holloway and Wheeler (1991) until to include recently Klier and Testa (2002), Daicon and Klier (2003), Ono (2006), Davis and Henderson (2008), Henderson and Ono (2008) and Strauss-Khan and Vives (2009). They relate the relocation of HQs to the transformation in US metropolitan areas. A distinctive feature of the U.S. economic landscape is the concentration of HQs in a relatively small number of large metropolitan areas (Testa, 2006). There are two complementary explanations of this phenomenon. First, HQs are located in metropolitan areas because of the presence and wide

variety of business service suppliers (Davis and Henderson, 2008). "*HQs perform various services from managing and coordinating the other parts of the firms to performing accounting, bookkeeping and taking care of legal issues*" (Ono, 2006, p.130). To do them they need information and advices from specialists. Achieving such information and services requires constant face-to-face interactions and close geographical proximity between buyers and sellers. The disproportionately presence of service firms in larger cities is an attractive factor for HQ location, because it can benefit from the variety of differentiated suppliers (Davis & Henderson, 2008; Lovely, Rosenthal, & Sharma, 2005; Strauss-Kahn & Vives, 2009). Thus, cities with high diversified business services are more attractive for HQs (Davis and Henderson, 2004). Aarland et al. (2007) find that if a firm concentrates its production primarily in a small city, it is more likely to relocate only its HQ in a larger metro area to better outsource service activities. The second explanation is about agglomeration of HQs, because clustering together they can exchange information about market characteristics (Davis and Henderson, 2008; Strauss-Khan and Vives, 2008). Spillovers effects are an important factor in influencing the HQ relocation decision. Firms can get powerful information about production, resource and technology locating their HQ in places characterized by high HQ presence (Davis and Henderson, 2008). Davis and Henderson (2004) find that cities with high HQ presence are more likely to attract new ones. Lovely et al. (2005) show a stronger agglomeration effect when firms are not able to obtain information on foreign markets. In addition to these factors, HQ relocation is influenced by the location of production facilities. Being close to production units can reduce communication and monitoring costs (Henderson Ono, 2007; Strauss-Khan and Vives, 2009). If production facilities are geographically dispersed, firms can reduce coordination costs by relocating their HQs close to these units. Aarland et al. (2007) find that firms, characterized by high geographical dispersion of production plants, are more likely to locate HQs in place where

they don't perform any production activities, but central to all other production units. So, according to domestic studies, HQ relocation is especially driven by business services and by production plants, and firms need to decide between an improvement in outsourcing or in gathering information and a reduction in coordination costs (Henderson and Ono, 2007). Henderson and Ono (2007) suggest that "*it is very costly for firms to send their first stand-alone HQ away from the countries where they have production facilities, possibly due to increased communication and coordination costs. Thus, firms would not choose such countries unless the countries offer much variety of business service or, possibly for bigger firms, greater scale of other HQ activities*" (Henderson and Ono, 2007, p.449). Moreover, Strauss-Khan and Vives (2009) show also the effects of corporate taxes and wages on HQ relocation decision.

The second group focuses on the relocation among different European countries. These studies especially investigate the behaviour of Scandinavian enterprises and their decisions to relocate HQ units (Forsgren et al., 1995; Birkinshaw et al., 2006; Barner-Rasmussen et al., 2007; Benito et al., 2011). Their main assumption is that Nordic countries are small, peripheral and highly dependent on foreign trade and investments (Benito & Narula, 2007), so when a Scandinavian firm with important cross-border activities decides to relocate its HQs, there is an high probability that they will be located outside national country (Benito et al., 2011). These studies highlight the double nature of HQ relocation (Barner-Rasmussen et al., 2007):

- Full relocation: all HQ functions are moved away;
- Partial relocation: only some activities are established overseas.

Some studies looked at full relocation (Barner-Rasmussen et al., 2007; Birkinshaw et al., 2006) while others used a more fine-grained approach to the relocation of HQ units (Forsgren et al. 1995; Birkinshaw et al. 2006; Benito et al. 2011). Moreover, MNCs can also relocate

virtually their HQ units (virtual relocation), where only the legal domicile is changed and most of the HQ functions are taken care of virtually (Barner-Rasmussen et al., 2007). The relocation phenomenon is defined as a "dynamic" process, where the concept of "HQ mobility" is emphasized (Barner-Rasmussen et al., 2007). Relocation is considered as a reversible decision and it is possible to theorize repeated relocations or the HQ returning to its original country (Barner-Rasmussen et al., 2007). These studies focus especially on a political and agency perspective, stressing the concept of internal efficiency, to explain this phenomenon. Through empirical investigation on Swedish MNCs, Forsgren et al. (1995) identify two important factors that can influence the relocation of divisional headquarters (DHQs) beyond home boundaries: the degree of internationalization of the company's divisions; and the degree of internationalization of the corporation itself. According to their results, a greater degree of internationalization of the company's divisions increases the likelihood of the relocation of divisional headquarters abroad; so a greater degree of corporate internationalization causes an opposite outcome, reducing the probability of DHQs relocation (Forsgren et al. 1995). Birkinshaw et al. (2006) introduce a clear and different definition between the relocation of corporate head office (corporate HQ) and of business unit headquarters (divisional/regional HQ). They define corporate HQ following the seminal work of Chandler (1991), distinguishing between "administrative" and "entrepreneurial" role. On the contrary, business unit headquarters are responsible for the formulation and implementation of competitive strategy (Birkinshaw et al., 2006). Underlining the roles, played by these two different units within MNCs, the authors identify different drivers of the relocation decision for each unit. In particular, two important factors increase the probability of corporate head office relocation overseas:

1. A high percentage of equity held by foreign shareholders;
2. The listing of company on a foreign stock exchange.

Shifting the attention on the relocation of business unit HQs, the authors identify other main factors:

1. A high degree of company internationalization;
2. The attractiveness of specific foreign locations.

Finally, focusing only on listed Norwegian MNCs, Benito et al. (2011) show a negative impact of diversification on the likelihood of DHQ relocation. In contrast to what Forsgren et al. (1995) and Birkinshaw et al. (2006) find, the degree of internationalization and foreign ownership have not significant impact on the relocation decision.

Recently, Laamanen et al. (2011) contribute to the cross-border relocation of HQs, using a multi-country dataset of 17 European countries. This international dataset allows the use of several macro-economic country variables, like GDP per capita or corporate taxation, and to consider different factors of cross border relocation with respect to a domestic one. The authors start from the assumption that the benefits and, of course, the costs of domestic relocation are less than an international one. As consequence, the relocations in a single specific country are driven by different factors than cross-borders relocations. The authors show an increasing trend toward relocations in Europe, affected by push and pull factors. According to them, HQ relocation decision is influenced by cost minimization and value creation motives. Taxation level and employment rate, for example, are two important drivers of HQ movement, as well as the proportion of revenues from sales, accumulated outside, and the presence of related HQs. In this direction, Baaij et al. (2012) examine the relocations of parenting activities, i.e. some parts of corporate HQ, to alternative host countries. Although full relocation of HQ units remains still rare, partial relocations are increasing. Surveying 58 largest Dutch MNEs, they find that legal domicile and corporate functions are driven by target country attractiveness; while executive management team (EMT) is driven especially by the internationalization degree of stakeholders and assets.

In sum, independent of the type of relocation, previous research has predominantly examined how relocations are driven by **efficiency and effectiveness motives**. Cost reduction is seen as the main driver of HQ relocation. Some scholars focus on internal and governance costs (Aarland, Davis, Henderson, & Ono, 2007; Benito et al., 2011; Birkinshaw et al., 2006; Forsgren et al., 1995; Henderson & Ono, 2008; Lovely, Rosenthal, & Sharma, 2005; Ono, 2006; Strauss-Kahn & Vives, 2009); others look at macro-economic country variables like taxation or employment rate (Laamanen et al., 2011; Strauss-Kahn & Vives, 2009) or at country attractiveness in terms of business service availability (Birkinshaw et al., 2006; Henderson & Ono, 2008; Ono, 2006). For example, Aviva Group, the world's sixth largest insurance group, moved its HQ from London to Dublin in 2009 for taxation issues; Reebok moved its European HQ from England to Netherlands in 2007 to be closer to subsidiaries under its responsibility, located in central Europe. Instead, Biolitec, a developer and manufacturer of diode lasers, optical fibres and accessories, relocated its HQ from Germany to Austria in 2012 both to be closer to Eastern European markets and for taxation benefits. Thus, HQ relocations often appear a result of the rational decision to seek efficiency and effectiveness by improving coordination and control, and reducing costs.

The following Table 1 summarizes the main contributions on the HQ relocation.

Table 1. Previous studies on HQ relocation.

References	Emphasis on	Results
Domestic relocation		
Klier and Testa (2002)	The location trend of HQ units of publicly traded US companies for the years 1990 and 2000	HQs are relocated in cities with: • large urban areas; • availability of business services;

		• considerable increase in population.
Lovely et al. (2005)	The spatial concentration of HQ units	• HQ relocation is influenced by the agglomeration of other HQ units.
Aarland et al. (2007)	The spatial separation between HQ and business units' activities and their location	The relocation of HQs is driven by: • High availability of business services • Geographical dispersion of production activities • Agglomeration of HQs
Henderson and Ono (2008)	The relocation decisions of HQ units taken by manufacturing firms	• Distance to production • Service availability
Davis and Henderson (2008)	The determinants of HQ agglomeration	• Diversity of services • High wage level
Strauss-Khan and Vives (2009)	The reasons to locate and relocate HQ units in USA from 1996 to 2001	Whether to relocate: • Larger size in terms of sales revenues; • Larger total number of headquarters; • Younger age; • M&A; • Foreign ownership; • Absence of infrastructure; • High corporate taxes Where to relocate:

		• Lower wage level; • Lower corporate taxes; • Availability of infrastructures and business services; • Lower distance to own production sites; • Presence of other HQ units.
Cross-border relocations		
Forsgren et al. (1995)	Reasons that push MNCs to relocate division headquarters abroad.	• The degree of internationalization of company's divisions has a positive effect; • The degree of MNCs internationalization has a negative one.
Birkinshaw et al. (2006)	Business unit HQ and corporate HQ relocation abroad	Business unit HQ relocation is influenced positively by: • the degree of MNCs internationalization; • the attractiveness of host country. Corporate HQ relocation is related positively to: • foreign ownership; • the listing of company on a foreign stock exchange.
Barner-Rasmussen et al.	Corporate HQ relocation	Corporate HQ relocation is full, partial and virtual and it

2007	overseas	is driven by symbolic and pragmatic motivations.
Benito et al. (2011)	Division Headquarters relocation abroad	DHQ relocation is affected positively by: • the number of divisions; DHQ relocation is affected negatively by: • degree of diversification; • MNCs' size • Concentration of ownership.
Laamanen et al. (2011)	Relocations of both corporate and regional headquarters in a multi-country setting.	The likelihood of HQ relocation is positively influenced by: • Corporate taxes at home country; • Employment rate at home country; • The amount of foreign revenues of the firm (used as a proxy of internationalization degree); • The type of HQ unit, e.g. the relocation of a regional HQ is more frequent than a corporate one. About where to relocate, HQ units are attracted by

		locations characterized by: • Low corporate taxes.
Baaj et al. (2012)	The relocations of parenting activities, i.e. some parts of corporate HQ, to alternative host countries	EMT is driven by: • Internationalization of stakeholders and assets. Legal domicile and corporate functions are driven by: • target country attractiveness

6.2 Institutional Theory and relocation decisions.

Institutional Theory explains the role of the institutional context in organizational decision-making (Di Maggio & Powell, 1983; Scott, 1995). Its early versions focused especially on the conception of institutional rules, myths and beliefs as shared social reality and on the process through which firms and, in general, organizations try to become integral part of society, sharing common values and social meaning (Berger & Luckmann, 1967; Selzenick, 1949, 1957). More recent interpretations have better investigated the nature and the variety of institutional forces and processes (Di Maggio & Powell, 1983; Meyer & Rowan, 1977; Zucker, 1988) and the effects of these factors on firms' strategic responses (Meyer et al., 1987; Oliver, 1991; Scott, 1987) and on organizational change and configuration (Hinings & Greenwood, 1988; Tolbert & Zucker, 1983). Institutional theory argues that organizational environments "*...are characterized by the elaboration of rules and requirements to which individual organizations must conform if they are to receive support and legitimacy...*" (Scott & Meyer, 1983; p.149). In this context, legitimacy is defined as the acceptance of the organization by its institutional environment (Di Maggio & Powell, 1983; Meyer & Rowan,

1977). Moreover, legitimacy is necessary and vital for organizational survival and success (Dowling & Pfeffer, 1975; Hannan & Freeman, 1977). It is related to three main sets of factors (Hybels, 1995; Maurer, 1971):

1. the environment's institutional characteristics;
2. the organization's characteristics;
3. the legitimation process by which the environment creates its perceptions of the organization.

Organizational behaviour, decision making process and legitimacy are subject to institutional pressures (Oliver, 1991). Institutional scholars divide these pressures in three main categories:

1. **Coercive**, that originates from political influence and legitimacy needs (Di Maggio & Powell, 1983). It occurs when an organization has to follow or adopt particular organizational norms and patterns, imposed by a more powerful authority.
2. **Mimetic**, that is a result of standard responses to uncertainty (Di Maggio & Powell, 1983). It occurs when an organization adopts organizational policies or procedures of other, seemingly more successful organizations to respond to uncertainty.
3. **Normative**, that is associated with professionalization[1] (Di Maggio & Powell, 1983). It occurs when an organization adopts particular patterns considered appropriate by its institutional environment.

Conformity to social beliefs, values and norms is achieved by responding to mimetic, normative and coercive pressures (Di Maggio and Powell, 1983) and compliance may be for pragmatic reasons or due to pragmatic stasis (Oliver, 1991). Thus, according to institutional theory, social beliefs and norms play a significant role in determining organizational

[1] Professionalization is defined as "*the collective struggle of members of an occupation to define the conditions and methods of their work, to control the production of producers*" (Scarfatti-Larson, 1977; pp. 49-52).

behaviour. Furthermore, this organizational behaviour (to conform to institutional norms and beliefs) is not necessary driven by efficiency, but rather by the need to be legitimized by organizational field and to increase resources and survival capabilities (Di Maggio & Powell, 1983; Meyer & Rowan, 1977). Organizations conformed to institutional pressures are considered "optimal", even if they are not efficient, i.e. it means that they are accepted by each actor in their organizational field, increasing their survival likelihood and minimizing, as a consequence, the risk of organizational death (Baum & Oliver, 1991). Even in competitive environments, efficiency may not be the only driving force: "…*even among market driven organizations productive efficiency may have relatively little to do with survival*" (Powell, 1991; p. 187). "*While allowing for a nominal amount of agency, neo-institutionalists largely suggest that incorporation of institutionally mandated elements allows organizational actors to portray the organization as legitimate, thereby enhancing its likelihood of survival*" (Kostova et al., 2008; p. 997). Thus, the institutional theory considers the social part of organizational behaviour, and "*recognizes the limits imposed by social constraints on a purely economic basis*" (Puck et al., 2009; p. 392).

Institutional pressures are strongly influenced by the complexity of institutional environment (Kostova & Zaheer, 1999). According to organizational and institutional scholars, this complexity comes from the multiple institutional "pillars" (Scott, 1995), the multiple task environments (Galbraith 1973), the multiple resource providers (Pfeffer & Salancik 1978) and the multiple stakeholders (Evan & Freeman 1988). Complexity influences the challenge of firms to establish and maintain legitimacy in their environment (Kostova & Zaheer 1999; Henisz & Delios 2001; Di Maggio & Powell 1983; Haveman 1993).

An increasing number of scholars is applying institutional theory to international business. They are attracted by the unique institutional complexity faced by MNCs in their multiple institutional environments and by their struggle to establish and maintain legitimacy (Kostova

& Roth 2002; Kostova & Zaheer 1999). MNCs address many different and conflicting institutional pressures (Westney, 1999). In particular, they investigate how concepts like organizational field, legitimacy, isomorphism, and mechanisms of institutional pressures can influence international decisions of MNCs. These concepts are used to analyse home and host country environments in terms of regulatory, cognitive and normative "pillars" (Kostova & Zaheer, 1999; Kostova & Roth, 2002; Xu & Shenkar, 2002), to explain the similarities in organizational practices across organizations (Child & Tsai, 2005; Davis, Desai, & Francis, 2000; Flier, Bosch, & Volberda, 2003; Yiu & Makino, 2002), to study constraints on the diffusion and institutionalization of organizations' practices across borders and units of MNCs (Guler, Guillén, & Mcpherson, 2002; Kostova & Zaheer, 1999; Kostova & Roth, 2002); to explain the relationship between MNCs and their host environments, focusing on legitimacy, liability of foreignness, and modes of entry (Guler, Guillén, & Mcpherson, 2002; Kostova & Zaheer, 1999; Kostova & Roth, 2002; Puck et al., 2009). However, the provocative paper of Kostova et al. (2008) shows the main theoretical gaps in applying Institutional Theory (IT) to the International Business (IB) context. In particular, they raise many fundamental questions about the usefulness of IT in IB, such as "*Is Institutional theory useful in international management research? Are its main ideas valid in the MNC context? Which of them apply, which don't, and which need to be modified and further developed?*" (Kostova et al., 2008; p. 1003). Kostova et al. (2008) stimulate more critical thinking about the relation between IT and IB and how the notions of organizational field, isomorphism and legitimacy should be used in a MNC context.

Applied to relocation decisions, several authors mention the legitimacy-enhancing effects of imitating competitors (Laamanen et al., 2011), while others discuss the benefits to follow stakeholders (Benito et al., 2011; Birkinshaw et al., 2006). Such studies focus especially on the mimetic pressures to explain the relocation of HQ units overseas. They focus especially

on the concept of institutional isomorphism, defined as firms' attempts to act in line with regulative, normative or cognitive societal expectations (Yiu & Makino, 2002). Such studies build on the argument that firms are often strongly influenced by the behaviour of their main competitors and stakeholders (Hutzschenreuter, Pedersen, & Volberda, 2007; Zhou, Wu, & Luo, 2007), and often adopt their practices as means of establishing legitimacy (Di Maggio & Powell, 1983; Meyer & Rowan, 1977). When a practice is accepted by other entities, it becomes the cue of normality, making firms that do not follow this practice appear abnormal and illegitimate to their stakeholders and to other institutional entities in the institutional field (Abrahamson & Rosenkopf, 1993).

Such studies represent an important move away from an overly myopic focus on efficiency motives to explain HQ relocation. Nonetheless, **by focusing on a single type of actor**, namely MNCs' main competitors, such studies may overlook that firms interact with several entities in their organizational field, such as suppliers, customers, regulators, trade unions, employees, stakeholders, and others (Deephouse, 1999; Di Maggio & Powell, 1983; Thompson, 1967). Thus, extant studies on HQ relocation may overlook that MNCs are subject to multiple institutional pressures that can influence or modify their organizational decisions.

6.3 The role of HQ units and HQ complexity.

Building on the prior literature and on Birkinshaw et al. (2006), HQ is composed by two main elements: a top management group characterized by the presence of an official location where it meets, and different HQ functions, like treasury, investor relations, corporate communications, ICT and so on…, with a clear and identifiable geographical location. Only for corporate HQ there is also a third element, i.e. the legal domicile, defined as "*the*

registration of the MNC in a particular sovereign nation, under which all the other legal entities that make up the MNC can be grouped" (Birkinshaw et al., 2006, p.684). Its size is not merely the result of an arbitrary choice between locating employees in HQs or in business unit, but it is related to its role within MNC and to the number of its activities (Collis, Young, & Goold, 2007). HQ activities are often defined as "parenting activities" divided usually in three different categories, and allocated to different types of HQs as well as corporate, divisional or regional HQs (Chandler, 1991; Goold, Pettifer, & Young, 2001). There is a well-established literature on the role of headquarters (Ambos & Birkinshaw, 2010; Chandler, 1991; Foss, 1997; Goold & Young, 2002). Divisional and regional HQs are responsible for the formulation and implementation of competitive strategy – "*the positioning of the business within its industry and the means by which it strives to achieve above average returns within that industry"* (Birkinshaw et al., 2006, p.683). They are intermediary lines of control between corporate headquarters and local subsidiaries, and are subject to push and pull pressures. From one side, they need to stay close to corporate headquarter for helping and influencing the overall strategic process including the allocation of resources (pull pressures). From the other side, their main task is to coordinate and control activities of local subsidiaries under their responsibility and for this scope they need to be close to subsidiaries to get reliable information about their operations and their environment (push pressures) (Forsgren et al., 1995; Birkinshaw et al., 2006; Benito et al., 2011). Corporate HQs use to develop long term strategies and allocate resources. In theory, they play two main roles within MNCs: "entrepreneurial" (value creating), and "administrative" (loss prevention) (Chandler 1991).

- The first is entrepreneurial or value creating, that is, to define strategies to preserve "*for the long-term the firm's organizational skills, facilities and capital and to allocate resources -capital and product-specific technical and managerial skills- to*

pursue these strategies" (Chandler, 1991 p.33). Through this role, HQ discovers and explores new business opportunities worldwide, stimulates the subsidiaries in understanding the attributes of their markets and their changing nature and helps them to assimilate these changes into their business strategies.

- The second is more administrative or loss-preventive, that is, to monitor the performance of the operating units; to check on the use of the resources allocated; and, when necessary, to re-define product lines so as to use effectively the firm's organizational capabilities (Chandler, 1991).

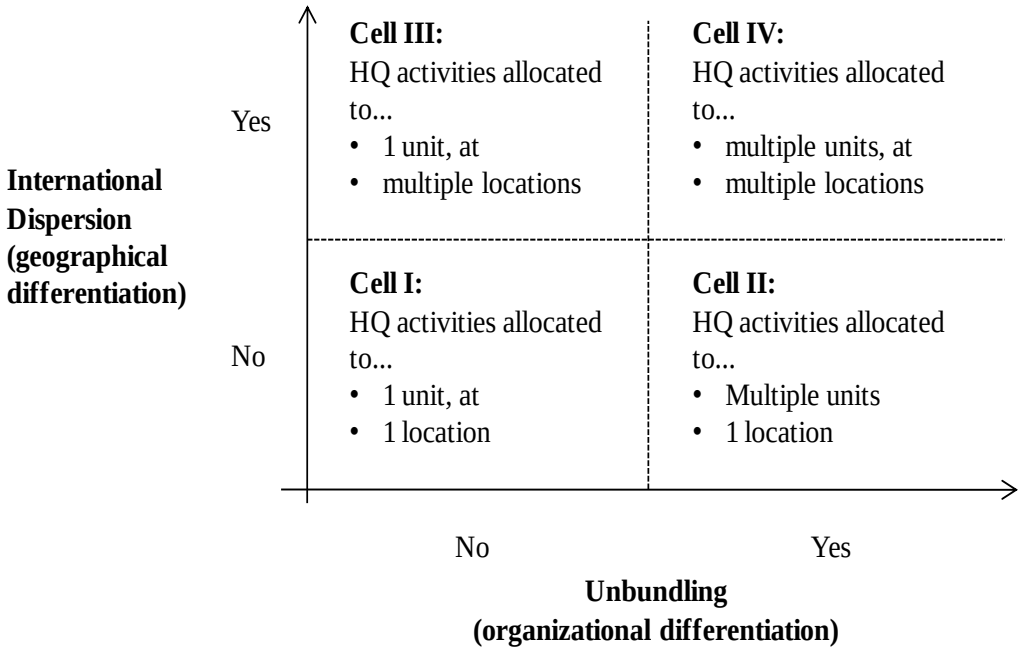
Moreover, in literature, scholars identify also a third role of Corporate HQ, defined by Goold et al. (2001) as the minimum parenting role such as legal and firm representative, basic financial aggregation, or regulatory work. At the corporate HQ level, all the mandatory reporting and compliance functions, like legal, financial, or regulatory, have to be performed. "*This role as the representative of the firm to external constituencies is a pure overhead expense since it has no operational benefits*" (Collis et al. 2007; p. 388). Furthermore, tipically Corporate HQs deal also back office functions, such as payroll processing, but they could be as efficiently delegated at business units, or even outsourced to external parties (Collis et al., 2007).

In literature, HQ activities and roles have been analyzed through two completely different approaches: on one side, there are olistic studies, that try to figure out the types of activities allocated to each unit, e.g. corporate HQ, divisional HQ, regional HQ or centers of excellence (Goold et al., 2001; Chandler, 2001; Williamson, 1975). On the other side, there are studies that focus their attention on a particular HQ unit and investigate the types of activities realized (Piekkari et al. 2010; Lehrer & Asakawa 1999; Ambos & Schlegelmilch 2010).

Although these studies show many evidences on the type of activities and the size of different HQ units, extant literature has given little emphasis to the actual geographical configuration

of HQ activities, and the obvious complexity related to this phenomenon (Birkinshaw et al. 2006; Nell & Larsen, 2012). Following Nell & Larsen (2012), the actual HQ system can be described through two different dimensions: the geographical dispersion of HQ activities (i.e. the HQ relocation phenomenon) and the relocation or allocation of these activities to different units (i.e. the degree of organizational differentiazion). For example, two opposite situations could be identified: on one side there are some MNCs, that allocate all parenting activities to a unique HQ unit (often corporate headquarter), established in the home country; while on the other, some MNCs spread and differentiate their HQ activities in multiple different locations. Considering the two identified dimensions, Nell and Larsen (2011) show four possible configurations of HQ activities, as the following Figure 1 shows.

Figure 1. HQ configurations



Source. Nell & Larsen (2012)

The first situation (Cell I) is characterized by the allocation of all HQ activities to one classic corporate HQ established frequently in the home country. It is typical of single-firm business,

but this situation could also include firms that decide to allocate all parenting activities (so corporate HQ) to another country. For example, Scandinavian MNCs use to move out of their home country their HQ units (Birkinshaw et al., 2006; Benito et al., 2011).

The next situation (Cell II) is represented by firms that operate with one single HQ unit, but HQ activities are allocated to a multitude of units. It's a typical case of divisionalized corporations. Divisionalization is a way to handle increasing size, operational diversity and geographical dispersion making a clear distinction between operational and strategic question in the organization (Forsgren et al., 1995; Hendlund and Aman, 1984; Nell & Laursen, 2012).

In the third situation (Cell III) MNCs decide to operate with one single corporate HQ unit with top management located in different places. Barner-Rasmussen et al. (2007) speak about *virtual relocation* and describe the case of the Swedish based bank Nordea.

The last situation (Cell IV) is characterized by HQ activities dispersed geographically and relocated outside national country (Birkinshaw et al. 2006). In this case, it is more difficult to clearly identify corporate, divisional or regional HQs (Barner-Rasmussen et al. 2007).

In sum, the actual make-up of HQ units varies enormously from case to case (Birkinshaw et al. 2006), increasing complexity in management parenting activities. MNCs present different HQ configurations and an increasing geographical dispersion of HQ units. However, the actual geographical configuration of HQ activities, stressed by the recent phenomenon of HQ relocations, deserves more careful academic investigations.

6.4 Economic crisis and Organizational behaviour.

Crisis is an occasional event, that influences considerably the life cycle of a business or an organization, and the economic life of a country (Grewal & Tansuhaj, 2001; Pearson & Clair, 1998; Sayegh, et al., 2004). Weick (1988; p. 305), for example, argues that crises are "*low*

probability/high consequence events, that threaten the organization and its goals". Person and Clair (1998; p.60) state that "*a crisis is a low probability, high impact event that threaten the viability of the organization and is characterized by ambiguity of cause, effect and means of resolution, as well as by a belief that decisions must be made swiftly*". In this stream, Barton (1993; p.2) defines crisis as "*a major unpredictable event that has potentially negative results*". Crises can be defined also as "*transient perturbations whose occurrences are difficult to foresee and whose impacts on organizations and institutions are disruptive and potentially inimical*" (Meyer, 1982; p.515). According to the extant literature crisis is considered as a specific, unexpected and non-routine exogenous event that can change the "*rules of the game*" and disrupt established organizational structures, routines, procedures, relationships, norms and belief systems. Whether imposed on the organizations by outside forces or initiated by management behaviour and decisions, crises are sources of profound, significant, often precipitating radical, rapid and negative changes (Seeger et al., 2005). These circumstances generate an incredible amount of uncertainty, confusion and fear, pushing organizations to take fast, but at the same time relevant decisions to increase the likelihood of survival. However, uncertainty reduces the availability of information, that can often be inaccurate, incomplete or confusing (Sayegh et al., 2004). From an organizational perspective, crisis can be viewed as "*a decision situation that may equate to an endangerment of the organization's health and, therefore, survival*" (Sayegh et al., 2004; p.183). Summing up the main contributions about crisis topic, it is possible to identify four major possible attributes of crisis:

1. high ambiguity with unknown causes and effects;
2. unusual and unfamiliar event;
3. serious threats for the survival of the organization and its stakeholders;
4. organizational dilemma between inertia and taking fast and important decisions.

Despite the different forms of crisis, I focus in particular on the effects of economic crisis on firms' and institutions' behaviour. Scholars link economic crises to the concept of business and country cycles (Grewal & Tansuhaj, 2001) and to periods of expansion and contraction. However, not all periods of contraction can be classified as an economic crisis (Grewal and Tansuhaj, 2001). Economic crises are defined as contractions in which **real output** (measured usually by real gross domestic product (GDP)) and **employment rate decrease**, level of inflation increases, currency becomes unstable and many different macroeconomic indicators move (Foss, 2010; Fratzscher, 2009; Hoshi & Kashyap, 2004). Moreover, another proxy of economic crisis could be the stock market fluctuations. In particular, negative and persistent stock market trends are evidences of economic crises (Wadhwani, 1999; Lim et al., 2008; Kotz, 2009). Economic crises can affect a country (like in Mexico in 1994) or a region (like in Asia in 1997) or different countries at the same or in different time (like the current economic crisis). In the past, the main economic crises were the Great Depression of the 1930s, characterized by a chronic insufficiency of demand, the oil shock of 1970s, attributed to an external shock, the Brazilian crisis of the 1980s, generated by governmental failures, the recent Asian crisis, caused by antiquated practices and idiosyncratic cultural elements, and, finally, the current global recession, that is affecting all countries in the world at different degrees. For example, currently Greece and Spain are strongly affected by economic crisis, but it is not possible to say the same for Germany as well.

How do firms, in general, and MNCs, in particular, react to economic crises? MNCs are organizations, spread worldwide and strongly affected by external environment. The major consequences of economic crises for MNCs can be summarized in (Chung & Beamish, 2005; Chung et al., 2008; Singh & Yip, 2000):

- losses of markets, because sales decline significantly as purchasing and confidence decline;

- disruption of supplier and buyer chains and collapse of local partners, because many local enterprises fail or lack the resources to operate reliably;
- increase in financial risks, because of uncertainties in exchange rates, inflation, interest rates and the availability of funds;
- disruption of cost structures, as a consequence of increase in financial costs and risks, and the loss of sales and market shares;
- greater political risk, because countries can answer to crisis undergoing unscheduled or unexpected changes in political leadership and increasing bureaucracy and control.

These unstable and high risky situations are the primary threat to organizational stability and status quo, increasing the vulnerability of organizations to takeover and bankruptcy (Seeger et al., 2005; Smart & Vertinsky, 1984). Clearly, scholars have shown that "*some MNCs tend to be more accident prone than others, and some are less prepared to respond to crises than others*" (Greening & Johnson, 1997; p.335). After a first time of "organizational inertia" (MNCs are confused and don't know what to do at the beginning of crisis), MNCs' responses to economic crisis are driven especially by efficiency needs (Greening & Johnson, 1997; Singh & Yip, 2000; Staw, Sandelands, & Dutton, 1981). During times of crisis, many firms naturally try to minimize losses through asset conservation, centralization of authority and increase in formalization (Staw et al., 1981; Singh and Yip, 2000). Cost reduction is required, especially, if rapid growth prior to the crisis can have hidden inefficiencies within firms. When markets start to decline, it is important to address these inefficiencies (Singh and Yip, 2000). Outsourcing or other eliminating not core activities may be ways to react during economic crisis (Foss, 2010). However in economic literature the most widely acknowledged response to economic crisis is the centralization of authority, in terms of reduction in autonomy and local decision power (Greening & Johnson, 1997; Prechel, 1994; Staw et al., 1981). In the context of MNCs, it means to centralize decision making authority and core

functions at the headquarters level (Egelhoff, 2010; Young & Tavares, 2004), reducing or limiting local decision power. This tendency is particularly great when the crisis is felt by distant subsidiaries.

Scholars have also shown that during crisis MNCs are driven by the need to repair legitimacy, even because in these times managers have little rational basis for taking decisions (Foss, 2010). MNCs can experience a loss in legitimacy if their actions no longer conform to what is considered to be an appropriate organizational behaviour (Massey, 2001). Organizational and strategic actions are subject to scrutiny of different internal and external actors. Crisis increases uncertainty in external environment that can de-legitimate MNCs, for nature un-proactive and un-flexible to rapid change (Massey, 2001). It also increases considerably stakeholder heterogeneity, becoming more challenging for MNCs to satisfy constantly all their various stakeholders. One important strategy to regain legitimacy for MNC can be to restructure its internal configuration (Suchman, 1995). Thus, during economic crises, MNC behaviour is subject to two different pressures: from one side the need to minimize losses and to improve internal efficiency; from the other the need to repair both internal and external legitimacy.

Nevertheless, extant studies have paid limited attention to the effects of environmental dynamics, such as economic crises, and how such dynamics affect the institutional pressures on MNCs. These changes influence both MNCs' behaviour, affecting their organizational configuration and strategic choices, and the institutional environment, reflecting on the main domains of institutions (normative, regulatory and cognitive) (Chung et al., 2010, 2008; Chung & Beamish, 2005; Grewal & Tansuhaj, 2001; Lee & Makhija, 2009). By increasing unemployment or exchange rate volatility (Kogut & Kulatilaka, 1994; Reuer & Leiblein, 2012), as well as political or country risks (Makhija & Stewart, 2012; Makhija, 2012; Slangen & van Tulder, 2009), economic crises push MNCs to reconfigure their value chain

activities, relocating their business units (Volberda, 1997) or even Headquarter units, worldwide. For example, recently Akeydor, a Greek global distributor of secure and robust software technologies, systems and device, relocated its corporate HQ in UK to avoid the effects of the current economic crisis that is decreasing the quality of institutions in Greece. In particular, the strong institutional control, the huge bureaucratic procedures and political instability are some of the main reasons that pushed this firm to move its HQ out of its home country.

6.5 Summary of literature review

In sum, I see a need to further investigations on the antecedents of HQ relocations overseas, because potentially important drivers and barriers of relocation decisions still remain overlooked. In detail, future study should move away from an overly myopic focus on efficiency motives to explain HQ relocation and consider other possible complementary explanations of this phenomenon. As shown from some empirical evidences, HQ relocations are not purely driven by efficiency/rational criteria, but also by the need to give an answer to the coercive, normative and isomorphic pressures from institutional field.

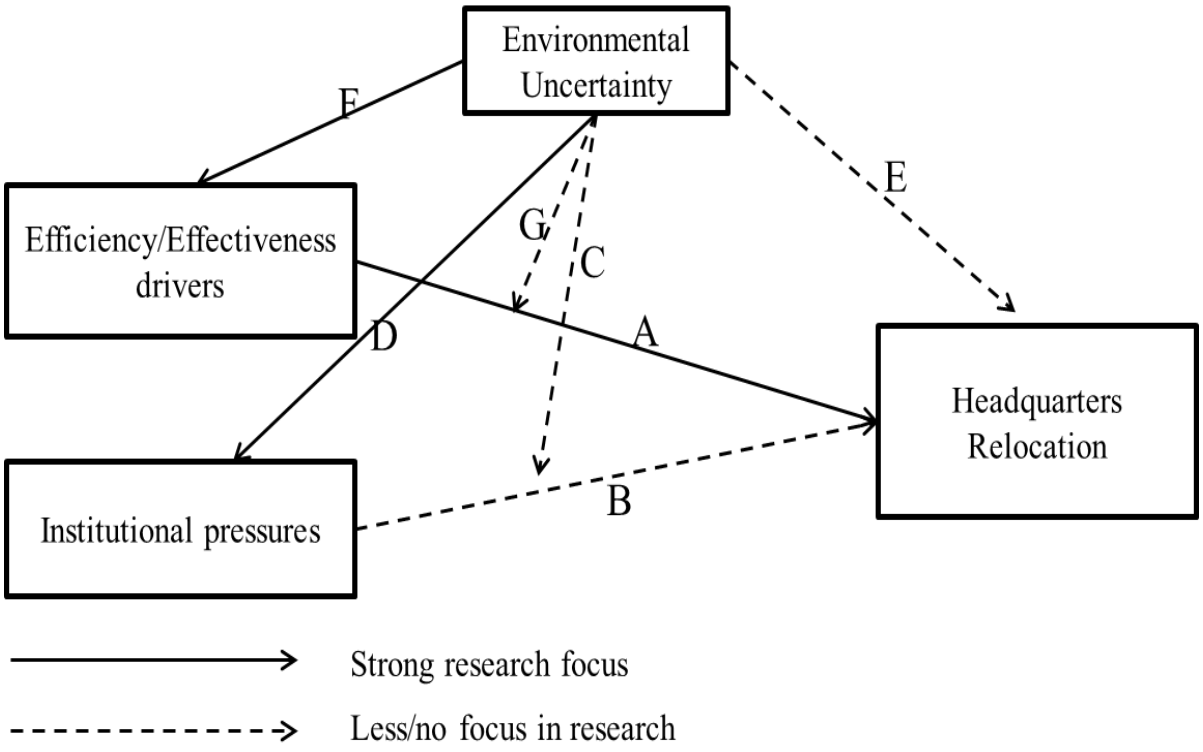
1. Existing research focuses attention on one single country or domestic relocations, neglecting the possible impacts of institutional country differences on the decision to relocate HQ units. Moreover, relocations within one single country are likely to be explained by different factors with respect to those among different countries, characterized by completely different attributes and environments (Laamanen et al., 2011).
2. The literature shows that there is a gap regarding the antecedents of HQ relocations and the parenting activities' geographical distribution. Although some studies

represent an important move away from an overly myopic focus on efficiency motives to explain HQ relocation (Benito et al., 2011; Birkinshaw et al., 2006; Laamanen et al., 2011), they overlook that MNCs are subject to multiple institutional pressures that can influence or modify their organizational decisions. Thus, there is needed a more careful investigation of the impacts of institutional factors on HQ relocation decisions, both as complementary and as alternative explanations of this phenomenon.

3. Extant studies have paid limited attention to the effects of environmental uncertainty, such as external and unpredictable shock, and how such uncertainty affects the institutional pressures and efficiency/effectiveness drivers on MNCs, and in particular on relocation decisions. These changes influence both MNCs' behaviour, affecting their organizational configuration and strategic choices, and the institutional environment, reflecting on the main domains of institutions (normative, regulatory and cognitive) (Chung et al., 2010, 2008; Chung & Beamish, 2005; Grewal & Tansuhaj, 2001; Lee & Makhija, 2009). These dynamics can push MNCs to reconfigure their value chain and parenting activities.

I have summarized the research gaps in the following Figure 2, that shows the extant study and the possible future avenues.

Figure 2. Enlarged framework of HQ relocations.



Furthermore, looking only at relocation literature, although the HQ relocation abroad increases operating costs of organization because such operating activities, like human resources, play more active role in the overall process of relocation (Gregory et al., 2005), and complexity in HQ configuration (Nell & Larsen, 2011), extant studies have paid little attention to the consequences of HQ relocation on the organizational and financial performance of MNCs. Moreover, the relocation decision process has not received attention in the extant literature, even if it could be related to the offshoring process. In this direction, there are many studies about offshoring process in the offshoring literature.

7 Theoretical framework and hypotheses development[2]

The theoretical basis of my research is the institutional theory (IT). I take into account the social construction of organizational behaviour and recognize the limits imposed by social constraints on a purely economic basis. Often, organizational actions are driven by pressures from other actors in the organizational field and by the need to respond to these pressures to achieve legitimacy.

My research will be based on the enlarged framework of HQ relocations as depicted in Figure 2. I focus on the previous identified research gaps 1-2-3. In particular, I investigate the impacts of coercive, isomorphic and normative pressures on HQ relocation decisions in multi-country settings (Gaps 1-2) and I explore the possible impacts of unexpected changes in environment, caused for example by external events like economic crises, on the institutional factors and on the HQ relocation decision (Gap 3). Hence, I will focus on certain parts of the above-mentioned framework. My research model will integrate the relationships B, C, and E (see Figure 2).

7.1 Model of HQ relocation through an institutional perspective

Based on the literature review, I suggest that HQ relocation is driven not only by efficiency-effectiveness motives, as the previous research testifies, but also by behavioural and institutional factors. This lack of attention implies that potentially important drivers and barriers of relocation decisions remain overlooked. Firm behaviour is not always based on "*managerial*" throughts and driven by efficiency needs, in terms of cost minimization, even in high competitive environments. Sometimes, firms struggle to achieve legitimacy, facing

[2] The theoretical framework of the current study is part of Valentino et al., (2013). "Time to move on? The impact of institutions and economic crises on headquarter mobility", accepted at the 2013 Annual Meeting of Academy of International Business.

pressures to conform to their institutional environments. Thus, I show how institutional and behavioural needs can influence the behavior of MNCs and, in particular, their relevant decision to relocate HQ units. I highlight how the three main institutional pressures, i.e. isomorphic, coercive, and normative, can differentially impact on such decision.

Furthermore, I complicate my theoretical model, addressing the effects of an external and unpredictable shock, like economic crises, that generate a turbulent, uncertain, and hostile environment. I show how an economic crisis situation plays a role on the international configuration of HQ activities. During a crisis situation I expect a more strongly reaction of MNCs to coercive, isomorphic, and normative pressures.

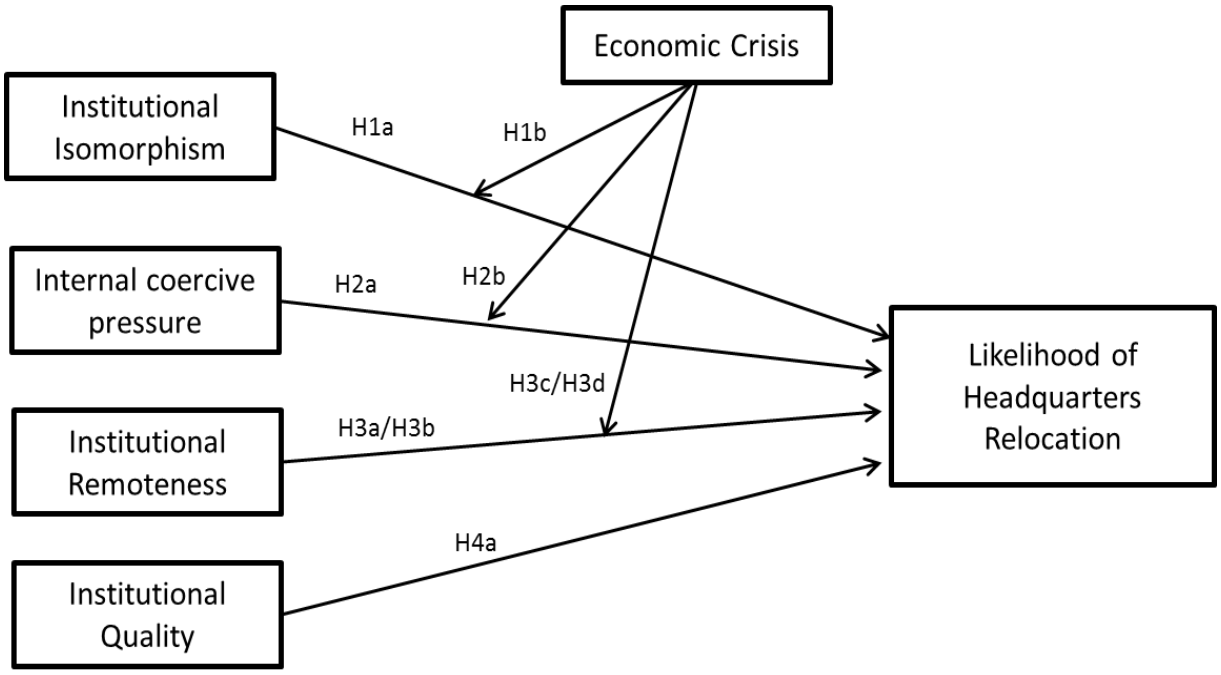
The model consists of different elements related to the institutional pressures, as well as to crisis situation. Regarding the institutional pressures, I will study:

- the mimetic isomorphism, in terms of institutional isomorphism;
- the coercive pressure, in terms of the degree of ownership structure concentration;
- the normative pressures, in terms of the institutional quality of HQ location;
- the concept of institutional remoteness in the HQ configuration.

Moreover, building upon the findings in my literature review, I will study the role of economic crisis, comparing what happens in crisis situation vs. times of stability.

The following Figure 3 illustrates my research model and the effects of economic crisis.

Figure 3. Theoretical Model



7.2 Mimetic Isomorphism

As I wrote in the literature review, one of the most important processes through which organizations achieve conformity is isomorphism or **mimetic isomorphism**. It occurs when organizations respond to uncertainty by adopting the patterns of other successful organizations (Kostova & Roth, 2002). Organizations use to model themselves on similar and comparable organizations that are more legitimized by institutional actors in their field (Di Maggio & Powell, 1983). "*The ubiquity of certain kinds of structural arrangements can more likely be credited to the universality of mimetic processes than to any concrete evidence that the adopted models enhance efficiency*" (Di Maggio & Powell, 1983; pp. 150-151). Thus, mimetic isomorphism can be defined as a process through which organization changes its configuration over time, becoming more similar to other organizations in its environment. When faced with uncertainty, firms are more likely to imitate the actions and patterns of other organizations, replacing institutional rules with technical rules (Meyer & Scott, 1983).

Sociologists, under the banner of institutional theory (Di Maggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 1987; Zucker, 1987), speak about "institutional isomorphism" as a driver of mimetic behaviour. Moreover, isomorphism can be external and internal (Rosenzweig & Singh, 1991). External isomorphism means that MNCs need to respond to external pressures from other actors of its organizational field, while internal one originates from other entities within MNCs.

7.2.1 Institutional isomorphism

Institutional isomorphism can be defined as the extent to which an organization's strategy resembles the strategy and the behaviour adopted by main competitors or other related and similar actors (for example, customers, suppliers, institutions, and so on) in its competitive environment (Abrahamson & Rosenkopf, 1993; Henshel & Johnston, 1987; Hutzschenreuter, Pedersen, & Volberda, 2007; Zhou, Wu, & Luo, 2007). The mere fact that main competitors or other firms in the firm's institutional field have relocated their headquarters units overseas becomes the cue of normality. When it happens, MNCs that don't relocate their HQs, appear abnormal and illegitimate to their stakeholders (Abraham & Taylor, 1993). Such behaviour is not necessarily efficient in terms of its direct effects on performance, but the social legitimacy, it provides, can generate benefits in the long run. "*Structural change in organizations seems less and less driven by competition or by the need for efficiency*" (Di Maggio and Powell, 1983; p.144). In the context of MNCs, mimetic isomorphism is limited by the multiplicity and ambiguity of organizational field (Kostova et al., 2008): "*The diversity among the many institutional systems that they are exposed to and the unique sets of arrangements that each MNC unit faces give these organizations broader latitude in picking and choosing which models to adopt and to what extent they should respond to institutional influences*" (Kostova et al., 2008; p.999). One precise organizational field is arguably very

difficult to identify. MNCs and their subunits operate in different, fragmented, nested, and sometimes conflicting institutional environments (Kostova et al., 2008). These multiple organizational fields reduce the need of isomorphic behaviour, especially at the meso-level. However, it doesn't mean that MNCs don't tend to model each other, originating mimetic processes and isomorphic pressures. To identify this mimetic behaviour, I adopt a different definition of organizational field, switching my attention from the meso- to the meta-level of analysis. Meta-institutional field is a broad, but at the same time a narrow concept: it is broad, because it refers to MNCs on the whole, and narrow in consideration of the number and the amount of institutionalized values and practices that it encompasses (Kostova et al. 2008). Through their international configuration, MNCs interact with many different, but at the same time comparable actors, that are part of their meta-organizational field and can influence their behaviour. Thus, I expect a positive but weak effect of previous relocations of other MNCs on HQ relocation decisions by individual firms.

However, it has also been argued that mimetic isomorphism becomes more important when external uncertainty and turbulence increase (Di Maggio & Powell, 1983; Haveman, 1993; Kostova & Zaheer, 1999). Uncertainty is a powerful force that encourages imitation and pushes organizations to model themselves on others (Di Maggio and Powell, 1983). When faced with high uncertainty and turbulent environment, like during economic crises, imitating the actions of other organizations, economizing on search costs, is seen as a good and easy response (Haveman, 1993). In these situations, a firm models itself on other organizations, especially on the organizations that are closely comparable to it, in response to the uncertain environment (Lai et al., 2006). For example, in 2008, Yahoo! relocated its European Headquarters from London to Switzerland, after studying and speaking to other "comparable" companies that had moved there. Yahoo had analysed EA, Cisco System, Kraft Foods and

Google, that had all established their European Headquarter in Switzerland in the previous few years (The Guardian, 2008). Therefore,

Hypothesis 1a: Previous HQ relocations, taken by other MNCs, increase the likelihood of further imitative HQ relocations.

Hypothesis 1b: During times of economic crisis, previous HQ relocations by other MNCs increase the likelihood of further HQ relocations more than during times of economic stability.

7.3 Internal coercive pressure

I argue that **coercive institutional pressures** against or in favour of relocation can be related to the ownership structure of the firm. The ownership structure of the firm can be considered as a relevant internal institutional constrain (Chizema & Kim, 2009; Eden & Miller, 2004). Owners not only monitor and control the actions of managers (Jensen & Meckling, 1976), but also create an internal culture and identity. Identity can be defined as the sharing of conventions and rules by which different units coordinate their behaviour and decision making (Kogut & Zander, 1996). Identity makes the formation of shared values easier, lets expectations among units converge, and fosters ties and similarity among them. In sum, a firm's identity is likely to reflect the values, principles, norms, believes, and ideals of the firm's owners. This coercive pressure is stronger when a family owns the firm, and weaker when there is dispersed ownership. For example, Benito et al. (2011) argue that "*when shares are widely dispersed, no single owner is in a position to exert pressures to keep headquarter functions at home*" (Benito et al., 2011, p.381). In a situation of dispersed ownership, all investors are minority owners with different values, principles, rules and so on, and none of them can achieve a dominant position. In literature, three different ownership models can be

identified: dispersed ownership, where the ownership is widely dispersed; dominant ownership, where one owner owns between 20 and 50 percent of the shares and he can be defined as the main owner of the company; finally, family ownership, in which a family owns the majority of shares (Pedersen & Thomsen, 1997). Therefore, I expect that ownership concentration and especially family ownership are negatively related to the likelihood of HQ relocation. This situation is exacerbated during economic crises. External uncertainty changes the "rules of the game", modifying established relationships. The familiarity of firms' internal environment and the firms' identity are considered as a safe refuge to understand how to react and which strategic and organizational moves to make. Moreover, the high uncertainty generated by economic crisis pushes owners to be more anxious and careful on strategic and organizational decisions leading towards more centralization. Thus, I expect that concentrated ownership structure is a more powerful constrain in economic crises than in stable environment.

Hypothesis 2a. An increase in ownership concentration decreases the likelihood of HQ relocation.

Hypothesis 2b. During times of economic crises, ownership concentration is a more powerful constraint for HQs relocation than during times of economic stability.

7.4 The Effect of Institutional Remoteness.

MNCs are, by definition, geographically dispersed. Therefore, there is to vary extent "distance" between them that has to be bridged. The MNC is willing to coordinate their activities across the markets in which the MNC is active. Distance can be understood as a multi-dimensional construct covering many institutional aspects such as administrative, cultural, and political differences between countries (Berry, Guillén, & Zhou, 2010). In the

institutional literature, administrative distance is defined like the differences in bureaucratic models caused by language, religion and legal systems (La Porta et al., 1998; Henisz, 2000; Berry et al., 2010). Scholars have analysed administrative distance by identifying if countries have a common language or a common legal system (Berry et al., 2010; Guillén & Suárez, 2005). On the other hand, cultural distance derives from the differences in behaviour toward authority, trust, individuality and the importance of work and family (Berry et al., 2010; Hofstede, 1980; Inglehart, 2004). Finally, the institutional literature has also emphasized that countries can be different for the nature of their political systems (Henisz & Williamson, 1999; Henisz, 2000). In this direction, scholars have measured political distance both in dichotomous terms (for example, democratic or autocratic regimes) and through continuous political dimensions, like institutional checks and balances, democratic character, the size of the state relative to the economy and external trade associations (Berry et al., 2010; Brewer, 2007; Demirbag et al., 2007). These institutional differences take into consideration the main specific attributes of a country and they are considered as important key dimensions to identify institutional differences across countries. Previous research underlines how each dimension of distance can influence organizational or strategic decisions (Berry et al., 2010; Demirbag, Glaister, & Tatoglu, 2007; Ghemawat, 2001; La Porta et al., 1998). HQ units (DHQ and RHQ) are intermediary lines of control between CHQ and local subsidiaries (Forsgren et al., 1995). From an institutional perspective, they are subject to push and pull legitimacy pressures. On one side, they need to be closer to CHQ that vests them with internal authority, power and legitimacy. Differences in cultural, political, and administrative experience reduce the possibility of CHQ to intervene in and to communicate with HQ units. On the other side, distance between the HQ unit and its subsidiaries reduces the ability of the HQ unit to exert its power and authority on the subsidiaries, because it is not legitimized by them (Brenner & Ambos, 2012). Distance increases the likelihood that HQ units do not share

the same values, culture, language, and knowledge and the institutional context of their CHQ and their subsidiaries (Brenner & Ambos, 2012; Suchman, 1995). From subsidiaries' and CHQ's perspective, distance reduces legitimacy of the HQ unit which, in turn, can lead to more subsidiary resistance, misunderstandings, or increased coordination efforts. Thus, HQ units struggle with an institutional dilemma between receiving/fostering legitimacy with the CHQ versus receiving/fostering legitimacy with local subsidiaries. They cannot be too far from CHQ, but at the same time they should be closer to their centre of gravity, i.e. the subsidiaries under their control. One way to overcome this internal legitimacy dilemma is to reduce institutional distance, relocating HQ unit. Institutional distance plays an important role in balancing internal legitimacy. This relocation is perceived as an attempt of HQ units to be more involved in CHQ's or subsidiaries' business, environment and values. Thus, I expect that an increase in multidimensional distance from CHQ and remoteness between the HQ unit and the centre of gravity increases the likelihood of HQ relocation. During times of economic crises, I expect that firms react more sensitively and quickly to growing distance and remoteness of their HQ units. For example, in the on-going economic crisis, a firm might experience declining Western markets while Asian markets continue to grow. Thus, the HQ is increasingly remote from the most important markets and firms might react quickly to move their HQ to Asia. But, at the same time MNCs use to response to economic crises reducing local autonomy and decision power in favour of a stronger hierarchical control (Staw et al., 1981; Greening and Johnson, 1997; Singh and Yip, 2000). The result is a reduction in decision units and decision makers in the organization (Hermann, 1963; Prechel, 1994). As a direct consequence, I expect a stronger influence of CHQ on the relocation decision of HQ units. To maintain and foster their internal legitimacy and power, divisional and regional HQs move closer to CHQ than their centre of gravity. Managers are more confident if HQ units "*are located close to CHQ to reduce distance and ensure rich, quick,*

and unbiased communication" (Lunnan et al., 2011; p.132). So, during times of economic crises, distance from CHQ influences the likelihood of HQ relocation stronger than the remoteness between HQ unit and local subsidiaries. Therefore:

Hypothesis 3a: An increase in institutional distance from CHQ increases the likelihood of HQ relocation.

Hypothesis 3b: An increase in institutional remoteness between HQ units and local subsidiaries increases the likelihood of HQ relocation.

Hypothesis 3c: During times of economic crisis, an increase in distance from CHQ and institutional remoteness has a stronger effect on the likelihood of HQ relocation than during times of economic stability.

Hypothesis 3d: During times of economic crisis, distance from CHQ has a stronger effect on the likelihood of HQ relocation than the remoteness between HQ and local subsidiaries.

7.5 Institutional Quality Effects

Institutional quality can be defined as the quality of state political and legal institutions, and governance infrastructure of a certain country (Chong & Calderón, 2000; Huang & Wei, 2006; Kaufmann, Kraay, & Mastruzzi, 2009; Kaufmann & Kraay, 2003; Levchenko, 2007; Sobel, 2008). In this context, it is considered as a strong **normative institutional pressure** on firm behaviour, related to the characteristics of HQ location. Following Kaufmann et al. (2009), the institutional quality is related to 6 specific indicators that change over time:

- *voice and accountability*, the extent of the citizen participation in selecting government, as well as freedom of expression, freedom of association and a free media;

- *political stability and absence of violence*, the likelihood of government destabilization through unconstitutional or violence means;
- *government effectiveness*, the quality of public and civil services and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of government;
- *regulatory quality*, perceptions of the government ability to formulate and implement policies and regulations;
- *rule of law*, the quality of contract enforcement, the police and the courts;
- *control of corruption*, the extent to which public power is exercised for private gain.

"Good governance" is seen as a means of achieving development and a development objective in itself (Thomas, 2009). Moreover, institutional differences are considered as source of country comparative advantage (Levchenko, 2007). The growing interest in this concept has attracted also international business scholars. In particular, they relate the institutional quality to entry mode choices and location decision, focusing on corruption, government effectiveness, and political risk issues (Kwok & Tadesse, 2006; Slangen & van Tulder, 2009). Of course, multinational corporations are sensitive to their home location's institutional quality and to its changes over time. Political instability, corruption, or a weak legal system can lead to large risks and costs. The institutional quality of certain countries can have a direct effect on the likelihood of HQ relocation, because sometimes changes in the government system can push down regulatory quality and government effectiveness (Hopkins, 2006). These changes can therefore have substantial influence on the various dimensions of institutional quality, decreasing country freedom and growth (Ali & Crain, 2001). Demonstrations, strikes, and street violence / riots can increase in these circumstances as well corruption. Other countries, instead, can experience a shift towards hard-playing governments that reduce freedom of speech and influence media more strongly. For example,

Hungary lost 17 positions in the press freedom index from 2010 to 2012 after the parliamentary election in 2010. In such problematic situations MNCs need to engage in many difficult interactions with many different institutional actors that become more oppressive on MNCs' actions. Firms faced with such problematic institutional quality are more likely to search for safe havens (similar to the movements of capital) and, therefore, to relocate their HQs away from the troublesome countries. Thus, I hypothesize the following:

Hypothesis 4a: A decrease in the institutional quality of the HQ location increases the likelihood of HQ relocation.

7.6 Summary of the theoretical framework

In sum, I would like to investigate the effects of institutional pressures, divided into isomorphic, normative and coercive, on the decisions to relocate HQ units overseas. Each hypothesis takes into consideration a precise institutional pressure. I consider as an isomorphic pressure, the institutional isomorphism; as a normative pressures, the institutional quality of HQ home country; and, finally, as a coercive pressure, the ownership structure. Furthermore, the institutional remoteness cannot be exclusively related to a specific institutional pressure. It includes aspects in common to the three main types of institutional pressures at the same time. For example, distance increases the likelihood that HQ does not share the same values, culture, language, and knowledge of the subsidiaries, loosing internal legitimacy. In this sense, the movement close to the subsidiaries can be driven by internal isomorphic pressure (to be similar to internal units, in this case subsidiaries), and by coercive pressure (to re-establish internal legitimacy). Thus, for the sake of simplicity I include institutional remoteness in each institutional pressure in Table 2.

So, the aim of the following Table 2 is just to relate easily and clearly each hypothesis to the own institutional pressure.

Table 2. Institutional pressures and HQ relocation

Isomorphic Pressures	Normative Pressures	Coercive Pressures
Institutional Isomorphism	Institutional quality	Ownership structure
Institutional remoteness	Institutional remoteness	Institutional remoteness

8 Methodology

8.1 Research context

In my dissertation, I focus my attention on the movement of HQ units outside national countries. In particular, I consider the relocation of every type of HQs (corporate, divisional and regional ones) inward and outward European countries from 2000 to 2012.

My unit of analysis is the HQ unit. I am interested into investigate the reasons that push HQs to move out their home country.

I constructed by hand **a multi-country dataset**, focusing my attention on different European countries. An international dataset offers many different and valuable advantages. First of all, I can compare the different institutional situations in European countries, considering variables like GDP per capita or employment rate, or cultural and administrative differences, and investigate their impacts on relocation decisions. Moreover, these variables "*are likely to exhibit more variation in an international rather than a national setting (such as in the case of differences between US states)*" (Laamanen et al., 2011; p.3). Second, a multi-country dataset gives the opportunity to consider to some extent completely different variables and factors of HQ relocation respect to a single and domestic one (Laamanen et al. 2011). Moreover, the benefits and, on balance, the costs of multi-country relocations are presumably different and greater than domestic or one country relocation. Finally, but not less important than the previous, this particular dataset is interesting also from a descriptive statistical perspective. In fact, it gives the possibility to better show the trend and the distribution of relocation decisions with particular attention to the kind of firms relocating, their ownership structure, size, sector of activity, country of origin; frequent home and host locations, and the timing of the relocations. In addition, it compares and contrasts the different motivations and

triggers of HQs relocation. Thus, this international dataset can give an answer also to more practical and managerial questions about relocation decisions.

8.2 Data

8.2.1 Target sample

My target sample is composed by the relocations of HQ units, divided into corporate, divisional and regional HQs, occurred in European countries during 2000-2012. In particular, unlike Laamanen et al. (2011), I considered the movements in 27 European countries, i.e. EU-25 plus Norway and Switzerland. Laamanen et al (2011) justify their decision to consider only EU-15, because the lower availability of quality internet sources in newer EU states, especially in the earlier years of their sample (1996), could decrease quality. However I started to collect data from 2000 and newer EU states (I mean Cyprus, Hungary, Poland, Latvia, Czech Republic, Slovenia, Malta, Lithuania, Estonia and Slovakia) were accepted at the beginning of 2004, submitting application in 1998. Moreover, they adopted the European Union standards just before 1998 to submit the application. For the same reasons of Laamanen et al. (2011), I excluded from my analysis the latest members, Bulgaria and Romania.

I started to collect data from 2000, even if there were few prior cases of relocation going back as far as 1988. I excluded those cases, because the lack of information about them could reduce the quality of my sampling procedure.

I focused only on HQ relocations, i.e. any movements of subsidiaries or other facilities, like production, R&D or customer service centres, are not included. Based on my previous literature review, relocation is a process through which a firm moves its HQ from one country to another and HQ unit maintains "*a degree of continuity in identity*" (Laamanent et al., 2011;

p.9). The first establishment of HQ in an European country from other locations, like for instance USA, China, or India, is also included in the previous definition. Finally, in the sampling procedure I considered any movements of HQs among European countries and inward/outward Europe.

The sampling procedure was based on LexisNexis[3] and Factiva[4], two different news databases that collect articles from main magazines and journals. I paid particular attention on the issue of **potential false positives** in sampling. When do false positives occur? A false positive occurs when observations, in this particular context HQ relocations, that really didn't happen, are included in the sampling activity. For example, newspapers can anticipate a relocation event, that doesn't come true indeed, or that has not yet been realized. I didn't include these cases in my sample. I controlled also for the opposite case of **potential false negatives** in sampling. Of course, they occur when I miss any HQ relocations that actually took place. To reduce these two kinds of sampling error, I went through several other sources of information in addition to LexisNexis and Factiva. For example, I went through stock market notifications, local business press, financial press and Google news. Moreover, I made an extra check on firm archive documents per each relocation event within my sample to exclude the possible presence of false positives.

I analysed also previously described relocation cases in the literature. If these relocation cases happened during my time frame (2000-2012), I included them in my sample after a careful check on news databases, Google news and annual report.

[3] LexisNexis is "*a leading global provider of content-enabled workflow solutions designed specifically for professionals in the legal, risk management, corporate, government, law enforcement, accounting, and academic markets*" (http://www.lexisnexis.com/en-us/about-us/about-us.page). It has the world's largest news database for legal and economic information.

[4] Factiva is a business information and research tool owned by Dow Jones & Company and takes into consideration news that come from both licensed and free sources. It provides access to more than 36.000 sources from different countries and in different languages.

I expect my sample as a complete set of relocation phenomena occurred in Europe in my time frame and considered important enough to be mentioned by international financial press and by stock exchange documents. My sample doesn't include information on small companies and on relocations that don't bait the attention of financial press. It should be considered as "*applying to the context of larger European companies rather than, for example, SMEs*" (Laamanen et al., 2011; p. 10).

Following this sampling procedure, I found out 126 HQ movements in European countries from 2000 to 2012. Unlike Laamanen et al. (2011), I found also multiple movers, i.e. some companies relocated more than once during 2000-2012. However, even if these multiple movements could be very interesting to investigate, the few observations would not allow a significant quantitative analysis. Thus, I leave aside multiple relocations from my sample. As better described in the following sections, I constructed a **unique panel dataset** collecting data per each movement and per each company through a **multi-methodological approach**. Then, I constructed a **cross sectional dataset** from the panel one. I collected secondary data, merging different databases (Orbis, OECD statistics, Total Economy Database, World Governance Indicators database) and going through annual reports, quarterly reports and SEC filings. In addition, I collected also primary data, contacting directly managers at corporate, and divisional or regional HQ level to get more information on each movement. I got through to managers via mail before and later through a Skype interview.

8.2.2 Sample selection bias and control group

My sample includes 126 movements of HQ units in a time frame 2000-2012. It has been drawn from the news databases LexisNexis and Factiva. This sampling procedure could generate potential sample selection biases, because it consists only of relocated HQ units without a random selection. To reduce this error, I constructed a control group of HQ units

that did not experience a relocation event in the considered time frame. I followed a matched sampling procedure. The aim was to construct a comparable group of HQ units that had not relocated. I identified a sub-population of firms through three main matching criteria:

- **Industry**, taking into consideration the 3-digit SIC code of HQ unit;
- **Size**, in terms of revenues (expressed in USD) of the last available year. To be precise, I identified five main revenue ranges and I assigned to them the units considered in the relocation sample;
- **European experience**, considering the HQ relocation in European countries, I took into consideration for my control group firms with at least one unit in Europe.

Starting from this sub-population, I randomly selected 200 companies/units matched by, to the extent possible, industry, size and EU experience distribution. Following these three main criteria, I constructed a comparable control group, in terms of main characteristics, to the relocation group. Data were collected at the last available year. I used the Orbis database to identify each unit in my control group and to collect information about them. In addition, I used also archive data, like annual reports, quarterly reports and SEC filings.

8.2.3 Data collection

The information has been based on the following procedure:

- Identification of HQ relocations as provided by LexisNexis and Factiva database;
- Random identification of control group as provided by Orbis database;
- Collection of firm and unit data from Orbis database, archive sources (annual reports, quarterly reports and SEC filings) and direct interviews to corporate or regional/divisional managers.

- Collection of country data as provided by OECD statistics, Total Economy Database, World Governance Indicators database.

First of all, I identified the relocation events from news databases (LexisNexis and Factiva), using different key words related to the phenomenon under investigation (the relocation of HQ unit). In particular, I used key words like "*relocation*", "*movement*", "*relocate*", "*move*", "*corporate headquarter*", "*HQ*", "*European headquarter*", "*divisional headquarter*", and their other possible combinations. Moreover, I set the research as follow:

- Main financial/management newspapers in English, German, French, Italian and Spanish;
- European countries and, in particular, EU-25 plus Norway and Switzerland, as the context of the research;
- Time frame from 2000 to 2012.

Once identified a relocation, I went through archive data and Google news to look for evidences of the movement and to minimize potential false negatives and positives, before to include in my sample. At the same time, I contacted directly the enterprise by mail, asking for more information about the movement and its main reasons, and for the contact details of managers at corporate and regional/divisional HQ level. Then, I contacted directly these managers by mail, fixing a Skype interview, when they were available. The interviews aim to collect qualitative information on the movement and, in particular, about practical and empirical reasons that push top management to move a HQ overseas. Moreover, I analysed also previously described relocation cases in the literature. If my sample had not included these cases, happened during my time frame, I added them after a careful check on news databases, Google news and annual reports. In particular, I checked the real accomplishment of the movement.

Then, I built a matched control group of HQs that were not relocated from 2000-2012. Each HQ was identified in Orbis database. I constructed a sub-population of firm units through three main matched criteria, previously described: industry (3-digit SIC code), size (USD revenues), and European experience. Once identified every unit that matched with those criteria, I randomly selected them into my control group so as to represent the distribution of units in the relocation sample.

Finally, I have manually collected the data on an observation by observation level for the time frame (2000-2012). To do this, I merged different secondary sources. In particular, as better explained later on, firm data were collected from Orbis; while country data through OECD statistics, Total Economy Database, World Governance Indicators database, and other similar databases.

8.2.4 Cross-sectional dataset

I constructed also **a cross-sectional dataset** from my panel one. This dataset is composed by 326 observations (126 in the relocation group and 200 in the control). Each observation in the relocation group refers to the year in which the HQ was relocated. I developed this dataset following the same procedure of Laamanen et al. (2011). Following Laamanen et al. (2011), the value of each variable is one year lagged. I consider the value that specific variable has in the year prior to the relocation-year observation. I do that, because the decision to relocate HQs requires time and it is strongly influenced by what happened before.

A critical issue was the construction of control group, which needs to have the same characteristics of the relocation group. I followed the same matched criteria identified before (industry, size, and European experience). However, I matched also for an additional one, i.e. the year of relocation. The control group is constructed to match, to the extent possible, not

only the industry, size and European experience distribution, but also the year distribution of the main relocation group.

8.3 Operationalization and measures

Measures of all constructs were developed based on an in-depth review of the literature. Some scales are adapted and modified from prior major studies. The following paragraphs describe the main variables (dependent, independent and control) used in my model and how I operationalize them grounding on previous literature.

8.3.1 Dependent variable: HQ relocation

My aim is to understand how institutional pressures can affect the decision to relocate HQ units outside home country. Thus, my dependent variable is easily represented by the decision to relocate HQ. In line with Laamanen et al. (2011), it is measured using a dichotomous variable, which takes value 1 for the HQ units relocated overseas, and value 0 otherwise. I used the news databases (LexisNexis and Factiva) to identify the relocation events.

8.3.2 Independent variables

Institutional Isomorphism

In literature, institutional isomorphism is related to the imitative behaviour by MNCs. Firms use to imitate the behaviour of other actors in their organizational field. Laamanen et al. (2011) operationalized this mimetic behaviour through a trend variable, counting "*the number of relocation events in the year prior to the firm-year observation*" (Laamanen et al., 2011; p.14). Measured in that way, the trend variable doesn't capture completely the imitative behaviour by companies. It is a myopic measure, because it considers only the relocation events taken by other firms in the year prior to the firm-year observation. It forgets completely other possible relocations happened in the past, that can influence the behaviour of other firms. To avoid this error, in addition to Laamanen et al. (2011)'s trend variable, I measure the institutional isomorphism through a more fine grained approach. Taking into account the meta-organizational field, I calculated the accumulated trend of relocation events happened in the years prior to the firm-year observation. Of course, I limited the count of the relocation events to my time range (2000-2012). For example, in 2004 the value of the accumulated trend variable is the sum of relocation events happened in 2000, 2001, 2002, and 2003. So, I can capture all previous relocations that can push to take an imitative behaviour. Moreover, the most of relocated HQs in my sample occur in a small range of industries. As I will show later, these firms are mainly in manufacturing and service industry. This can help the accuracy of isomorphic measure used in the current study.

Ownership structure

In literature, there are many different ways to measure the percentage of voting shares held by the shareholders. I divided the ownership structure in two main categories with respect to the percentage of voting shares held by each owner:

1. **Dispersed ownership**, where no single shareholder holds more than 20 percent of the voting shares;
2. **Concentrated ownership**, where one shareholder owns more than 20 percent of the voting shares.

I used Orbis database[5] to identify the percentage of the voting shares owned by each shareholder and the ownership structure of the firm. I check also for possible changes in the percentage of the voting shares during my time frame (2000-2012). So, I created a binary variable, that takes value 1 for dispersed ownership, and value 2 for concentrated ownership, as shown in the following Table 3.

Table 3. Overview: Ownership structure

Variable	Description	Value	In model
Dispersed Ownership	No single shareholder holds more than 20 percent of the voting shares.	1	Dummy_ownership1
Concentrated Ownership	One shareholder owns more than 20 percent of the voting shares.	2	Dummy_ownership2

[5] Orbis database contains firm data and their ownership.

Institutional remoteness

This variable is a multi-dimensional construct covering many "*distance*" aspects. In particular, I focus on administrative, cultural and political differences. Moreover, for each dimension I measure two different distances between the country of the HQ unit and the country of Corporate HQ, and between the country of the HQ unit and the countries of different subsidiaries[6] under its control.

Some scholars have already defined and measured these different types of distances (Berry et al., 2010; Berry, 2006; Campa and Guillen, 1999; Fratianni and Oh, 2009; Garcia-Canal and Guillen, 2008; Guler and Guillen, 2010; Kogut and Singh, 1988; La Porta et al., 1998; Shenkar, 2001). So, building on this previous study, I define administrative distance like the differences in bureaucracy, language, religion and the legal system between countries (Berry et al., 2010; La Porta et al., 1998). To calculate the distance per administrative dimension, I used the CIA Factbook[7] and the World Development Indicators (WDI)[8]. This distance is more or less stable during time.

Then, I define the cultural distance, as the "*differences toward authority, trust, individuality, and importance of work and family*" (Berry et al., 2010; p.1464). Following Berry et al. (2010), I create my measure of cultural distance using public opinion data from four waves of the World Values Survey (WVS). Cultural distance between countries evolves and varies over time (Inglehart and Baker, 2000). So, the WVS allows me to take into consideration and capture these changes, because the surveys are conducted every 5 years around the world.

[6] Subsidiaries are defined like an operating unit under the ownership of the MNC, and the control of a specific HQ unit, and located in a host country (Birkinshaw, 1997).

[7] The CIA Factbook or the World Factbook is an annual publication by the Central Intelligence Agency (CIA) that reports every statistical information regarding all countries in the world.

[8] The World Develompment Indicators (WDI) is a World Bank database that contains information about development indicators collected by official international sources.

Based on the extant literature (Berry et al., 2010; Brewer, 2007; Demirbag et al. 2007; Dow and Karunaratna, 2006), I measure political distance like the differences among countries in democratic character, the size of the state relative to the economy, and external trade associations. To do this, I used data from the World Development Indicators (WDI), from the World Trade Organization (WTO) databases, and from Political Constrain Index (POLCONV).

Finally, I computed the geographical distance in kilometres between the capital of the HQ unit country and the capital of the CHQ and the each subsidiary country. I used distance calculator, one of the applications in Google Maps.

The following Table 4 summarizes these definitions, including some theoretical and empirical examples, and the sources.

Table 4. Dimension of cross-national distance

Dimension	Definition	Source	Theoretical and Empirical studies
Administrative	Differences in language, religion, and legal system	CIA Factbook World Development Indicators	Berry et al. (2010), Guler and Guillen (2010)
Cultural	Differences in considering authority, trust, individuality, and relevance of work and family	World Values Survey	Berry et al. (2010), Kogut and Singh (1988), Shenkar (2001)

Political	Differences in political stability, and democracy	World Development Indicators World Trade Organization Political Constrain Index	Berry et al. (2010), Delios and Henisz (2000), Garcia-Canal and Guillen (2010), Henisz and Delios (2001)
Geographic	Distance in kilometres between the capitals of two different countries	Google Map Distance Calculator	Berry et al. (2010), Fratianni and Oh (2009)

Source. Berry et al. (2010)

To operationalize each distance dimension, I used the Mahalanobis method, originally formulated in 1936, even if the most of extant literature uses the Euclidean one[9]. Following Berry et al. (2010), the Mahalanobis distance is a better choice than the Euclidean method because it takes into consideration the following three main aspects:

1. country variables are highly correlated with each other;
2. the variance of the variables differs massively both across nations and over time;
3. country characteristics are typically measured on different scales.

Afterwards, I calculated the remoteness per each distance dimension. Following Laamanen et al. (2011) I calculated the geographical remoteness as the sum of logarithms of geographical distances (in Km^2) between the country of HQ unit and the countries of each subsidiary under its control. Then, I divided the result by the number of local subsidiaries, through the following formula:

[9] See the appendix 13.1 for more information about Mahalanobis and Euclidean distance.

$$Geo\_\mathrm{Re}moteness_{ij} = \frac{\sum_{j=1}^{13} \ln(Geo\_dis\tan ce_{ij})}{j}$$

Where, *i* is the HQ unit, *j* is the subsidiary and 13 is the highest number of subsidiaries under the HQ's control in my sample.

I calculated the administrative, political and cultural remoteness through the approach adopted by Berry et al. (2010), as the average of each distance dimension. For example, administrative remoteness is the result of the sum of each distance between HQ and local subsidiaries, divided by the number of local subsidiaries. I used the following formula:

$$Adm\_\mathrm{Re}moteness_{ij} = \frac{\sum_{j=1}^{13} Adm\_dis\tan ce_{ij}}{j}$$

Where, *i* is the HQ unit, *j* is the subsidiary and 13 is the highest number of subsidiaries under the HQ's control in my sample.

These remoteness variables have different scales. To solve this problem, I generated per each distance standardised variables, that are variables with a mean of zero and a standard deviation of one. For example,

$$Zadm\_remoteness_{ij} : \frac{\left(Adm\_\mathrm{Re}moteness_{ij} - \mu_{ij}\right)}{\sigma_{ij}}$$

Where μ_{ij} is the mean of the variable (in this case the mean of administrative remoteness) and σ_{ij} is its standard deviation. I followed this procedure for each remoteness dimension.

Moreover, these variables were highly correlated with each other. To solve the multicollinearity issue, for the construct of institutional remoteness

("inst_remoteness_factor") all cases were factor analysed[10] in an EFA. All four items of remoteness (Zadm_remoteness, Zgeo_remoteness, Zcul_remoteness, and Zpol_remoteness) were significantly correlated to each other, and the KMO (Kaiser-Meyer-Olkin) measure of 0.870 indicates very good fit. Bartlett's test of sphericity is highly significant. Afterwards, I used a non-orthogonal rotation method (PROMAX)[11] so that I allowed for correlation among the emerging factors. Based on this type of rotation I derived one single factor. Cronbach's alpha is 0.975 indicating an excellent overall reliability (detailed analysis can be found in the appendix 13.4). Finally, I generated my construct ("inst_remoteness_factor") taking the weighted average of the four items.

Table 5. Factor analysis institutional remoteness (EFA)

Items	Factor loadings
Zadm_remoteness	.968
Zgeo_remoteness	.974
Zpol_remoteness	.937
Zcul_remoteness	.981

On the other hand, I calculated the distance between the country of the HQ unit and the country where the corporate HQ is located. To do this, I measured individually the value of each distance dimension between HQ unit and CHQ. I found the same problems of multiple scales and multicollinearity, and I solved them following the previous procedure. All cases were factor analysed in an EFA. For the construct institutional distance from CHQ ("distancefromCHQ) all four items of distance (Zadm_distance_CHQ, Zgeo_distance_CHQ,

[10] "*Factor analysis is a method for investigating whether a number of variables of interest Y_1, Y_2, Y_3, ..., Y_l are linearly related to a smaller number of unobservable factors F_1, F_2, F_3, ..., F_k"* (Tatahi, 2010; p.15).

[11] Promax rotation is an alternative non-orthogonal (oblique) rotation method, faster than other rotation methods (oblimin) and used for big database (Hendrickson & White, 2011).

Zpol_distance_CHQ, and Zcult_distance_CHQ) were correlated to each other, and the KMO measure of 0.673 indicates an acceptable fit. Bartlett's test of sphericity is highly significant. Based on PROMAX rotation I derived one single factor. Cronbach's alpha is 0.776 indicating an acceptable overall reliability (detailed analysis can be found in the appendix 13.5). Finally, I generated my latent construct ("distancefromCHQ") taking the weighted average of the four items.

Table 6. Factor analysis institutional distance from CHQ (EFA)

Items	Factor loadings
Zadm_distance_CHQ	.493
Zgeo_distance_CHQ	.841
Zpol_distance_CHQ	.922
Zcult_distance_CHQ	.814

Institutional quality

As I wrote before, the institutional quality of a country is related to 6 specific variables (Kaufmann et al., 2010):

- *voice and accountability*, the extent of the citizens participation in selecting government, as well as freedom of expression, freedom of association and a free media;
- *political stability and absence of violence*, the likelihood of government destabilization through unconstitutional or violence means;
- *government effectiveness*, the quality of public and civil services and the degree of its independence from political pressures, the quality of policy formulation and implementation and the credibility of government;

- *regulatory quality*, perceptions of the government ability to formulate and implement policies and regulations;
- *rule of law*, the quality of contract enforcement, the police and the courts;
- *control of corruption*, the extent to which public power is exercised for private gain.

I used the Worldwide Governance Indicators (WGI)[12] to measure the six specific variables that define the quality of governance in a specific country. Kaufmann et al. (2010) used an *Unobserved Components Model* (UCM) to calculate the measure of the individual indicators for each used source. The composite measures of institutional quality, achieved through UCM, are in units of a standard normal distribution, with mean zero, standard deviation of one, and in a range from approximately -2.5 to 2.5 (Kaufmann et al., 2010). A higher value corresponds to a higher institutional quality.

As expected, these six variables were highly correlated to each other. To solve the problem of multicollinearity, for the construct of institutional quality ("inst_quality") all cases were factor analysed in an EFA. All six items ("voice_accountability", "political_stability", "government_effectiveness", "regulatory_quality", "rule_of_law", and "control_of_corruption") were significantly correlated to each other, and the KMO (Kaiser-Meyer-Olkin) measure of 0.714 indicates a good fit. Bartlett's test of sphericity is highly significant. Afterwards, I used a non-orthogonal rotation method (PROMAX)[13] so that I allowed for correlation among the emerging factors. Based on this type of rotation I derived one single factor. Cronbach's alpha is 0.854 indicating a good overall reliability (detailed

[12] The Worldwide Governance Indicators (WDI) is a research dataset realized by Daniel Kaufmann, Aart Kraay and Massimo Mastruzzo. It summarizes the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries.

[13] Promax rotation is an alternative non-orthogonal (oblique) rotation method, faster than other rotation methods (oblimin) and used for big database (Hendrickson & White, 2011).

analysis can be found in appendix 13.6). Finally, I generated my construct ("inst_quality") taking the weighted average of the six items.

Table 7. Factor analysis institutional quality of HQ location (EFA)

Items	Factor loadings
Voice_accountability	.796
Political_stability	.780
Government_effectiveness	.598
Regulatory_quality	.787
Rule_of_law	.894
Control_of_corruption	.837

Economic Crisis

In literature, scholars used to define economic crisis as persistent contractions in which **real output** (measured usually by real gross domestic product (GDP)) and **employment rate decrease**, level of inflation increases, currency becomes unstable and many different macroeconomic indicators move (Foss, 2010; Fratzscher, 2009; Hoshi & Kashyap, 2004). Building on this previous study, I constructed a dichotomous variable of economic crisis per year and I measured it using data on GDP per capita and employment rate from the OECD statistics. In particular, I defined two different level of economic crisis: crisis at the European level and at each European country level. Then, I calculated the growth in GDP per capita and in the employment rate per each year in my time frame (2000-2012). Afterwards, to identify crisis year at the two levels of analysis, I used two main parameters, that are able to capture the persistent contraction in economic variables generated by crises:

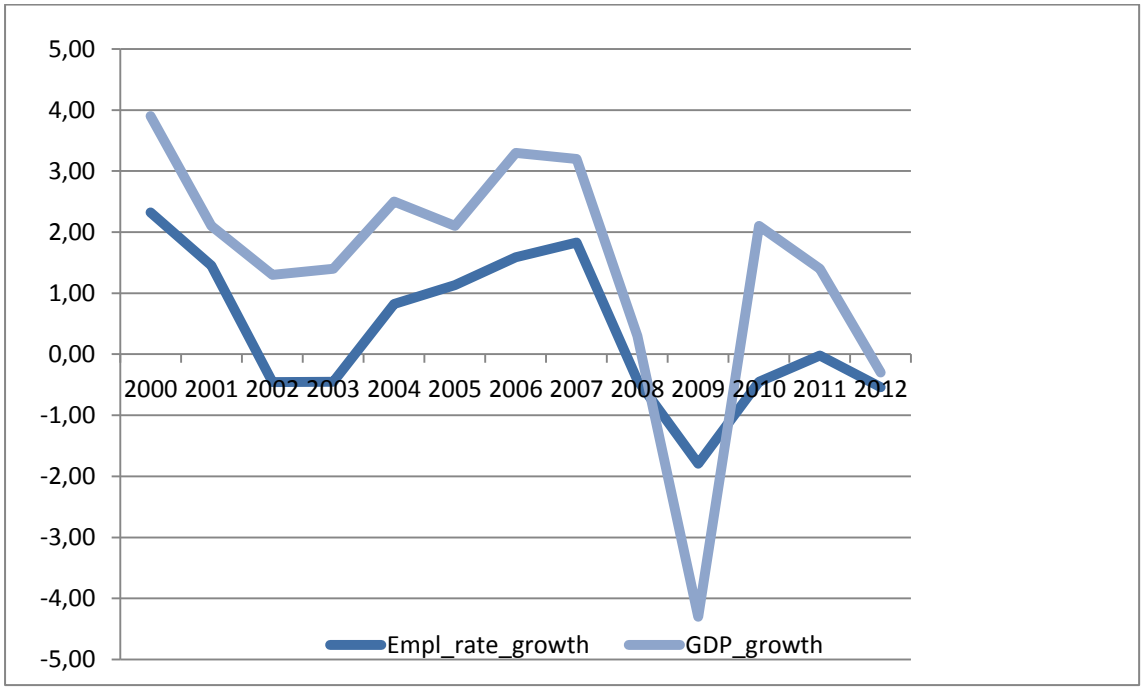
1. negative employment growth rate compared to previous year;

2. Yearly GDP per capita growth rate below 1.5% with a negative growth rate in at least two quarters compared to the same period of the previous year.

These two parameters are able to capture the characteristics of an economic crisis for two main reasons. First, following the extant literature, a negative growth in employment rate is a real warning alarm for the economic development of a country and one of the crisis factors (Demyanyk & Van Hemert, 2011). Second, the yearly GDP growth rate in Europe is annually above 1.5% on average. Thus, a growth below this level can be considered as a contraction in GDP growth. This contraction becomes economic crisis, if in the same year quarterly GDP growth rate is negative in at least two quarters compared to the same period of the previous year. The negative growth in two quarters of the same year testifies the non-temporary nature of the contraction. Furthermore, to strengthen my argumentation about my measure of economic crises, both parameters have to be satisfied in order to define a year in crisis.

The following Figure 4 shows, for example, the European growth rate in GDP per capita and in employment rate in my time frame (2000-2012).

Figure 4. The trend in GDP per capita and employment rate from 2000 to 2012



The following Table 8, instead, shows the quarterly GDP growth rate compared to the same quarter of previous year. The negative quarterly growth rate is written in red colour. So, according to the two parameters, defined before, and considering the Figure 4 and Table 8, the crisis years at the European level are: 2002, 2003, 2008, 2009, 2011, and 2012. In my dataset, crisis variable at the European level takes value 1 in correspondence to these years, and 0 otherwise. Following the same procedure, I constructed also the country crisis variable, that takes value 1, when country is in economic crisis, and 0 otherwise.

Table 8. GDP: growth rate compared to previous quarter

Q1-2000	Q2-2000	Q3-2000	Q4-2000	Q1-2001	Q2-2001	Q3-2001	Q4-2001	Q1-2002	Q2-2002
4.32	4.63	3.81	3.22	2.93	-2.13	-1.93	1.56	-0.85	-1.32

Q3-2002	Q4-2002	Q1-2003	Q2-2003	Q3-2003	Q4-2003	Q1-2004	Q2-2004	Q3-2004	Q4-2004
1.48	1.51	0.46	-0.08	1.34	1.95	2.43	2.69	2.37	1.99

Q1-2005	Q2-2005	Q3-2005	Q4-2005	Q1-2006	Q2-2006	Q3-2006	Q4-2006	Q1-2007	Q2-2007
1.63	2.00	2.33	2.62	3.28	3.38	3.36	3.62	3.61	3.20

Q3-2007	Q4-2007	Q1-2008	Q2-2008	Q3-2008	Q4-2008	Q1-2009	Q2-2009	Q3-2009	Q4-2009
3.32	2.82	1.34	1.38	-0.16	-2.46	-5.36	-5.30	-4.25	-2.08

Q1-2010	Q2-2010	Q3-2010	Q4-2010	Q1-2011	Q2-2011	Q3-2011	Q4-2011	Q1-2012	Q2-2012
1.02	0.54	1.20	1.75	-0.35	0.18	0.76	-0.80	-0.13	-0.30

Q3-2012	Q4-2012
-0.40	…

Before to introduce the control variables, Table 9 shows an overview of the link between the hypotheses and the variable operationalization.

Table 9. Overview Hypotheses and variable operationalization.

Hypothesis #	Hypotheses	Measure	Tested in the model
1a	Institutional isomorphism	The sum of relocation events happened in the years before	Accumulatedtrend
2a	Internal coercive pressure: Ownership structure	Ownership dummy: 1 = dispersed (<20%)	Ownership_dummy1
3a – 3b	Institutional remoteness	Institutional remoteness (from subsidiaries) Institutional distance (from CHQ) Factor score based on geographic, cultural, political, and administrative distance (Berry et al, 2011)	Inst_remoteness_factor Distance_from_CHQ
4a	Institutional quality	Factor score based on Worldwide Governance Indicators (Kaufmann et al. 2010) - Voice and accountability - Political stability and absence of violence - Government effectiveness - Regulatory quality - Rule of law - Control of corruption	Inst_quality
1b-2b-3c-3d	Economic crisis	On a country-level and	Country_crisis

	European level, based on output decline and employment rate decline - GDP per capita - Employment rate Both from OECD.	(country level) EU_crisis (European level)

8.3.3 Control variables

In order to control for other effects than hypothesized, I used several control variables which I drew from the extant literature.

HQ size

The size of HQ unit can be a signal of the number of parent activities realized and its importance within the organization. HQ size was measured as the number of employees at the HQ level. The information was collected by Orbis database, SEC filings, and annual reports. I took the natural logarithm of the real size.

Revenues

The revenues can be a way to measure the size of enterprise that can influence the decision of MNCs to relocate overseas their HQs. The information was collected from SEC filings, annual reports, and Orbis database. All currencies are converted to USD dollar at the year-end values and all values are expressed in thousands of dollars. I took the natural logarithm of the amount of revenues.

Degree of internationalization

I measure the degree of internationalization of each enterprise in my sample like the ratio between the amount of exports (revenues generated outside the home country) and the total amount of revenues generated by the firm. Previous study has shown that MNCs with a high

internationalization degree are more likely to relocate their HQs. Following Laamanen et al. (2011), I collected data on this variable through several ways:

1. Calculated by using data from Orbis database;
2. Collected directly from Orbis (when available) and annual reports;
3. Combined from these different sources.

Industry

This is a categorical variable, that takes values from 1 to 4 based on 2-digit SIC code, as shown in the following Table 10. The information was collected from Orbis database.

Table 10. The value of industry variable

Industry – sector of activity	Value of the variable
Manufacturing	1
Commerce	2
Finance	3
Services	4

Status

Previous study shows that HQ relocation could be a consequence of M&A operations. The decision to engage in a merger or acquisition with a foreign company can push firm to negotiate about the location of the new corporate or business unit HQs (Birkinshaw et al., 2006). Using the Thomson Financial Mergers & Acquisition database and LexisNexis I examined whether the relocations are linked to previous acquisitions. So, I created a control variable for that. "Status" is a dummy variable that takes value 1 in case the firm experienced an M&A in the year before the relocation, and 0 otherwise. In the control group, I followed a different line of reasoning to collect data for this variable. It takes value 1 in case the firm experienced an M&A during my time frame (2000-2012), and 0 otherwise. The variable was

measured at the HQ level. The information was collected from Thomson Financial Mergers & Acquisition database, Orbis database, SIC filing and annual reports.

Tax rate

Following Laamanen et al. (2011), that found a positive and significant impact of corporate taxes on relocation decision, I control for this effect. This variable is the corporate tax rate for each year in my sample, collected from OECD database.

Table 11 contains an overview of all control variables used in this study

Table 11. Overview: Description of control variables

Variable	Description
HQsize	Log of the number of employees working at the HQ unit.
Revenues	Log of the amount of firm revenues
Degree_of_internationalization	Proportion of foreign revenues on total revenues
Industry	Categorical variable from 1 to 4
Status	Dummy variable: 1 in case of M&A, and 0 otherwise
Tax	Corporate tax rate per each year

9 Descriptive section

9.1 Descriptives of sample

My sample counts 126 HQ movements in the European countries (EU-25 plus Norway and Switzerland) in the time frame 2000-2012. Unlike Laamanen et al. (2011), I found empirical evidences of multiple relocations realized by the same enterprise. Totally, I found 6 multiple relocations and three of them were relocations back, i.e. HQs moved back to the same place where they were before the first relocation (Barner-Rasmussen et al. 2007). Even if these multiple movements could be very interesting to investigate, the few observations would not allow a significant quantitative analysis. Thus, I leave aside multiple relocations from my sample.

9.1.1 HQ size, location and performance

On average, in my sample the HQ units are operating with 219 employees and are mostly located in the main central European countries. This matches roughly the characteristics of HQ units of similar studies in the field of international business.

HQ size

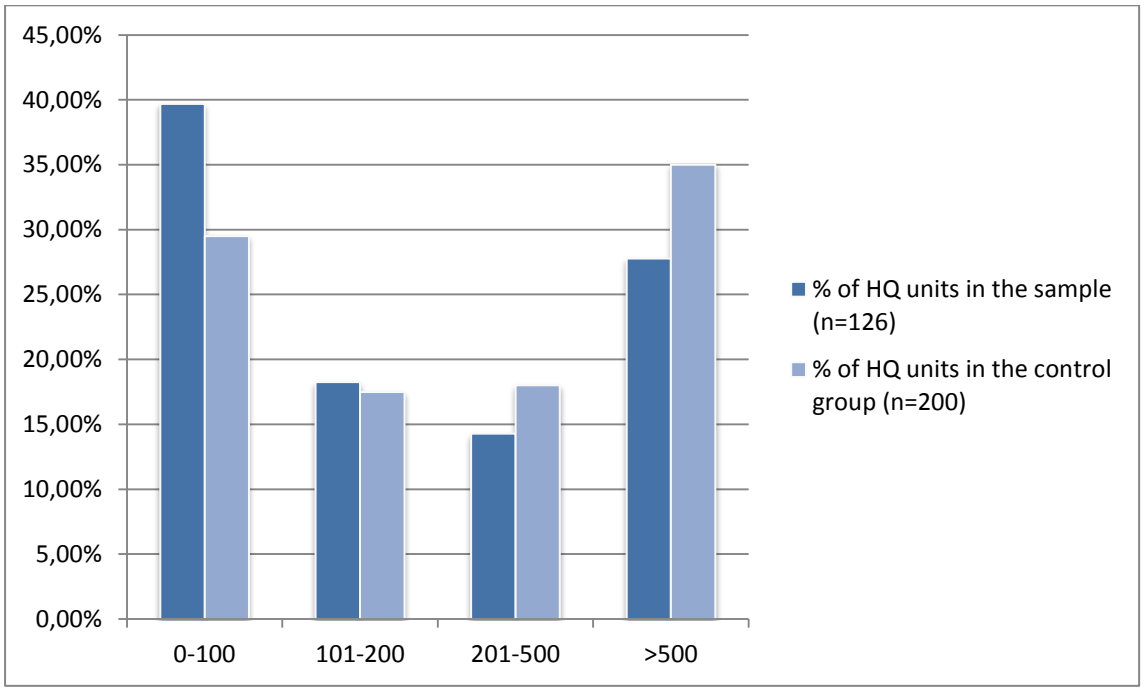
Considering the size of HQ units in terms of the number of employees working for the HQs, the sample is made up of more than one third (around 40%) relatively small HQ units with 100 employees or less. 28% of the sampled HQ units are very large with more than 500 employees; 18% of them operate with 101 to 200 employees and 14% with 201 to 500 employees.

Table 12. Distribution of number of employees – sample of HQ relocations

Employees per HQ units	Number of HQ unit	In %
0-100	50	40%
101-200	23	18%
201-500	18	14%
>500	35	28%
Sum	**126**	**100%**

The distribution of HQ size in the sample (n=126) is nearly identical in the control group (n=200), even if smaller HQ units are more likely to relocate, as the following Figure 5 shows:

Figure 5. Distribution of number of employees – sample of HQ relocations vs. control group



The following Table 13 shows the statistical differences in the mean of employees between the relocation and the control group.

Table 13. t-test between control group and relocation group

Variable	Control Group	Relocation group	t-test for difference
Employees	35550	48997	-5.98**

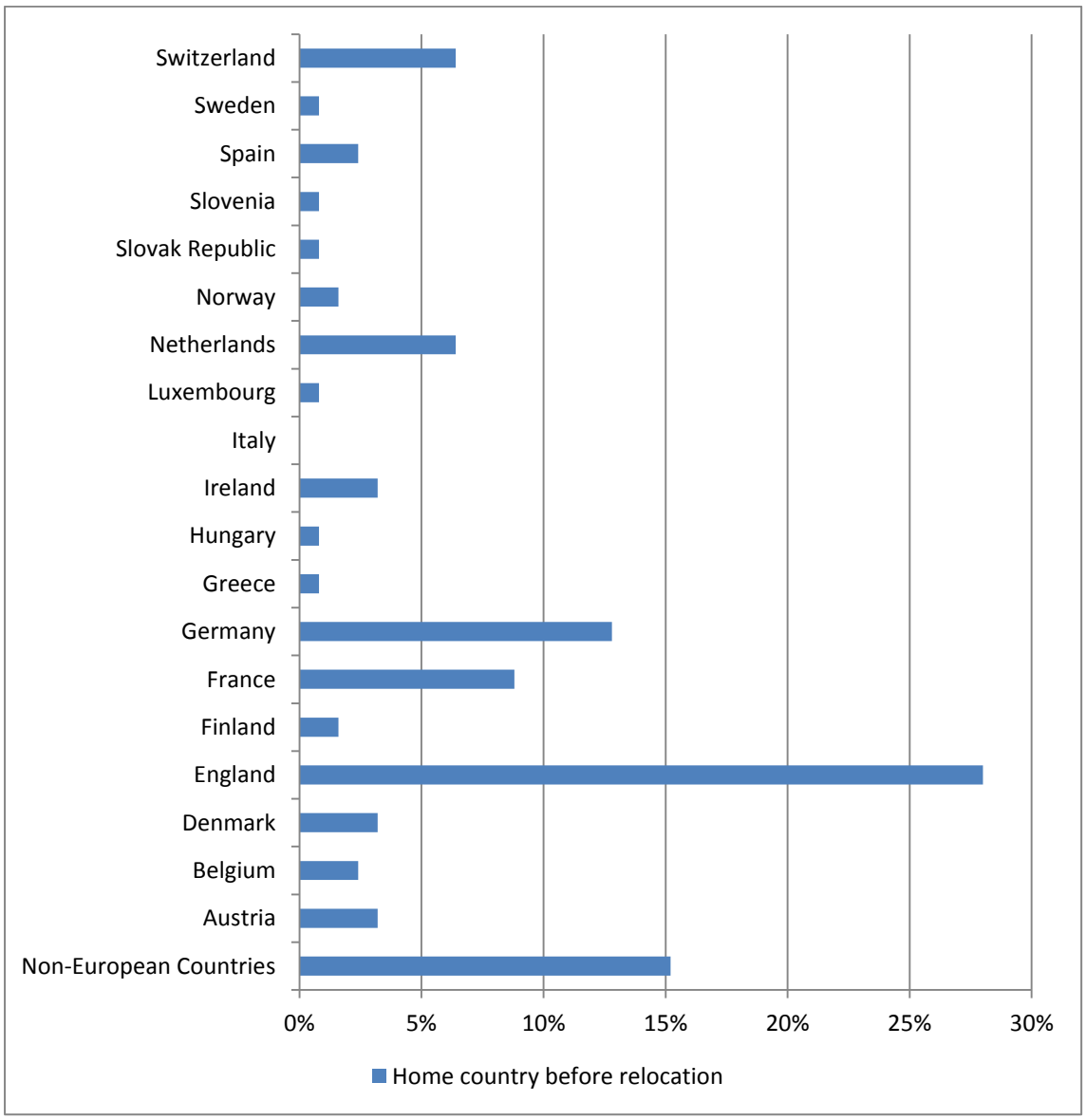
The table shows mean for employees in the control group (n=200) and in the sample-relocation group (n=126), as well as the t-statistic for the difference between them, assuming unequal variance.

+, *, and ** denote significance at the 10%, 5%, and 1% levels, respectively.

HQ location

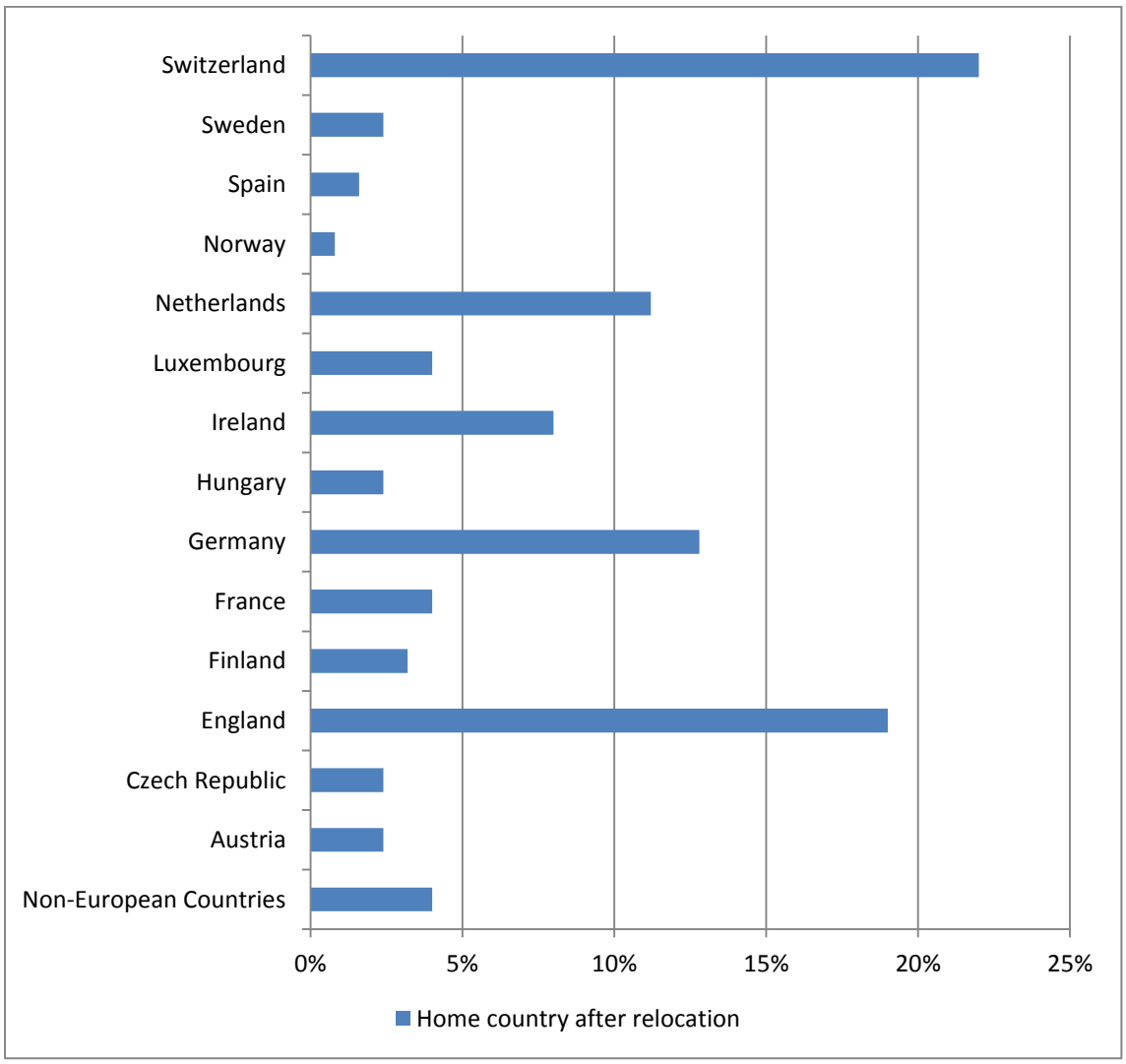
With regard to the location of each HQ unit in the sample, it is interesting to take into account their home country both before and after the relocation. As I wrote in the methodological part, I consider HQ relocations inward and outward EU-25 plus Switzerland and Norway. So, 28% of HQs in my sample move out from England; 13% from Germany; 9% from France, and 6% from Netherlands and Switzerland. Moreover, 15% of the HQs in my sample were settled outside the European countries before to relocate in Europe. Of course, these data could be influenced by the sampling process and, especially, by the news databases used to find out relocation events. Consequently, only relevant HQ relocations are included in the sample.

Figure 6. HQ home country before relocation



Looking at the home country after the relocation event, the countries, that received more HQs, are Switzerland (22%), England (19%), Germany (13%), and Netherlands (11%). Moreover, only 4% of the HQs in my sample relocate into a non-European country. The following Figure 7 shows the phenomenon in more details.

Figure 7. HQ Home country after relocation



HQ performance

Switching quickly the attention on the HQ performance, I measured the ROA (Return On Asset) of HQ unit in the year before the relocation and in the year after the conclusion of relocation. This comparison refers only to the relocation group. Analyzing data, there is on average an increase in HQ performance after the relocation, as highlighted in the following Table 14. Thus, it means that the movement of HQ unit could generate better future performance. However, it is important to underline that many other and different factors can affect firm or unit performance and relocation is only one of them.

Table 14. Comparison between ROA before and after relocation decision, mean and t-test.

Variable	Mean	Std. Error	t-test for difference
ROA before	10.87	0.56	-4.83**
ROA after	11.22	0.53	

The table shows mean for ROA (before and after relocation) in the sample-relocation group (n=126), as well as the paired t-statistic for the difference between them.

+, *, and ** denote significance at the 10%, 5%, and 1% levels, respectively.

9.1.2 Parent characteristics

Parent revenues and home nationality

Table 15 provides detailed data on parent characteristics, regarding to the revenues and the country of origin of the HQ units in the sample. The total amount of revenues generated by the firm in the last available year of activity could be considered as a proxy of firm size and it is expressed in thousand (th) USD. The nationality is related to the domicile of corporate HQ. I figure out five different turnover ranges. Looking at data, the sample is made up of one third (34%) of parent firms that generate revenues between 1.000.001 and 10.000.000 th USD. 29% of the sample are in the first turnover range, 21% in the third and 9% in the fourth. Only 7% of the sample is composed by really big enterprises that generate revenues more than $ 100 billion. On average, the size of enterprises in my sample is around 30.000.000 th USD, matching roughly the expectations in literature, where especially big firms are ready to move out HQ units. Yet, a careful examination of these data reveal that from one hand they are in line with previous research (Forsgren et al., 1995; Birkinshaw et al., 2006; Benito et al., 2011; Lamaanen et al., 2011); on the other, they could be a consequence of sampling process. As written before, the relocations are identified in two news databases LexisNexis and Factiva. Consequently, only those relocation events, that are important enough to be reported by the financial press, are included in the sample.

Table 15. Size (thousand USD) and nationality of firms.

	1.000-1.000.000	1.000.001-10.000.000	10.000.001-50.000.000	50.000.001-100.000.000	100.000.001-oltre
Europe	12%	12%	8%	6%	3%
North-America	13%	17%	10%	2%	3%
Asia-Pacific	4%	5%	3%	1%	1%
Total	29%	34%	21%	9%	7%

Source: Own sample data.

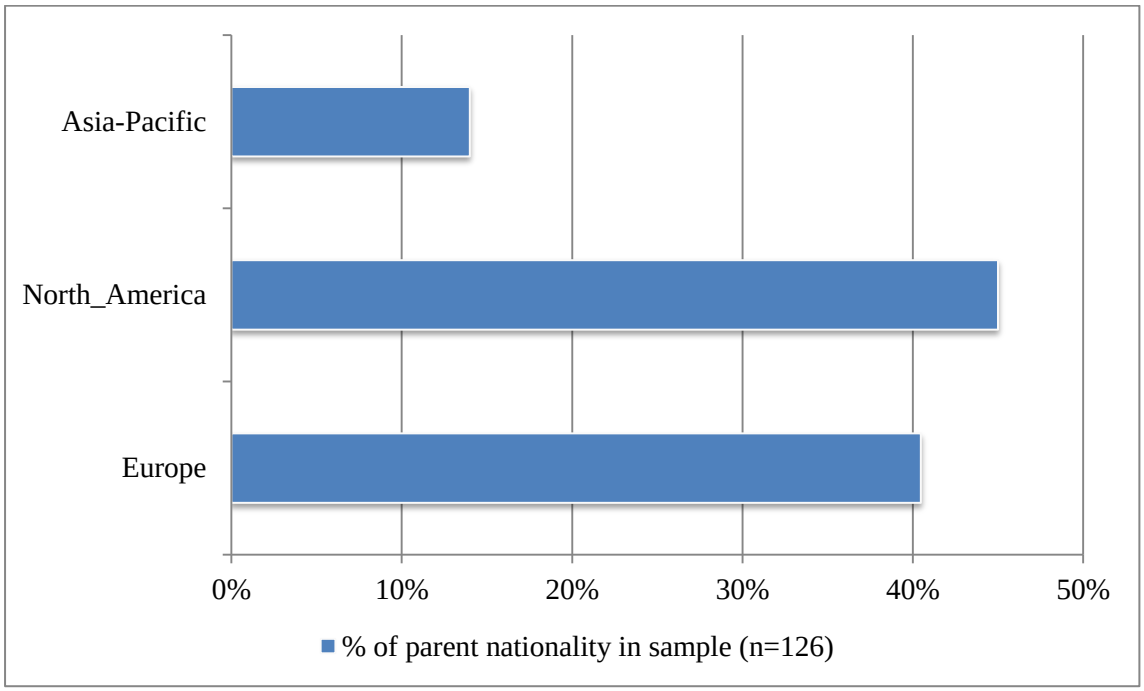
Table 16. Number of parent firms per size and nationality

	1.000-1.000.000	1.000.001-10.000.000	10.000.001-50.000.000	50.000.001-100.000.000	100.000.001-oltre
Europe	15	15	10	8	4
North-America	16	21	13	3	4
Asia-Pacific	5	6	4	1	1
Total	**37**	**43**	**26**	**11**	**9**

Source: Own sample data

Switching attention on the parent nationality, North-American firms, considering both USA and Canada, are the largest part in the sample (45%), followed by European (41%) and Asian-Pacific (14%) ones. In the Asian-Pacific countries I include Japan, China, South Korea, India, Singapore, and Australia/New Zealand. Figure 8 shows clearly the geographical distribution of parent nationality of the HQ units in my sample.

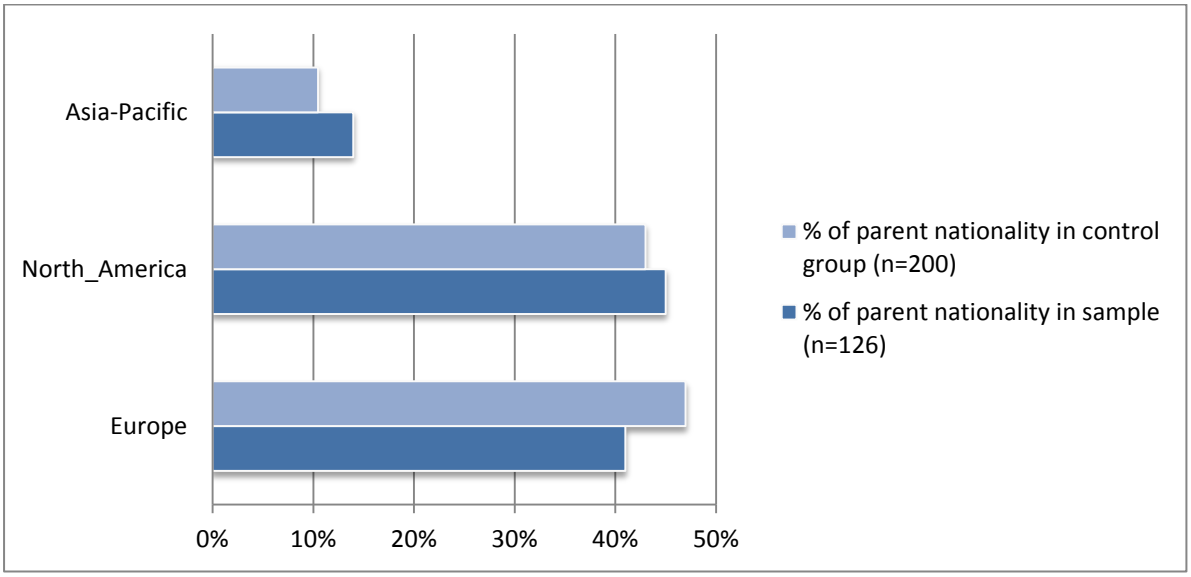
Figure 8. Distribution of parent nationality in sample



Source: Own sample data.

The distribution of parent nationality in the sample of HQ relocations is nearly identical in the control group, as the following Figure 9 shows:

Figure 9. Distribution of parent nationality – sample vs. control group



Source: *Own sample data.*

Parent industry

A breakdown by industry indicates that the large majority (56%) of parent firms is manufacturing products or product groups. Roughly one third (25%) of the parent firms are service companies. 10% of them are involving both in finance activities and in commercial activities (for example retail trade, wholesale and transportation).

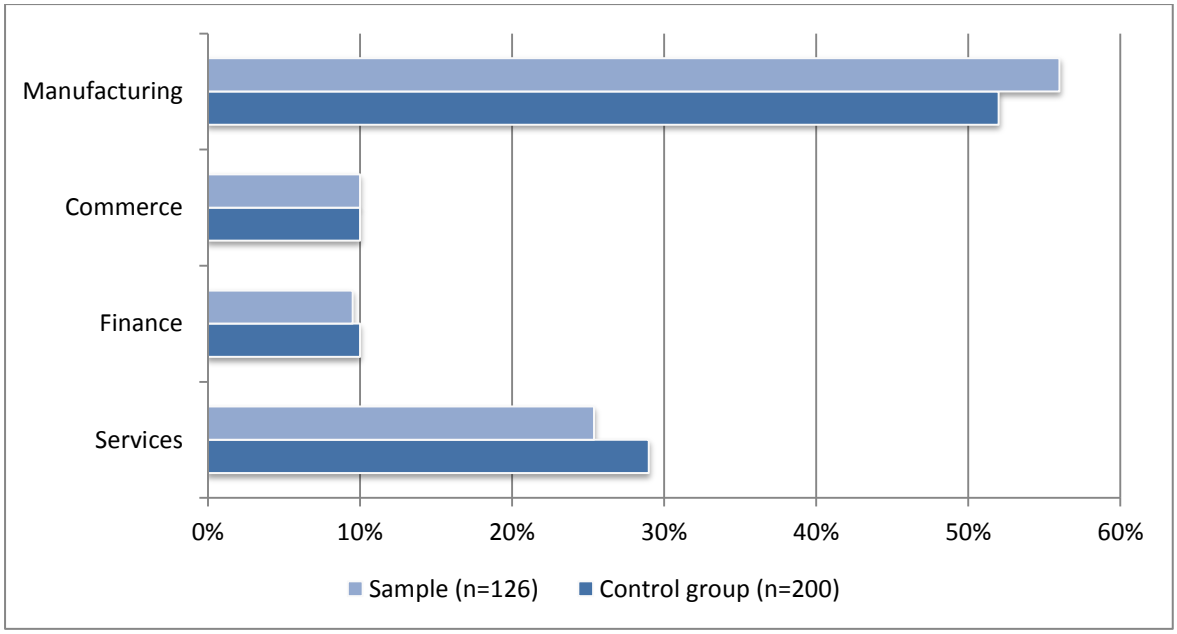
Table 17. Parent industry - sample

Industry	Number of parent firms	% of parent firms
Manufacturing	70	56%
Commerce	12	10%
Finance	12	10%
Services	32	25%
Total	**126**	**100%**

Source: Own sample data

The distribution of the parent activities in the control group (n=200) mirrors nearly the distribution in the main sample, as the following Figure 10 shows:

Figure 10. Parent industry distribution of the sample vs. control group



Source: Own sample data

Table 18 shows the statistical difference between control group and relocation group considering industry variable. To check the presence of significant differences between control group and relocation group for the industry variable, I split this categorical variable in 4 different dummies. Each dummy corresponds to an industry sector. For example, "industry_dummy1" is manufacturing, industry_dummy2 is commerce, and so on. The results show that there are not significant differences between control group and relocation group per each industry dummy.

Table 18. t-test of industry variable between control group and relocation group

Variable	Control Group	Relocation group	t-test for difference
Industry_dummy1	0.51	0.55	-2.89**
Industry_dummy2	0.085	0.095	-1.14**
Industry_dummy3	0.115	0.095	2.02**
Industry_dummy4	0.290	0.253	2.55**

The table shows mean for industry in the control group (n=200) and in the sample-relocation group (n=126), as well as the t-statistic for the difference between them, assuming unequal variance.

Industry is a categorical variable that takes values from 1 to 9 depending from 2-digit SIC code, as explained before.

+, *, and ** denote significance at the 10%, 5%, and 1% levels, respectively.

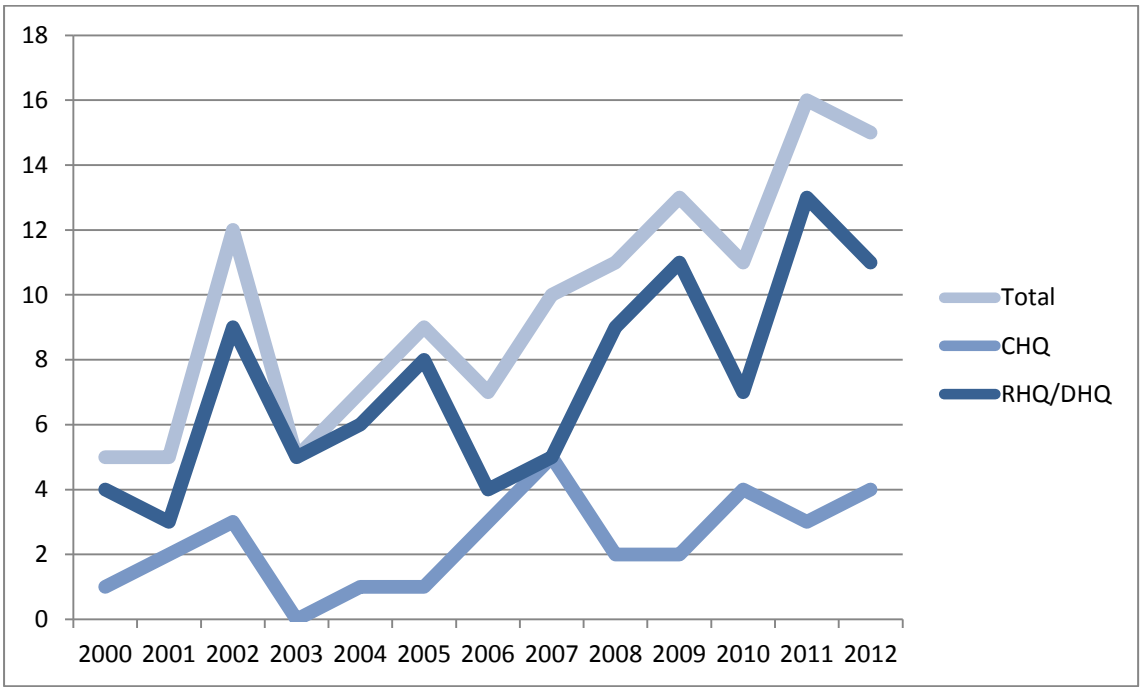
9.2 Descriptives on " whether" to relocate

9.2.1 Relocation trend

Starting as an occasional and random phenomenon, the relocation of HQ units is turning out to be a growing trend (Wanner et al., 2004). The increasing research for competitive advantage is pushing transnational companies to take always new internationalization strategic decisions. Firms are reconfiguring their organizational structure by setting up regional and divisional headquarters, relocating specific core functions and/or moving their full headquarter to another country or even continent. Actually, "*the new holy grail of*

management is that any function has to add to the bottom line" (Warner et al, 2004, p.65). Figure 11 shows this increasing mobility of HQs in the time frame 2000-2012, in line with Wanner's results (2004) that report a growing number of HQ relocations especially to Switzerland, and with Lamaanen et al. (2011), that consider relocations across the European countries. Moreover, in terms of year of relocation, Figure 11 highlights an increase of this phenomenon after 2006. The highest number of relocations occurs in 2011, when 16 HQ movements have been taken in Europe. Moreover, Figure 11 splits up the total number of relocations in corporate and regional/divisional headquarters per each year from 2000-2012. Immediately, it leaps the different mobility of each HQ unit, distinguishing between corporate and divisional/regional HQs. Following Birkinshaw et al. (2006), they play different roles in MNCs and establish different relationships with various internal and external stakeholders. In their paper, Birkinshaw et al (2006) take into consideration the differences in the reasons to relocate, without considering the propensity to relocate. My results in Figure 11 are in line with Lamaanen et al. (2011), who find inertia for corporate HQ, maybe because it is constrained by institutional embeddedness, nationalistic pressure and symbolic values. The relocation of a corporate HQ is viewed as a negative and dramatic event that impacts on the social and economic stability of the country in which HQ is traditionally located. "*The location of the corporate HQ ….. is likely to be treated with more emotional attachment than the relocation of regional HQ*" (Lamaanen et al., 2011, p.8-9). Moreover, the costs of regional/divisional HQ relocation are lower than those of the corporate HQ, because at these units limited parenting functions are usually managed (Lamaanen et al., 2011). These factors explain the lower mobility of corporate HQ with respect to regional and divisional ones. The number of regional/divisional HQs relocations is constantly up to the number of corporate HQ relocations. Only in 2007 the number of corporate HQ relocations (5) is equal to the regional and divisional one.

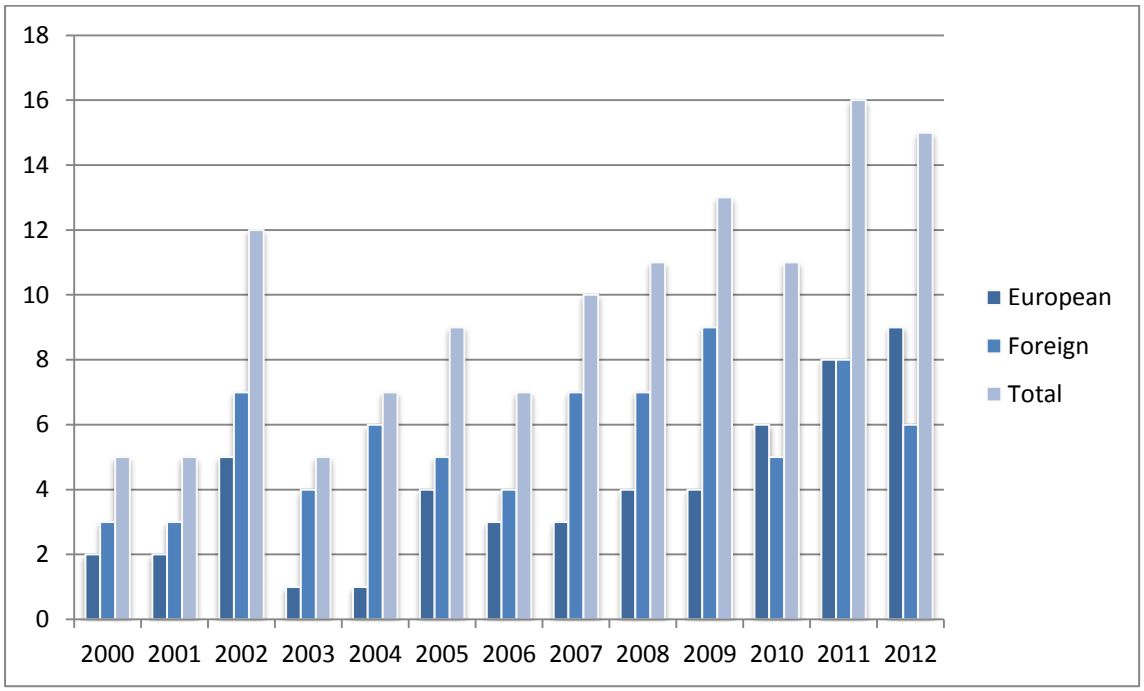
Figure 11. Time and type distribution of relocation events.



Source: Own sample data.

Switching the attention to the nationality of relocated enterprises, prior research takes into consideration different approaches, as written in the literature review. As for the other studies on this topic, only Laamanen et al. (2011) take into consideration an international dataset. In line with this study, my data includes all movements of HQ units within the 27 European countries during 2000-2012. Figure 12 shows the distribution of HQ relocations in my sample, distinguishing between European and foreign companies per each year. The nationality of the firm is defined considering where the corporate HQ, in terms of legal domicile, is located. I find a uniform distribution of HQ relocations between the European and foreign companies in line with Lamaanen et al. (2011), with a predominance of the foreign ones up to 2009. After 2009, the number of the relocated European companies grows up more than the foreign ones in 2010 and 2012, instead in 2011 there are not differences among them.

Figure 12. Distribution of relocations between European and foreign companies per each year.



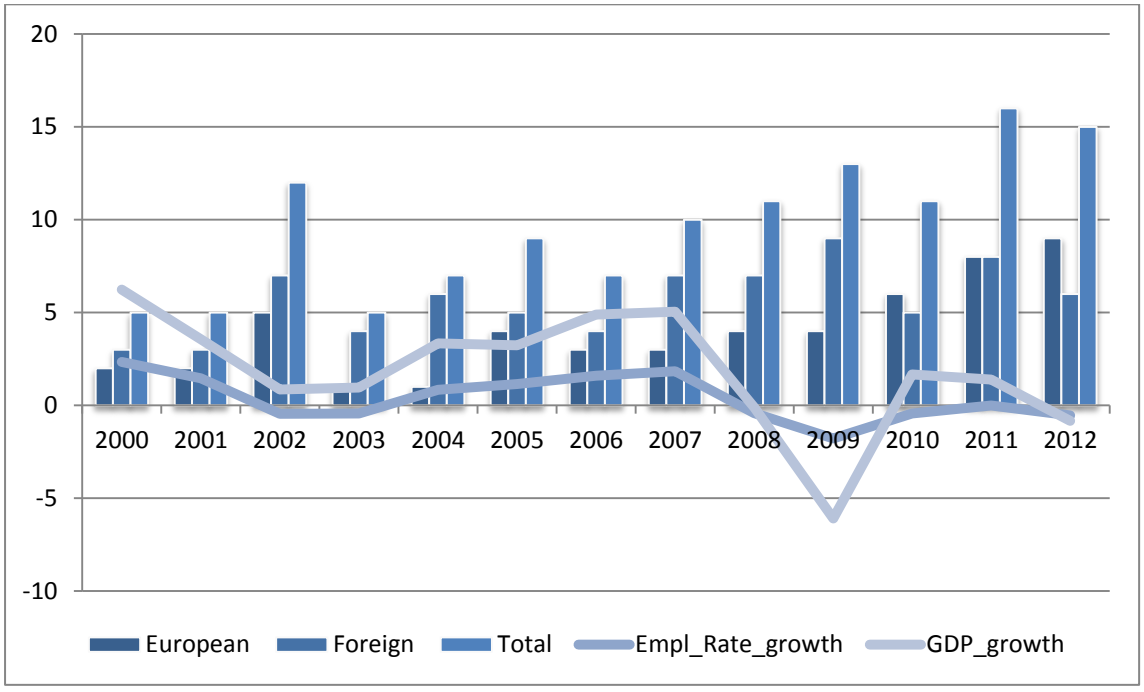
Source: Own sample data.

The previous figures show an increase in HQ relocations in 2002 and from 2007 to 2012, with just an exception in 2010, where the number of relocations experiences a contraction. This trend could be explained taking into consideration the exogenous economic shocks, previously defined as economic crisis, occurred in the last ten years. For example, in the early years of the twenty-first century there was the dot-com bubble, where some companies, like Pets.com, failed completely, while others, like Cisco or Amazon, experienced a considerable lost in their market capitalization. Moreover, the actual economic crisis, compared to the Great Depression for some common features, has started at the end of 2007 in correspondence to the constant increase in the number of HQ relocations. Of course, it could be a casual coincidence, but it deserves more careful academic investigations.

Figure 13 shows the possible relation between economic crisis (at the European level) and the HQ relocation trend. As defined in the methodological section of the thesis, years of crisis are identified considering jointly the GDP per capita growth and the employment rate growth at

the European level. The interesting aspect is to explore the growth in HQ relocations during the crisis years, i.e. 2002, 2003, 2008, 2009, 2011 and 2012. Particularly, in the past few years when the effects of economic crisis were stronger, the number of relocations grew considerably.

Figure 13. Relocation trend and Economic crisis



Source: Own sample data

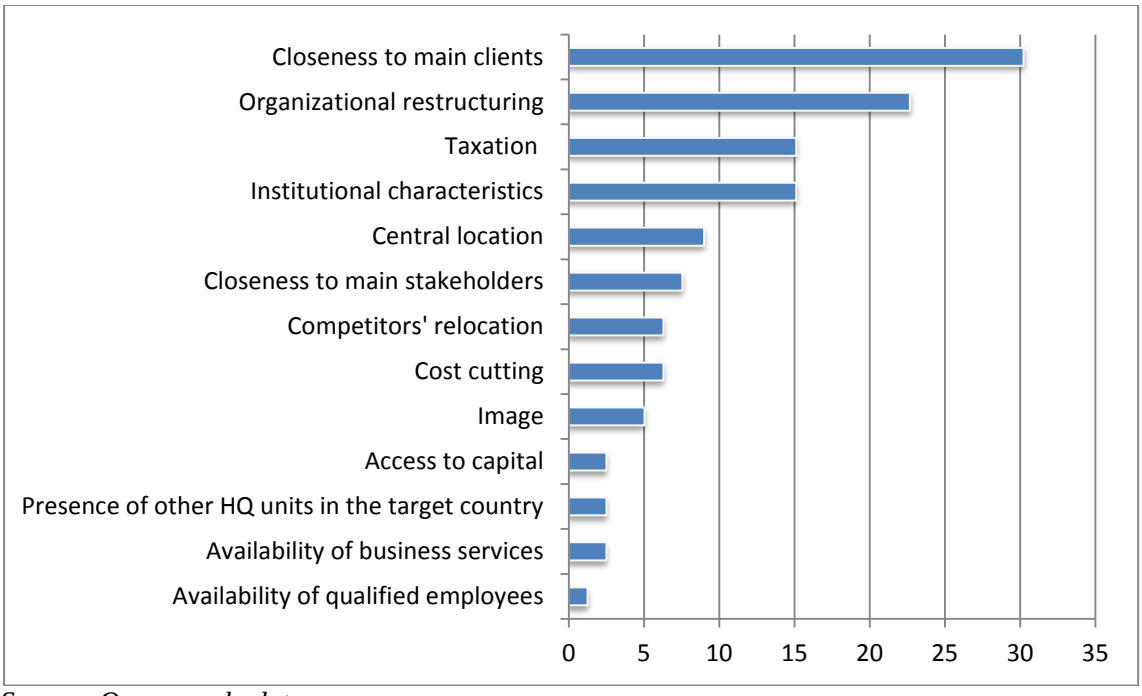
9.2.1 Managerial motivations of HQ relocations

As I wrote in the methodological part, the sampling procedure is based on LexisNexis and Factiva, as well as on company's annual reports and interviews to corporate and/or divisional/regional managers. These sources report also the managerial explanations, given to the HQ movement or conveyed outside.

Figure 14 shows every managerial explanations of HQ movements in my sample, announced by the company in their annual reports or reported by the newspapers. The frequency is measured "*as the number of occurrences when a reason falling into that category was used as a justification for the relocation*" (Laamanen et al., 2011; p. 13). Furthermore, some firms

give more than one justification, while others don't give proper reasons for the movement of HQ. In line with Laamanen et al. (2011)'s findings, the first three explanations are related to the need to be closer to main customers, to the organizational restructuring and to the high corporate taxation in home country. But, I find also different and interesting justifications, announced by the firm, for example, the institutional characteristics/quality of the home country, in terms of bureaucracy, corruption, regulatory quality or law effectiveness. Moreover, according to managerial explanations, HQ relocations are driven also by the central location of target countries, the closeness to main stakeholders and shareholders, and the behaviour of other firms, especially competitors. Cost cutting, one of the most important explanations of this phenomenon in literature, is ranked eighth, followed by international image, agglomeration factors, and the availability of business services and qualified employees in the home country.

Figure 14. The frequency of managerial explanations of HQ relocations, as publicized by the newspapers and the companies



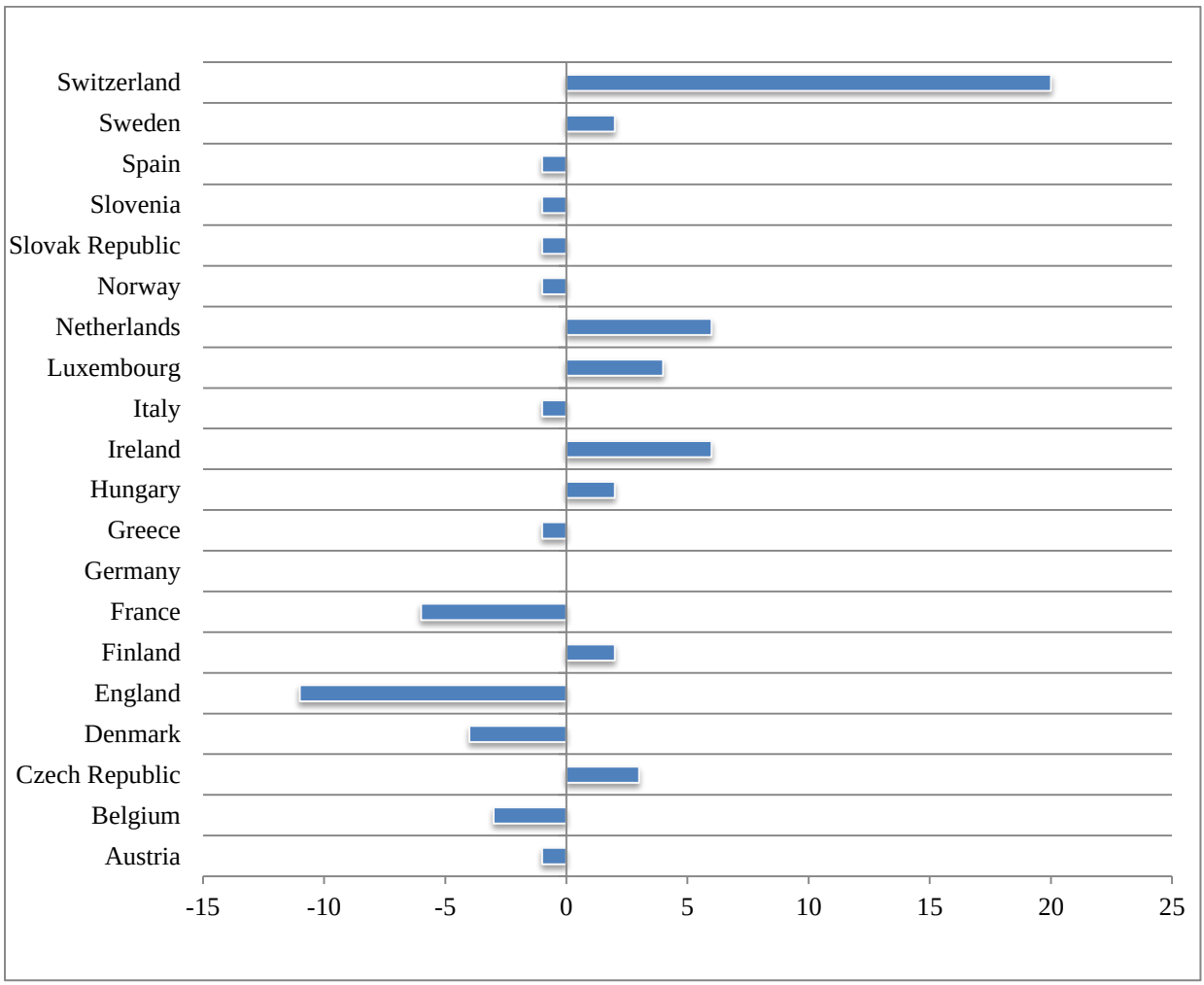
Source: Own sample data

9.3 Descriptives on “where” to relocate

9.3.1 Relocation and home/target country

In my sample I consider the HQ relocations occurred in the EU-25 plus Norway and Switzerland from 2000 to 2012. Figure 15 summarizes the observed relocations of HQ units taking into consideration the net change between inflow and outflow (see the appendix 13.3 for more details). As it is possible to see from the Figure 15, some countries experience more than one relocation, like for example England, Switzerland, and Germany. Others don’t experience any relocation events like Cyprus, Estonia, Latvia, Lithuania, Malta, Poland, and Portugal. It could be a consequence of my sampling procedure, because I don’t have data on relocation events that are not important enough to be reported by the financial press (or those where the company is otherwise stock market listed). Furthermore, unlike Laamanen et al. (2011), there is only one relocation out involving Italy, Greece, Slovak Republic and Slovenia. In line to Laamanen et al. (2011), the highest activity occurs in Central and Western Europe, where there are important economies close to the main European markets. The highest gross flow interests England and Switzerland, and especially from England to Switzerland. In line with Wanner et al. (2004), Switzerland is one of the most attractive European country for HQ units, gaining 28 HQs in the last twelve years and losing only 8 in the same period of time (net change is +20). England, on the other side, gained 24 units, but also lost 35 HQs (net change -11). Germany shows a relatively high activity with no clear direction, and an equal number between inflow and outflow. The Netherlands and Ireland show a net increase in the number of HQ with relatively strong inflow. Completely different is the situation in France, where the number of HQ outflow is greater than inflow. For the Scandinavian countries, the flow is very small and approximately equal, with just one exception, Denmark, that experiences only relocations out in the considered time frame.

Figure 15. Net change between inflow and outflow of HQ relocations in each country.



Source: Own sample data

9.3.2 Relocation trend and country characteristics

Reasonably, MNCs should relocate their HQs towards attractive countries. A European country can be defined attractive from a firm's perspective, if it fits two important criteria at the same time: 1. "good governance" and 2. closeness to main European markets. The goodness of governance can be measured through institutional characteristics and quality, defined following the Kauffman index. The six specific indicators of Kauffman index are: *voice and accountability*; *political stability and absence of violence*; *government effectiveness*; *regulatory quality*; *rule of law*; *control of corruption*. High value of Kauffman index means that a country has high quality institutions, low corruption, and bureaucracy. On

the other side, a European country is attractive if it is close to the main European markets, i.e. to the main customers of firms. Usually, the main markets are located in the central part of Europe (Warner et al. 2004). So, I define attractive a country that is able to fit at the same time these two criteria. For example, following this logic, the Scandinavian countries, i.e. Denmark, Sweden and Norway, are considered unattractive, because they are peripheral economies (Benito et al., 2011), even if they present high values in institutional quality. At the same time, some central countries, like for example France, cannot be considered attractive, because they experience low level of institutional quality.

Table 19 and Table 20 show the number of HQ relocations with respect to the attractiveness of home and target countries. As I supposed, attractive target locations get the most of HQ relocations from both attractive and unattractive countries. 55% of my sample is composed by relocations from attractive home countries, while 45% from unattractive ones. Considering the target location, 83% of relocations are directed to attractive countries, while only 17% to unattractive ones. Going in details, 54 HQs (43% of my sample) are moved within attractive and central European countries. 51 HQs (40% of my sample) moved from unattractive to attractive; 15 (12%) from attractive to unattractive and, only, 6 (5%) between unattractive countries.

Table 19. HQ relocations and countries' attractiveness

From/To	Attractive	Unattractive	**Total**
Attractive	54	15	**69**
Unattractive	51	6	**57**
Total	**105**	**21**	**126**

Source: Own sample data

The following Table 20 shows the percentage of HQ relocations taking into consideration the attractiveness of Home and Target country.

Table 20. HQ relocations and countries' attractiveness (in %)

From/To	Attractive	Unattractive	**Total**
Attractive	43%	12%	**55%**
Unattractive	40%	5%	**45%**
Total	**83%**	**17%**	**100%**

Source: Own sample data

Furthermore, these HQ relocations have taken place in different years in my time frame 2000-2012. As written before, two important economic crises have characterized my time frame: the first was the dot-com bubble at the beginning of twenty-first century; the second is the current crisis started at the end of 2007. It is interesting to understand if the presence of economic crisis can influence the behaviour of firm in relocating their HQ units and in choosing the target country. In theory, it is easy to suppose that during years of economic crisis MNCs are more likely to relocate their HQs from unattractive to attractive countries. In these highly uncertain situations, firms try to establish themselves in countries, characterized by high level of institutional quality and closer to the main European markets that are able to better minimize the negative effects of crisis.

The following Table 21 and Table 22 shows the movements of HQ units considering simultaneously the characteristics of home and target countries and the crisis/no-crisis year in which the relocation takes place. An immediate outcome of this analysis is the 72 relocations that happen during times of economic crises, i.e. 57% of my sample. Moreover, as expected, most of the HQs (48%) move to attractive countries during economic crises and the movement is from unattractive home location (26%). Furthermore, during economic crises

22% of relocations take place within attractive countries; 6% from attractive to unattractive and only 3% within unattractive ones. In times of stability, HQs move between attractive countries (21%) when compared to the movement from unattractive to attractive ones (14%).

Table 21. HQ relocations, crisis and countries' attractiveness

	Attractive to attractive	Unattractive to attractive	Attractive to unattractive	Unattractive to unattractive	**Total**
Crisis	28	33	7	4	**72**
No-Crisis	26	18	8	2	**54**
Total	**54**	**51**	**15**	**6**	**126**

Source: Own sample data

The following Table 22 shows the percentage of HQ relocations taking into consideration the attractiveness of Home and Target country and the crisis years.

Table 22. HQ relocations, crisis and countries' attractiveness (in %)

	Attractive to attractive	Unattractive to attractive	Attractive to unattractive	Unattractive to unattractive	**Total**
Crisis	22%	26%	6%	3%	**57%**
No-Crisis	21%	14%	6%	2%	**43%**
Total	**43%**	**40%**	**12%**	**5%**	**100%**

Source: Own sample data

9.3.3 Euro-Zone and relocation events.

During my time frame (2000-2012) Europe experienced an ongoing process of economic and monetary integration, changing the location advantages within the European countries. At the beginning of 2002 Euro currency was introduced making more similar the economic and monetary policies and conditions of the Eurozone member states (Bevan & Estrin, 2004; Radulescu & Druica, 2011). At the same time, it increased economic differences among the Eurozone and non-Eurozone member states (Arnold & Lemmen, 2008). It has been shown,

for example, that these differences can influence the location and FDI decision of MNCs between Euro countries and non-Euro countries (e.g. Foad, 2007). According to Foad (2007), non-Euro countries are losing inflow FDIs in favor of Euro-countries because of the elimination of nominal exchange rate volatility within the currency union.

The following Table 23 describes the movements of HQs inside and outside Eurozone member states. I investigate descriptively if the economic and monetary differences among Eurozone and non-Eurozone member states can influence the HQ relocation decision of MNCs. The data show that in my sample 54 relocations are originated from Euro member states, while 72 from non-Euro member states. Moreover, it is interesting to consider their relocation behavior. The most of HQs previously located in Eurozone (59%) relocate outside, while those previously located in non-Euro member states (56%) move into Eurozone. This opposite behavior could be interpreted as a consequence of underestimating own location advantages. In particular, both HQs located into Eurozone and those outside don't understand properly the benefits of their location and desire something different. So, both of them try to move away. Moreover, in the light of institutional theory, this different behavior could be interpreted also as descriptive evidence that the point of reference for isomorphism of MNCs subunits in terms of HQ relocation is the own institutional field, which is in this case the affiliation of the state in which the HQ is initially located (Eurozone membership or not).

Table 23. Relocations inside and outside Eurozone member states.

From/to	Euro member states	Non-Euro member states	**Total**
Euro member states	22 (41%)	32 (59%)	**54**
Non-Euro member states	40 (56%)	32 (44%)	**72**

10 Analysis and results

10.1 Cross-sectional logit model

Starting from my panel dataset, I constructed a cross-sectional dataset as explained before in details. Furthermore, I lagged one year the value of each independent variable (x_{t-1}).

So, I run a simple logistic regression to analyze the determinants of the decision to relocate an HQ unit:

$$y_n = \alpha x_n + \beta r_n + \varepsilon_n$$

Where y_n is the company's observed decision to relocate (it is a binary variable: move or not move), x_n is a vector the variables related to the country where HQ was placed before the relocation, and r_n is a vector of firm variables. The probability that y_n is equal to 1 is the result of the following formula:

$$P(y_n = 1 | x_n) = \frac{\exp(x_n\alpha + z_n\beta)}{1 + \exp(x_n\alpha + z_n\beta)}$$

Following the same procedure of Laamanen et al. (2011), I estimate the economic significance for the probability that y_n changes when the independent variable x changes by Δx as in the following formula (Laamanen et al., 2011; p.12):

$$\Delta\pi = \pi(x_j + \Delta x_j, \bar{x}_{i\neq j}) - \pi(x_j, \bar{x}_{i\neq j})$$

Where x_j "*represents the initial value of the independent observable variable of interest for hypotheses and Δx_j is a change from 0 to 1 for binary independent variables and one standard deviation from the mean for other independent variables, and where other independent variables $\bar{x}_{i\neq j}$ are held at their means*" (Laamanen et al., 2011; pp.12-13).

Finally, the pseudo R^2 in Table 25 is McFadden's pseudo R^2, as a result from the following formula:

$$1 - \frac{\ln L_R}{\ln L_U}$$

In the previous formula, L_R and L_U represent the likelihoods of the model with and without regressors, respectively.

10.1.1 Replicating the results of Laamanen et al. (2011)'s model

The study of Laamanen et al. (2011) was the first one to analyze the HQ relocation phenomenon through an international dataset and, especially, in the European countries. It was also the first to investigate theoretically and empirically the institutional isomorphism as a possible explanation of HQ relocation even if with questionable statistical results. Its contributions to relocation literature have inspired my current study. Furthermore, as written over and over again in the methodological section, I followed its sampling procedure, even if my sample counts more observations (326 in my sample vs. 252 in Laamanen et al. (2011)). For these motivations before to introduce my analysis and to investigate empirically my hypotheses, I try to replicate the Laamanen et al. (2011) study, using my data. In this way, I check the goodness of my data and also I test again its main expectations with more observations.

Table 25 contains the results of my logit analysis, replicating the study of Laamanen et al. (2011). I don't consider variables that don't receive significant statistical support in Laamanen et al. (2011). The variables used can be easily classified in two main groups: home country variables and firm variables. The first group refers to the characteristics of the country in which the HQ unit is located before relocation; the second one to the

characteristics of firm. Following Laamanen et al. (2011)'s procedure, I run four different models:

1. Model 1 considers only home-country variables;
2. Model 2 considers only firm variables;
3. Model 3 combines the home-country and firm variables;
4. Model 4 considers both categories plus the trend variable.

The trend variable is measured like in Laamanen et al. (2011), i.e. "*the number of relocation events in the year prior to the firm-year observation*" (Laamanen et al., 2011; p.14). The model 4 is the most comprehensive one that considers all variables.

The following Table 24 shows descriptive statistics for the variables used and, especially, compares their means for the group of firms that relocated their HQ units with those for the control group. Considering the results in the Table 24 based on simple univariate tests, HQs relocate, on average, from country characterized by lower-GDP per capita, higher employment rate and tax rate, and greater distance from CHQ home country and from subsidiaries' location. Switching to firm characteristics, firms more internationalized and with higher revenues are more likely, on average, to move their HQs overseas. Moreover, CHQ and larger HQ unit (in terms of number of employees) are, on average, less relocated.

Table 24. Descriptives between control group and moved/relocation group

Variables	Control Group (N=200) Mean	Relocation Group (N=126) Mean	t-test for difference
GDP/per capita (USDth)	41293	39915	1.55**
Employment Rate	68.64	69.88	-2.02**
Tax Rate	29.10	31.51	-2.78**
Geo-Remoteness from CHQ (in Km^2)	952.91	4102.58	-9.77**
Geo-Remoteness from subsidiaries	12.95	13.68	-0.81**
CHQ	0.51	0.21	5.64**
Degree of internationalization	13.18	14.14	-2.98**
Revenues	14.46	14.54	-0.26**
HQ size	517	288	2.69**

The table shows means for each variable in the control group (n=200) and in the sample-relocation group (n=126), as well as the t-statistic for the difference between them, assuming unequal variance.

+, *, and ** denote significance at the 10%, 5%, and 1% levels, respectively.

9.1.1.1 Results and discussion

Starting from home country variables, Laamanen et al. (2011) use GDP per capita as a proxy for the wage level, predicting that high wage level increases the probability of relocation. They found GDP per capita positive and borderline significant in model 1, but no longer significant in the model 3 and 4. Using my data, I achieved a different result. In fact, this variable is not significant in any models.

Then, like in Laamanen et al. (2011), I found a positive and significant relation between employment rate and the relocation decision. It could be explained that the increase in the

employment rate in the home country can reduce the availability of qualified employees (Laamanen et al., 2011), pushing the HQ unit to go away. I found support at the 5% confidence level for this variable in model 1, 3 and 4.

Unlike Laamanen et al. (2011), I found support at the 5% confidence level for the tax variable also in the comprehensive model. So, my results largely confirm that higher corporate taxes in the home country are related to a higher likelihood of HQ relocation. In Laamanen et al. (2011), this variable is significant at 10% confidence level in the model 3 and 4, but when firm specific variables are not included (model 1), it becomes not significant and its p-value rises above 10%.

Then, Laamanen et al. (2011) consider the geographical remoteness[14] of the HQ location with respect to its center of gravity without finding significant results. I measure this variable in a more sophisticated way. I split it in two different variables:

1. the geographical distance of the location of HQ unit from the location of corporate HQ (geo-distance from CHQ);
2. the geographical remoteness between the location of HQ unit and the location of each local subsidiary under HQ control (Geo-remoteness from subsidiaries) as the sum of the logarithms of distances between the country's HQ and the countries of each local subsidiary.

I found a positive and significant support (at 5% confidence level) between the geographical distance from corporate HQ and the relocation decision in every model. It means that the distance from corporate HQ increases the likelihood of HQ relocation. At the same time, I find also a positive and borderline significant relation (at 10% confidence level) between the relocation decision and the remoteness to each subsidiary only considering the home-country

[14] Laamanen et al. (2011) measure the geographical remoteness as the sum of logarithms of geographical distances between the country's capital and the capitals of the other 16 countries.

variables. When firm specific variables are included (model 3 and 4), the *p*-value rises above 10%. However, it means that an increase in remoteness between the HQ location and the location of each subsidiary under its control increases the likelihood of HQ relocation. More carefully academic investigations should be done on the effects of the remoteness on the relocation decision.

Switching the attention on firm variables, the results confirm the higher mobility of regional and divisional HQs with respect to corporate ones, in line with the prior findings of Brouwer et al. (2004) and Laamanen et al. (2011). The variable CHQ is negative and constantly significant at 1% confidence level in every model. It means that corporate HQs have a less likelihood of relocation than regional and divisional ones. This result confirms the inertia of CHQ.

Furthermore, in line with Laamanen et al. (2011), I found a highly significant and positive relation between exports and the relocation of HQ. Exports can be considered as a measure of the internationalization degree of firm. Thus, a higher degree of internationalization increases the likelihood of HQ relocation. This result justifies the theoretical definition of this phenomenon as the third degree of internationalization process (Forsgren et al., 1995; Barner-Rasmussen et al., 2007).

Unlike Laamanen et al. (2011), using my data I found negative and high significant relation between the HQ size and its relocation overseas. It means that smaller HQs are more likely to be relocated. This variable is still significant at 1% confidence level also in the most comprehensive model 4.

Finally, one of the most important difference with respect to Laamanen et al. (2011)'s results is about the trend variable. The trend variable included in my model 4 comes out as positive and significant at the 5% confidence level, capturing an imitative behavior by companies in

my sample. So, it means that previous HQ relocations increase the number of future HQ relocations. It supports the imitative behavior in HQ relocation decisions, taken by MNCs. This significant result could be explained statistically by the higher number of observations of HQ relocations in my sample compared to Laamanen et al. (2011). This interesting finding deserves more academic investigations. At this stage of analysis, I run again the same regression measuring in a more sophisticated way the trend variable in Table 25. As written in the methodological section, I don't consider only the number of relocations taken by other MNCs in the previous year, but the accumulated number of relocations in the years prior to the firm-year observation. As explained previously, this measure could better capture the isomorphic behavior of firms. My results show a positive and significant coefficient at the 1% confidence level for this variable ("*accumulatedtrend*").

The following Table 25 shows the results of my logit regression and easily compares them to the comprehensive model of Laamanen et al. (2011). Furthermore, the second column of model 4 shows the results considering the accumulated trend variable.

In summary, replicating the Laamanen et al. (2011)'s model, my strongest findings, that deserve more further academic investigations, relate to the effects of remoteness, and, especially, of isomorphic behavior. The significant role of imitation in HQ relocation decision can give an important contribution to institutional theory, answering one of the institutional provocations in Kostova et al. (2008) and clarifying the isomorphism in international business.

Table 25. Cross-sectional logit model of HQ relocation and comparison to Laamanen et al. (2011)

	1	2	3	4		
	Home-country variables	**Firm variables**	**All variables**	**All variables + accumulated trend**		
	Present Study	**Present Study**	**Present Study**	**Present Study**	**Present study[f]**	**Laamanen et al. (2011)**
GDP per capita	0.002 (0.002)		0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.09 (1.42)
Employment Rate	0.058* (0.025)		0.054* (0.026)	0.052* (0.026)	0.053* (0.0264)	0.09+ (1.68)
Tax Rate	0.041* (0.018)		0.036* (0.018)	0.041* (0.019)	0.049* (0.018)	0.07+ (1.66)
Geo-remoteness from CHQ [a]	0.035** (0.017)		0.231** (0.035)	0.236** (0.036)	0.258** (0.039)	
Geo-remoteness from subsidiaries[b]	0.253* (0.033)		0.022 (0.019)	0.019 (0.019)	0.0197 (0.019)	-0.06 (-0.76)
Industry [c]	0.0024 (0.059)		0.046 (0.063)	0.052 (0.063)	0.0565 (0.069)	
Concentration [c]						-0.0003 (-1.22)
CHQ [d]		-1.28** (0.026)	-0.891** (0.029)	-0.845** (0.029)	-0.885** (0.299)	1.90** (4.08)
Degree of internat.[e]		1.14** (0.015)	1.241* (0.019)	1.249* (0.021)	1.155* (0.059)	3.32 (3.67)
Revenues		0.001 (0.010)	0.001 (0.010)	0.001 (0.010)	0.0001 (0.01)	0.002 (0.26)
HQ size		-0.01** (0.0003)	-0.0007** (0.00026)	-0.0007** (0.00027)	-0.0007** (0.0002)	-0.008 (-0.46)

Trend				0.095* (0.041)	0.092**[(e)] (0.04)	-0.1 (-1.07)
Constant	-6.174** (1.942)	-1.673* (0.670)	-7.410** (2.146)	-8.48** (2.241)	-8.471** (2.229)	-8.18 (-0.770)
N	326	326	326	326	326	252
Pseudo R^2	0.198	0.120	0.256	0.289	0.298	0.304

Country-level variables in this table are the main characteristics of the home country of the company. In the present study, Robust Standard Error (RSE) is in the parentheses below the coefficients, while t-statistics in Laamanen et al. (2011).

+, *, and ** denote significance at the 10%, 5%, and 1% levels, respectively.

(a) and (b) the remoteness variable is measured in completely different way between the present study and Laamanen et al. (2011). In the present study, I identify two different geographical remoteness measures. Geo-remoteness from CHQ: the sum of logarithms of the geographical distance between the location of HQ unit and the location of CHQ; Geo-remoteness from subsidiaries: the sum of logarithms of the geographical distance in Km^2 from the location of HQ unit and each location of subsidiaries under its control. In Laamanent et al. (2011), remotes is measured as the sum of logarithms of distance between the country's capital and the capitals of the other 16 countries.

(c) In the present study industry is a categorical variable related to the SIC code of the firm. In Laamanen et al. (2011) industry is a concentration variable, measured like the number of companies in the same NACE classification as the company of interest. So, in the table I name concentration the industry variable of Laamanen et al. (2011).

(d) This variable is the type of HQ unit. In the present study the meaning of this variable is completely opposite to Laamanen et al. (2011). I measure through this dummy variable the mobility of CHQ, rather than Laamanen et al. (2011) measure the mobility of RHQ.

(e) I measure the degree of internationalization like the ratio between the exports and the total amount of firm revenues. In Laamanen et al. (2011), it is named "exports" and measured like the amount of revenues generated outside home country.

(f) Here, trend is calculated in an accumulated way. It is the sum of relocations in the years prior to the firm-year observation.

10.1.2 Testing the hypotheses in a cross-sectional logit model

In the present paragraph, I test my main theoretical framework and hypotheses through a cross-sectional logit model. Table 26 compares the means of variables used for the group that relocated with those for the control group. Based on simple univariate tests, HQs that move away follow a mimetic behavior, are characterized by more dispersed ownership, are more institutionally distant from CHQ and their center of gravity and are from less institutional quality countries. Furthermore, looking at only descriptive results, relocated HQs are characterized by a smaller size, and higher degree of internationalization than non-relocated HQs.

Table 26. Relocations vs. control group

Variables	Control Group (N=200) Mean	Relocation Group (N=126) Mean	t-test for difference
Accumulatedtrend	44.840	50.640	-3.21**
Ownership_dummy1	0.370	0.627	-4.66**
Distance_from_CHQ	0.335	0.531	-3.92**
Inst_remoteness_factor	0.097	0.155	-3.23*
Inst_quality	1.207	1.161	1.21**
Country_crisis	0.323	0.444	-1.24**
Year_crisis	0.265	0.507	-4.58**
HQsize	5.36	4.63	4.61**
Revenues	14.54	14.46	-0.26**
Degree_of_internationalization	0.458	1.487	-1.80**
Status	0.150	0.158	-0.21**
Tax	29.10	31.51	-3.99**

The table shows means for each variable in the control group (n=200) and in the sample-relocation group (n=126), as well as the t-statistic for the difference between them, assuming unequal variance.

+, *, and ** denote significance at the 10%, 5%, and 1% levels, respectively.

Table 27 and Table 28 show the correlation matrix among each independent variable. The two tables consider a different measure for the crisis variable: the first one crisis at country level; the second at the European level. I don't put these two variables in the same table, because they are highly correlated to each other, measuring the same construct.

Table 29 and Table 30 contain the results of the cross-sectional logit model, testing my previously formulated hypotheses. The variables used have been explained in detail in the

methodological section of the current dissertation. The three alternative specifications are based on the following logic:

1. Specification 1 contains the base model with country crisis, considering at first only control variables, then only institutional variables and finally all variables;
2. Specification 2 contains the base model with the European crisis ("EU_crisis");
3. Specification 3 contains the interaction effects[15], splitting the sample in crisis vs. non-crisis and comparing the results;

In the specification 3 I left out the control variables (except for taxes) because of limited sample size and degree of freedom. In my discussion of the results, I rely especially on the specification 1c (with all variables) and specification 3 (with the interactions), as they are the most comprehensive. I next proceed to describe results in relation to my hypotheses. In the hypothesis 1a I predicted that previous HQ relocations, taken by other MNCs, increase the likelihood of further imitative HQ relocations. I used the accumulated trend, as explained before, like a proxy for the institutional isomorphism. The corresponding coefficient is positive and significant at the 1% confidence level in the model 1c and at the 5% in the model 1b. The hypothesis 1a is significantly confirmed. In the hypothesis 1b I predicted that the institutional isomorphism is strongly during times of economic crises. This interaction effect is confirmed in the model 3, where the coefficient during crisis is positive and statistically significant at the 1% confidence level. Moreover, the coefficient is higher than the coefficient in non-crisis period (positive and significant at the 10% confidence level).

In the hypothesis 2a I predicted that an increase in ownership concentration decreases the likelihood of HQ relocation. Ownership structure is used as a proxy of the internal coercive pressure. My results largely confirm that higher ownership concentration is associated with a

[15] I consider only country crisis, because I didn't find statistically support for crisis measured at the European level.

higher likelihood of HQ relocations. I find support for hypothesis 2a at the 1% confidence level in the model 1c. When I consider only institutional variables in the model 1b, the *p*-value rises above 0.01, and the coefficient is still significant at the 5% confidence level. During times of economic crises I predicted a stronger effect of ownership concentration on the likelihood of HQ relocations (hypothesis 2b). Although in the model 3a (during non-crisis period) the coefficient is still significant, in the model 3b (during crisis) the *p*-value rises above 10%. Moreover, during crisis the coefficient is less than the coefficient during non-crisis. Hypothesis 2b is not confirmed.

In the set of hypothesis 3 I addressed the effects of the institutional distance from CHQ and the remoteness from centre of gravity on the likelihood of HQ relocations. In details, in the hypothesis 3a I predicted that an increase in institutional distance from CHQ increases the likelihood of HQ relocations. I find support for the hypothesis 3a at the 1% confidence level in each model. Hypothesis 3b, that predicts an increase in institutional remoteness between HQ units and local subsidiaries increases the likelihood of HQ relocation, is also significantly confirmed at the 1% confidence level. During times of economic crises, I expect a stronger effect of these two institutional variables on the likelihood of HQ relocations (hypotheses 3c). My results don't confirm completely my expectations. In the model 3 my results largely support the first part of hypothesis 3c, i.e. during times of economic crises an increase in the institutional distance from CHQ increases the likelihood of HQ relocation (at the 1% confidence level). I don't find statistical support for the institutional remoteness from local subsidiaries in model 3, comparing the results between crisis and non-crisis period. In particular, during crisis period the *p*-value of institutional remoteness rises above 10% and it is statistical insignificant, even if the coefficient is positive.

Table 27. Correlation matrix with country crisis

	1	2	3	4	5	6	7	8	9	10	11	12
1.Accumulatedtrend	1											
2.Ownership_dummy1	0.1459	1										
3.Distance_from_CHQ	0.2106	0.0928	1									
4.Inst_remoteness_factor	0.0517	0.1683	0.0717	1								
5.Inst_quality	0.0896	-0.0171	0.2407	-0.0484	1							
6.Country_crisis	0.1771	0.1673	0.2438	0.0059	0.0997	1						
7.Hqsize	-0.0547	0.0649	-0.1832	0.0067	0.0399	-0.0515	1					
8.Revenues	-0.0362	0.0649	0.0397	-0.026	0.0557	-0.0385	0.0996	1				
9.Degree_of_internationalization	0.0019	0.0828	0.0932	-0.0321	-0.0336	0.0773	-0.0107	-0.012	1			
10.Tax	-0.0013	0.0343	0.043	-0.1219	-0.1622	0.0783	-0.076	0.0248	0.0413	1		
11.Industry	-0.0192	-0.0617	-0.0839	0.0825	-0.0584	-0.0316	0.0683	-0.0132	-0.037	0.0364	1	
12.Status	0.007	-0.1615	0.0643	-0.075	-0.0798	-0.1032	-0.0704	-0.068	-0.0476	-0.0733	0.074	1

Table 28. Correlation matrix with European crisis

	1	2	3	4	5	6	7	8	9	10	11	12
1.Accumulatedtrend	1											
2.Ownership_dummy1	0.1459	1										
3.Distance_from_CHQ	0.2106	0.0928	1									
4.Inst_remoteness_factor	0.0517	0.1683	0.0717	1								
5.Inst_quality	0.0896	-0.0171	0.2407	-0.0484	1							
6.EU_crisis	0.1937	0.1219	0.2741	-0.0423	0.0546	1						
7.Hqsize	-0.0547	0.0649	-0.1832	0.0067	0.0399	-0.0616	1					
8.Revenues	-0.0362	0.0649	0.0397	-0.026	0.0557	0.0107	0.0996	1				
9.Degree_of_internationalization	0.0019	0.0828	0.0932	-0.0321	-0.0336	0.0881	-0.0107	-0.012	1			
10.Tax	-0.0013	0.0343	0.043	-0.1219	-0.1622	0.0398	-0.076	0.0248	0.0413	1		
11.Industry	-0.0192	-0.0617	-0.0839	0.0825	-0.0584	-0.0594	0.0683	-0.0132	-0.037	0.0364	1	
12.Status	0.007	-0.1615	0.0643	-0.075	-0.0798	-0.0795	-0.0704	-0.068	-0.0476	-0.0733	0.074	1

In the hypothesis 3d, I predicted a stronger effect of institutional distance than institutional remoteness during times of economic crises. Looking at coefficient, this expectation is largely confirmed in stable environment, where the institutional distance from CHQ (coefficient 1.57) has a stronger effect on the likelihood of HQ relocations than the institutional remoteness from local subsidiaries (coefficient 0.84). During times of economic crises, I don't find support for the hypothesis 3d because the coefficient of the institutional remoteness is non-significant. However, looking only at the coefficient of "distance_form_CHQ" and of "Inst_remoteness_factor", I can argue that this hypothesis could be supported, because the first coefficient is still higher than the second.

In the hypothesis 4a I predicted that a decrease in the institutional quality of the HQ location increases the likelihood of relocation. I observe the expected negative sign, and a *p*-value below 1% in each model. HQ units in lower institutional quality location are more likely to relocate away.

Finally, it is really interesting to observe the direct effects of economic crisis on the likelihood of HQ relocations, even if it is not previously hypothesized. I measured economic crises at the European and at the country level. I based my analysis on the effects of country crisis (base model). I tested also the effects of the European crisis in the model 2. I find statistically support only for the effects of country crisis on the likelihood of HQ relocations. Coefficient is positive and highly statistically significant at the 5% confidence level.

In summary, my strongest findings concern the effects of institutional isomorphism, the concentration of ownership structure, the institutional distance from CHQ and the remoteness from local subsidiaries, and the institutional quality of HQ location. Furthermore, economic crises and especially country economic crises impact positively on the likelihood of HQ

relocations. About the moderator role of economic crises I find questionable statistical support.

Table 29 Results of cross-sectional logit model

	1.Base model with Country crisis			2. Base model with EU_crisis
Variables	**1a – only control**	**1b – only institutional variables**	**1c – all variables**	**2 – all variables with EU_crisis**
Accumulatedtrend		0.01*	0.02**	0.02**
		(0.008)	(0.005)	(0.005)
Ownership_dummy1		0.80*	0.79**	0.83*
		(0.32)	(0.33)	(0.33)
Distance_from_CHQ		1.69**	1.57**	1.56**
		(0.22)	(0.22)	(0.22)
Inst_remoteness_factor		0.59**	0.84**	0.87**
		(0.22)	(0.25)	(0.26)
Inst_quality		-1.93**	-1.64**	-1.60**
		(0.60)	(0.50)	(0.51)
Country_crisis		0.71**	0.68*	
		(0.31)	(0.34)	
EU_crisis				0.65
				(0.33)
Revenues	019**		0.14	0.12
	(0.06)		(0.07)	(0.07)
HQsize	-0.54**		-0.42*	-0.41*
	(0.11)		(0.14)	(0.14)
Degree_of_internationalization	0.13		0.13	0.13
	(0.11)		(0.08)	(0.05)
Status	0.37		0.59	0.58
	(0.34)		(0.45)	(0.44)
Tax	0.05**		0.08**	0.08**
	(0.01)		(0.022)	(0.022)
Industry				
2	-0.099		-0.206	-0.09
	(0.411)		(0.582)	(0.51)
3	-0.50		-0.225	-0.24
	(0.44)		(0.640)	(0.47)
4	-0.13		-0.051	-0.51
	(0.30)		(0.459)	(0.42)
Constant	-2.2*		-3.815*	-3.66*
	(0.93)		(1.447)	(1.47)
N	326	326	326	326
Pseudo R^2	0.11	0.35	0.41	0.41

In the present study, Robust Standard Error (RSE) is in the parentheses below the coefficients. the pseudo R^2 is McFadden's pseudo R^2.

+, *, and ** denote significance at the 10%, 5%, and 1% levels, respectively.

Table 30 Results of cross-sectional logit model with interaction effects

	1.Base model with country crisis 2	3. Base model with split sample "country crisis"	
Variables	**1c - all variables**	**3a no crisis**	**3b crisis**
Accumulatedtrend	0.02**	0.01+	0.04**
	(0.005)	(0.006)	(0.013)
Ownership_dummy1	0.79**	1.04**	0.66
	(0.33)	(0.36)	(0.65)
Distance_from_CHQ	1.57**	1.68**	2.40**
	(0.22)	(0.26)	(0.54)
Inst_remoteness_factor	0.84**	0.78*	0.19
	(0.25)	(0.27)	(0.57)
Inst_quality	-1.64**	-1.66**	-1.10
	(0.50)	(0.54)	(1.45)
Country_crisis	0.68*		
	(0.34)		
EU_crisis			
Revenues	0.14		
	(0.07)		
HQsize	-0.42*		
	(0.14)		
Degree_of_internationalization	0.13		
	(0.08)		
Status	0.59		
	(0.45)		
Tax	0.08**	0.08**	0.08**
	(0.022)	(0.02)	(0.04)
Industry			
2	-0.206		
	(0.582)		
3	-0.225		
	(0.640)		
4	-0.051		
	(0.459)		
Constant	-3.815*	-2.50*	-4.93+
	(1.447)	(1.12)	(2.91)
N	326	217	109
Pseudo R^2	0.41	0.33	0.47

In the present study, Robust Standard Error (RSE) is in the parentheses below the coefficients. The pseudo R^2 is McFadden's pseudo R^2.

+, *, and ** denote significance at the 10%, 5%, and 1% levels, respectively.

10.1.3 Multicollinearity

I also checked for multicollinearity. The largest Variance Inflations Factors (VIF) doesn't exceed 7, which is below the critical threshold of 10 (Myers, 1990; O'Brien, 2007). Furthermore, the average VIF is not substantially above 3.0 being 2.00 in the base model 1b, 2.48 in 1c, 3.54 in 3a, and 3.67 in 3b. Also the tolerance doesn't fall below 0.1 (Hair et al., 2006). To sum up, multicollinearity is not a serious issue for the model indicated.

Table 31. Collinearity diagnostics model 1c

	Tolerance	VIF
Accumulatedtrend	.370	3.17
Ownership_dummy1	.478	2.09
Distance_from_CHQ	.859	1.16
Inst_remoteness_factor	.899	1.11
Inst_quality	.260	6.98
Country_crisis	.638	1.57
Revenues	.867	1.15
HQsize	.638	1.47
Degree_of_internationalization	.920	1.09
Status	.824	1.21
Tax	.220	7.65
Industry		
2	.786	1.27
3	.746	1.34
4	.565	1.77

10.1.4 Robustness check: Regression with crisis at the European level

As mentioned in the methodological section of the current study, economic crisis could be measured at different levels: at the macro level (European crisis) and at the micro one (country crisis). I used country crisis in my base model. To avoid possible measurement problems, in the previous model 2 (Table 29) I estimated the same logit model with the EU_crisis variable, which measures the crisis at the European level. The results are very similar to the results in the base model with the variable country_crisis. Moreover, to make more robust my analysis, I run also the model with the interaction effects with the variable

EU_crisis, as shown in the following Table 32. I use the same hierarchical order of variables in the previous model 3 to be able to compare easily the findings.

Table 32. Results of interactions with EU-crisis

	1.Base model with country crisis 2	4. Base model with split sample "EU_crisis"	
Variables	**1c - all variables**	**4a no crisis**	**4b crisis**
Accumulatedtrend	0.026**	0.01*	0.03**
	(0.009)	(0.007)	(0.01)
Ownership_dummy1	0.71**	0.84**	0.65
	(0.33)	(0.41)	(0.52)
Distance_from_CHQ	1.61**	1.70**	2.14**
	(0.23)	(0.29)	(0.45)
Inst_remoteness_factor	0.93**	0.99**	0.19
	(0.26)	(0.31)	(0.38)
Inst_quality	-1.59**	-1.87**	-0.17
	(0.52)	(0.67)	(0.94)
Country_crisis	0.87*		
	(0.36)		
Year_crisis			
Log_revenues	0.144		
	(0.075		
Log_HQsize	-0.35*		
	(0.14)		
Degree_of_internationalization	0.10		
	(0.05)		
Status	0.76		
	(0.50)		
Tax	0.099**	0.10**	0.08**
	(0.025)	(0.03)	(0.04)
Industry			
2	-0.206		
	(0.582)		
3	-0.225		
	(0.640)		
4	-0.051		
	(0.459)		
Constant	-3.815*	-2.67*	-5.22**
	(1.447)	(1.29)	(1.91)
N	326	185	141
Pseudo R^2	0.41	0.34	0.44

In the present study, Robust Standard Error (RSE) is in the parentheses below the coefficients. The pseudo R^2 is McFadden's pseudo R^2.

+, *, and ** denote significance at the 10%, 5%, and 1% levels, respectively.

The analysis shows nearly identical results between the model 3 and the model 4. Overall, the pseudo R-square is 34% in the non-crisis model and 44% in the other one. Comparing the values of pseudo R-square to the base model 3, they are strongly similar. The main independent variables are significant in the both models and present more or less identical coefficient. In fact, the hypotheses get similar support as in the previous model. Accumulated trend is positive and significant (at the 1% during crisis and at the 5% in stable times), and its effects on HQ relocation are higher during times of economic crises. The ownership concentration is positive, but significant at the 1% confidence level only in the stable times, like in the model 3. The institutional distance from CHQ ("distance_from_CHQ) gets similar statistical support with respect to the previous model. It is positive and significant. The institutional remoteness ("inst_remoteness_factor") is still significant only in the stable times. In this robustness check I also left out the control variables (except for taxes) because of limited sample size and degree of freedom. However, the unique control variable considered (tax) is positive and significant like in the base model.

11 Conclusion

11.1 Overall findings and discussion

Recent work in international management demonstrates an increased interest in the movement of HQ units or parenting activities overseas (Baaij et al., 2012; Barner-Rasmussen et al. 2007; Benito et al. 2011; Birkinshaw et al. 2006; Forsgren et al. 1995; Laamanen et al. 2011; Strauss-Kahn & Vives 2009). Much of this study has focused especially on efficiency and effectiveness explanations of relocation decisions, considering HQ relocation as a rational and intentional decision to minimize costs. While increased attention to relocation decisions is clearly important and needed, given the increase in HQ relocations of large multinationals, little attention has thus far been paid to the notion that decisions are not always driven by purely economic and managerial reasons. To fill this gap, some scholars have started to speculate on institutional factors as potential antecedents of HQ relocations (Birkinshaw et al., 2006; Benito et al., 2011; Laamanen et al., 2011). Building on insights from organizational institutionalism (Di Maggio & Powell, 1983; Meyer & Rowan, 1977), such work emphasizes how MNCs may seek to establish or maintain institutional legitimacy through imitating competitors or following main stakeholders (Benito et al., 2011; Birkinshaw et al., 2006; Laamanen et al., 2011). However, even such studies still emphasize the cost minimization and value creation motives of HQ relocations. Instead, whether and how HQ relocations are driven by broader institutional considerations still remains relatively under-researched.

In the current study, I have sought to address this gap by recognizing the limits on HQ relocations that are imposed by social constrains. The basic assumption of this study is that HQ relocations are not only driven by managerial and efficiency-enhancing motives, but also by behavioural and institutional factors, and that these drivers are stronger during times of

economic crises, that increase environmental uncertainty and discontinuities. The current study investigates a peculiar phenomenon through a different theoretical perspective, since extant theory doesn't give a complete explanation of the phenomenon fully.

I develop a model that links isomorphic, normative and coercive institutional pressures to the likelihood of HQ relocation. Hence, I suggest a new set of items for research in relocation decision (e.g., institutional pressures and institutional quality). Starting from the assumption that firm decisions are not always based on purely efficiency motives, I hypothesize and find statistical support that the relocation of parenting activities can be considered as an answer to multiple institutional pressures faced by MNCs in their multiple institutional environments. I argue that international reconfiguration of HQ activities is driven by the need to answer to coercive, isomorphic and normative pressures that come from MNC institutional environments. I stress the legitimacy need of MNCs, as a complementary explanation of relocation decision. Furthermore, I investigate the relationship between HQ relocation and institutional drivers in two different settings, characterized by a different degree of environmental uncertainty: economic crises vs. economic stability. I hypothesize and find statistical support that firms react more strongly to coercive, isomorphic, and normative pressures during times of economic crises. The study can be considered representative of European relocations of HQ units.

Table 33. Summary of results

Hypothesis	Dep. Variable	Expected sign	Results
H1a - Accumulatedtrend	Relocations	+	Supported
H1b –Accumulatedtrend in economic crises	Relocations	> than in stable environment	Supported
H2a – Ownership concentration	Relocations	+	Supported
H2b – Ownership concentration in economic crises	Relocations	> than in stable environment	Not supported
H3a – Distance from CHQ	Relocations	+	Supported
H3b – Inst. Remoteness	Relocations	+	Supported
H3c – Distance and Remoteness in economic crises	Relocations	+	Partially supported
H3d – Distance > Remoteness in economic crises	Relocations		Partially supported
H4a – Institutional quality	Relocations	-	Supported
Country economic crises	Relocations	+	Supported

11.2 Theoretical contribution

The results of my regression model strongly confirm the basic assumption of my study. Taken together, these results allow me to draw a number of considerable conclusions on how institutional factors drive the decision to relocate HQs. I offer a considerable contribution to the re-location literature providing a complementary explanation of HQ relocation by drawing from institutional theory. HQ relocations are not influenced only by the myopic efficiency-enhancing reasons (Benito et al., 2011; Birkinshaw et al., 2006; Forsgren, et al., 1995; Laamanen et al., 2011), but also by institutional pressures. Each institutional pressure (isomorphic, coercive and normative) is able to push MNCs to relocate their HQ units overseas.

A key finding from the current research is the isomorphic behaviour of HQs in their relocation decision. Respect to Laamanen et al. (2011), I find that imitation plays a significant role in relocation decisions as well as in other contexts (e.g., Ethija & Zu, 2008; Haveman, 1993; Jonsson, 2009). This result could be interpreted also as a sign of firm insecurity in taking important organizational and strategic decisions, especially in high uncertainty environments, like during economic crises. Firms find easier and safe to follow other actors that have just taken the same decisions. For example, in 2008, Yahoo! relocated its European Headquarters from London to Switzerland, after studying and speaking to other "comparable" companies that had moved there. In terms of the broader theoretical implications, this result offers statistically significant evidences of the applicability of this institutional construct to the international business literature. Up to now, literature has consistently underplayed the role of isomorphism in shaping the MNCs behaviour (Kostova et al., 2008). The multiplicity and ambiguity of MNCs organizational fields are considered as constrain to isomorphic behaviour (Kostova et al., 2008). "*The diversity among the many institutional systems that they are exposed to and the unique sets of arrangements that each MNC unit faces give these organizations broader latitude in picking and choosing which models to adopt and to what extent they should respond to institutional influences*" (Kostova et al., 2008; p.999). My results address this provocative comment, showing an isomorphic behaviour of MNCs in the decision to move HQs overseas. In line with the traditional argumentation of Institutional Theory (IT) (Di Maggio & Powell, 1983; Haveman, 1993; Kostova & Zaheer, 1999), I also find support that an increase in environmental uncertainty, in this case caused by an exogenous shock, like economic crises, is a powerful force that encourages imitation, pushing organizations to model themselves on the others.

Moreover, Kostova et al. (2008) relate the limited institutional isomorphism in MNCs to the difficulty in identifying a precise organizational field for this type of organizations. "*The*

notion of organizational field in the traditional institutional sense does not apply to MNCs" (Kostova et al, 2008; p.997), that operate in different, fragmented, nested, and sometimes conflicting institutional environments. To answer to this additional provocative comment, I adopt a different definition of organizational field, switching my attention from the meso- to the meta-level of analysis. Meta-definition of institutional field is broader than meso-one, but it encompasses better the various institutional actors and agents that interact with MNCs. In this direction, my results suggest the possibility of developing a richer conceptualization on the use of this new perspective in defining organizational field for MNCs.

Another interesting finding is the effect of institutional distance and remoteness on the relocation of HQ units. It sheds more light on the internal configuration and complexity of HQ system, and also on the internal struggle to achieve legitimacy. HQ units (e.g., DHQ and RHQ) are intermediary lines of control between CHQ and local subsidiaries (Forsgren et al., 1995). They are subject to push and pull pressures. In particular, Forsgren et al. (1995) show a stronger resistance of CHQ to locate HQ units abroad (pull pressure), because it is interested in keeping the division heads together as a close team. However, they don't find statistically support on the distance issue and its effect on relocation decision. My results overcome Forsgren et al (1995)'s limitations, showing, in particular, that the institutional distance from CHQ has a stronger effect on the relocation of HQ units than the institutional remoteness from local subsidiaries. These results could be interpreted as a need of HQ units to establish and regain their internal legitimacy and power. CHQ plays a pivotal and fundamental role within MNCs. An increase in institutional distance from CHQ is negatively perceived by intermediary HQs more than the distance from local subsidiaries under their control. Divisional and regional managers are more confident if their HQ units are located close to CHQ, sharing the same cultural, political and administrative knowledge, and ensuring a rich, quick, and unbiased communication (Lunnan et al., 2011). To maintain and

foster their internal legitimacy and power, divisional and regional HQs are more likely to move closer to CHQ than their centre of gravity. This effect is exacerbated during times of economic crises in line with the results of previous research on firm behaviour and crisis (Staw et al., 1981; Greening and Johnson, 1997; Singh and Yip, 2000). Future research could investigate further the direction of HQ relocation.

Finally, I shed more light on the role of economic crisis in shaping organizational behaviours. My results show that economic crises play a dual role on the internal configuration of HQ activities. Although economic crises influence the relation between institutional factors and the likelihood of relocation, thereby exacerbating isomorphic, coercive and normative pressures, they may also impact directly on the relocation decision. On one side, these above-mentioned findings contribute to the institutional theory by explaining how institutional factors act on MNCs behaviours under varying, floating, and dynamic environmental conditions. In particular, they suggest that unexpected external events (like economic crises) exacerbate mainly the complexity of fragmented and multiple institutional environments in which MNCs operate. The increase in complexity and uncertainty of institutional environment due to economic crises pushes MNCs to react more strongly to isomorphic, coercive and normative pressures to regain lost internal and external legitimacy. On the other side, I find statistical support of the direct effect of the country economic crisis on the decision of HQ relocation. This result shows that specific location decisions are strongly influenced by local micro-conditions, even if they are taken by firms that operate worldwide. It could be interpreted also that international/macro-crises impact on the overall local stability, but not directly on the strategic and organizational decision of MNCs. This is in line with previous study on the impact of economic crises on MNCs behaviours (Chung and Beamish, 2005; Chung et al., 2010; Chung et al., 2008).

11.3 Country policy and managerial implication

This study shows an intensive competition among countries to attract a growing number of HQs. This competition highlights two different categories of countries: winners and losers. The first ones are countries that are characterized by high location advantage and are able to promote themselves as countries to move on. They are experiencing an increase in gaining a growing number of HQs. On the other side, there are countries ("losers") that are losing HQs. Looking at Figure 15 and in line with Laamanen et al. (2011), the United Kingdom is losing its traditional status as an attractive location for HQ units. The net change between gained and lost HQs is equal to -11. Several reasons could be counted. For example, Laamanen et al. (2011) relate this negative trend to "*the increase in proficiency in the English language elsewhere in Europe*" (Laamanen et al., 2011; p. 19). However, other possible explanations could be a decrease in institutional quality, or an increase in corporate taxes. For example, Aviva Group, the world's sixth largest insurance group, moved its HQ from London to Dublin in 2009 for taxation issues. Although its central location, France is also a clear loser. It is negatively affected by the low institutional quality and the less used English language.

The clear winner in this competition is Switzerland, in line with the results in Laamanen et al. (2011). Switzerland is gaining an increasing number of HQs, attracted by its centrality position, high institutional quality, and low corporate tax rate. Moreover, this country is also a good communicator, that is strongly promoting outside its main attractive characteristics through consultant reports (for instance, Wanner et al. (2002)). Scandinavian countries, instead, achieve questionable results, due to their peripheral location. For the other "traditional" European economies there is not a clear trend, for example Germany shows a relatively high activity with no clear direction, and an equal number between inflow and outflow.

My results highlight also the important role played by institutional quality and central location in the decision of HQ relocation. It is most probably not a coincidence that the countries with the highest institutional quality and closer to the central European market are also the major gainers. A clear policy implication of the current study is to support empirically that institutional quality matters for losing and gaining HQs. Countries have to improve continuously the quality of their state political and legal institutions and governance infrastructure to win the competition for gaining HQs. Moreover, high bureaucratic procedures and political corruption are negatively considered by MNCs in their location choices (Tan & Wang, 2011).

For public policy makers the above-mentioned issues are extremely important because corporate and intermediary HQs represent a major source of high value-added jobs. The relocation of many HQs overseas could negatively impact on the economy and stability of such countries. There is also a serious risk that professional service providers, like bankers, accountants, lawyers, and so on, move away as well following HQ units. Home country policy-makers should better analyse the factors of HQ relocation, identifying those on which they can have some control (e.g., governance effectiveness, economic stability, bureaucracy, corporate tax rates, corruption, and so on) and those that are truly exogenous (e.g. the geographical remoteness of the country to the main markets). In this direction, the current study can be helpful for policy makers.

Finally, there are some potentially important implications for the worlds of management practice. The study documents an increasing trend toward relocation of HQs. MNCs are competing on the geographical location of HQ activities that typically are located in the home country. They are looking for new forms of competitive advantage also reconfiguring their HQ system. HQ managers should better understand this phenomenon, its drivers and

implications to anticipate competitors. In this direction, the current study can be helpful for them.

Moreover, the study offers to HQ managers also new tools to take location decision. It highlights how this decision is also influenced by institutional factors. Managers shouldn't restrict their evaluations on home and target location at the efficiency factors, even if they generate benefits in the short term. There are many other variables that should be taken into consideration, like the quality of institutions, bureaucracy, corruption, or internal cultural and administrative distance. These factors generate considerable benefits in the long term, even if they cannot be efficient in terms of immediate and direct effects on performance. For managers, the challenge is to balance these two types of different factors in taking a location decision. Here, my research provide a way of thinking through the institutional drivers of relocation and helps them to frame the choice in a more structured way.

12 Limitations and future research

This study is based on a unique hand-collected dataset of European firms between 2000 and 2012 constructed through a multi-methodological approach, merging primary and secondary data both at firm and country level. The relocation events have been identified in two different news databases, LexisNexis and Factiva that collect information from the main newspapers, journals, reports and magazines. This can be considered as being more critical in terms of potential sampling biases since my sample doesn't include information on small companies and on their relocations that don't bait the attention of financial press. This is a frequent limitation in the studies that start from news databases to construct their sample. Through these databases I take into account only relocation phenomena occurred in Europe between 2000 and 2012 and important enough to be considered by international press and by stock exchange documents. I don't have information about HQ relocations of small firms that could be potentially influenced by completely different variables.

Another limitation is that I do not take full advantage of the panel nature of my data. I just run cross-sectional logit model to investigate the main assumption of my study. However, future research will address this important issue.

Another important limitation is related to the absence of business and infrastructure services among control variables. American studies on the topic have highlighted the important role of these types of services in affecting relocation decision (Aarland et al., 2007; Henderson & Ono, 2008; Davis & Henderson, 2008; Strauss-Khan & Vives, 2009). However, previous studies on cross-border relocations in Europe found a questionable effect of services on the decision to move HQs (Birkinshaw et al., 2006; Laamanen et al., 2011).

The study also has limitations regarding measurement. Some measures do not show very good construct validity properties. It refers especially to the measure of economic crisis. I

measure economic crisis at the European and country level, without measuring it also at industry level. This is an important limitation when I study the effects of crisis in shaping organizational behavior. I don't consider that at the same time some industries could be non-cyclical and not influenced by economic crises respect to others (cyclical industry). Moreover, related to the difference between cyclical and non-cyclical industry, I don't consider also that some industries could perform better when another industry is in crisis.

Furthermore, another limitation is related to the measure of internal coercive pressure. I measure it through the ownership structure and, in particular, through the difference between dispersed and concentrated ownership. My measure doesn't capture the family ownership. I easily include family owner in the concentrated ownership structure without capturing their possible different effects on the relocation decision. This is an important limitation, because the familiarity of firms' internal environment creates a stronger internal identity, and so internal coercive pressure, than a concentrated ownership structure. Furthermore, I don't have data about the nationality of the largest owner. Previous study shows that when foreign owners dominate they are more likely to change the focus of MNCs from home national country to an international one moving out HQ (Birkinshaw et al., 2006). In my model I don't control for the nationality of the larger owner that could be another possible explanation of HQ relocation. This could be another important limitation in my study.

I measure the institutional distance through the differences in the administrative, political and cultural distance between two or more different countries. Some studies define institutional distance as a multi-dimensional construct covering many other institutional aspects like, for instance, economic (Berry et al., 2010; Zaheer and Zaheer, 1997), financial or demographic distance (Berry et al., 2010; Capron and Guillèn, 2009). In my measure of institutional distance I capture only the political/administrative and culture differences among different locations, neglecting completely the possible impacts of other distance dimensions on the

relocation decision. Thus, it could be a possible limitation in the measurement of this construct (institutional distance) in my study. Moreover, I controlled for previous foreign acquisitions that can explain the movement of HQs abroad by growth rather than relocation of existing units, through a binary variable. However, more fine-grained measures could be found for that control variable.

Finally, another limitation could be the absence of a control for firm performance, even if in previous study this variable has questionable effects on the decision of HQ relocations.

Future research should overcome the limitations of the present study and also add more complexity to my theoretical framework, considering other hypotheses that may be distilled from my reasoning. For example, it could be possible to consider another form of mimetic isomorphism like the competitive one. Respect to institutional isomorphism, competitive isomorphism is rather a consequence of rational and economic explanations like to follow the main customers. While it is common to establish facilities close to main customers, a firm may also choose to move its HQ closer to the location of a customer on which it is particularly dependent. Such co-location can help establish or maintain a positive relationship with the customer, signal commitment and "insidership", and help secure fundamental source of revenues. So, future research could investigate the effects of competitive isomorphism on relocation decision. Furthermore, I consider as normative pressure the institutional quality of HQ country. Another strong normative pressure could be the specific market nature of the firm's location. The government setup as well as the cultural expectations can display varying degrees of market and strategic coordination (Hall & Soskice, 2001). At one end of the spectrum stand liberal market economies (LME) where relations among firms and other institutional actors are managed primarily by competitive markets, characterized by arm's length relations and formal contracting. At the other end, there are coordinated market economies (CME), where firms typically engage in more strategic relations with

governments, trade unions, and other institutional actors. It could be interesting to investigate the effects of different markets on the HQ relocation decision.

Moreover, in this study I consider institutional antecedents as a complementary explanation of the relocation phenomenon, but this could be open to different interpretations. For example, efficiency and institutional factors could be considered as alternative drivers of relocation decisions. Future study could analyse and compare the relative impact of institutional motives versus efficiency enhancing motives on relocation decisions.

The current study is based especially on "whether" to move HQs overseas. Further study could also analyse how institutional factors can influence the decision to "where" re-locate HQs.

Finally, scholars have paid little attention to the consequences of HQ relocation on the performance of MNCs, as well as the relocation decision process itself. Future study, both theoretical and empirical, could contribute to a better understanding of these relations and processes. Moreover, they would be highly important as the next step to validate the different antecedents of HQ relocation.

13 Appendices

13.1 Mahalanobis distance vs. Euclidean distance

In literature, there is not an agreement about the best way to measure distance. In particular, two different methods are used: Euclidean distance and Mahalanobis distance. This appendix shows the main characteristics and differences of these two different methods, considering how they are able to satisfy the five desirable properties, distance measures should exhibit:

- symmetry,
- non-negatively,
- identification,
- definiteness,
- triangle inequality.

The Euclidean method is commonly defined as the geometrically shortest possible distance between two points. It uses to meet all five of the desirable characteristics listed above.

$$Dist = \sqrt{\sum_{k=1}^{n} (p_k - q_k)^2}$$

A main problem with this method to measure distance is that, "*although it is a metric, it doesn't take into consideration the correlation between the variable indicators used to computing it*" (Berry et al., 2010; p.1469). Then, the Euclidean distance doesn't consider the variance of the variables and, finally, it is sensitive to the scale of measurement.

An alternative method is the Mahalanobis one, originally formulated in 1936. It is based on correlations between variables and it meets the five desirable properties listed above, and also it fixes the three key problems of the Euclidean Method. In fact, it takes into account the variance-covariance matrix and it is scale-invariant.

$$Dist = \sqrt{\sum_{k=1}^{n} \frac{(p_k - q_k)^2}{s_k^2}}$$

The main disadvantages of the Mahalanobis method in comparison to the Euclidean one are that "*none of the variables can be perfectly collinear, and there have to be more points than variables in the data so that one can calculate the inverse of the variance-covariance matrix*" (Berry et al., 2010; p.1469).

The following Table 34 shows the properties of different methods to calculate dyadic distance.

Table 34. Euclidean Method vs. Mahalanobis Method

Property	Explanation	Euclidean	Mahalanobis
Symmetry	$d_{ij}=d_{ji}$ for all i and j	Yes	Yes
Non-negativity	$d_{ij}\geq 0$ for all i and j	Yes	Yes
Identifications	$d_{ij}=0$ for all i	Yes	Yes
Definiteness	$d_{ij}=0$ only if $x_i=x_j$	Yes	Yes
Triangle inequality	$d_{ij}\geq d_{ik}+d_{ki}$ for all i j and k	Yes	Yes
Sensitive to correlation	Variables not assumed to be orthogonal to each other	No	Yes
Sensitive to variance	Variables not assumed to have equal variance	No	Yes
Scale invariant	Measure not sensitive to scale variables	No	Yes
Ability to handle over determination	Number of points can be smaller than number of variables	Yes	No

Source *Berry et al. (2010); Mimmack et al. (2001)*

13.2 GDP and Employment rate

In this appendix, I show the GDP growth rate (annually and quarterly) and the employment growth rate at the European country level.

Table 35. Growth rate compared to the same quarter of previous year

	Austria	Belgium	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Slovak Republic
Q1-2000	4.51	4.83	4.00	5.73	4.32	3.49	..	..	3.73	-1.66
Q2-2000	3.94	4.14	3.51	4.33	4.15	4.49	..	..	3.81	1.09
Q3-2000	3.20	3.09	3.71	6.07	3.55	3.20	..	..	4.13	2.49
Q4-2000	2.85	2.74	2.91	5.17	3.27	2.04	..	..	3.90	3.63
Q1-2001	2.28	2.00	1.13	3.25	2.65	2.43	3.31	9.28	3.26	3.17
Q2-2001	-1.16	-1.22	-0.61	-2.99	-2.19	1.44	2.59	-5.97	-2.15	3.24
Q3-2001	-0.39	-0.52	-0.90	-1.88	-1.92	1.22	4.79	-4.46	-1.23	3.04
Q4-2001	0.26	-0.54	0.19	1.06	0.50	1.48	6.11	1.93	0.41	4.46
Q1-2002	-0.94	-0.27	-0.10	-0.59	0.64	-0.35	2.88	3.29	-0.38	4.22
Q2-2002	-1.92	-1.08	1.82	2.62	0.89	-0.19	4.34	5.23	-0.65	4.11
Q3-2002	2.02	1.82	-0.07	-0.07	0.94	0.51	3.83	7.04	0.90	5.76
Q4-2002	1.51	2.27	0.03	2.36	1.31	0.13	2.71	7.03	0.62	4.24
Q1-2003	1.08	1.21	1.38	1.83	0.91	-0.29	6.56	4.41	0.39	5.23
Q2-2003	0.86	-0.65	-1.18	1.20	0.39	-0.68	5.87	3.71	-0.47	5.52
Q3-2003	0.83	-0.51	-0.53	2.48	0.82	-0.58	5.31	1.15	-0.29	3.69
Q4-2003	0.87	0.86	1.88	2.53	1.56	0.00	6.04	6.27	0.48	4.68
Q1-2004	1.25	2.59	1.14	3.54	1.82	0.80	3.90	5.18	1.39	4.49
Q2-2004	2.07	3.31	3.11	4.05	2.63	1.22	4.75	4.81	1.84	3.93
Q3-2004	2.91	3.76	2.86	3.87	2.32	0.58	4.45	5.30	1.93	5.90
Q4-2004	2.96	3.32	2.09	5.03	2.54	0.19	4.37	2.41	1.07	5.89
Q1-2005	2.59	2.23	0.53	3.69	2.14	-0.06	1.96	4.57	0.55	5.94
Q2-2005	2.46	1.73	4.14	3.12	1.69	-0.38	1.55	7.00	1.08	7.33
Q3-2005	2.52	1.32	2.89	3.05	1.85	1.31	2.64	6.04	1.10	6.72
Q4-2005	3.31	1.93	2.22	1.84	1.72	1.62	2.96	5.93	1.61	6.63
Q1-2006	3.80	2.43	4.45	4.34	2.30	2.90	4.78	7.19	2.06	7.72
Q2-2006	3.36	2.41	3.15	4.00	3.03	3.75	5.95	3.87	1.90	7.93
Q3-2006	3.43	2.85	3.11	4.30	2.55	3.95	5.52	6.91	2.14	8.18
Q4-2006	3.93	2.97	2.91	5.01	2.70	4.95	4.43	3.79	2.97	9.50
Q1-2007	4.27	3.11	2.93	4.86	2.61	4.42	5.45	7.43	2.46	9.12
Q2-2007	4.15	2.99	-0.20	5.81	2.07	3.44	4.20	5.73	1.98	9.32
Q3-2007	3.41	2.88	1.48	5.24	2.45	3.33	3.91	2.35	1.72	9.84
Q4-2007	2.90	2.47	2.16	5.43	1.87	2.39	3.59	6.27	0.05	13.55
Q1-2008	2.82	2.22	-0.09	2.66	1.59	2.79	1.59	-0.83	0.46	8.64
Q2-2008	2.45	2.22	1.91	1.39	0.48	1.80	1.48	-0.67	-0.24	7.38
Q3-2008	0.95	1.03	-0.78	0.23	-0.49	0.53	0.97	-0.02	-1.87	6.26
Q4-2008	-1.86	-1.62	-4.12	-3.02	-2.33	-1.87	0.06	-6.93	-2.99	1.17
Q1-2009	-4.53	-4.01	-4.94	-8.98	-4.29	-6.81	-1.14	-5.70	-6.91	-5.14
Q2-2009	-5.25	-4.22	-7.97	-10.01	-3.73	-6.17	-2.66	-5.39	-6.56	-5.04
Q3-2009	-3.37	-2.75	-5.92	-8.12	-3.10	-5.05	-3.49	-6.65	-4.99	-4.95
Q4-2009	-0.75	0.08	-3.74	-7.00	-1.05	-2.19	-2.06	-4.10	-3.48	-4.63
Q1-2010	0.75	1.01	-1.52	0.30	-0.95	2.64	-2.85	-2.91	0.07	1.20
Q2-2010	1.02	1.01	1.09	1.76	1.62	4.65	-3.10	-1.29	0.88	1.70
Q3-2010	1.86	1.48	1.14	1.84	1.92	4.56	-4.09	0.79	0.93	1.22
Q4-2010	1.20	1.19	1.65	2.42	1.80	4.24	-7.39	0.39	1.19	1.44
Q1-2011	-1.96	-1.88	-1.10	-1.06	-1.37	4.82	-5.45	-0.15	-1.31	1.34
Q2-2011	3.68	2.00	1.60	2.00	1.75	3.02	..	1.83	0.97	3.31
Q3-2011	2.08	1.45	-0.33	3.11	1.53	2.68	..	-0.82	0.43	3.07
Q4-2011	1.01	0.93	0.30	0.99	-1.16	1.91	..	2.91	-0.47	3.19
Q1-2012	-0.70	0.36	-0.06	1.44	-0.24	1.18	..	1.67	-1.31	-2.88
Q2-2012	0.51	-0.32	-1.20	-0.15	-0.10	-0.99	..	0.07	-2.32	-2.61
Q3-2012	0.69	-0.35	-0.36	-1.08	0.00	-0.86	..	0.79	-2.40	2.47
Q4-2012	..	-0.40	..	..	..	..	..	..	..	..

	Luxembourg	Netherlands	Norway	Spain	Sweden	Switzerland	England	Czech Republic	Hungary
Q1-2000	5.41	4.48	5.19	..	4.18	3.60	4.42	3.54	4.67
Q2-2000	7.21	4.59	4.00	..	5.75	4.14	5.56	4.65	4.62
Q3-2000	5.85	3.94	2.74	..	5.00	4.11	4.07	5.20	3.80
Q4-2000	9.33	3.11	1.22	..	3.49	2.85	2.94	4.81	3.61
Q1-2001	2.84	2.87	0.97	4.01	-2.38	2.51	3.30	-4.34	-4.23
Q2-2001	2.08	2.24	1.90	3.60	-0.68	1.80	2.54	-3.38	-3.88
Q3-2001	3.00	1.66	2.11	3.91	0.83	0.74	2.79	2.51	3.88
Q4-2001	2.19	1.23	2.97	3.17	1.77	-0.04	2.93	2.15	3.36
Q1-2002	2.38	0.06	1.18	2.78	2.06	-0.32	-0.90	-1.86	4.55
Q2-2002	6.78	0.05	3.25	3.00	3.20	-0.08	-0.08	1.86	4.28
Q3-2002	3.60	0.19	0.74	2.35	2.53	0.32	2.48	2.08	4.57
Q4-2002	3.72	0.02	0.86	2.72	2.20	0.18	3.07	2.41	4.61
Q1-2003	-0.90	0.69	-0.26	3.06	3.39	-1.02	3.26	3.38	3.34
Q2-2003	-0.81	-0.06	-0.61	2.94	1.54	-0.48	3.65	3.52	3.83
Q3-2003	2.58	-0.03	2.18	3.08	2.66	0.18	4.04	3.98	3.89
Q4-2003	4.24	0.61	1.13	3.27	2.32	1.41	4.30	4.17	4.23
Q1-2004	5.72	1.43	4.78	3.27	3.03	2.72	4.44	3.83	4.58
Q2-2004	3.90	2.14	4.88	2.96	4.15	2.90	3.44	4.16	4.86
Q3-2004	4.61	2.44	2.41	3.73	3.75	2.41	2.19	4.71	4.74
Q4-2004	3.43	2.11	3.77	3.08	3.96	1.67	1.62	5.60	4.41
Q1-2005	7.91	1.50	1.41	3.22	2.80	1.62	1.49	6.27	3.79
Q2-2005	5.95	2.03	2.22	3.80	2.94	2.31	2.50	7.13	4.35
Q3-2005	4.66	2.38	3.87	3.25	3.56	3.13	3.32	6.96	3.95
Q4-2005	2.69	2.78	2.88	4.05	3.31	3.71	3.78	6.94	4.26
Q1-2006	3.40	3.28	2.22	4.03	4.16	4.06	3.66	7.60	4.71
Q2-2006	3.25	3.78	1.80	4.10	4.68	3.68	2.70	7.16	3.88
Q3-2006	4.82	3.36	1.90	4.21	4.76	3.49	2.10	7.28	3.77
Q4-2006	8.21	3.42	3.23	3.97	4.61	3.78	1.97	6.88	3.40
Q1-2007	6.63	3.92	2.61	3.89	4.23	3.92	2.61	7.01	1.31
Q2-2007	8.42	2.96	2.25	3.52	3.31	4.02	3.56	5.25	-0.05
Q3-2007	7.22	4.04	3.10	3.41	2.50	3.93	4.57	5.23	-0.37
Q4-2007	4.08	4.72	2.64	3.11	3.71	3.52	3.78	5.43	-0.38
Q1-	3.30	3.87	1.16	2.73	1.38	3.13	2.71	3.53	1.82

2008									
Q2-2008	1.30	2.81	1.31	1.93	0.75	3.22	0.53	4.83	2.28
Q3-2008	-0.74	1.48	-0.63	-0.34	0.03	2.67	-2.39	3.33	-0.84
Q4-2008	-6.77	-1.00	-1.69	-1.38	-5.14	-0.32	-4.61	0.04	-2.27
Q1-2009	-6.80	-3.71	-1.07	-3.40	-6.40	-2.29	-6.12	-3.74	-6.74
Q2-2009	-7.24	-4.65	-2.04	-4.42	-6.05	-3.16	-5.42	-5.47	-7.71
Q3-2009	-3.99	-3.93	-1.29	-4.00	-6.03	-2.40	-3.34	-5.22	-7.50
Q4-2009	2.19	-2.31	-1.09	-3.15	-1.29	0.14	-0.87	-2.97	-4.64
Q1-2010	1.24	0.32	0.96	-1.48	1.85	2.31	1.23	0.91	-0.24
Q2-2010	1.33	1.28	0.77	-0.18	2.83	3.26	2.13	2.71	1.19
Q3-2010	1.82	1.67	-1.27	0.03	2.37	2.96	2.35	2.81	2.20
Q4-2010	2.18	1.01	0.47	0.37	3.00	3.60	1.49	2.90	2.07
Q1-2011	2.17	2.13	-1.10	0.51	5.74	2.88	1.34	3.04	2.40
Q2-2011	2.05	1.55	0.32	0.53	4.27	2.47	0.76	-1.50	1.65
Q3-2011	0.98	1.08	4.19	-0.63	4.02	1.50	-0.71	-0.90	1.34
Q4-2011	-0.44	-0.43	-1.98	-0.01	1.15	0.88	0.87	-0.90	1.21
Q1-2012	-0.30	-0.80	-0.90	-0.70	1.32	1.07	-0.17	-0.46	-1.33
Q2-2012	0.90	-0.55	2.48	-1.36	1.33	0.44	-0.34	-1.03	-1.37
Q3-2012	-0.07	-1.32	-1.46	-1.60	-0.66	1.27	0.04	-1.28	-1.59
Q4-2012									

Table 36. Annual GDP growth rate

	Austria	Belgium	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Slovak Republic
2000	3.42%	3.39%	3.19%	5.11%	3.15%	2.92%	4.26%	7.94%	3.46%	1.28%
2001	0.63%	0.53%	0.36%	2.05%	1.27%	1.35%	3.98%	3.43%	1.56%	3.40%
2002	1.49%	1.16%	0.11%	1.58%	0.36%	-0.16%	3.22%	4.25%	0.20%	4.48%
2003	0.69%	0.62%	0.02%	1.79%	0.34%	-0.43%	5.72%	2.36%	-0.46%	4.65%
2004	2.44%	3.10%	1.93%	3.92%	1.95%	1.18%	4.16%	2.23%	0.87%	4.92%
2005	2.28%	1.57%	2.09%	2.74%	1.22%	0.74%	2.08%	2.63%	0.11%	6.50%
2006	3.57%	2.56%	3.05%	4.25%	1.85%	3.82%	5.35%	2.63%	1.63%	8.18%
2007	3.62%	2.77%	1.26%	5.19%	1.66%	3.41%	2.82%	2.54%	0.88%	10.33%

2008	1.33%	0.84%	-1.42%	0.86%	-0.67%	1.29%	-0.31%	-5.07%	-2.09%	5.74%
2009	-3.87%	-2.94%	-5.48%	-8.32%	-3.28%	-4.86%	-3.38%	-8.26%	-5.80%	-5.04%
2010	2.27%	2.18%	1.47%	3.55%	0.93%	3.94%	-3.63%	-1.35%	0.12%	4.11%
2011	2.85%	2.10%	0.97%	3.00%	1.09%	3.22%	-5.59%	0.05%	0.10%	2.75%
2012	-2.24%	-2.43%	-5.11%	-2.57%	-2.82%	-2.54%	-3.65%	-2.63%	-3.15%	1.44%

	Luxembourg	**Netherlands**	**Norway**	**Spain**	**Sweden**	**Switzerland**	**England**	**Czech Republic**	**Hungary**
2000	6.90%	3.22%	2.59%	4.18%	4.29%	3.10%	3.51%	4.29%	4.47%
2001	1.13%	1.19%	1.48%	2.51%	1.08%	0.54%	2.06%	3.18%	3.89%
2002	2.72%	-0.54%	1.05%	1.25%	2.32%	-0.25%	1.71%	2.21%	4.68%
2003	0.22%	-0.10%	0.57%	1.43%	2.15%	-0.83%	2.43%	3.82%	4.06%
2004	3.06%	1.92%	3.43%	1.63%	4.05%	1.95%	2.43%	4.79%	5.00%
2005	4.11%	1.84%	2.33%	1.91%	2.98%	2.11%	1.56%	6.80%	4.12%
2006	3.68%	3.26%	1.89%	2.37%	4.13%	3.15%	2.18%	7.08%	4.01%
2007	5.35%	3.73%	2.35%	1.69%	3.15%	3.22%	2.01%	5.80%	0.23%
2008	-0.45%	1.44%	0.37%	-0.65%	-0.77%	1.73%	-0.70%	3.18%	1.03%
2009	-6.41%	-4.01%	-2.05%	-4.54%	-5.32%	-2.17%	-5.42%	-4.61%	-6.67%
2010	1.49%	1.18%	0.01%	-0.52%	5.47%	2.46%	0.78%	2.84%	1.41%
2011	0.42%	1.32%	2.08%	0.20%	3.82%	1.47%	0.09%	1.91%	1.57%
2012	-1.20%	-2.28%	-1.73%	-6.41%	-2.29%	-1.49%	-2.62%	2.92%	1.49%

Table 37. Annual Employment growth rate

	Austria	**Belgium**	**Denmark**	**Finland**	**France**	**Germany**	**Greece**	**Ireland**	**Italy**	**Slovak**
2000	0.50%	0.47%	0.50%	0.20%	0.20%	0.10%	1.50%	0.10%	0.01%	0.00%
2001	0.87%	-0.05%	0.76%	-0.12%	0.21%	-0.77%	3.76%	-0.05%	-1.30%	0.02%
2002	0.22%	-0.60%	-1.73%	-0.48%	1.85%	-1.07%	2.12%	-0.13%	1.02%	1.56%

2003	-1.71%	1.74%	0.75%	-0.22%	0.67%	0.66%	0.82%	1.59%	2.21%	-1.30%
2004	1.31%	1.23%	0.29%	1.08%	-0.12%	0.72%	1.19%	2.34%	0.07%	1.26%
2005	2.20%	-0.14%	1.94%	1.55%	-0.07%	2.55%	1.47%	1.49%	1.61%	2.92%
2006	1.77%	1.74%	-0.46%	1.27%	1.00%	2.73%	0.63%	1.08%	0.44%	2.15%
2007	2.10%	0.57%	1.10%	1.13%	0.88%	1.66%	0.80%	-1.60%	0.11%	2.62%
2008	-1.76%	-1.28%	-3.23%	-4.03%	-1.24%	0.32%	-0.99%	-8.18%	-2.13%	-3.39%
2009	0.15%	0.67%	-2.66%	-0.16%	-0.27%	1.09%	-2.76%	-3.36%	-1.04%	-2.33%
2010	0.53%	-0.15%	-0.26%	1.38%	-0.04%	1.99%	-6.71%	-1.37%	-0.11%	1.26%
2011	0.12%	-0.20%	-0.20%	0.12%	-0.19%	-0.10%	-0.10%	-0.19%	-0.26%	-0.83%
2012	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

	Luxembourg	**Netherlands**	**Norway**	**Spain**	**Sweden**	**Switzerland**	**England**	**Czech Republic**	**Hungary**
2000	1.00%	0.10%	0.10%	0.50%	0.10%	0.03%	0.03%	0.10%	0.10%
2001	1.05%	0.16%	-0.46%	1.05%	-0.41%	-0.36%	-0.20%	0.60%	0.04%
2002	-2.27%	-0.81%	-1.75%	2.08%	-0.90%	-1.21%	0.34%	-1.26%	1.42%
2003	0.43%	-2.03%	-0.23%	2.22%	-0.80%	-0.66%	0.14%	-0.97%	-0.43%
2004	1.82%	0.50%	-0.52%	3.57%	0.48%	-0.26%	-0.01%	0.86%	0.28%
2005	-0.06%	1.42%	0.39%	2.31%	0.85%	0.96%	-0.09%	0.76%	0.69%
2006	0.96%	2.56%	1.88%	1.26%	1.48%	0.84%	-0.27%	1.26%	0.00%
2007	-1.17%	2.05%	1.52%	-1.94%	0.08%	1.16%	0.36%	0.73%	-1.15%
2008	2.80%	-0.41%	-2.05%	-7.14%	-4.68%	-0.60%	-2.82%	-1.82%	-2.21%
2009	0.03%	-1.13%	-1.45%	-2.06%	0.60%	-0.55%	-0.49%	-0.56%	-0.01%
2010	-0.95%	0.23%	-0.02%	-1.53%	1.95%	0.93%	0.19%	1.12%	0.76%
2011	-0.15%	-0.12%	-0.19%	-0.12%	0.12%	0.10%	0.14%	-1.87%	-2.90%
2012	1.00%	0.10%	0.10%	0.50%	0.10%	0.03%	0.03%	0.10%	0.10%

13.3 Number of HQ gained and lost.

Table 38. Total number of HQ gained and lost by each country in the sample

	Austria	Belgium	Czech Republic	Denmark	England	Finland	France	Germany	Greece	Hungary
Number lost	4	3	0	4	35	2	11	16	1	1
Number gained	3	0	3	0	24	4	5	16	0	3
Net change	**-1**	**-3**	**3**	**-4**	**-11**	**2**	**-6**	**0**	**-1**	**2**

	Ireland	Italy	Luxembourg	Netherlands	Norway	Slovak Republic	Slovenia	Spain	Sweden	Switzerland
Number lost	4	1	1	8	2	1	1	3	1	8
Number gained	10	0	5	14	1	0	0	2	3	28
Net change	**6**	**-1**	**4**	**6**	**-1**	**-1**	**-1**	**-1**	**2**	**20**

13.4 Factor analysis of institutional remoteness

```
Factor analysis/correlation                      Number of obs    =      4238
    Method: principal-component factors          Retained factors =         1
    Rotation: (unrotated)                        Number of params =         4
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.72995	3.56998	0.9325	0.9325
Factor2	0.15996	0.08767	0.0400	0.9725
Factor3	0.07229	0.03449	0.0181	0.9906
Factor4	0.03780	.	0.0094	1.0000

LR test: independent vs. saturated: chi2(6) = 2.7e+04 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
Zgeo_remot~s	0.9748	0.0498
Zadm_remot~s	0.9684	0.0622
Zpol_remot~s	0.9373	0.1214
Zcul_remot~s	0.9815	0.0366

```
Factor analysis/correlation                      Number of obs    =      4238
    Method: principal-component factors          Retained factors =         1
    Rotation: oblique promax (Kaiser off)        Number of params =         4
```

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	3.72995	0.9325	

LR test: independent vs. saturated: chi2(6) = 2.7e+04 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
Zgeo_remot~s	0.9748	0.0498
Zadm_remot~s	0.9684	0.0622
Zpol_remot~s	0.9373	0.1214
Zcul_remot~s	0.9815	0.0366

Factor rotation matrix

	Factor1
Factor1	1.0000

```
Test scale = mean(unstandardized items)

Average interitem covariance:      .909616
Number of items in the scale:            4
Scale reliability coefficient:      0.9758
```

```
Bartlett test of sphericity

Chi-square         =         27183.285
Degrees of freedom =                 6
p-value            =             0.000
H0: variables are not intercorrelated


Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO                =     0.870
```

Moreover, I checked these results also per each year. Some results below.

2001

```
Factor analysis/correlation                      Number of obs    =       326
    Method: principal-component factors          Retained factors =         1
    Rotation: (unrotated)                        Number of params =         4
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.69244	3.48943	0.9231	0.9231
Factor2	0.20301	0.13488	0.0508	0.9739
Factor3	0.06812	0.03169	0.0170	0.9909
Factor4	0.03643	.	0.0091	1.0000

```
    LR test: independent vs. saturated:  chi2(6)  = 2035.91 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
Zadm_re~2001	0.9707	0.0578
Zgeo_re~2001	0.9708	0.0575
Zpol_re~2001	0.9192	0.1550
Zcul_re~2001	0.9812	0.0372

```
Factor analysis/correlation                      Number of obs    =       326
    Method: principal-component factors          Retained factors =         1
    Rotation: oblique promax (Kaiser off)        Number of params =         4
```

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	3.69244	0.9231	

```
    LR test: independent vs. saturated:  chi2(6)  = 2035.91 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
Zadm_re~2001	0.9707	0.0578
Zgeo_re~2001	0.9708	0.0575
Zpol_re~2001	0.9192	0.1550
Zcul_re~2001	0.9812	0.0372

```
Factor rotation matrix
```

	Factor1
Factor1	1.0000

```
Test scale = mean(unstandardized items)

Average interitem covariance:     .8967384
Number of items in the scale:            4
Scale reliability coefficient:      0.9720
```

Bartlett test of sphericity

Chi-square = 2029.620
Degrees of freedom = 6
p-value = 0.000
H0: variables are not intercorrelated

Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO = 0.861

2006

Factor analysis/correlation — Number of obs = 326
Method: principal-component factors — Retained factors = 1
Rotation: (unrotated) — Number of params = 4

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.74016	3.59257	0.9350	0.9350
Factor2	0.14759	0.07410	0.0369	0.9719
Factor3	0.07350	0.03475	0.0184	0.9903
Factor4	0.03875	.	0.0097	1.0000

LR test: independent vs. saturated: chi2(6) = 2090.44 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
Zgeo_re~2005	0.9776	0.0444
Zadm_re~2005	0.9616	0.0754
Zpol_re~2005	0.9454	0.1062
Zcul_re~2005	0.9829	0.0339

Factor analysis/correlation — Number of obs = 326
Method: principal-component factors — Retained factors = 1
Rotation: oblique promax (Kaiser off) — Number of params = 4

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	3.74016	0.9350	

LR test: independent vs. saturated: chi2(6) = 2090.44 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
Zgeo_re~2005	0.9776	0.0444
Zadm_re~2005	0.9616	0.0754
Zpol_re~2005	0.9454	0.1062
Zcul_re~2005	0.9829	0.0339

Factor rotation matrix

	Factor1
Factor1	1.0000

Test scale = mean(unstandardized items)

Average interitem covariance: .9131073
Number of items in the scale: 4
Scale reliability coefficient: 0.9768

Bartlett test of sphericity

Chi-square = 2083.985
Degrees of freedom = 6
p-value = 0.000
H0: variables are not intercorrelated

Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO = 0.872

2010

Factor analysis/correlation — Number of obs = 326
Method: principal-component factors — Retained factors = 1
Rotation: (unrotated) — Number of params = 4

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.75322	3.60821	0.9383	0.9383
Factor2	0.14501	0.07925	0.0363	0.9746
Factor3	0.06575	0.02973	0.0164	0.9910
Factor4	0.03602	.	0.0090	1.0000

LR test: independent vs. saturated: chi2(6) = 2154.77 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
Zgeo_re~2011	0.9761	0.0473
Zadm_re~2011	0.9719	0.0555
Zcul_re~2011	0.9826	0.0346
Zpol_re~2011	0.9437	0.1094

Factor analysis/correlation — Number of obs = 326
Method: principal-component factors — Retained factors = 1
Rotation: oblique promax (Kaiser off) — Number of params = 4

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	3.75322	0.9383	

LR test: independent vs. saturated: chi2(6) = 2154.77 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
Zgeo_re~2011	0.9761	0.0473
Zadm_re~2011	0.9719	0.0555
Zcul_re~2011	0.9826	0.0346
Zpol_re~2011	0.9437	0.1094

Factor rotation matrix

	Factor1
Factor1	1.0000

Test scale = mean(unstandardized items)

Average interitem covariance: .9174575
Number of items in the scale: 4
Scale reliability coefficient: 0.9780

```
Bartlett test of sphericity

Chi-square         =          2148.113
Degrees of freedom =                 6
p-value            =             0.000
H0: variables are not intercorrelated


Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO                =     0.870
```

13.5 Factor analysis of institutional distance from CHQ

```
Factor analysis/correlation                      Number of obs    =      4228
    Method: principal-component factors          Retained factors =         1
    Rotation: (unrotated)                        Number of params =         4
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	2.46558	1.61095	0.6164	0.6164
Factor2	0.85463	0.35896	0.2137	0.8301
Factor3	0.49567	0.31155	0.1239	0.9540
Factor4	0.18412	.	0.0460	1.0000

```
LR test: independent vs. saturated:  chi2(6)  = 6966.99 Prob>chi2 = 0.0000
```

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
Z_adm_dist~Q	0.4936	0.7564
Z_pol_dist~Q	0.9224	0.1492
Z_cult_dis~Q	0.8142	0.3370
Z_geo_dist~Q	0.8415	0.2919

```
Factor analysis/correlation                      Number of obs    =      4228
    Method: principal-component factors          Retained factors =         1
    Rotation: oblique promax (Kaiser off)        Number of params =         4
```

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	2.46558	0.6164	

```
LR test: independent vs. saturated:  chi2(6)  = 6966.99 Prob>chi2 = 0.0000
```

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
Z_adm_dist~Q	0.4936	0.7564
Z_pol_dist~Q	0.9224	0.1492
Z_cult_dis~Q	0.8142	0.3370
Z_geo_dist~Q	0.8415	0.2919

Factor rotation matrix

	Factor1
Factor1	1.0000

```
Test scale = mean(unstandardized items)

Average interitem covariance:     .4647003
Number of items in the scale:            4
Scale reliability coefficient:      0.7764


Bartlett test of sphericity

Chi-square         =          6965.344
Degrees of freedom =                6
p-value            =            0.000
H0: variables are not intercorrelated


Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO                =     0.673
```

Moreover, I checked these results also per each year. Some results below.

2001

```
Factor analysis/correlation                      Number of obs    =        324
    Method: principal-component factors          Retained factors =          1
    Rotation: (unrotated)                        Number of params =          4
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	2.35905	1.49967	0.5898	0.5898
Factor2	0.85939	0.36275	0.2148	0.8046
Factor3	0.49663	0.21171	0.1242	0.9288
Factor4	0.28493	.	0.0712	1.0000

```
    LR test: independent vs. saturated:  chi2(6)  =  401.87 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
Z_adm_dist~Q	0.5009	0.7491
Z_pol_dist~Q	0.8855	0.2158
Z_cult_dis~Q	0.8302	0.3108
Z_geo_dist~Q	0.7967	0.3652

```
Factor analysis/correlation                      Number of obs    =        324
    Method: principal-component factors          Retained factors =          1
    Rotation: oblique promax (Kaiser off)        Number of params =          4
```

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	2.35905	0.5898	

```
    LR test: independent vs. saturated:  chi2(6)  =  401.87 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
Z_adm_dist~Q	0.5009	0.7491
Z_pol_dist~Q	0.8855	0.2158
Z_cult_dis~Q	0.8302	0.3108
Z_geo_dist~Q	0.7967	0.3652

```
Factor rotation matrix
```

	Factor1
Factor1	1.0000

```
Test scale = mean(unstandardized items)

Average interitem covariance:     .4295456
Number of items in the scale:            4
Scale reliability coefficient:      0.7546


Bartlett test of sphericity

Chi-square         =           400.626
Degrees of freedom =                 6
p-value            =             0.000
H0: variables are not intercorrelated


Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO                =     0.706
```

Factor analysis/correlation — Number of obs = 326
Method: principal-component factors — Retained factors = 1
Rotation: (unrotated) — Number of params = 4

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	2.43839	1.56833	0.6096	0.6096
Factor2	0.87007	0.33611	0.2175	0.8271
Factor3	0.53395	0.37636	0.1335	0.9606
Factor4	0.15759	.	0.0394	1.0000

LR test: independent vs. saturated: chi2(6) = 557.98 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
Z_adm_dist~Q	0.4788	0.7708
Z_pol_dist~Q	0.9315	0.1324
Z_cult_dis~Q	0.7996	0.3606
Z_geo_dist~Q	0.8379	0.2979

Factor analysis/correlation — Number of obs = 326
Method: principal-component factors — Retained factors = 1
Rotation: oblique promax (Kaiser off) — Number of params = 4

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	2.43839	0.6096	

LR test: independent vs. saturated: chi2(6) = 557.98 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
Z_adm_dist~Q	0.4788	0.7708
Z_pol_dist~Q	0.9315	0.1324
Z_cult_dis~Q	0.7996	0.3606
Z_geo_dist~Q	0.8379	0.2979

Factor rotation matrix

	Factor1
Factor1	1.0000

Test scale = mean(unstandardized items)

Average interitem covariance: .4658366
Number of items in the scale: 4
Scale reliability coefficient: 0.7594

Bartlett test of sphericity

Chi-square = 556.257
Degrees of freedom = 6
p-value = 0.000
H0: variables are not intercorrelated

Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO = 0.630

2010

Factor analysis/correlation — Number of obs = 326
Method: principal factors — Retained factors = 2
Rotation: (unrotated) — Number of params = 6

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	2.17568	2.10278	1.0663	1.0663
Factor2	0.07290	0.14512	0.0357	1.1021
Factor3	-0.07222	0.06381	-0.0354	1.0667
Factor4	-0.13604	.	-0.0667	1.0000

LR test: independent vs. saturated: chi2(6) = 619.34 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Uniqueness
Z_adm_dist~Q	0.3513	0.1791	0.8445
Z_pol_dist~Q	0.9155	-0.0287	0.1611
Z_cult_dis~Q	0.7181	0.1279	0.4679
Z_geo_dist~Q	0.8357	-0.1537	0.2780

Factor analysis/correlation — Number of obs = 326
Method: principal factors — Retained factors = 2
Rotation: oblique promax (Kaiser off) — Number of params = 6

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	2.12434	1.0412	
Factor2	1.53197	0.7509	

LR test: independent vs. saturated: chi2(6) = 619.34 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Uniqueness
Z_adm_dist~Q	0.0668	0.3425	0.8445
Z_pol_dist~Q	0.7840	0.1695	0.1611
Z_cult_dis~Q	0.4297	0.3526	0.4679
Z_geo_dist~Q	0.8726	-0.0315	0.2780

Factor rotation matrix

	Factor1	Factor2
Factor1	0.9877	0.8330
Factor2	-0.1562	0.5533

Test scale = mean(unstandardized items)

Average interitem covariance: .4752737
Number of items in the scale: 4
Scale reliability coefficient: 0.7985

Bartlett test of sphericity

Chi-square = 617.424
Degrees of freedom = 6
p-value = 0.000
H0: variables are not intercorrelated

Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO = 0.695

13.6 Factor analysis of institutional quality

```
Factor analysis/correlation                      Number of obs    =      4228
    Method: principal-component factors          Retained factors =         1
    Rotation: (unrotated)                        Number of params =         6
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.72305	2.51773	0.6205	0.6205
Factor2	1.20532	0.78234	0.2009	0.8214
Factor3	0.42298	0.08057	0.0705	0.8919
Factor4	0.34241	0.13892	0.0571	0.9490
Factor5	0.20349	0.10075	0.0339	0.9829
Factor6	0.10275	.	0.0171	1.0000

```
    LR test: independent vs. saturated:  chi2(15) = 1.8e+04 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
voice_acco~y	0.7967	0.3653
political~ty	0.7808	0.3904
government~s	0.5984	0.6419
regulator~ty	0.7871	0.3805
rule_of_law	0.8943	0.2003
control_of~n	0.8376	0.2985

```
Factor analysis/correlation                      Number of obs    =      4228
    Method: principal-component factors          Retained factors =         1
    Rotation: oblique promax (Kaiser off)        Number of params =         6
```

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	3.72305	0.6205	

```
    LR test: independent vs. saturated:  chi2(15) = 1.8e+04 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
voice_acco~y	0.7967	0.3653
political~ty	0.7808	0.3904
government~s	0.5984	0.6419
regulator~ty	0.7871	0.3805
rule_of_law	0.8943	0.2003
control_of~n	0.8376	0.2985

```
Factor rotation matrix
```

	Factor1
Factor1	1.0000

```
Test scale = mean(unstandardized items)

Average interitem covariance:     .0761951
Number of items in the scale:            6
Scale reliability coefficient:      0.8540


Bartlett test of sphericity

Chi-square         =         18157.610
Degrees of freedom =                15
p-value            =             0.000
H0: variables are not intercorrelated


Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO                =     0.714
```

I checked the results of factor analysis also per single year. I show some examples.

Year 2000

```
Factor analysis/correlation                      Number of obs    =        324
    Method: principal-component factors          Retained factors =          1
    Rotation: (unrotated)                        Number of params =          6
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	4.17528	3.38071	0.6959	0.6959
Factor2	0.79456	0.40166	0.1324	0.8283
Factor3	0.39291	0.10263	0.0655	0.8938
Factor4	0.29027	0.10479	0.0484	0.9422
Factor5	0.18548	0.02398	0.0309	0.9731
Factor6	0.16150	.	0.0269	1.0000

```
    LR test: independent vs. saturated:  chi2(15) = 1438.81 Prob>chi2 = 0.0000
```

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
voice_acco~y	0.8713	0.2408
political~ty	0.8291	0.3127
government~s	0.7665	0.4125
regulator~ty	0.8406	0.2934
rule_of_law	0.9091	0.1735
control_of~n	0.7798	0.3919

```
Factor analysis/correlation                      Number of obs    =        324
    Method: principal-component factors          Retained factors =          1
    Rotation: oblique promax (Kaiser off)        Number of params =          6
```

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	4.17528	0.6959	

```
    LR test: independent vs. saturated:  chi2(15) = 1438.81 Prob>chi2 = 0.0000
```

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
voice_acco~y	0.8713	0.2408
political~ty	0.8291	0.3127
government~s	0.7665	0.4125
regulator~ty	0.8406	0.2934
rule_of_law	0.9091	0.1735
control_of~n	0.7798	0.3919

Factor rotation matrix

	Factor1
Factor1	1.0000

```
Test scale = mean(unstandardized items)

Average interitem covariance:     .0777564
Number of items in the scale:            6
Scale reliability coefficient:      0.8914
```

```
Bartlett test of sphericity

Chi-square         =          1434.330
Degrees of freedom =                15
p-value            =             0.000
H0: variables are not intercorrelated


Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO                =     0.828
```

Year 2006

```
Factor analysis/correlation                      Number of obs    =        326
    Method: principal-component factors          Retained factors =          1
    Rotation: (unrotated)                        Number of params =          6
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.87882	2.84970	0.6465	0.6465
Factor2	1.02912	0.47113	0.1715	0.8180
Factor3	0.55799	0.21971	0.0930	0.9110
Factor4	0.33827	0.22297	0.0564	0.9674
Factor5	0.11530	0.03480	0.0192	0.9866
Factor6	0.08050	.	0.0134	1.0000

```
    LR test: independent vs. saturated:  chi2(15) = 1603.82 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
voice_acco~y	0.7918	0.3731
political~ty	0.8436	0.2884
government~s	0.6367	0.5947
regulator~ty	0.6981	0.5127
rule_of_law	0.9186	0.1561
control_of~n	0.8966	0.1962

```
Factor analysis/correlation                      Number of obs    =        326
    Method: principal-component factors          Retained factors =          1
    Rotation: oblique promax (Kaiser off)        Number of params =          6
```

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	3.87882	0.6465	

```
    LR test: independent vs. saturated:  chi2(15) = 1603.82 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
voice_acco~y	0.7918	0.3731
political~ty	0.8436	0.2884
government~s	0.6367	0.5947
regulator~ty	0.6981	0.5127
rule_of_law	0.9186	0.1561
control_of~n	0.8966	0.1962

```
Factor rotation matrix
```

	Factor1
Factor1	1.0000

```
Test scale = mean(unstandardized items)

Average interitem covariance:     .0710963
Number of items in the scale:            6
Scale reliability coefficient:      0.8826
```

```
Bartlett test of sphericity

Chi-square         =          1598.855
Degrees of freedom =                15
p-value            =             0.000
H0: variables are not intercorrelated


Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO                =     0.705
```

Year 2010

```
Factor analysis/correlation                      Number of obs    =        326
    Method: principal-component factors          Retained factors =          1
    Rotation: (unrotated)                        Number of params =          6
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	4.01107	3.01848	0.6685	0.6685
Factor2	0.99259	0.51943	0.1654	0.8339
Factor3	0.47316	0.11267	0.0789	0.9128
Factor4	0.36049	0.25233	0.0601	0.9729
Factor5	0.10816	0.05363	0.0180	0.9909
Factor6	0.05453	.	0.0091	1.0000

```
    LR test: independent vs. saturated:  chi2(15) = 1783.94 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
voice_acco~y	0.8472	0.2822
political~ty	0.8460	0.2843
government~s	0.6414	0.5886
regulator~ty	0.7898	0.3762
rule_of_law	0.8884	0.2107
control_of~n	0.8679	0.2468

```
Factor analysis/correlation                      Number of obs    =        326
    Method: principal-component factors          Retained factors =          1
    Rotation: oblique promax (Kaiser off)        Number of params =          6
```

Factor	Variance	Proportion	Rotated factors are correlated
Factor1	4.01107	0.6685	

```
    LR test: independent vs. saturated:  chi2(15) = 1783.94 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
voice_acco~y	0.8472	0.2822
political~ty	0.8460	0.2843
government~s	0.6414	0.5886
regulator~ty	0.7898	0.3762
rule_of_law	0.8884	0.2107
control_of~n	0.8679	0.2468

```
Factor rotation matrix
```

	Factor1
Factor1	1.0000

```
Test scale = mean(unstandardized items)

Average interitem covariance:      .071886
Number of items in the scale:            6
Scale reliability coefficient:      0.8862
```

```
Bartlett test of sphericity

Chi-square         =          1778.424
Degrees of freedom =                15
p-value            =             0.000
H0: variables are not intercorrelated


Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KMO                =     0.666
```

14 Bibliography

Aarland, K. et al., 2007. Spatial organization of firms : the decision to split production and administration. *The Rand Journal of Economics*, 38(2), pp.480–494.

Abraham, K. G., & Taylor, S. K., 1993. Firms' use of outside contractors: Theory and evidence (No. w4468). *National Bureau of Economic Research*.

Abrahamson, E., & Rosenkopf, L. 1993. Institutional and competitive bandwagons: Using mathematical modeling as a tool to explore innovation diffusion. *Academy of Management Review*, 487-517.

Ali, A., & Crain, W. M., 2001. Institutional Distortions, Economics Freedom, and Growth. Cato J., 21, 415.

Ambos, B. and Schlegelmilch, B. B., 2010. The new role of regional management. Basingstoke: Palgrave Macmillan.

Ambos, T.C. & Birkinshaw, J.M., 2010. Headquarters' Attention and Its Effect on Subsidiary Performance. *Management International Review*, 50(4), pp.449–469.

Andersson, U., Forsgren, M. & Holm, U., 2002. The strategic impact of external networks: subsidiary performance and competence development in the multinational corporation. *Strategic Management Journal*, 23(11), pp.979–996.

Arnold, I. J., & Lemmen, J. J., 2008. Inflation expectations and inflation uncertainty in the Eurozone: evidence from survey data. *Review of World Economics*, 144(2), 325-346.

Baaij, M. G., Mom, T. J., Van den Bosch, F. A., & Volberda, H. W., 2012. Why Do Multinational Corporations Relocate Core Parts of Their Corporate Headquarters Abroad?. *Long Range Planning*.

Barner-Rasmussen, W., Piekkari, R. and Björkman, I., 2007. Mobility of headquarters in multinational corporations. *European Journal of International Management*, 1(3), 260-274.

Barton, L. 1993. Crisis in organizations: Managing and communicating in the heat of chaos. Cincinnati, OH: South-Western Publishing Company.

Baum, J. A., & Oliver, C. 1991. Institutional linkages and organizational mortality. *Administrative Science Quarterly*, 187-218.

Bel, G. & Fageda, X., 2007. Getting there fast: globalization, intercontinental flights and location of headquarters. *Journal of Economic Geography*, 8(4), pp.471–495.

Benito, G. R., Larimo, J., Narula, R., & Pedersen, T., 2002. Multinational enterprises from small economies. *International Studies of Management and Organization*, 32(1), 57-78.

Benito, G., Lunnan, R. & Tomassen, S., 2011. Distant Encounters of the Third Kind: Multinational Companies Locating Divisional Headquarters Abroad. *Journal of Management Studies*, 48(2), pp.373–394.

Berger, P. L., & Luckmann, T. 1967. The social construction of reality. New York: Doubleday.

Berry, H., Guillén, M.F. & Zhou, N., 2010. An institutional approach to cross-national distance. *Journal of International Business Studies*, 41(9), pp.1460–1480.

Bevan, A. A., & Estrin, S., 2004. The determinants of foreign direct investment into European transition economies. *Journal of comparative economics*, 32(4), 775-787.

Birkinshaw, J., 1997. Entrepreneurship in multinational corporations: The characteristics of subsidiary initiatives. *Strategic Management Journal*, 18(3), 207-229.

Birkinshaw, J., Braunerhjelm, P., Holm, U., & Terjesen, S., 2006. Why do some multinational corporations relocate their headquarters overseas?. *Strategic Management Journal*, 27(7), 681-700.

Birkinshaw, J.M. et al., 2006. Why do some multinational corporations relocate their headquarters overseas? *Strategic Management Journal*, 27(7), pp.681–700.

Birkinshaw, J.M., Toulan, O. & Arnold, D., 2001. Global account management in Multinational Corporations: Theory and Evidence. *Journal of International Business Studies*, 32(2), pp.231–248.

Brenner, B. & Ambos, B., 2012. A Question of Legitimacy? A Dynamic Perspective on Multinational Firm Control. *Organization Science*, pp.1–23.

Brewer, P.A., 2007. Operationalizing Psychic Distance: a revised approach. *Journal of international marketing*, 15(1), pp.44–66.

Brouwer, A. E., Mariotti, I., & Van Ommeren, J. N., 2004. The firm relocation decision: An empirical investigation. *The Annals of Regional Science*, 38(2), 335-347.

Campa, J., & Guillén, M. F., 1999. The internalization of exports: Firm-and location-specific factors in a middle-income country. *Management Science*, 45(11), 1463-1478.

Campbell, A., Goold, M., & Alexander, M. (1994). Corporate-level strategy: Creating value in the multibusiness company.

Cantwell, J., 2009. Location and the multinational enterprise. *Journal of International Business Studies*, 40(1), pp.35–41.

Capron, L., & Guillén, M., 2009. National corporate governance institutions and post-acquisition target reorganization. *Strategic Management Journal*, 30(8), 803-833.

Chandler, A., 1991. The Functions of the HQ Unit in the Multibusiness Firm. *Strategic Management Journal*, 12, pp.31–50.

Child, J. & Tsai, T., 2005. The Dynamic between Firms' Environmental Strategies and Institutional Constraints in Emerging Economies: Evidence from China and Taiwan. *Journal of Management Studies*, 42(1), pp.95–125.

Chizema, A., & Kim, J. 2009. Outside directors on Korean boards: governance and institutions. *Journal of Management Studies*, 47(1), 109-129.

Chong, A. & Calderón, C., 2000. Institutional quality and poverty measures in a cross-section of countries. *Economics of Governance*, 1(2), pp.123–135.

Chung, C.C. & Beamish, P.W., 2005. Investment mode strategy and expatriate strategy during times of economic crisis. *Journal of International Management*, 11(3), pp.331–355.

Chung, C.C. et al., 2010. Subsidiary expansion/contraction during times of economic crisis. *Journal of International Business Studies*, 41(3), pp.500–516.

Chung, C.C., Lu, J.W. & Beamish, P.W., 2008. Multinational networks during times of economic crisis versus stability. *Management International Review*, 48(3), pp.279–296.

Collis, D., Young, D. & Goold, M., 2007. The size, structure, and performance of corporate headquarters. *Strategic Management Journal*, 28(August), pp.383–405.

Dacin, M.T., Goodstein, J. & Scott, W.R., 2002. Institutional Theory and Institutional Change: Introduction to the Special Research Forum. *Academy of Management Journal*, 45(1), pp.45–56.

Davis, J. & Henderson, J., 2008. The agglomeration of headquarters. *Regional Science and Urban Economics*, 38(5), pp.445–460.

Davis, P.S., Desai, A.B. & Francis, J.D., 2000. Mode of international entry: an isomorphism perspective. *Journal of International Business Studies*, 31(2), pp.239–258.

Deephouse, D.L., 1999. To be different or to be the same? It's a question (and theory) of strategic balance. *Strategic Management Journal*, 166(April 1998), pp.147–166.

Demirbag, M., Glaister, K.W. & Tatoglu, E., 2007. Institutional and transaction cost influences on MNEs' ownership strategies of their affiliates: Evidence from an emerging market. *Journal of World Business*, 42(4), pp.418–434.

Demyanyk, Y., & Van Hemert, O., 2011. Understanding the subprime mortgage crisis. *Review of Financial Studies*, 24(6), 1848-1880.

Desai, M.A., 2009. The decentering of the global firm. *The World Economy*, 32(9), pp.1271–1290.

Di Maggio, P. & Powell, W., 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American sociological review*.

Diacon, T., & Klier, T., 2003. Where the headquarters are–evidence from large public companies 1990-2000. Federal Reserve Bank of Chicago Working Paper Series.

Dow, D., & Karunaratna, A., 2006. Developing a multidimensional instrument to measure psychic distance stimuli. *Journal of International Business Studies*, 37(5), 578-602.

Dowling, J., & Pfeffer, J. 1975. Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review*, 122-136.

Dunning, J. H., 1981. International production and the multinational enterprise. London: Allen & Unwin.

Dunning, J., 1998. Location and the Multinational enterprise: A neglected Factor. *Journal of International Business Studies*, 29(1), pp.45–66.

Eden, L., & Miller, S. R., 2004. Distance matters: Liability of foreignness, institutional distance and ownership strategy. *Advances in international management*, 16, 187-221.

Egelhoff, W.G., 2010. How the Parent Headquarters Adds Value to an MNC. *Management International Review*, 50(4), pp.413–431.

Ethiraj, S. K., & Zhu, D. H., 2008. Performance effects of imitative entry. *Strategic Management Journal*, 29(8), pp. 797–817.

Evan, W. & Freeman, E., 1988. A stakeholder theory of the modern corporation: Kantian capitalism. In Ethical theory and business. Englewood Cliffs, NJ: Prentice-Hall, pp. 73–93.

Feinberg, S.E. & Gupta, A.K., 2004. Knowledge spillovers and the assignment of R&D responsibilities to foreign subsidiaries. *Strategic Management Journal*, 25(89), pp.823–845.

Flier, B., Bosch, F.A.J. Van Den & Volberda, H.W., 2003. Co-evolution in Strategic Renewal Behaviour of British, Dutch and French Financial Incumbents: Interaction of Environmental Selection, Institutional Effects and Managerial Intentionality. *Journal of Management Studies*, 40, pp.2163–2187.

Foad, H., 2007. Export-Oriented FDI, the Euro, and EU Enlargement (No. 0022).

Foss, K. 2010. How do economic crises impact firm boundaries?. *European Management Review*, 7(4), 217-227.

Foss, N. J., 1997. On the rationales of corporate headquarters. *Industrial and Corporate Change*, 6(2), 313-338.

Fratianni, M., & Oh, C. H., 2009. Expanding RTAs, trade flows, and the multinational enterprise. *Journal of International Business Studies*, 40(7), 1206-1227.

Fratzscher, M., 2009. What explains global exchange rate movements during the financial crisis? *Journal of International Money and Finance*, 28(8), pp.1390–1407.

Frost, T.S., Birkinshaw, J.M. & Ensign, P.C., 2002. Centers of excellence in multinational corporations. *Strategic Management Journal*, 23(11), pp.997–1018.

García-Canal, E., & Guillén, M. F., 2008. Risk and the strategy of foreign location choice in regulated industries. *Strategic Management Journal*, 29(10), 1097-1115.

García-Canal, E., & Guillén, M. F., 2008. Risk and the strategy of foreign location choice in regulated industries. *Strategic Management Journal*, 29(10), 1097-1115.

Ghemawat, P., 2001. Distance Still Matters. *Harvard Business Review*, 79(8), pp.137–147.

Goold, M., & Campbell, A., 2002. Designing effective organizations: How to create structured networks. Jossey-Bass.

Goold, M., Pettifer, D. & Young, D., 2001. Redesigning the corporate centre. *European Management Journal*, 19(1), pp.83–91.

Greening, D.W. & Johnson, R. a., 1997. Managing Industrial and Environmental Crises: The Role of Heterogeneous Top Management Teams. *Business & Society*, 36(4), pp.334–361.

Gregory, R., Lombard, J. R., & Seifert, B., 2005. Impact of headquarters relocation on the operating performance of the firm. *Economic Development Quarterly*, 19(3), 260-270.

Grewal, R. & Tansuhaj, P., 2001. Building Organizational capabilities for managing economic crisis: the role of market orientation and strategic flexibility. *Journal of Marketing*, 65, pp.67–80.

Guillén, M. F., & García-Canal, E., 2009. The American model of the multinational firm and the "new" multinationals from emerging economies. *The Academy of Management Perspectives*, 23(2), 23-35.

Guillén, M. F., & Suárez, S. L., 2005. Explaining the global digital divide: Economic, political and sociological drivers of cross-national Internet use. *Social Forces*, 84(2), 681-708.

Guler, I. & Guillén, M., 2009. Institutions and the internationalization of US venture capital firms. *Journal of International Business Studies*, 41(2), pp.185–205.

Guler, I., Guillén, M. & Mcpherson, J., 2002. Global Competition, and the Institutions, Diffusion of Practices: Organizational The International Spread of ISO 9000 Quality Certificates. *Administrative Science Quarterly*, 47(2), pp.207–232.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L. (2006). Multivariate Data Analysis. Upper Saddle River, New Jersey, Pearson Education.

Hall, P. & Gingerich, D., 2004. Varieties of Capitalism and Institutional Complementarities in the Macro-Economy. Discussion Paper of the Max-Planck Institute for the Study of Societies.

Hall, P. A., & Gingerich, D. W., 2009. Varieties of capitalism and institutional complementarities in the political economy: An empirical analysis. *British Journal of Political Science*, 39(3), 449-482.

Hall, P. A., & Soskice, D. W. (Eds.). 2001. Varieties of capitalism: The institutional foundations of comparative advantage (p. 1). Oxford: Oxford University Press.

Hannan, M. T., & Freeman, J. 1977. The population ecology of organizations. *American journal of sociology*, 929-964.

Haveman, H.A., 1993. Follow the Leader: Mimetic Isomorphism and Entry Into New Markets. *Administrative Science Quarterly*, 38(4), p.593.

Hedlund, G. and Åman, P., 1984. Managing Relationships with Foreign Subsidiaries. Stockholm: Sveriges Mekanförbund.

Henderson, J. & Ono, Y., 2008. Where do manufacturing firms locate their headquarters? *Journal of Urban Economics*, 63(2), pp.431–450.

Hendrickson, A. E., & White, P. O., 2011. Promax: A quick method for rotation to oblique simple structure. *British Journal of Statistical Psychology*, 17(1), 65-70.

Henisz, W. & Delios, A., 2001. Uncertainty, Imitation, and Plant Location: Japanese Multinational Corporations, 1990-1996. *Administrative Science Quarterly*, 46(3), pp.443–475.

Henisz, W. & Williamson, O., 1999. Comparative economic organization-within and between countries. *Business and Politics*, 1(3), pp.261–277.

Henisz, W., 2000. The institutional environment for economic growth. *Economics & Politics*, 12(1), pp.1–31.

Hennart, J. F., 1982. A theory of multinational enterprise. Ann Arbor: University of Michigan Press.

Henshel, R. L., & Johnston, W. 1987. The emergence of bandwagon effects: A theory. *The Sociological Quarterly*, 28(4), 493-511.

Hinings, B., & Greenwood, R. 1988. The normative prescription of organizations. In L. G. Zucker (Ed.), Institutional patterns and organizations: Culture and environment: 53-70. Cambridge, MA: Ballinger.

Hofstede, G., 1980. Culture's consequences: International differences in work-related values (Vol. 5). Sage Publications, Incorporated.

Holloway, S.R. & Wheeler, J.O., 1991. Corporate Headquarters Relocation and Changes in Metropolitan Corporate Dominance, 1980-1987. *Economic Geography*, 67(1), pp.54–74.

Hopkins, S., 2006. Economic stability and health status: evidence from East Asia before and after the 1990s economic crisis. *Health policy*, 75(3), pp.347–57.

Hoshi, T., & Kashyap, A. K. 2004. Japan's financial crisis and economic stagnation. *The Journal of Economic Perspectives*, 18(1), 3-26.

Huang, H. & Wei, S.J., 2006. Monetary policies for developing countries: The role of institutional quality. *Journal of International Economics*, 70(1), pp.239–252.

Hutzschenreuter, T., Pedersen, T., & Volberda, H. W. 2007. The role of path dependency and managerial intentionality: A perspective on international business research. *Journal of International Business Studies*, 38(7), 1055-1068.

Hybels, R. C. 1995. On legitimacy, legitimation and organizations: A critical review and integrative theoretical model. In Academy of Management Proceedings (Vol. 1995, No. 1, pp. 241-245). *Academy of Management.*

Inglehart, R., & Baker, W. E., 2000. Modernization, cultural change, and the persistence of traditional values. *American sociological review*, 19-51.

Inglehart, R., 2004. Human beliefs and values: A cross-cultural sourcebook based on the 1999-2002 values surveys. Siglo XXI.

Jensen, C. & Meckling, H., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), pp.305–360.

Johanson, J. & Vahlne, J.E., 1977. The internationalization process of the firm-a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), pp.23–32.

Johanson, J. & Vahlne, J.E., 2003. Business relationship learning and commitment in the internationalization process. *Journal of International Entrepreneurship*, 1(1), pp.83–101.

Johanson, J. & Vahlne, J.E., 2009. The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40(9), pp.1411–1431.

Johanson, J. & Wiedersheim-Paul, F., 1975. The internationalization of the firm: four Swedish cases. *Journal of Management Studies*, 12(3), pp.305–323.

Jonsson, S., 2009. Refraining from imitation: Professional resistance and limited diffusion in a financial market. *Organization Science*, 20(1), pp.172–186.

Kaufmann, D., & Kraay, A., 2003. Governance and growth: causality which way?–evidence for the world, in brief. Manuscript. World Bank publication.

Kaufmann, D., Kraay, A., & Mastruzzi, M. 2009. Governance matters VIII: aggregate and individual governance indicators, 1996-2008. World bank policy research working paper, (4978).

Klier, T. & Testa, W., 2002. Location trends of large company headquarters during the 1990s. *Economic Perspectives*, 26(2), pp.12–26.

Klier, T. H., 2006. Where the headquarters are: location patterns of large public companies, 1990-2000. *Economic Development Quarterly*, 20(2), 117-128.

Kogut, B., & Kulatilaka, N. 1994. Operating flexibility, global manufacturing, and the option value of a multinational network. *Management Science*, 40(1), 123-139.

Kogut, B., & Singh, H., 1988. The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 411-432.

Kogut, B. & Zander, U., 1996. What Firms do? Coordination, Identity, and Learning. *Organization Science*, 7(5), pp.502–518.

Kogut, B., & Zander, U., 1993. Knowledge of the firm and the evolutionary theory of the multinational corporation. *Journal of International Business Studies*, 625-645.

Kostova, T. & Roth, K., 2002. Adoption of an organizational practice by subsidiaries of multinational corporations: Institutional and relational effects. *Academy of Management Journal*, 45(1), pp.215–233.

Kostova, T., Roth, K. & Dacin, M., 2008. Institutional theory in the study of multinational corporations: a critique and new directions. *Academy of Management Review*, 33(4), pp.994–1006.

Kostova, T. & Zaheer, S., 1999. Organizational legitimacy under conditions of complexity: the case of the multinational enterprise. *Academy of Management Review*, 24(1), pp.64–81.

Kotz, D.M., 2009. The Financial and Economic Crisis of 2008: A Systemic Crisis of Neoliberal Capitalism. *Review of Radical Political Economics*, 41(3), pp.305–317.

Kwok, C. C., & Tadesse, S., 2006. The MNC as an agent of change for host-country institutions: FDI and corruption. *Journal of International Business Studies*, 37(6), 767-785.

La Porta, R. et al., 1998. Law and finance. *Journal of Political Economy*, 106(6), pp.1113–1155.

Laamanen, T., Simula, T. & Torstila, S., 2011. Cross-border relocations of headquarters in Europe. *Journal of International Business Studies*, 43(2), pp.187–210.

Lai, K. H., Wong, C. W., & Cheng, T. C., 2006. Institutional isomorphism and the adoption of information technology for supply chain management. *Computers in Industry*, 57(1), 93-98.

Lasserre, P., 1996. Regional headquarters: The spearhead for Asia Pacific markets. *Long Range Planning*, 29(1), pp.30–37.

Lee, S.H. & Makhija, M., 2009. Flexibility in internationalization: is it valuable during an economic crisis? *Strategic Management Journal*, 555(October 2008), pp.537–555.

Lehrer, M. and Asakawa, K., 1999. Unbundling European Operations: Regional Management and Corporate Flexibility in American and Japanese MNCs. *Journal of World Business*, 34(3), 267-286.

Levchenko, A. a., 2007. Institutional Quality and International Trade. *Review of Economic Studies*, 74(3), pp.791–819.

Lieberman, M. B., & Asaba, S., 2006. Why do firms imitate each other?. *Academy of Management Review*, 31(2), 366-385.

Lim, K.P., Brooks, R.D. & Kim, J.H., 2008. Financial crisis and stock market efficiency: Empirical evidence from Asian countries. *International Review of Financial Analysis*, 17(3), pp.571–591.

Lovely, M.E., Rosenthal, S.S. & Sharma, S., 2005. Information, agglomeration, and the headquarters of U.S. exporters. *Regional Science and Urban Economics*, 35(2), pp.167–191.

Lunnan, R., Benito, G. R., & Tomassen, S., 2011. Moving Abroad: Factors that Motivate Foreign Location of Headquarter Activities. *Advances in international management*, 24, 127-151.

Makhija, M. & Stewart, A.C., 2012. The effect of national context on perceptions of risk: a comparison of planned versus free-market managers. *Journal of International Business Studies*, 33(4), pp.737–756.

Makhija, M., 2012. Government interception in the Venezuelan Petroleum industry: an empirical investigation of political risk. *Journal of International Business Studies*, 24(3), pp.531–555.

Massey, J.E., 2001. Managing Organizational Legitimacy: Communication Strategies for Organizations in Crisis. *The Journal of business communication*, 38(2), pp.153–183.

Maurer, J. G. 1971. Readings in organization theory: Open-system approaches. Random House (NY).

Meyer, A., 1982. Adapting to Environmental Jolts. *Administrative Science Quarterly*, 27(4), pp.515–537.

Meyer, J. & Rowan, B., 1977. Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American journal of sociology*, 83(2), pp.340–363.

Meyer, J. W., & Scott, W. R. 1983. Centralization and the legitimacy problems of local government. Organizational environments: Ritual and rationality, pp. 199-215.

Meyer, J. W., Scott, W. R., & Strang, D. 1987. Centralization, fragmentation, and school district complexity. *Administrative Science Quarterly*, 32(2), pp.186-201.

Mimmack, G. M., Mason, S. J., & Galpin, J. S., 2001. Choice of distance matrices in cluster analysis: Defining regions. *Journal of Climate*, 14(12), 2790-2797.

Morgan, G., 2009. Globalization, multinationals and institutional diversity. *Economy and Society*, 38(4), pp.580–605.

Nell, P. C., & Larsen, M. M. MNC Headquarters as Activity Systems: The Consequences of Differentiating and Relocating MNC Headquarters. In The 54th Annual Meeting of the Academy of International Business. 2012.

O'Brien, R. M., 2007. A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity*, *41*(5), 673-690.

O'Donnell, S. W., 2000. Managing foreign subsidiaries: agents of headquarters, or an interdependent network? *Strategic Management Journal*, 21(5), 525-548.

Oliver, C., 1991. Strategic responses to institutional processes. *Academy of Management Review*, 16(1), pp.145–179.

Ono, Y., 2006. What Do Census Data Tell Us About Headquarters Location? *Economic Development Quarterly*, 20(2), pp.129–141.

Pearson, C.M. & Clair, J.A., 1998. Reframing crisis management. *Academy of Management Review*, 23(1), pp.59–76.

Pedersen, T. & Thomsen, S., 1997. European patterns of corporate ownership: a twelve-country study. *Journal of International Business Studies*, 28(4), pp.759–778.

Piekkari, R., Nell, P. C. and Ghauri, P., 2010. Regional Management as a System – A Longitudinal Study. *Management International Review*, 50, 513–532.

Porter, M. E., 2000. Location, competition, and economic development: Local clusters in a global economy. *Economic Development Quarterly*, 14(1), 15-34.

Powell, W. 1991. Expanding the scope of institutional analysis. The new institutionalism in organizational analysis, 183-203.

Prechel, H., 1994. Economic crisis and the centralization of control over the managerial process: corporate restructuring and neo-fordist decision-making. *American sociological review*, 59(5), pp.723–745.

Puck, J.F., Holtbrügge, D. & Mohr, A.T., 2009. Beyond entry mode choice: Explaining the conversion of joint ventures into wholly owned subsidiaries in the People's Republic of China. *Journal of International Business Studies*, 40(3), pp.388–404.

Radulescu, M., & Druica, E. N., 2011. FDIs and investment policy in some European countries after their EU accession. Challenges during the crisis.

Reuer, J.J. & Leiblein, M.J., 2012. Downside risk implications of multinationality and international joint ventures. *Academy of Management Journal*, 43(2), pp.203–214.

Rosenzweig, P. & Singh, J., 1991. Organizational environments and the multinational enterprise. *Academy of Management Review*, 16(2), pp.340–361.

Rugman, A. & Verbeke, A., 2008. Location, competitiveness and the multinational enterprise. In Oxford handbook of international business. Oxford, UK: Oxford University Press.

Salancik, G. R., & Pfeffer, J. 1978. The external control of organizations: a resource dependence perspective. Harper and Row.

Sarfatti-Larson, M. 1977. The rise of professionalism. A Sociological Analysis, Los Angeles-London.

Sayegh, L., Anthony, W.P. & Perrewé, P.L., 2004. Managerial decision-making under crisis: The role of emotion in an intuitive decision process. *Human Resource Management Review*, 14(2), pp.179–199.

Scott, W.R., 1987. The Adolescence of Theory Institutional. *Administrative Science Quarterly*, 32(4), pp.493–511.

Scott, W.R., 1995. Institutions and organizations, Thousand Oaks: Sage Publication.

Seeger, M. W., Ulmer, R. R., Novak, J. M., & Sellnow, T. 2005. Post-crisis discourse and organizational change, failure and renewal. *Journal of Organizational Change Management*, 18(1), 78-95.

Selznick, P. 1949. TVA and the grass roots. Berkeley, CA: University of California Press.

Selznick, P. 1957. Leadership in administration. New York: Harper & Row

Shenkar, O., 2001. Cultural distance revisited: Towards a more rigorous conceptualization and measurement of cultural differences. *Journal of International Business Studies*, 519-535.

Singh, K. & Yip, G.S., 2000. Strategic Lessons from the Asian Crisis. *Long Range Planning*, 33(5), pp.706–729.

Slangen, A.H.L. & Van Tulder, R.J.M., 2009. Cultural distance, political risk, or governance quality? Towards a more accurate conceptualization and measurement of external uncertainty in foreign entry mode research. *International Business Review*, 18(3), pp.276–291.

Smart, C. & Vertinsky, I., 1984. Strategy and the Environment: A Study of Corporate Responses to Crises. *Strategic Management Journal*, 5(March 1982), pp.199–213.

Sobel, R.S., 2008. Testing Baumol: Institutional quality and the productivity of entrepreneurship. *Journal of Business Venturing*, 23(6), pp.641–655.

Staw, B.M., Sandelands, L.E. & Dutton, J.E., 1981. Threat rigidity effects in organizational behavior: a multilevel analysis. *Administrative Science Quarterly*, 26(4), pp.501–524.

Strauss-Kahn, V. & Vives, X., 2009. Why and where do headquarters move? *Regional Science and Urban Economics*, 39(2), pp.168–186.

Suchman, M.C., 1995. Managing Legitimacy: strategic and institutional approaches. *Academy of Management Review*, 20(3), pp.571–610.

Tan, J., & Wang, L., 2011. MNC strategic responses to ethical pressure: An institutional logic perspective. *Journal of business ethics*, *98*(3), 373-390.

Tatahi, M., 2010. Enterprise Performance, Privatization and the Role of Ownership in Portugal.

Thomas, M., 2009. What Do the Worldwide Governance Indicators Measure? European Journal of Development Research, 22, pp.31–54.

Thompson, J. D. 1967. Organizations in action: Social science bases of administrative theory. Transaction Pub.

Tolbert, P. S., & Zucker, L. G. 1983. Institutional sources of change in the formal structure of organizations: The diffusion of civil service reforms, 1880-1935. *Administrative Science Quarterly*, 23, pp. 22-39.

Tomassen, S. & Benito, G.R.G., 2009. The costs of governance in international companies. *International Business Review*, 18(3), pp.292–304.

Tomassen, S., Benito, G.R.G. & Lunnan, R., 2012. Governance costs in foreign direct investments: A MNC headquarters challenge. *Journal of International Management*, 18(3), pp.233–246.

UNCTAD, 2003. World Investment Report,

Venard, B. & Hanafi, M., 2008. Organizational and Corruption Countries Isomorphism in Financial Institutions: Empirical Research in Emerging. *Journal of business ethics*, 81(2), pp.481–498.

Vernon, R., 1966. International investment and international trade in the product cycle. *The quarterly journal of economics*, 190-207.

Volberda, H., 1997. Building Flexible Organizations for Fast-moving Markets. *Long Range Planning*, 30(2), pp.169–182.

Wadhwani, S.B., 1999. The US stock market and the global economic crisis. *National Institute Economic Review*, 167(1), pp.86–105.

Wanner, H., Leclef, X. & Shimizu, H., 2004. Global Headquarters on the Move: From Administrators to Facilitators. Arthur D. Little Corporation Report.

Weick, K. E. 1988. Enacted sense making in crisis situations. National Emergency Training Center.

Westney, D. E. 1993. Institutionalization theory and the multinational corporation. Organization theory and the multinational corporation, 53, 76.

Williamson Oliver, E., 1985. The economic institutions of capitalism: Firms, markets, relational contracting. New York.

Williamson, O. E. 1975. Markets and Hierarchies. New York: Free Press.

Xu, D. & Shenkar, O., 2002. Institutional distance and the multinational enterprise. *Academy of Management Review*, 27(4), pp.608–618.

Yiu, D. & Makino, S., 2002. The Choice between Joint Venture and Wholly Owned Subsidiary: An Institutional Perspective. *Organization Science*, 13(6), pp.667–683.

Young, S. & Tavares, A.T., 2004. Centralization and autonomy: back to the future. *International Business Review*, 13(2), pp.215–237.

Zaheer, S., & Zaheer, A., 1997. Country effects on information seeking in global electronic networks. *Journal of International Business Studies*, 77-100.

Zhou, L., Wu, W. & Luo, X., 2007. Internationalization and the performance of born-global SMEs: the mediating role of social networks. *Journal of International Business Studies*, 38(4), pp.673–690.

Zucker, L., 1987. Institutional theories of organization. *Annual review of sociology*, 13, pp.443–464.