

Entry and access to competencies abroad: Emerging market firms versus advanced market firms

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1. Introduction

This article is about ownership strategies of foreign multinationals acquiring firms in advanced economies. In particular, it examines the acquisition behavior of multinational companies from emerging markets (EMNCs) compared to multinational companies from advanced markets (AMNCs) in Italy. EMNCs that acquire firms in advanced countries go against the grain of conventional wisdom about the direction in which capital, technology, and knowledge should flow in the global economy. And it represents a situation which extant international business theory fails to explain well (Mathews, 2006). EMNCs supposedly use international expansion in advanced countries as a springboard to compensate for their competitive disadvantages. In order to compete internationally, they need to overcome their own weaknesses quickly. Therefore, they aim to acquire capabilities and technologies such that they do not need to develop the same internally. Previous studies (e.g., Luo and Tung, 2007) have already shown that when investing in developed countries, EMNCs seek sophisticated technology or advanced manufacturing know-how by acquiring foreign companies. Namely, EMNCs outward investments are triggered mainly by 'pull' factors, such as the desire to secure critical resources, acquire advanced technology, obtain managerial expertise, and gain access to consumers in key foreign markets, so that they can overcome their latecomer disadvantages (Mathews, 2006).

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In general, EMNCs are eager to acquire technology and brands through internationalization to fill their resource void. Foreign firms' willingness to sell or share their technology, know-how or brands due to financial exigency or restructuring needs makes it possible for EMNCs to fulfill this need (Child and Rodrigues, 2005).

Although most multinationals come from advanced countries, EMNCs have made a remarkable entrance on the international scene in the last decade. Since the 1990s, in both developed and developing countries, M&A have become a more important component of inward and outward FDI. However, although EMNCs have the ambition to become global players, their pattern of international expansion is supposedly different to that of their developed world counterparts (Guillen and Garcia-Canal, 2009). In fact, EMNCs have been relatively more successful in penetrating other developing countries, but relatively less successful in entering developed countries (Cuervo-Cazurra and Genc, 2008).

Meyer et al. (2011) attribute the relative success of EMNCs to capabilities that they have developed in order to deal with the specific conditions of their home environment. The institutional and economic environment of developing countries differs from that of developed countries. In order to be competitive at home, EMNCs develop capabilities that allow them to deal with their home market specificities (Van Assche, 2011). These abilities may then provide EMNCs with a competitive advantage when expanding into countries with similar conditions. That is why it is suggested that, *ceteris paribus*, EMNCs are more likely to invest in countries with similar market and institutional characteristics. That is, EMNCs generally tend to invest in other less developed countries as the investing firms can rely on their firm-specific advantages which are better adapted to the needs and institutions existing in other developing countries.

In a similar, yet contradictory vein, EMNCs suffer from a disadvantage when investing in advanced economies. The liabilities of origin can make the EMNC's task of acquisition of legitimacy in the advanced host country market far more difficult (Yildiz, 2014). EMNCs find themselves subjected to discrimination by competitors, consumers, and even by governments, in advanced markets due to prevailing biases against practices, products and services associated with developing and emerging economies. Crucially, this liability of origin can be particularly important when the firm has yet to build up its own reputational capital, as is usually the case with EMNCs seeking a foothold in advanced markets. EMNCs may also suffer as a result of the misgivings of host governments, whose officials may be reluctant to encourage EMNCs in their markets either due to geopolitical considerations, or simply because they lack confidence in their capabilities (Pant, 2012).

The second type of disadvantage faced by EMNCs in advanced markets can be traced to the underdeveloped home country institutions. Given their institutional disadvantage in entering advanced markets, they are again likely to be affected in their strategic behavior. The distinctive challenges confronted by EMNCs in advanced country markets can shed light on how location (i.e., the country of origin) can shape the legitimacy of firms in international markets, which emerges from its ability to persuade businesses in the host country institutional environment.

Therefore, in order to analyze and compare the respective acquisition behavior of EMNCs and AMNCs, we carried out an econometric analysis on foreign acquisitions in Italy during the decade 2001–2010. The availability of such a sample allows us to analyze the uniqueness of EMNCs' behavior and to compare their entry choice with AMNCs.

This work is original in various respects. Although both the literature on the MNCs' entry mode and the studies focusing on EMNCs are vast, the latter's entry strategy in developed countries has not received much attention so far. Here, we focus on factors explaining the degree of ownership in local companies acquired by EMNCs. Namely, thanks to a detailed database for Italy, we compare EMNCs with AMNCs, thus addressing the crucial issue of "the unique or special features of the home country environment" influencing international entry mode (Brouthers and Hennart, 2007; Li and Peng, 2008).

Additionally, MNCs' entry mode choice has been widely investigated by international business scholars mainly focusing on determinants and patterns of the choice acquisitions vs. greenfield initiatives, or wholly owned subsidiaries vs. joint ventures (for recent reviews, see Dikova and van Witteloostuijn, 2007; Hennart, 2009). Instead, we focus on the level of control and the equity share in cross border acquisitions, an issue that has not received much research attention so far (for an exhaustive survey and discussion, see Chari and Chang, 2009).

The paper is organized as follows. The next section presents our conceptual framework and testable hypotheses. The third section presents the data and descriptive statistics, while econometric models and variables employed are reported in the fourth section. The fifth section illustrates and discusses the results, while the final section summarizes the main contributions of the paper.

2. Conceptual background and hypotheses

Multinationals are increasingly seeking to augment, as well as to exploit, their global competitive advantage. The emergence and growth of asset-seeking and competence-creating MNC activities, which aim not only to exploit a particular set of ownership-specific advantages but also to access new ones, is driving firms to acquire target firms abroad. In particular, acquisitions are being used in order to augment the competitive ownership-specific advantages of the investing companies by exploiting and accessing the capabilities and resources of particular companies. Due to the growing importance of knowledge as the fundamental rationale for investment, foreign entry by acquisition of local companies has increasingly become the primary fashion by which MNCs access complementary resources, information and knowledge otherwise hard to obtain (Anand and Delios, 1997; Meyer et al., 2009a, 2009b; Phene et al., 2012). In fact, there is ample empirical evidence to suggest that MNCs use acquisitions to procure a wide variety of proprietary assets from indigenous firms (Caves and Mehra, 1986; Hennart and Park, 1993) and several studies have identified the access to knowledge as a major motive for foreign acquisitions of multinational companies abroad (Anand and Delios, 2002; Anand and Kogut, 1997; Chen and Hennart, 2002; Florida, 1997; Kuemmerle, 1999).

This is particularly true for latecomer MNCs, i.e. EMNCs, which often use international expansion as a springboard to develop critical resources needed to compete more effectively against their global rivals at home and abroad, and to reduce their vulnerability to institutional and market constraints at home (Luo and Tung, 2007). Furthermore, EMNCs strategically use cross-border upmarket acquisitions to acquire strategic capabilities to offset their (technological and marketing) competitive disadvantages and leveraging their unique advantages (Aulakh, 2007; Gammeltoft et al., 2010; Rui and Yip, 2008; Stucchi, 2012).

However, although M&A represent the highest level of vertical integration³ (van de Vrande et al., 2009), the degree of ownership that foreign MNCs maintain in the target firm still reflects the chosen level of commitment in the relevant foreign country (Brown et al., 2003). According to the RBV, the full acquisition of the target company allows foreign investors to acquire and to access complex and organizationally embedded knowledge (Barkema and Vermeulen, 1998). Likewise, TCE suggests that a higher level of control is needed to reduce transaction costs involved in cross border acquisitions⁴ (Hennart, 1988). Thus, full acquisitions allow foreign entrants complete access to ownership and control of the resources of the target firm (Meyer et al., 2009b). Indeed, given the tacit and proprietary nature of complementary capabilities owned by indigenous firms, they can be difficult to duplicate internally and their external purchase too costly to negotiate and contract (Chen, 2008). In such cases, one alternative to developing or procuring complementary capabilities is to buy out the local businesses in which the targeted assets are embedded (Billitteri et al., 2013).

In this paper, following some previous works (e.g. Sutcliffe and Zaheer, 1998; van de Vrande et al., 2009) we relate the governance mode (i.e. the degree of commitment) to uncertainty. On the one hand, TCE suggests that high uncertainty will lead to transactional market failure, thus increasing the likelihood of modes with high commitment investment (e.g. John and Weitz, 1988; Walker and Weber, 1987). On the other hand, empirical work grounded in strategic management theory (e.g., Porter, 1980) suggests that firms facing uncertainty require greater flexibility and has shown that uncertainty results in a lowered rather than an increased degree of vertical integration (Harrigan, 1985).

More recently, it has been shown that a possible explanation to account for the contradictory findings obtained in the empirical literature may actually stem from the source or the type of uncertainty being examined. More specifically, given that uncertainty may arise from a number of sources or may be characterized along a number of dimensions, it is possible that different sources or dimensions of uncertainty have different implications for the choice of the governance mode. In fact, some theoretical work has emphasized the pitfalls of viewing uncertainty as a one-dimensional construct (e.g., Milliken, 1987; Yasai-Ardekani, 1986) rather than one that is complex, multidimensional, and differentiated. However, the implications of this line of thinking have not been explored with reference to the behavior of EMNCs vs. AMNCs.

Specifically, we distinguish uncertainty affecting governance mode decisions between exogenous and endogenous uncertainty (Folta, 1998; van de Vrande et al., 2009). Endogenous uncertainty is related to the investment itself and can often be found as relationship-specific uncertainty when firms are sourcing intangibles externally for new business development. This type of uncertainty is typically represented by dissimilarities among partners which can be caused for instance by different knowledge bases or by the lack of prior cooperation to overcome information asymmetries.⁵ When the knowledge bases of the firms involved are dissimilar, a higher level of integration is necessary to increase the efficient transfer and accumulation of knowledge (Zeng, 2003). Moreover, dissimilar knowledge bases increase the danger of adverse selection and make it more difficult to write contracts, making a higher level of integration more favorable (van de Vrande et al., 2009).

Although the liability of foreignness assumes all foreign firms are (more or less) the same, and that location-based resources are in principle available equally to all foreign firms that participate in a particular location, these assumptions are clearly questionable since they overlook distinctions among foreign firms—in our context between foreign firms from developed and emerging economies. EMNCs face an additional burden and confront specific challenges, especially in advanced economies, simply by being from emerging economies. Whereas the liability of foreignness (Zaheer, 1995) relates to the handicap incurred by firms because of where they are not from (i.e., not local), the liability of origin relates to the handicap incurred because of where they are from (i.e., the specific country of origin) (Ramachandran and Pant, 2010). Given that EMNCs suffer not only from a liability of foreignness, but also have a liability of origin, they are likely to suffer from increased endogenous uncertainty.

Exogenous uncertainty might take the form of either environmental turbulence or technological newness. Exogenous uncertainty is likely to be higher when technologies are newer and in high technology sectors, when the technological characteristics of products and technologies cannot easily be codified by the investing company. Hagedoorn and Duysters (2002) find that industries that are characterized by rapid technological change ask for more flexible forms of organization. Thus, when this is the case, companies will be more likely to pursue lighter commitment, in order to remain more flexible (Vanhaverbeke et al., 2002).

³ When compared with non-equity forms, i.e. technological alliances.

⁴ Transaction cost economics is among the theories most widely used to study foreign subsidiary ownership policy (Makino and Neupert, 2000; Yiu and Makino, 2002; Zhao et al., 2004). It argues that the choice between partial and full ownership depends on the net benefits of sharing equity relative to those retaining full ownership. Hennart (1991) argues that investing firms tend to choose joint ownership with a local partner over full ownership when they need continuous access to local firms' resources of, for example, knowledge and know-how, which are subject to high market transaction costs (Makino and Neupert, 2002). Empirical studies suggest that these arguments hold not only for greenfield joint ventures (Brouthers, 2002; Dikova and van Witteloostuijn, 2007), but also for partial ownership acquisitions (Chiao et al., 2010; Fatica, 2010; López-Duarte and García-Canal, 2002).

⁵ Such asymmetries are typically present in acquisitions, in that acquirers often have incomplete information on the value and culture of their targets. As a result, acquirers may find it difficult to evaluate these targets ex ante (the inspection problem) or to integrate them in their corporate network after the deal has been completed (the interaction problem) (Ravenscraft and Scherer, 1987).

Therefore, we claim that uncertainty does normally increase the likelihood of a lighter commitment of the acquirer in the target company. Accordingly, higher uncertainty related to technological distance will lead to a lower degree of commitment. However, this is even more so if the acquirer company comes from emerging economies as, if this is the case, there is also a higher endogenous uncertainty. Specifically, our hypotheses are the following:

Hypothesis 1. As a result of higher endogenous uncertainty, EMNCs will acquire lower control than AMNCs.

Hypothesis 2. As a result of higher exogenous uncertainty, this relationship is strengthened in high-tech industries.

Likewise, as a result of exogenous uncertainty due to institutional distance (Zhao et al., 2004), MNCs are more likely to adopt a lighter form of commitment. In other words, if the institutional environments in home and host countries are similar, MNCs will feel a sense of familiarity, and they will adopt a higher level of commitment (Hennart and Larimo, 1998; Xu and Shenkar, 2002).

Institutional theory studies find that firms choose modes of entry to conform to local legitimacy, such as rules of doing business, in host countries (Meyer and Nguyen, 2005; Uhlenbruck et al., 2006). Nevertheless, there is no consensus concerning the effect of institutional distance on the entry mode (Morschett et al., 2010). On the one hand, for a MNC parent the different institutional environment surrounding its subsidiaries represents an impediment to the transfer of intra-organizational practices (Kostova and Zaheer, 1999) and this encourages full ownership and greater control in order to raise the power of the parent as perceived by its subsidiaries (Xu and Shenkar, 2002). On the other hand, the organizational legitimacy perspective argues that in a very unfamiliar environment, MNCs from more dissimilar institutional environments tend to share ownership with a local partner in exchange for adaptation to the external environment (Gooris and Peeters, 2014; Zaheer, 1995).

Thus, when entering a foreign market, especially if institutional distance is high, entrants often need local resources such as institutional or market knowledge that is embedded in existing organizations (Anand and Delios, 2002) and these can be accessed by forming a partnership with a local firm. However, traditional measures consider the magnitude of distance, and they are normally applied to AMNCs investing in emerging or less developed countries (Meyer et al., 2009a). In those cases, large institutional distances might constitute a barrier to transferring organizational practices from the parent firm to the foreign subsidiary (Kostova, 1999).

Here, we also investigate the opposite situation, i.e. EMNCs investing in advanced countries. Therefore, as it does not matter only *how much* countries differ but also *how*, the direction of distance becomes crucial (Zaheer et al., 2012). In particular, EMNCs do not face the same uncertainty and risks of AMNCs investing the other way round (even if the distance would assume the same numerical value). Thus, contrary to previous evidence about the impact of institutional distance on the MNC entry mode choice, we expect that EMNCs investing in developed countries do not need to rely on a local partner to reduce uncertainty, and are more likely to adopt more control.

Hence, our second set of hypotheses are the following:

Hypothesis 3. As a result of exogenous uncertainty, companies will acquire less control when institutional distance is higher

Hypothesis 4. This relationship is reversed when acquirers come from emerging economies.

3. Data and methodology

3.1. The sample

Our hypotheses have been tested on a sample of 451 acquisitions undertaken by foreign MNCs in Italy between 2001 and 2010 in 78 manufacturing industries (from NACE three digit Rev.1 151 to NACE three digit Rev.1 372).⁶ Data come from the dataset Reprint,⁷ a database compiled by the Politecnico di Milano and sponsored by the Italian National Institute for Foreign Trade (ICE – Istituto per il Commercio con l'Estero – Institute for foreign trade). The database provides information about the acquiring and target firms, the ownership structure, the entry mode and other balance sheet data. After applying the International Monetary Fund⁸ classification to the home country of the acquiring firms, it turns out that 93 out of 451 (20.62%) investments have been undertaken by MNCs whose country is qualified as emerging. There are 19 different emerging economies in our sample, with the lion's share of deals from China, India, Russia and Brazil.

3.1.1. Dependent variable

We refer to the ownership structure as the share of the equity owned by the MNCs after the acquisition. Following Chari and Chang (2009), we identified four different types of ownership: full, majority, equal, and minority ownership. Accordingly, we build a categorical variable, i.e. *Degree of Ownership*, taking value $k = 0, 1, 2, 3$, for minority, equal, majority and full ownership,

⁶ Foreign acquisitions undertaken by private firms have been considered, while venture capitalists and funds have been excluded since their rationales are likely to be different with respect to MNCs.

⁷ The database Reprint provides data on both the foreign affiliates of Italian firms and the Italian affiliates of foreign firms since 1986 and is yearly updated (for details, see Mariotti and Mutinelli, 2010).

⁸ We employed the classification provided at the beginning of the period (2001) by the World Economic Outlook (WEO) Database of International Monetary Fund, which is available at the following link: <http://www.imf.org/external/pubs/ft/weo/>.

Table 1

Degree of ownership of the 451 foreign direct investments by MNCs' home country.

Degree of ownership	EMNCs	AMNCs	Total
Minority ownership (No.)	13	49	62
%	13.98	13.69	13.75
Equal ownership (No.)	15	9	24
%	16.13	2.51	5.32
Majority ownership (No.)	20	50	70
%	21.51	13.97	15.52
Full ownership (No.)	45	250	295
%	48.39	69.83	65.41
Total (No.)	93	358	451

respectively. As a consequence, the higher the value of the dependent variable, the higher is the degree of ownership and control in the target company.

Table 1 reports the distribution of acquisitions across the four degrees of ownership considered, distinguishing also between MNCs from emerging vs. advanced countries. It can be noticed that full ownership is in general the favorite choice. However, while the percentage of AMNCs adopting full ownerships is around 70%, the same value decrease to 48% in case of EMNCs, thus revealing that the latter tend to choose partnerships more frequently than the former.

3.2. Explanatory variables

3.2.1. Emerging country

To account for the nationality of the acquiring firm, we introduced the dummy *Emerging*, which takes the value of 1 if the acquiring firm originates from a country that is classified as emerging according to the International Monetary Fund official classification. As explained above, 93 out of 451 (20.62%) investments have been undertaken by MNCs whose country is qualified as emerging. Since EMNCs suffer from a higher endogenous uncertainty caused by different knowledge bases, it is likely that EMNCs will adopt a partial rather than a full ownership strategy (Mathews, 2006). Therefore we expect a negative relationship between the dummy *Emerging country* and our dependent variable.

3.2.2. Target tech industry

In order to account for the industrial dimension of exogenous uncertainty arising from high-tech sectors, we employed the dummy *Target Tech Industry*, which takes value of 1 when the industry of the target firm is classified as high-tech according to the Eurostat-OECD (2007) official classification. Accordingly, the following industries are considered as high-tech: Aerospace (Nace Rev.1 353), Computer and Office Machinery (Nace Rev.1 30), Electronics Communications (Nace Rev.1 32), Pharmaceuticals (Nace Rev.1 244) and Scientific Instruments (Nace Rev.1 33). The number of investments classified as high-tech amounts to 86 out of 451, corresponding to 19.07% of the whole sample.

As regards the direct effect of the variable *Target Tech Industry* on the entry strategy, investments in high-tech industries imply higher exogenous uncertainty than investments in other sectors, which should lead to less integrated governance modes.

However, the maximum level of uncertainty is reached when investments in high-tech industries are undertaken by EMNCs, since in this case the exogenous uncertainty is compounded by endogenous uncertainty. Table 2 shows the distribution of the 451 foreign direct investments between high-tech and non-high-tech target firms' industries across the four degrees of ownership for EMNCs, for AMNCs and for the whole sample. It can be noticed that only in the case of EMNCs investing in high-tech industries the percentage of full ownership (44%) is lower than the sum of percentages of lower degrees of ownership (20% + 8% + 28%), meaning that EMNCs investing in high-tech industries – which implies both high endogenous and exogenous uncertainty – prefer to adopt a partial rather than a full ownership strategy. This outcome seems to provide a first support for our Hypothesis 2.

Table 2

Degree of ownership of the 451 foreign direct investments by technology intensity of target firm's industry and by MNCs' home country.

Degree of Ownership	EMNCs		AMNCs		Total	
	Target non-high-tech	Target high tech	Target non-high-tech	Target high tech	Target non-high-tech	Target high tech
Minority ownership (No.)	8	5	43	6	51	11
%	11.76	20.00	14.48	9.84	13.97	12.79
Equal ownership (No.)	13	2	7	2	20	4
%	19.12	8.00	2.36	3.28	5.48	4.65
Majority ownership (No.)	13	7	45	5	58	12
%	19.12	28.00	15.15	8.20	15.89	13.95
Full ownership (No.)	34	11	202	48	236	59
%	50.00	44.00	68.01	78.69	64.66	68.60
Total (No.)	68	25	297	61	365	86

Table 3

List and values of the institutional distance variables with description of the related items.

Variable of distance	Description of the item employed in the index	Average score of the item for Italy (2001–2010)	Average score of the item for EMNCs (2001–2010)	Average score of the item for AMNCs (2001–2010)	Average distance between EMNCs and Italy	Average distance between AMNCs and Italy
<i>Rule of law</i>						
Property rights	The extent to which private property rights are recognized and protected by rule of law	60.500	40.538	84.930	1.099	0.869
Freedom from corruption	Openness in regulatory procedures and processes that ensure transparencies and promote equitable treatment and greater regulatory efficiency and speed.	50.000	38.194	77.503	0.747	1.752
<i>Limited government</i>						
Fiscal freedom	The extent to which individuals and businesses are permitted by government to keep and control their income and wealth for their own benefit and use.	51.250	76.905	59.256	3.623	0.919
Government spending	The extent to which government spending is under control and does not generate high levels of public debt that undermine economic freedom and stifle growth.	29.610	74.114	41.459	4.218	1.152
<i>Regulatory efficiency</i>						
Business freedom	The extent to which individuals are able to establish and run an enterprise without interference (e.g. burdensome and redundant regulations) from the state.	73.900	54.127	87.847	1.457	0.558
Monetary freedom	The extent to which the economy can rely on a stable currency, market-determined prices, low inflation and independent central bank.	83.230	71.292	80.845	0.874	0.036
<i>Open markets</i>						
Trade freedom	Economy's openness to the import of goods and services from around the world and citizen's ability to interact freely as buyer or seller in the international marketplace without trade restrictions such as tariffs, export taxes, trade quotas, or outright trade bans.	81.230	72.620	86.511	3.508	0.025
Investment freedom	The extent to which the economic environment is characterized by transparency and equity and provides maximum entrepreneurial opportunities and incentives for expanded economic activity, greater productivity and job creation, without restrictions on the movement of capital.	70.500	38.763	76.257	2.260	0.406
Financial freedom	The extent to which financial and banking systems are transparent, open and efficient.	64.000	42.796	71.592	2.069	0.822

3.2.3. Institutional distance

The institutional distance between each home country and Italy, which accounts for the national dimension of exogenous uncertainty, has been computed by focusing on the market-related dimension of institutions, which is likely to be the most important determinant of the attractiveness of a country for a foreign firm interested in doing business there. Specifically, we employed the items of the economic freedom index developed by the Heritage Foundation in partnership with the Wall Street Journal (Kane et al., 2007),⁹ namely: *business freedom*, *trade freedom*, *fiscal freedom*, *government spending*, *monetary freedom*, *investment freedom*, *financial freedom*, *property rights* and *freedom from corruption*.¹⁰ Each item provides a score between 0 and 100 for each of the 184 countries available in the database from 1995 to 2012. We computed the distance between each home country

⁹ The Heritage Foundation is a Washington think tank which provides, since 1995, indicators of the economic freedom for 184 countries. More details are available at the following website: <http://www.heritage.org/index/>.

¹⁰ The tenth item, i.e. labour freedom, has not been employed since data concerning this dimension of economic freedom are available only since 2005, while investments considered in our database range from 2001 to 2010.

Table 4

Degree of ownership of the 451 foreign direct investments by technology intensity of parent firm's industry and home country.

Degree of ownership	EMNCs		AMNCs		Total	
	Parent non-high-tech	Parent high tech	Parent non-high-tech	Parent high tech	Parent non-high-tech	Parent high tech
Minority ownership (No.)	8	5	35	14	43	19
%	16.67	11.11	20.00	7.65	19.28	8.33
Equal ownership (No.)	6	9	3	6	9	15
%	12.50	20.00	1.71	3.28	4.04	6.58
Majority ownership (No.)	11	9	29	21	40	30
%	22.92	20.00	16.57	11.48	17.94	13.16
Full ownership (No.)	23	22	108	142	131	164
%	47.92	48.89	61.71	77.60	58.74	71.93
Total (No.)	48	45	175	183	223	228

Table 5

Degree of ownership of the 451 foreign direct investments by local experience of parent firm's industry and by MNCs' home country.

Degree of ownership	EMNCs		AMNCs		Total	
	Without local experience	With local experience	Without local experience	With local experience	Without local experience	With local experience
Minority ownership (No.)	9	4	9	40	18	44
%	13.85	14.29	8.65	15.75	10.65	15.60
Equal ownership (No.)	6	9	3	6	9	15
%	9.23	32.14	2.88	2.36	5.33	5.32
Majority ownership (No.)	16	4	14	36	30	40
%	24.62	14.29	13.46	14.17	17.75	14.18
Full ownership (No.)	34	11	78	172	112	183
%	52.31	39.29	75.00	67.72	66.27	64.89
Total (No.)	65	28	104	254	169	282

and Italy with respect to each single item by using a procedure similar to Kogut and Singh (1988),¹¹ i.e. according to the following formula:

$$Institutional\ Distance_j^i = \frac{(I_j^i - I_{Italy}^i)^2}{V_i}$$

where *Institutional Distance_jⁱ* is the Institutional Distance from Italy computed for item *i* and country *j*, *I_jⁱ* is the Heritage score of the *i*th item for the *j*th country, *I_{Italy}ⁱ* is the Heritage score of the *i*th item for Italy, and *V_i* is the variance of the *i*th score. We then computed, for each of the 451 observations, the average value of institutional distance for the five years before that of the investments. This means that the average values have been computed along a range spanning from 1996–2000 for investments in 2001, to 2005–2009 for investments in 2010. Considering the average value calculated upon 5 years before the year of investment allows us to control for fluctuations of markets and of the relative scores, by providing a more stable measure of institutional distance.

Table 3 provides the list of the institutional distance variables employed in the analysis. For each variable we reported the description of the item used to compute the distance, the average value of the items for Italy, EMNCs and AMNCs between 2001 and 2010 and the average distance between EMNCs and Italy, on the one hand, and between AMNCs and Italy, on the other hand. All institutional distance variables between advanced and emerging markets are significantly different at the 1 per cent threshold. The distance variables have been grouped in four broad categories that are suggested by the Heritage Index, i.e. Rule of law, Limited government, Regulatory efficiency and Open markets. The data shows that Italy is closer to advanced markets than to emerging countries, with the noticeable exception of Freedom from Corruption with respect to which Italy is closer to emerging than to advanced economies. Italy scores are higher than emerging countries and lower than the average for advanced economies with the exception of Fiscal Freedom and Government Spending where scores are below the value of both advanced and emerging economies. According to our Hypothesis 3, we expect a negative and significant correlation between the institutional distance measures and the dependent variable. However, this relationship is expected to be reversed when investment is undertaken by EMNCs, as claimed by Hypothesis 4.

¹¹ Unlike Kogut and Singh (1988), we do not compute a compound index (and, hence, we do not mix the different items) not only because we believe that the distance computed for each single items provides more insights than a compound index, but also because the sign of the differences change according to both the country and the item considered. The use of the square, weighted by the variance, helps to focus on the absolute value of the distance regardless of the original sign. However, by computing a distance for each single item, we can still take into account the sign of the distance (for different group of countries) to comment on our results, while this is not possible if we consider a compound index where we mix together items with positive and negative signs.

Table 6

Descriptive statistics and correlation matrix of the variables employed in the analysis.

	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	11)	12)	13)	14)	15)
1) Degree of ownership	1.000														
2) Emerging	-0.134	1.000													
3) Target tech industry	0.026	0.101	1.000												
4) Property rights	0.236	0.126	0.114	1.000											
5) Freedom from corruption	0.094	-0.407	-0.029	0.223	1.000										
6) Fiscal freedom	-0.099	0.588	0.102	0.142	-0.075	1.000									
7) Government spending	-0.001	0.684	0.123	0.282	-0.272	0.419	1.000								
8) Business freedom	0.013	0.487	0.136	0.234	-0.089	0.353	0.683	1.000							
9) Monetary freedom	-0.062	0.457	0.027	0.186	-0.133	0.396	0.104	0.128	1.000						
10) Trade freedom	-0.028	0.603	0.037	-0.041	-0.202	0.253	0.427	0.359	0.146	1.000					
11) Investment freedom	-0.083	0.702	0.043	0.218	-0.382	0.327	0.535	0.380	0.235	0.329	1.000				
12) Financial freedom	0.018	0.635	0.084	0.361	-0.260	0.420	0.498	0.448	0.373	0.594	0.623	1.000			
13) Size	-0.124	0.075	0.104	0.044	0.016	0.154	0.002	0.048	0.125	0.004	0.005	0.051	1.000		
14) Parent tech industry	0.152	-0.022	0.266	0.202	-0.036	-0.097	0.089	0.108	-0.124	0.015	0.004	0.046	0.059	1.000	
15) Local experience	-0.051	-0.341	-0.149	-0.138	0.172	-0.202	-0.306	-0.199	-0.247	-0.171	-0.240	-0.229	-0.002	-0.014	1.000
No. of Obs.	451	451	451	451	451	451	451	451	451	451	451	451	451	451	451
Mean	2.326	0.206	0.191	0.916	1.544	1.476	1.784	0.743	0.209	0.743	0.788	1.080	0.030	0.506	0.625
Std. dev.	1.074	0.405	0.393	0.736	1.001	1.863	1.815	0.748	0.743	2.340	1.069	0.795	1.096	0.501	0.485
Min	0.000	0.000	0.000	0.000	0.014	0.016	0.007	0.000	0.001	0.000	0.000	0.000	-0.395	0.000	0.000
Max	3.000	1.000	1.000	2.884	4.481	11.546	8.749	4.892	7.869	13.137	4.423	3.736	13.908	1.000	1.000

3.3. Control variables

3.3.1. Target size

Large target firms imply larger financing constraints for the acquirer, which therefore may prefer minority acquisitions (Whited, 2006). This choice is also driven by the possibility to reduce risks and costs that arise from the acquisition of large firms, which imply more irreversible investments (Balakrishnan and Koza, 1993). A lower commitment allows implementing more easily the exit strategy if needed (Folta, 1998). Furthermore, a partial acquisition represents the starting point to gradually increase the equity share and to complete the acquisition if desired by the firm (Kogut, 1991). As a consequence, we expect a negative relationship between the degree of ownership and the size. Data on the size of the target company come from the database Reprint, and refer to the number of employees (as at the year of acquisition).

3.3.2. Parent medium- and high-tech industry

Studies adopting RBV find that firms that possess more advantageous capabilities (e.g., knowledge, experience) are more likely to choose full control of foreign subsidiaries (Erramilli, 1991). Indeed, multinationals with higher R&D intensity and asset specificity, such as tacit know-how, tend to prefer full or majority ownership entry over joint or minority ownership of their foreign subsidiaries (Brouthers and Hennart, 2007; Zhao et al., 2004). Findings, in general, are that MNCs are more likely to get majority share when they possess certain assets that are needed by the host countries, such as technology or links with global networks (Blodgett, 1991). Therefore, we control for the technological intensity of the parent company's industry through a dummy variable, *Parent Tech Industry*, taking value of 1 if the parent company operates in a high- or medium-tech industry according to the Eurostat-OECD (2007). Table 4 shows the distribution of the 451 acquisitions between high and non-high-tech industries and across the four degree of ownership for EMNCs, AMNCs and for the whole sample. EMNCs adopting the full ownership strategy are equally distributed between non-high-and high-tech industries, while high-tech AMNCs seem to prefer full ownership more than non-high-tech AMNCs (77.60% vs. 61.71%).

3.3.3. Experience

Some empirical studies support the notion that less experienced foreign investors prefer shared ownership (Meyer, 2001), while others (e.g. Barkema and Vermeulen, 1998) found no direct link between international experience and the propensity to choose full acquisition over partial acquisition. For firms that have already established operations in a country, any new

Table 7a

Results of the robust ordered probit model applied to the basic Eq. (1) with different measures of distance: property right distance (1), freedom from corruption distance (2), fiscal freedom distance (3) and government spending distance (4).

	(1)	(2)	(3)	(4)
Emerging	-0.660*** (-3.56)	-0.569* (-2.46)	-0.680** (-2.68)	-1.040*** (-4.62)
Target tech industry	0.059 (0.35)	0.091 (0.56)	0.110 (0.70)	0.090 (0.57)
Institutional distance items:				
Property rights	0.395*** (4.50)			
Freedom from corruption		0.147 (1.69)		
Fiscal freedom			-0.009 (-0.25)	
Government spending				0.118* (2.33)
Size	-0.117*** (-5.54)	-0.113*** (-4.57)	-0.105*** (-4.33)	-0.096*** (-4.00)
Parent tech industry	0.258 (1.20)	0.301 (1.41)	0.285 (1.35)	0.237 (1.05)
Local experience	-0.061 (-0.42)	-0.135 (-0.91)	-0.140 (-0.87)	-0.080 (-0.55)
Constant cut1	-2.236*** (-4.64)	-2.392*** (-4.46)	-2.617*** (-5.34)	-2.490*** (-5.23)
Constant cut2	-1.986*** (-4.10)	-2.147*** (-4.00)	-2.373*** (-4.83)	-2.243*** (-4.70)
Constant cut3	-1.430** (-2.93)	-1.603** (-2.94)	-1.833*** (-3.69)	-1.695*** (-3.52)
Time dummies	Yes	Yes	Yes	Yes
N	451	451	451	451
chi ²	157.496	151.647	163.009	128.197
p	0.000	0.000	0.000	0.000

Marginal effects are available upon request.

* p < 0.05.

** p < 0.01.

*** p < 0.001.

acquisition would aim to extend the existing operations, for instance, by increasing market share or by deepening the local supply chain. Therefore, one would expect more control to be important in order to allow for the necessary restructuring/alignment. Internationally experienced firms are more capable of committing resources in acquisitions and operating alone. Small-sized and inexperienced firms often have a need to augment their capability by that of another firm which correspondingly faces capability constraints (Madhok, 1998). Equity ownership is seen as an outcome of negotiation, a representation of relative power between participating interests. Participants gain power from their commitment of various resources, such as technology, marketing expertise, access to financial markets, and geographical or industrial experience. Nevertheless, on the other hand prior experience also improve firms' capability to manage a co-ownership with local partners, by increasing trust towards local firms and by reducing the fear of opportunistic behaviors and, hence, by reducing the need for control (Gulati and Singh, 1998; Santoro and McGill, 2005). Therefore the correlation between experience and the degree of ownership is not predictable a priori.

Experience of multinational firms in the local context has been measured through the variable *Local Experience*, a dummy taking a value of 1 if the companies have already undertaken at least one previous investment in Italy, and 0 otherwise. Data on previous local experience come from the database Reprint. Table 5 reports the number of experienced and inexperienced EMNCs and AMNCs for each degree of ownership, thus showing that the former are, as expected, much more inexperienced than AMNCs. As regards the relationship with the degree of ownership, it seems that the negative correlation is confirmed for EMNCs, since they tend to use partial ownership when they are experienced, while the opposite seems to be true as regards experienced AMNCs, which prefer to adopt a full rather than a partial ownership strategy.

Finally, we controlled for fixed-effects that may arise from the economic cycle by introducing nine time dummy variables (*year_2001* to *year_2009*), thus using year 2010 as benchmark.

3.4. Model and methodology

We started from the following basic equation model (1):

$$\text{Degree of Ownership}_i = \beta_0 + \beta_1 \text{Emerging}_i + \beta_2 \text{Target Tech Industry}_i + \beta_3 \text{Institutional Distances}_i + \beta_4 \text{Controls} + \varepsilon_i \quad (1)$$

Table 7b

Results of the robust ordered probit model applied to the basic Eq. (1) with different measures of distance: business freedom distance (5), monetary freedom distance (6), trade freedom distance (7), investment freedom distance (8) and financial freedom distance (9).

	(5)	(6)	(7)	(8)	(9)
Emerging	-0.836*** (-3.32)	-0.712** (-3.10)	-0.801** (-3.25)	-0.682** (-2.78)	-0.874*** (-3.82)
Target high industry	0.095 (0.60)	0.106 (0.67)	0.113 (0.72)	0.105 (0.66)	0.104 (0.66)
Institutional distance items:					
Business freedom	0.158 (1.14)				
Monetary freedom		0.008 (0.14)			
Trade freedom			0.028 (1.48)		
Investment freedom				-0.013 (-0.11)	
Financial freedom					0.155 (1.20)
Size	-0.107*** (-4.55)	-0.106*** (-5.03)	-0.104*** (-4.62)	-0.107*** (-4.67)	-0.107*** (-4.74)
Parent tech industry	0.255 (1.12)	0.289 (1.36)	0.278 (1.31)	0.288 (1.36)	0.281 (1.32)
Local experience	-0.127 (-0.82)	-0.140 (-0.86)	-0.149 (-0.93)	-0.142 (-0.87)	-0.141 (-0.89)
Constant cut1	-2.568*** (-5.54)	-2.608*** (-5.36)	-2.664*** (-5.43)	-2.613*** (-5.26)	-2.594*** (-5.53)
Constant cut2	-2.322*** (-4.97)	-2.364*** (-4.82)	-2.420*** (-4.92)	-2.369*** (-4.71)	-2.348*** (-4.97)
Constant cut3	-1.780*** (-3.79)	-1.825*** (-3.68)	-1.879*** (-3.78)	-1.830*** (-3.61)	-1.805*** (-3.78)
Time dummies	Yes	Yes	Yes	Yes	Yes
N	451	451	451	451	451
chi ²	117.722	165.945	131.024	132.852	134.752
p	0.000	0.000	0.000	0.000	0.000

Marginal effects are available upon request.

* p < 0.05.

** p < 0.01.

*** p < 0.001.

where $i = 1, 2, \dots, 451$ are the deals; *Degree of ownership* is the dependent variable, which has been measured as degree of ownership, *Emerging* is the dummy taking value of 1 if the acquiring firm is an EMNC; *Target Tech Industry* is the dummy taking value of 1 if the industry of the target firm is high tech; *Institutional Distances* refer to the measures of institutional distance described in the previous section (which have been introduced separately to avoid multi-collinearity problems); *Controls* are the control variables described above, and ε is the error term. Given the nature of our dependent variable, we employed a robust ordered probit model, which allows controlling for the heteroskedasticity of the sample that derives from the variety of target and acquiring firms' industries and of parent firms' home countries.

To test our hypotheses, we interacted the dummy *Emerging* with the variables *Target Tech Industry* and *Institutional Distance*. In order to limit possible multi-collinearity problems, we introduced the two interactions in two separate equations, as it is shown in the following:

$$\text{Degree of Ownership}_i = \beta_0 + \beta_1 \text{Emerging}_i + \beta_2 \text{Target Tech Industry}_i + \beta_3 \text{Institutional Distances}_i + \beta_4 \text{Controls} + \beta_5 \text{Emerging}_i * \text{Target Tech Industry}_i + \varepsilon_i \quad (2)$$

$$\text{Degree of Ownership}_i = \beta_0 + \beta_1 \text{Emerging}_i + \beta_2 \text{Target Tech Industry}_i + \beta_3 \text{Institutional Distances}_i + \beta_4 \text{Controls} + \beta_5 \text{Emerging}_i * \text{Institutional Distances}_i + \varepsilon_i. \quad (3)$$

Table 6 provides the correlation matrix and descriptive statistics of the dependent and explanatory variables.

4. Econometric findings

Tables 7a and 7b show the estimated coefficients of the ordered probit models applied to the basic equation model (1), by using different measures of institutional distance. It can be noticed that the dummy *Emerging* exhibits a negative and significant coefficient in all the columns ($p < 0.01$ and $p < 0.001$), thus showing that EMNCs tend to prefer a partial rather than a full ownership strategy with respect to AMNCs, and confirming our Hypothesis 1.

Table 8a

Results of the robust ordered probit model applied to Eq. (2) with different measures of distance: property right distance (1), freedom from corruption distance (2), fiscal freedom distance (3) and government spending distance (4).

	(1)	(2)	(3)	(4)
Emerging	-0.499* (-2.45)	-0.429 (-1.78)	-0.556* (-2.10)	-0.904*** (-3.83)
Target tech industry	0.289 (1.50)	0.292 (1.51)	0.305 (1.64)	0.310 (1.66)
Institutional distance items:				
Property rights	0.408*** (4.83)			
Freedom from corruption		0.149 (1.75)		
Fiscal freedom			-0.005 (-0.14)	
Government spending				0.124* (2.45)
Size	-0.128*** (-5.86)	-0.123*** (-4.82)	-0.114*** (-4.65)	-0.106*** (-4.38)
Parent tech industry	0.255 (1.20)	0.300 (1.42)	0.285 (1.36)	0.233 (1.04)
Local experience	-0.034 (-0.23)	-0.114 (-0.76)	-0.120 (-0.74)	-0.055 (-0.37)
Emerging * target tech industry	-0.655* (-2.31)	-0.559* (-1.99)	-0.549 (-1.92)	-0.617* (-2.26)
Constant cut1	-2.107*** (-4.42)	-2.303*** (-4.33)	-2.532*** (-5.17)	-2.395*** (-5.01)
Constant cut2	-1.855*** (-3.88)	-2.058*** (-3.87)	-2.287*** (-4.65)	-2.147*** (-4.47)
Constant cut3	-1.298** (-2.68)	-1.513** (-2.79)	-1.747*** (-3.50)	-1.598** (-3.29)
Time dummies	Yes	Yes	Yes	Yes
N	451	451	451	451
chi ²	160.846	162.397	197.814	178.114
p	0.000	0.000	0.000	0.000

Marginal effects are available upon request.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

As regards institutional distance measures, only *Property Rights* and *Government Spending* exhibit a positive and significant coefficient ($p < 0.001$ and $p < 0.05$, respectively), meaning that the higher the distance the higher the probability to undertake a full acquisition. Therefore we do not find support for Hypothesis 3. Nevertheless, as regards *Property Rights*, this result might be affected by the different perspective of the distance faced by AMNCs and EMNCs. Indeed, as we noticed from the scores in Table 3, Italy displays values that are, on average, below those of AMNCs and above those of EMNCs. Therefore, a higher distance means that a firm moves from a lower to a higher uncertainty if it is an AMNC, while it means that the firm moves from a higher to a lower uncertainty if it is an EMNC (with the noticeable exception of Fiscal Freedom and Government Spending). Furthermore, the distance between AMNCs and Italy is, on average, lower than the distance between EMNCs and Italy. Therefore, more insights are likely to arise from the interaction between the institutional distance measures and *Emerging*, as we will see in Tables 9a and 9b.

As regards the control variables, only *Size* shows a negative and significant effect ($p < 0.001$), meaning that, as expected, the larger the target firm the higher the probability to undertake a partial rather than a full acquisition. Conversely, the variable *Parent Tech Industry* shows a positive but not significant correlation, meaning that firms from medium and high-tech sectors can rely on stronger absorption capacities that might increase the confidence for a full ownership; however, this effect is not strong enough to affect significantly the choice of the entry strategy. *Target Tech Industry* does not seem to be a significant variable for the choice of ownership strategy either.

Finally, as far as multinationals' *Local Experience* in the host country, our results show a negative (even though not significant) relationship with the dependent variable, thus suggesting that prior experience tends to improve firms' capability to manage a co-ownership with local partners (Gulati and Singh, 1998; Santoro and McGill, 2005). The lack of significance is, however, in line with Barkema and Vermeulen (1998), who found no direct link between international experience and the propensity to choose full acquisition over partial acquisition.

Tables 8a and 8b show the estimated coefficients of the ordered probit models applied to the equation model (2), after introducing the interaction effect between *Emerging* and *Target Tech Industry*. The results are similar to those of Tables 7a and 7b as regards the explicative and the control variables. As regards the interaction between *Emerging* and *Target Tech Industry*, the coefficients turn out to be negative and significant ($p < 0.05$), with the exception of columns 4 and 8, meaning EMNCs investing in

Table 8b

Results of the robust ordered probit model applied to Eq. (2) with different measures of distance: business freedom distance (5), monetary freedom distance (6), trade freedom distance (7), investment freedom distance (8) and financial freedom distance (9).

	(5)	(6)	(7)	(8)	(9)
Emerging	-0.700** (-2.59)	-0.575* (-2.30)	-0.661* (-2.42)	-0.565* (-2.18)	-0.738** (-2.96)
Target tech industry	0.297 (1.55)	0.304 (1.62)	0.305 (1.63)	0.303 (1.58)	0.302 (1.59)
Institutional distance items:					
Business freedom	0.161 (1.18)				
Monetary freedom		0.006 (0.11)			
Trade freedom			0.025 (1.29)		
Investment freedom				-0.003 (-0.02)	
Financial freedom					0.155 (1.22)
Size	-0.117*** (-4.90)	-0.116*** (-5.34)	-0.114*** (-4.92)	-0.115*** (-5.02)	-0.117*** (-5.06)
Parent tech industry	0.253 (1.12)	0.288 (1.36)	0.278 (1.32)	0.287 (1.36)	0.280 (1.32)
Local experience	-0.106 (-0.68)	-0.119 (-0.73)	-0.129 (-0.80)	-0.121 (-0.73)	-0.120 (-0.76)
Emerging * target tech industry	-0.560* (-2.02)	-0.551* (-1.98)	-0.537 (-1.93)	-0.550* (-2.00)	-0.553 (-1.96)
Constant cut1	-2.485*** (-5.35)	-2.526*** (-5.19)	-2.578*** (-5.26)	-2.528*** (-5.08)	-2.507*** (-5.34)
Constant cut2	-2.239*** (-4.79)	-2.282*** (-4.66)	-2.333*** (-4.75)	-2.284*** (-4.54)	-2.261*** (-4.79)
Constant cut3	-1.695*** (-3.59)	-1.741*** (-3.50)	-1.791*** (-3.59)	-1.743*** (-3.43)	-1.717*** (-3.58)
Time dummies	Yes	Yes	Yes	Yes	Yes
N	451 146.72	451	451	451	451
chi ²	3 0.000	208.745	160.254	154.775	147.277
p		0.000	0.000	0.000	0.000

Marginal effects are available upon request.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

Table 9a

Results of the robust ordered probit model applied to Eq. (3) with different measures of distance: property right distance (1), freedom from corruption distance (2), fiscal freedom distance (3) and government spending distance (4).

	(1)	(2)	(3)	(4)
Emerging	-0.392 (-1.54)	-0.563 (-1.35)	-0.541 (-1.73)	-0.792** (-3.14)
Target tech industry	0.065 (0.39)	0.092 (0.57)	0.113 (0.72)	0.091 (0.58)
Institutional distance items:				
Property rights	0.526*** (4.40)			
Freedom from corruption		0.147 (1.61)		
Fiscal freedom			0.044 (0.53)	
Government spending				0.168* (2.49)
Size	-0.120*** (-5.52)	-0.113*** (-4.62)	-0.102*** (-4.05)	-0.102*** (-4.43)
Parent tech industry	0.245 (1.13)	0.301 (1.41)	0.277 (1.30)	0.252 (1.10)
Local experience	-0.084 (-0.60)	-0.135 (-0.91)	-0.127 (-0.80)	-0.065 (-0.46)
Emerging * institutional distance	-0.258 (-1.18)	-0.007 (-0.02)	-0.075 (-0.73)	-0.095 (-1.06)
Constant cut1	-2.001*** (-4.13)	-2.389*** (-4.34)	-2.567*** (-5.26)	-2.419*** (-5.12)
Constant cut2	-1.751*** (-3.61)	-2.145*** (-3.89)	-2.323*** (-4.72)	-2.172*** (-4.61)
Constant cut3	-1.195* (-2.44)	-1.601** (-2.85)	-1.783*** (-3.58)	-1.624*** (-3.40)
Time dummies	Yes	Yes	Yes	Yes
N	451 158.60	451 162.89	451	451
chi ²	0 0.000	2 0.000	156.335	132.159
p			0.000	0.000

Marginal effects are available upon request.

* p < 0.05.

** p < 0.01.

*** p < 0.001.

high tech industries, which imply high endogenous and exogenous uncertainty, prefer to adopt a partial rather than a full ownership strategy, thus providing support for our Hypothesis 2.

Finally, Tables 9a and 9b show the estimated coefficients of the ordered probit models applied to the equation model (3), after introducing the interaction effect between *Emerging* and the different measures of institutional distance. With exception of the institutional distance measures, results concerning the explicative and the control variables are the same as Tables 7a and 7b. As regards the institutional distance measures, results concerning *Property Rights* and *Government Spending* are confirmed to be positively and significantly correlated to our dependent variable. This is again in contrast with our Hypothesis 3, meaning that for these specific scores the hypothesis of higher control associated to higher institutional distance, provided by Kostova and Zaheer (1999) and by Xu and Shenkar (2002), seems to prevail. As regards the Government Spending, it can be noticed from the scores of Table 3 that Italy lags behind both EMNCs and AMNCs, meaning that in both cases firms move to a more uncertain context. Therefore also in this case it is likely that acquiring firms prefer a full acquisition strategy in order to ensure a more efficient transfer of both intra-organizational practices (Kostova and Zaheer, 1999) and financial and productive resources that are less available in the host market as compared to their home country.¹²

As regards *Trade Freedom* and *Investment Freedom*, it turns out that their coefficient is negative and significant (p < 0.05 in both cases), meaning that a high distance implies a higher probability to undertake a partial ownership, thus providing partial support for our Hypothesis 3 for these specific scores. Furthermore, when we interact these two measures of institutional distance with

¹² The result concerning Government Spending is likely to be affected also by the particular methodology adopted by the Heritage Foundation to compute this index. The underlying idea is that excessive government spending and accumulation of sovereign debt causes chronic budget deficits and it is one of the most serious drags on economic dynamism. However, the scale for scoring government spending is non-linear: indeed, the equation used by Heritage Foundation is: Government Spending = 100 - α (Expenditures)². As outcome, it turns out that government spending that is close to zero is lightly penalized, as well as levels of government spending that exceed 30% of GDP, while only extraordinarily large levels of government spending (over 58% of GDP) receive a score of zero. As a consequence, as stated by the Heritage Foundation, "underdeveloped countries with little government capacity may receive artificially high scores as a result" (<http://www.heritage.org/index/government-spending>). Therefore some high scores are likely to reflect emerging countries that rely on low government capacities and that can take advantage of a more certain institutional context when investing in advanced countries (and, hence, in Italy), even if the latter have a lower score in government spending. If this is the case, a positive correlation between government spending and degree of ownership would be in line with our theoretical prediction.

Table 9b

Results of the robust ordered probit model applied to Eq. (3) with different measures of distance: Business freedom distance (5), monetary freedom distance (6), trade freedom distance (7), investment freedom distance (8) and financial freedom distance (9).

	(5)	(6)	(7)	(8)	(9)
Emerging	-0.761*	-0.748**	-0.905***	-1.095***	-1.321***
	(-2.42)	(-2.86)	(-3.46)	(-3.92)	(-3.72)
Target tech industry	0.095	0.101	0.115	0.078	0.121
	(0.59)	(0.64)	(0.73)	(0.48)	(0.77)
Institutional distance items:					
Business freedom	0.185				
	(0.97)				
Monetary freedom		-0.814			
		(-0.44)			
Trade freedom			-2.577*		
			(-2.14)		
Investment freedom				-0.417*	
				(-2.06)	
Financial freedom					-0.046
					(-0.24)
Size	-0.109***	-0.107***	-0.103***	-0.116***	-0.109***
	(-4.29)	(-4.92)	(-4.40)	(-4.85)	(-4.93)
Parent tech industry	0.257	0.285	0.268	0.253	0.272
	(1.14)	(1.29)	(1.24)	(1.18)	(1.30)
Local experience	-0.122	-0.136	-0.168	-0.027	-0.083
	(-0.80)	(-0.84)	(-1.03)	(-0.17)	(-0.53)
Emerging * institutional distance	-0.068	0.824	2.606*	0.533*	0.336
	(-0.28)	(0.45)	(2.16)	(2.42)	(1.65)
Constant cut1	-2.541***	-2.648***	-2.835***	-2.740***	-2.888***
	(-5.54)	(-5.09)	(-5.49)	(-5.76)	(-5.67)
Constant cut2	-2.296***	-2.404***	-2.590***	-2.496***	-2.642***
	(-4.97)	(-4.61)	(-5.01)	(-5.21)	(-5.15)
Constant cut3	-1.754***	-1.865***	-2.046***	-1.949***	-2.096***
	(-3.77)	(-3.52)	(-3.91)	(-4.05)	(-4.09)
Time dummies	Yes	Yes	Yes	Yes	Yes
N	451	451	451	451	451
chi ²	116.158	170.610	127.177	130.209	127.066
p	0.000	0.000	0.000	0.000	0.000

Marginal effects are available upon request.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

the dummy *Emerging*, *Trade Freedom* and *Investment Freedom* display a positive and significant coefficient ($p < 0.05$), thus also providing partial support for our Hypothesis 4. This means that when EMNCs move to a more accomplished market-based economy that ensures more investment and trade opportunities, they prefer to adopt a full acquisition strategy in order to take full advantage of these freedoms that they cannot exploit in their home country.

5. Conclusions

This paper contributes to the literature on entry mode by focusing on the level of equity and control in cross border acquisitions, an issue that has not received much research attention. Our results show that EMNCs acquire significantly less ownership than AMNCs, especially in high-tech industries. These results can be explained by the increased levels of uncertainty that EMNCs suffer from. Our results confirm that as a result of the increased exogenous uncertainty in high-tech industries, EMNCs are more likely to pursue lighter commitment in order to remain more flexible (Vanhaverbeke et al., 2002).

Exogenous uncertainty is compounded by endogenous uncertainty for EMNCs. Endogenous uncertainty is the result of dissimilarities among partners which can be caused by different knowledge bases or by the lack of prior cooperation to overcome information asymmetries (van de Vrande et al., 2009). In particular, their liability of origin is leading to an increased level of endogenous uncertainty.

Overcoming the liability of origin requires a two-way process of familiarization between the EMNC and businesses in the host country. This essentially involves enhancing comprehensibility about the EMNCs among host country audiences on the one hand and learning about and adapting to the distinctive aspects of the host country institutional environment on the other (Pant, 2012).

As far as institutional distance is concerned, although several studies have already complemented TCE and RBV variables with institutional variables (Brouthers and Brouthers, 2000; Meyer, 2001; Meyer and Nguyen, 2005), only few have acknowledged and captured the complexity of the constructs (Meyer et al., 2009a; Zaheer et al., 2012). Our results show indeed that complex indexes of institutional distance may hinder those sources of societal difference that actually impact MNCs' entry mode choice.

On the one hand, institutional distance in terms of property rights leads the acquiring firm to opt for a full rather than for a partial ownership in order to better protect its knowledge and technology. This holds not only for AMNCs but also for EMNCs, even if the score of the property right is higher for Italy than for emerging countries. This result is likely to be due to the fact that firms are very sensitive to the risk of knowledge and technology leakage, meaning they always prefer to protect knowledge through a full acquisition when the property right regime of the host country is relatively weak, regardless of the property right regime of the home country.

On the other hand, institutional distance in terms of market access leads to differing investment behavior between AMNCs and EMNCs. AMNCs acquire lower ownership when the host market differs from their home country, while EMNCs acquire more control in the local partner the higher the institutional distance in terms of trade and investment freedom in the host country. In fact, as EMNCs investing in advanced countries enjoy a better institutional trade and investment environment there, they are less likely to opt for a local partner (to reduce the relevant uncertainty).

As usual, the current study has a number of limitations. The major limitation stems from the paucity of data about the parent companies. Given that it is extremely difficult to obtain financial information about all these foreign firms, this limitation excludes the possibility to measure the impact of partner characteristics on the choice of focal firms. Furthermore, prior cooperation between partners might be a mediating factor in reducing uncertainty. Although we have tested the impact of different types of uncertainty on ownership mode choice, future research should also look into the possible moderating effects on uncertainty. For instance, prior cooperation might interact with the effect of different types of uncertainty on ownership mode choice. Moreover, the effect of uncertainty on ownership decisions might differently affect industry leaders than laggards.

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