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Entry Strategies of Multinational Banks in Central and Eastern Europe: Institutions, Uncertainty and Competition

Thijs Nacken

Erasmus University Rotterdam
Applied Economics
thijs.nacken@hotmail.com

Bas Karreman

Erasmus University Rotterdam
Applied Economics
karreman@ese.eur.nl

Enrico Pennings

Erasmus University Rotterdam
Applied Economics
pennings@ese.eur.nl

Abstract

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be the most important determinant of entry timing. Furthermore, we find that the direct effect of risk and uncertainty is positively moderated by the level of international competition in the host country market.

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JEL Classification: F23; L10; P20

Key words: multinational banking; expansion strategies; institutions; uncertainty; competition; transition economies

1. Introduction

Progressive deregulation, technological advancements and the corresponding integration of international financial markets have markedly increased the intensity of competition in the globalizing banking industry (Goldberg, 2009). With a low potential for further growth in their home markets, many multinational banks (MNBs) originating from mature market economies are forced to enhance their competitiveness by enlarging the geographical scope of their international operations (Focarelli and Pozzolo, 2001). Attracted by potential opportunities for firm growth and gradually reducing entry barriers, foreign MNBs have recently established a considerable presence in Central and Eastern Europe (CEE).¹ This presence is clearly reflected by the foreign ownership of total banking assets in the CEE region, which grew from approximately 14 percent in 1996 to over 70 percent in 2007 (EBRD, 1998, 2008). In some countries such as Estonia and the Slovak Republic, this ratio currently approaches 100 percent (Poghosyan and Poghosyan, 2010).

The recent wave of foreign direct investment (FDI) in the financial sectors of the CEE region provides a unique opportunity to examine the strategies that MNBs pursue in these markets. Previous research has emphasized that entry into the transition economies of CEE is a risky and highly uncertain endeavor. The business environments in transition economies generally expose foreign firms to substantial amounts of risk and uncertainty caused by the absence of a clear institutional framework and macro-economic instabilities (Luo and Peng, 1998). In line with the arguments of Hoskisson *et al.* (2000), these external forces are generally considered to increase the incentives for foreign firms to postpone market entry. However, as transition economies move towards a market-based economic system with lower regulatory entrance barriers, many new investment opportunities emerge for MNBs (Haselmann, 2006). As a consequence of these growth opportunities, many foreign banks are attracted to invest and are induced to commit resources more quickly. Despite the relevance of this topic, previous research has mainly been conceptual and anecdotal, and has not considered, from an empirical point of view, how uncertainty, risk, and competition in the business environment of transition economies, and their interplay, influence entry timing decisions.

¹ In this study, CEE consists of Central Europe (CE), South Eastern Europe (SEE), the Baltics, and the Commonwealth of Independent States (CIS). CE includes Poland, Hungary, Czech Republic, Slovakia and Slovenia. SEE includes Croatia, Romania, Bulgaria, Serbia, Bosnia-Herzegovina, and Albania. The Baltics include Estonia, Latvia and Lithuania. And finally, CIS includes Russia and the Ukraine.

Hence, the primary objective of this study is to examine the expansion strategies that MNBs implement in uncertain and institutionally risky environments under conditions of increasing competition. In particular, we examine the institutional and macro-economic influences on the speed of bank entry in CEE transition economies, and assess the extent to which these effects are conditional on the intensity of competition in a host country. Because most countries in CEE opened up their banking sector to foreign investment in the first half of the 1990s (EBRD, 1998), we are able to study a unique empirical setting where many new investment opportunities emerged at nearly the same moment in time. Based on real options and institutional theory we hypothesize that uncertainty and risk will cause MNBs to implement a cautious wait-and-see strategy and postpone investments in new subsidiaries. However, because competition can influence institutional risk and deteriorate the value associated with a wait-and-see strategy, we also expect MNBs to expand more rapidly when competition increases.

To test our hypotheses, we estimate hazard models based on a firm-level panel with entry data on 39 MNBs in 17 countries in the CEE region covering the period from 1990 to 2007. Our results demonstrate that macro-economic uncertainty and institutional risk decrease the probability that bank entry will occur, although uncertainty seems to be the greatest entry deterrent. Furthermore, we show that the association between uncertainty and entry timing is conditional on the level of competition in a transition economy. The main contributions of this study are threefold. First, we leverage institutional and real option theory to examine the entry strategies of foreign MNBs that invest in transition economies. Second, we empirically investigate the relationship between entry timing and macro-economic uncertainty, institutional risk and competition. To the best of our knowledge, this is one of the first attempts to empirically scrutinize how these forces in the business environment affect international expansion strategies. Third, we reply to the general call to improve our knowledge of the internationalization of MNBs in transition economies (Wright *et al.*, 2005).

The remainder of this paper is organized as follows. In the next section, we provide a theoretical background and formulate our hypotheses regarding the potential effects of uncertainty, institutional risk and competition on the speed of bank entry. In the section thereafter, we describe the data and the variables employed in the analysis. Furthermore, a methodological discussion of the appropriateness of hazard models for studying the pace of international expansion is provided, followed by the results in section 4. The results are discussed in depth in section 5 and we end with the main conclusions in section 6.

2. Theory and hypotheses

2.1 Internationalization strategies

The timing of entry and the pace with which firms commit resources to foreign markets have become predominant themes in the recent literature on firm internationalization. However, addressing these themes theoretically proves to be challenging. Mainstream theories that explain the patterns and underlying strategies of foreign investment, such as the eclectic paradigm (Dunning, 1980) and internalization theory (Buckley and Casson, 1976), are static by nature and do not explicitly consider the pace of the internationalization process (Li, 2007). Even the internationalization process model, which portrays international expansion as a dynamic process of sequential decision making (Johanson and Vahlne, 1977), is not entirely clear about the speed of the expansion process and the forces that increase, or otherwise influence, the resource commitment of a firm to foreign markets (Li, 2007).

Other factors might also deteriorate the efficacy of these models in providing an economic rationale for the speed of entry in foreign markets. There is a growing body of literature showing that the globalization of markets and industries is fundamentally changing competitive conditions and the variety of uncertainties and risk that multinational firms have to contend with (e.g., Hitt *et al.*, 2006; Barkema and Drogendijk, 2007; Wiersma and Bowen, 2008; Chang and Rhee, 2011). This applies in particular to transition economies where rapid institutional reforms and deep economic restructuring exposes multinational firms to intense competition as well as considerable institutional risk and macroeconomic uncertainty. Although these environmental forces are likely to have far-reaching consequences for international expansion strategies, conventional theories do not formally consider how these elements drive strategic choices of MNEs. In order to address these issues more adequately it has been suggested that other theoretical perspectives should be leveraged as leading perspectives, including real option and institutional theory (Meyer and Peng, 2005; Li, 2007; Peng *et al.*, 2008).

An institution-based view has great potential to increase our understanding of entry strategies used by multinational firms, and generally to advance international business research. This theoretical perspective calls attention to the role and effects of institutions on human behavior and interactions. According to North (1990) institutions are defined as “the humanly devised constraints that structure political, economic and social interactions”. Consequently, institutions govern human interactions by delineating the ‘rules of the game in a society’ that parties to a transaction are bound by (Scott, 1995). The institutional framework

consists of two elements, namely a formal and informal structure. A formal governance system comprises regulations and laws created and enforced by governments and policy makers. Some common examples of formal institutions include property rights and contract regulations governing employment relations and other contractual arrangements between economic actors. These official institutions are complemented by numerous informal institutions embodied in customs, codes of conduct and other traditions that are historically and culturally determined.

A stable institutional framework is important, because it establishes a structure to facilitate market interactions and influences the availability and flow of information between market participants (Meyer, 2001). Access to information is crucial to make prudent business decisions and reduce the uncertainty over outcomes associated with these decisions. Indeed, a high level of uncertainty increases risk and the level of transaction costs firms incur when conducting business transactions (Makhija and Stewart, 2002). By influencing the riskiness of investments, differences in institutional development over time and across economies can be an important determinant of multinational expansion strategies. Given that transition economies show considerable inter-temporal as well as cross-national variation in the pace with which formal institutions are introduced, an institution-based perspective can be particularly relevant to examine strategic investment decisions of MNEs in these emerging economies (Peng and Heath, 1996; Hoskisson *et al.*, 2000; Peng *et al.*, 2008).

Real option theory also contributes to our understanding of multinational strategies, and is especially relevant for examining entry timing decisions under conditions of uncertainty and increasing competition (e.g. Rivoli and Salorio, 1996; Li, 2007). Originating from the seminal ideas of Meyers (1977), a real option perspective proposes that an investment opportunity often creates various real options that give investors the right, but not the obligation, to undertake future actions (Amram and Kulatilaka, 1999). More specifically, an investment opportunity generates real options when the future cash flows of an investment opportunity are uncertain, the investment involves a substantial amount of irreversible sunk costs, and firms have the flexibility to adjust strategic decisions as uncertainty resolves over time (Trigeorgis, 1991; Li and Rugman, 2007). These real options are valuable because they enable firms to exploit the upside potential of an investment opportunity while containing losses (Kulatilaka and Perotti, 1998; Buckley and Casson, 1998). When an investment opportunity involves considerable sunk costs and is surrounded by uncertainty a firm may decide to postpone the investment and pursue a cautious wait-and-see strategy in order to preserve flexibility. The option to wait is valuable because it enables firms to collect more market

information that is needed to make a well-versed investment decision in uncertain market environments. Consequently, by implementing a wait-and-see strategy firms can limit the probability of making costly investment mistakes.

2.2 Institutional risk and entry timing

It is commonly acknowledged that multinationals adapt and align their international expansion strategies to the characteristics of the institutional framework in a potential host country. Institutions are essential for making the transition from a centrally planned governance system to a free market economy, and without institutions to support market exchanges investors will perceive considerable risk and incur high transaction costs (Meyer, 2001; Meyer *et al.*, 2009). These transaction costs can, for instance, arise from costly and lengthy negotiations with country governments or from sudden regulatory changes that are unfavorable to foreign investors (Delios and Henisz, 2000). Moreover, to compensate for deficiencies in formal institutions companies in transition economies often rely on network-based relations and personalized transactions that are shaped by informal institutions and mechanisms, such as customs, codes of conduct, and other traditions (Peng, 2002). Because informal institutions are a critical component in market environments where formal institutions are lacking, foreign firms that are not embedded in local networks and lack knowledge about the socio-cultural environment in the host country will be at a considerable disadvantage compared to incumbents (Meyer, 2001). This so-called liability of foreignness (Zaheer, 1995) can be difficult to overcome and will further increase the costs and risk of doing business in a foreign business environment. Consequently, foreign firms originating in mature market economies are generally confronted with high transaction costs and considerable institutional risk when they invest in transition economies with relatively weak formal institutions.

Because a consistent formal institutional framework is essential for reducing transaction costs and investment risk, multinationals may have a tendency to postpone entry in risky institutional environments. One stream of research advancing institutional theory to investigate international expansion strategies has focused on the institutional influences on entry mode selection. For instance, Meyer (2001) demonstrates that in transition economies lacking a sound formal institutional framework MNEs use low commitment modes to reduce their risk exposure. In addition, Dikova and van Witteloostuijn (2009) show that MNEs tend to limit their resource commitment when important institutional features, such as a legal and regulatory framework, and prudential supervision are missing. Other studies have focused

more on the relationship between institution building and the inflow of FDI in a host country. For instance, Bevan, Estrin and Meyer (2004) provide evidence that institutional hazardous transition economies receive less direct investment from foreign investors. In a more recent empirical study, Beyoum (2009) similarly demonstrates that formal governance deficiencies reduce FDI inflow into a host country. Even though these empirical studies do not directly address the timing of entry, this research by and large corroborates the proposition that institutions have a profound effect on entry strategies used by MNEs.

Institutional features and development also have a profound impact on the entry strategies pursued by MNBs. A stable and transparent institutional framework facilitates access to information that new foreign bank entrants need to assess the creditworthiness of potential borrowers. Besides, effective institutions ensure that foreign and domestic banks do not receive differential treatment from governments in transition economies (Fries and Taci, 2002). According to Lensink and de Haan (2004), in countries where little progress has been made in creating effective institutions foreign banks face more risk, incur higher operational costs and generally have fewer investment opportunities. Consequently, we would expect MNBs to implement a wait-and-see strategy and postpone major investments in transition economies characterized by a risky institutional environment. In contrast, we anticipate MNBs to expand more rapidly into those transition economies where a relatively effective institutional framework has already been established. We therefore propose the following hypothesis:

Hypothesis 1: The level of institutional risk in a CEE transition economy decreases the likelihood of MNB entry.

2.3 Institutional risk, competition and entry timing

The extent of institutional development is not the only host country characteristic that will drive entry timing decisions of multinational firms. There is wide consensus that the prevailing competitive conditions also influence how quickly firms expand into new host countries. The presence of competitors can influence the extent to which institutional risk deters the entry of other foreign banks. More specifically, it has been noted that learning about institutional environments is one way for multinationals to alleviate institutional risk. Besides learning from own experiences, institutional risk can be reduced by observing and learning from the behavior of competing firms that are already present in the market (Henisz and Delios, 2002). In this context, Shaver, Mitchell and Yeung (1997) argue that incumbents

generate information spillovers that can be beneficial to other potential entrants that lack important country and industry specific knowledge. Furthermore, in ambiguous environments firms often look for cues from the business environment and interactions with other organizations to gain information about potential investment opportunities, operational constraints and the legitimacy of their behavior (Francis *et al.*, 2009). Consequently, imitating the investment behavior (i.e. entry strategies) and actions of other firms in institutionally risky environments is a means to increase the legitimacy of entry and decrease perceived risk.

Institutional deficiencies are particularly evident in CEE transition economies and when competing banks already occupy a transition economy, other foreign MNBs will be less reluctant to enter these markets, even when institution building has been relatively slow. This suggests that the relation between institutional risk and the speed of MNB entry proposed in hypothesis 1 weakens as the number of foreign competitors in a host country market increases. Accordingly, we propose the following hypothesis:

Hypothesis 2: The degree of competition in a CEE transition economy positively moderates the relationship between institutional risk and the likelihood of MNB entry.

2.4 Real option theory, uncertainty and entry timing

Investments in foreign environments are often surrounded by a considerable amount of uncertainty arising from instabilities in the macro-economic environment (Folta, 1998). Dealing with this kind of uncertainty is challenging because it is exceedingly difficult to predict the future states of the macro-economic environments in transition economies, and to understand how these future contingencies might affect the firm. An implication is that uncertainty in the macro-economic environment is exogenous to the firm and mainly resolves through the passage of time (Rivoli and Salorio, 1996). The theory of real options suggests that when a market environment is extremely uncertain and the investment opportunity involves a considerable amount of sunk costs, the option to wait is particularly valuable (Pindyck, 1991). By delaying entry into markets that are characterized by a high level of uncertainty, firms remain flexible to execute and adjust their strategic investment decisions as uncertainty resolves over time. In this way, firms can benefit from the upside potential of an investment opportunity while limiting downward risk by holding-off large sunk investments in case uncertainty poses a real threat (Li and Rugman, 2007; Li, 2007).

During the initial stages of economic restructuring, the business environments in most transition economies are characterized by exceedingly high levels of macro-economic

uncertainty (Luo and Peng, 1998). In addition, MNBs that invest in a foreign market environment incur considerable sunk costs that are not fully recoverable should the investment climate deteriorate. Besides regular sunk costs, such as accommodation and legal fees, MNBs need to invest in the development of valuable intangible resources (Blandón, 2001), predominantly in the form of a strong brand name (Dick, 2007) and local market knowledge (Miller and Parkhe, 2002). As argued by Örs (2006), commercial banks direct substantial investments to advertising and marketing given that reputation and service quality constitute important ownership advantages (e.g. Berger and Mester, 2003). Moreover, MNBs have to commit resources to obtain and develop human capital, technology and market information, in order to acquire the knowledge needed to successfully operate in a new foreign market (Eriksson *et al.*, 1997). The amount of sunk costs involved in acquiring local market knowledge can be particularly high in transition economies, because the idiosyncrasies of the business environment in terms of market liberalization, political democratization and processes of social and cultural change limit the applicability of market knowledge developed in mature market economies (Li and Meyer, 2009).

The preceding discussion suggests that MNBs are likely to implement a cautious wait-and-see strategy when confronted with a high level of uncertainty in transition economies. By postponing their investment until some future moment in time foreign banks remain flexible in their decision making and can reduce the probability of costly investment mistakes. Therefore, we expect to observe an internationalization pattern whereby MNBs expand quickly into transition economies with a relatively stable macroeconomic environment, while delaying entry into markets where uncertainty is relatively high. Therefore, we formulate the third hypothesis as follows:

Hypothesis 3: The level of environmental uncertainty in a CEE transition economy decreases the likelihood of MNB entry.

2.5 Real option theory, competition and entry timing

Besides exogenous uncertainty, another important element in foreign market environments that will affect strategic decision making is competition. Real option theory asserts that the impact market competition will exert on entry timing decisions revolves around the question whether an investment opportunity, that is the option to invest, is proprietary or shared among many competing firms (Smit and Ankum, 1993; Miller and Folta, 2002). In some circumstances a firm is the sole holder of an investment option, for instance through its

unique resource position in relation to competitors. Firms holding a proprietary option have little incentive to quickly commit resources to a market when the investment opportunity is surrounded by uncertainty and involves a considerable amount of sunk costs. However, real option theory also asserts that in situations when many firms have comparable investment opportunities the option to wait decreases in value as more competitors enter the market. Consequently, an early commitment can be justified in case it prevents competitors from eroding the value of option to wait (Trigeorgis, 1996; Folta and O'Brien, 2004).

In the banking industry many investment opportunities are not proprietary (Blandón, 2001). In transition economies in particular, many national governments have significantly lowered regulatory entry barriers in the banking sector as part of the overall transformation from central planning to a market based economy. This has provided many foreign banks with the opportunity to establish activities in these markets. Given that investment opportunities are not proprietary in this context, competitive bank entry will rapidly reduce the value of the option to wait. Although empirical evidence on this issue is lacking in the international banking literature, a recent study by Bulan *et al.*, (2009) examines the relation between entry timing, option value, and competition in the development of real estate projects. This study provides strong evidence to support the notion that firms delay investments that involve considerable sunk costs when the environment is uncertain. However, based on a contingency perspective they also argue, and empirically demonstrate, that when the number of competitors increases, firms invest more quickly in order to avoid erosion of the investment option value. Consequently, based on this discussion we expect that under conditions of environmental uncertainty MNBs will invest more quickly in transition economies with many other competitors in order to avoid additional erosion of option value. Therefore, we formulate the fourth and final hypothesis as follows:

Hypothesis 4: The degree of competition in a CEE transition economy positively moderates the relationship between environmental uncertainty and the likelihood of MNB entry.

3. Empirical setting, data and methodology

3.1 Empirical setting

Our analysis focuses on the entry of MNBs from industrialized nations into the CEE region. From the beginning of the 1990s, these foreign MNBs have established a considerable presence throughout the CEE region and have become major players in local banking markets (Naaborg *et al.*, 2004; Poghosyan and Poghosyan, 2010). Most of these banks are relatively large and have built years of experience at home and in international markets. Some of these banks, like ING, BNP Paribas, and HSBC are among the 50 largest companies in the world according to the 2010 Fortune Global 500 list. Therefore, the opening up of the CEE banking markets to foreign investment provides a unique opportunity to study the international expansion strategies of mature and experienced firms.

The main advantage of using the CEE region as the empirical context is that foreign direct investment was nearly non-existent in the region before the fall of the iron curtain. Consequently, the beginning of the 1990s creates a natural starting point for analyzing the investment strategies of MNBs and has enabled us to accurately document entry by foreign firms. In addition, recent studies have emphasized the importance for firms to adopt regional strategies, as regions have increasingly become distinct strategic sites of market growth for internationally operating firms (Rugman and Verbeke, 2004; Buckley and Ghauri, 2004). Although the main argument for adopting regional strategies is that the relative homogeneity of markets at the regional level allows a firm to exploit particular cross-country similarities (Ghemawat, 2003), CEE countries differ substantially in terms of macroeconomic uncertainty, institutional development and competitive conditions. These differences may affect the choices MNBs make in designing their internationalization strategies.

3.2 Data

As our primary data source, we use the BANKSCOPE database provided by Bureau van Dijk, which contains balance sheet information for about 29,000 public and private banks worldwide and approximately 2,450 banks in the CEE region (2009 edition). To derive the strategies employed by MNBs to expand across CEE in the period from 1990 to 2007, we extracted information on the investment patterns of foreign MNBs in CEE transition economies. Following Miller and Parkhe (2002), we use subsidiaries rather than branches or representative offices to determine these patterns. Given that MNBs can withdraw branches and representative offices relatively easily, while subsidiaries require a high level of resource

commitment (Francis *et al.*, 2009), we focus on subsidiaries to determine whether a MNB has fully expanded into a particular host country.

The selection of the subsidiaries in our sample depends on three criteria: specialization, the degree of foreign ownership and data availability. First, because of considerable heterogeneity among the different bank specializations, we restricted our sample to those MNBs and subsidiaries that are active in wholesale and retail banking only. According to the classification used by BANKSCOPE, the dataset is limited to commercial banks, savings banks and cooperative banks. Second, only subsidiaries where a foreign MNB owns more than 20 percent of its shares are included. In this way, the sample is restricted to subsidiaries in which a parent MNB has a strategic influence. Third, we consider only those foreign MNBs for which we were able to identify the entire subsidiary network throughout CEE. Furthermore, balance sheet data of particular MNBs reveals various omissions in BANKSCOPE, although some missing data could be obtained from Thomson One Banker. As a result of the sample selection process and the limitations regarding the availability of (balance sheet) data, our final sample consists of 187 subsidiaries. However, some banks establish multiple subsidiaries in a host country and since we only consider the first subsidiary entry in a foreign country our final sample consist of 156 subsidiaries located in 17 different CEE countries. Table 1 shows an overview of the data and the entry frequency of each MNB.

[Table 1 about here]

3.3 Methodology

Our main objective is to examine the forces in the business environment that impact the entry timing decisions of MNBs in CEE transition economies. In situations when the object of observation is the time that elapses before the occurrence of an event, such as the time to market entry, survival analysis is an appropriate econometric method to apply (Cleves *et al.*, 2008). The main purpose of survival analysis is modeling the hazard rate, which measures the instantaneous probability that the event of interest occurs during the time interval from t to $t + \Delta t$, provided that the event has not occurred prior to the beginning of this interval (Ursacki and Vertinsky, 1992). In our study, the conditional probability that a MNB enters a transition economy during this time interval is equal to $\Pr(t + \Delta t > T > t | T > t)$, and the average rate of foreign bank entry is equal to this probability per unit of time. Consequently, in order to obtain the instantaneous rate of bank entry at time t this function must be evaluated when $\Delta t \rightarrow 0$, or more formally:

$$h(t) = \lim_{\Delta t \rightarrow 0} \frac{\Pr(t + \Delta t > T > t | T > t)}{\Delta t}$$

There are different ways to model the hazard rate. One parameterization that has been used extensively in the literature on investment timing is the proportional hazard model proposed by Cox (1972). This model asserts that the hazard rate for the i th subject at time t is equal to a baseline hazard rate, that is $h_0(t)$, multiplied by an exponential function that depends on a vector of predictor variables and parameter estimates. The exponential function, $\exp(x_i\beta)$, is chosen to prevent the probability of entry and the hazard rate from taking on negative values. The baseline hazard in this function is the same for all subjects in the data and differences in hazard rates between subjects only result from variations in the underlying values of the covariates. A popular transformation is to measure the log relative hazard, or risk score, which is simply equal to the linear combination of explanatory variable.

The model proposed by Cox has a number of technical advantages. First, parameter estimates β can be obtained by means of maximum likelihood estimation without having to make any distributional assumptions regarding the baseline hazard function $h_0(t)$. This is possible because the likelihood function evaluates the ratio of hazard functions in order to compute conditional probabilities and, as a result, the baseline hazard cancels from the equation (Cleves *et al.*, 2008). Given that specifying an incorrect functional form can result in biased parameter estimates, being able to leave the baseline hazard unspecified can be extremely valuable (Lawless, 1982). Consequently, the Cox model is ideally suited in research settings where main interest lies in discerning the effects of different covariates on the hazard, and not the hazard function itself. A second advantage is that the Cox model can easily accommodate and correct for censored observations in the data, in which the time until the occurrence of the focal event is unknown for some subjects in the data (Cox and Oakes, 1984; Tan and Vertinsky, 1996). Third, the model facilitates the inclusion and estimation of different metric as well as non-metric predictor variables on the hazard rate.

A common difficulty with the application of survival analysis to the timing of investments is unambiguously defining the moment when an investment opportunity first emerges, that is defining t . This issue has been less problematic in empirical studies that examine investment timing in the CEE region, because the rapid market liberalization initiated with the fall of the Iron Curtain provides a clear starting point for considering investment opportunities throughout this region.

3.4 Variables and measures

3.4.1 Dependent variable

The variable to be explained in our study is the time that elapses before MNB entry occurs in a CEE transition economy. More specifically, for the time period under observation, that is 1990-2007, and for each MNB the dependent variable indicates in every year whether entry has indeed occurred in a particular transition economy.

3.4.2 Independent variables

The main independent variables are institutional risk, macro-economic uncertainty and competition. Consistent with prior research (Bevin *et al.*, 2004; Lensink and de Haan, 2004), we conceptualize the institutional environment in a transition economy using the governance and enterprise restructuring indicator provided by the Bank for Reconstruction and Development (EBRD). The scores of this indicator range from 1 to 4.33. A value of 1 represents little progress in governance and enterprise restructuring, and a value >4 represents governance and performance standards typical of advanced industrial economies (see EBRD, 1994 for a detailed description). We define risk as the reciprocal of the enterprise restructuring indicator. This variable, that is *enterprise restructuring*, ranges from 0.25 to 1, where a higher value corresponds to a higher level of risk in the institutional environment of a transition economy.

Our measure for macro-economic uncertainty in this study is based on the rate of *inflation* in each host country. More specifically, we measure uncertainty as the standard deviation of the rate of inflation based on the past 12 months. The main advantage of this *inflation* variable is that it accounts for general movements and incorporates temporal variation in the level of host country uncertainty (Koray and Lastrapes, 1989; Chowdhury, 1993). Finally, *competition* is measured by the log of the number of foreign MNBs operating in a CEE transition economy. In line with the arguments put forward by Guillén and Tschoegl (2000), foreign MNBs investing in underdeveloped countries may be superior to host country competitors but not relative to other foreign MNBs. Consequently, this operationalization is more accurate as a measure for competition than one based on the number of foreign as well as domestic banks.

3.4.3 Control variables

Based on the outcomes of previous empirical research, we incorporate several other control variables in the regression models. First, we include the log of *total assets* as a proxy for the size of the parent company. Large MNBs are more likely to internationalize quickly because

they have greater ability to bear the necessary costs and risks to explore foreign investment opportunities (Ursacki and Vertinsky, 1992). In line with the banking literature (e.g., Lanine and Vander Venet, 2007), we use inflation-adjusted balance sheet data from consolidated bank reports whenever more than one set of accounts is provided. Second, to control for the effect of prior investment experience in transition economies on the hazard of entry we use within-host country investment experience. This variable reflects whether a MNB has invested in a CEE host country with a lower level of resource commitment, such as a branch or representative office, prior to establishing a local subsidiary. *Branch / representative office* is a dummy variable that takes on a value of 1 if a branch or representative office was already present in a particular host country and 0 if not. Because foreign banks that operate a representative office or branch in a transition economy accumulate valuable host country experience and knowledge we expect these banks to more quickly establish a subsidiary compared to foreign MNBs without such experience.

Third, previous research has underlined that geographical distance between the MNB headquarter and a foreign subsidiary raises transaction costs by impeding knowledge transfer, effective coordination, and the monitoring of clients (Bevin *et al.*, 2004). *Geographical distance* is measured by the log of distance in kilometers between the location of the MNB headquarter and the city where the foreign subsidiary is located. Finally, to control for any remaining host country and headquarter heterogeneity not explicitly accounted for by the independent- and control variables in our hazard regression models, we also include 17 host country dummies and 39 headquarter dummy variables.

Table 2 presents the descriptive statistics and Pearson's correlations of the independent and the control variables. As can be seen in Table 2, the association between environmental uncertainty and institutional risk is relatively high, with a pairwise correlation coefficient equal to 0.63. To overcome potential multicollinearity problems we estimate separate regression models for each variable to obtain the individual effects of each covariate on the hazard of bank entry. We subsequently incorporate both variables into the same equation and check whether the results are stable over the different estimation methods. This approach also allows us to determine the relative importance of uncertainty and institutional risk.

[Table 2 about here]

4. Results

4.1 Main results

The results of the proportional hazard regressions are reported in Table 3. It is important to mention that the reported coefficients represent log relative hazards (i.e. risk scores) while the exponentiated coefficients are to be interpreted as the change in the hazard when a covariate increases by one unit.

[Table 3 about here]

Table 3 reports the results of the proportional hazard regression analyses. Model 1 contains the results relating to the first hypothesis, which proposes that there is a negative relationship between institutional risk and the hazard of entry in a CEE transition economy. Consistent with this hypothesis, the regression estimates in Model 1 reveal that the hazard of bank entry is lower in transition economies with an underdeveloped institutional framework ($\beta=-3.740$, $p<0.10$). As can be seen in the table, the effect of institutional risk (i.e. enterprise restructuring) on the probability of bank entry is considerable. The strong association between institutional risk and entry timing implies that small differences or changes in institutional development have a huge impact on the likelihood of bank entry. For instance, a one-standard deviation increase in the level of risk (i.e. 0.14) has an effect on the hazard of bank entry equal to $-3.740 * 0.14 = -0.524$, implying that the probability of entry decreases by 59% (i.e. $e^{(-3.740 * 0.14)} = 0.59$). The second hypothesis asserts that the negative relationship between institutional risk and the likelihood of entry is positively moderated by the number of competitors in a host country. The positive and significant coefficient of the interaction term in Model 2 supports this premise ($\beta=2.379$, $p<0.10$) and, thus, provides evidence in support of our second hypothesis.

The third hypothesis proposes that uncertainty in the macro-economic environment decreases the probability of MNB entry in a transition economy. The negative and significant coefficient in Model 3 supports this proposition ($\beta=-0.218$, $p<0.05$). Model 4 corresponds to the fourth and final hypothesis, which predicts that the relationship between macro-economic uncertainty and the probability of MNB entry in a transition economy is positively moderated by the level of competition. The positive and significant interaction term in Model 4 indicates that competition indeed positively moderates the negative relation between uncertainty and the probability of foreign MNB entry ($\beta=0.351$, $p<0.01$) and provides evidence corroborating

the fourth hypothesis. To determine how institutional risk and uncertainty jointly influence the speed with which MNBs enter transition economies we estimate two additional models. Model 5 incorporates the main effects of institutional risk and macro-economic uncertainty simultaneously, and in Model 6 the two interactions terms are added to the regression model. In contrast to the previous results, we find that institutional risk does not significantly affect the probability of foreign bank entry once we control for the level of macro-economic uncertainty. These outcomes suggest that environmental uncertainty is the most important force in the external environment that MNBs take into consideration when deciding on the optimal time to enter a transition economy with a subsidiary.

There are also several noteworthy aspects regarding the control variables in our regression models. First, MNBs that already have a low commitment presence in a particular country, either through a branch or a representative office are more likely to establish a subsidiary in a host country compared to MNBs without such country experience. These findings are in line with the stages model which proposes that international expansion is a dynamic process whereby an initial investment can generate market specific experience that will allow a foreign investor to subsequently increase its resource commitment to a foreign market (Johanson and Vahlne, 1977). Second, in every model geographical distance is statistically significant and decreases the incidence of entry. This shows that MNBs are inclined to expand into foreign markets that are in close geographic proximity to their home country. As such, this finding also provides credence for the internationalization process model, which suggests that firms will first expand into physically proximate countries before expanding into foreign countries located at progressively greater physical and psychic distances (Dikova, 2009). Third, we find that the size of the parent company has a positive, but non-significant, impact on the likelihood of bank entry. Fourth, the joint significance of the country and headquarter dummies demonstrates that there are many country and company specific variables that are not included in our regression model but that are nonetheless important in explaining how MNBs formulate entry strategies in transition economies.

4.2 Results robustness analyses

Throughout the international business and economics literature, various measures for uncertainty and institutional risk have previously been applied. To make sure that our results are robust we perform an additional check with alternative measures for these two independent variables. To construct an alternative measure of institutional risk, that is *institutional risk*, we use factor analysis based on five separate transition indicators provided

by the EBRD. These include indicators for banking sector reform, large scale privatization, small scale privatization, trade and foreign exchange, and competition policy. In addition, to measure the extent of macro-economic uncertainty in a host country we follow Goldberg and Kolstad (1995) and define *exchange rate volatility* as the standard deviation of the monthly growth rate of the exchange rate, based on exchange rate data from the previous 12 months. Similar to our earlier arguments, the main advantage of this measure is that it incorporates temporal variation in the level of host country uncertainty and accounts for general movements in uncertainty (Koray and Lastrapes, 1989; Chowdhury, 1993).

The results corresponding to the robustness analyses are reported in Table 4. Models 1 and 2 indicate that the same basic results hold when using our other measure for institutional risk. In contrast to our earlier results, however, there is no evidence to suggest that the negative effect of institutional risk is positively moderated by the degree of foreign competition. Models 3 and 4 simultaneously incorporate our alternative institutional risk variable and the original measure for uncertainty in one regression model. The outcomes of these regressions demonstrate that both macro-economic uncertainty and institutional risk are important elements in the business environment driving strategic entry decisions. As such, these results only partly reproduce the earlier results presented in Table 3. As can be concluded from Models 5 through 8, there is no strong evidence that exchange rate volatility, our substitute measure for host country uncertainty, has an impact on the decision of MNBs to enter a transition economy. Consequently, the outcomes presented in Table 4 only partly corroborate the hypotheses and the main results presented in Table 3.

[Table 4 about here]

5. Discussion

From the beginning of the 1990s onwards many transition economies have significantly lowered entrance barriers in their banking sectors. This has induced many multinational banks from mature market economies to invest in these nations to pursue promising investment opportunities. Extant literature suggests that operating in transition economies is a complex endeavor, since foreign investments in these markets are surrounded by considerable institutional risk, macroeconomic uncertainty and competition. The results in our study demonstrate that MNBs have a propensity to delay investments when essential formal institutional features are missing and when confronted with a high level of macro-economic

uncertainty. More importantly perhaps, once we control for the level of uncertainty in a host country the negative effect of institutional risk on the probability of MNB entry vanishes. Consequently, in the context of transition economies it seems that uncertainty is a greater entry deterrent than institutional risk.

Consistent with our expectation we also find that the inclination of MNBs to pursue a wait-and-see strategy and postpone market entry in risky and uncertain environments weakens as the number of competitors in an industry increases. In line with arguments by Li (2007), firms that postpone entry may fail to benefit from profitable business opportunities in markets where the rate of competitive entry is high. Besides, according to Henisz and Delios (2002) institutional influences on entry timing will also depend on the presence of other competitors in the market. The results corroborate this view and show that formal institutional deficiencies pose less of a barrier to potential bank entrants when other foreign MNBs are already active in a transition economy.

Overall these results carry important managerial implications and suggestions for governments and policy makers in transition economies. For managers it is important to note that the external environment is a key constituent that MNB managers take into consideration when designing an international expansion strategy. Although we do not formally consider how the timing of market entry is related to performance, a recent study by Nacken *et al.* (2012) substantiates the notion that rapid entry does not necessarily generate superior performance when the business environment in a transition economy exhibits considerable macro-economic uncertainty and institutional risk. These results also carry an important implication for governments in transition economies. A stable institutional framework and a less volatile macro-economic environment are essential in order to accommodate and attract foreign investors. Given the important role that foreign banks play in transition economies to increase access to credit, efficiency and economic growth, it is essential that governments create market conditions that are more conducive to foreign investment in the local banking sectors.

6. Conclusion

Our main objective in this research is to examine international expansion strategies that MNBs use when entering CEE transition economies and in particular to scrutinize how institutional risk, macroeconomic uncertainty and industry competition shape entry timing decisions of MNBs. The analyses demonstrate that most hypothesized relations hold for the data that we collected. The results suggest that high levels of institutional risk and macroeconomic uncertainty decrease the incidence of MNB entry in transition economies. We also find that the tendency to pursue a cautious wait-and-see strategy and postpone market entry weakens as the level of competition increases. However, when examining the combined influence of macro-economic uncertainty and institutional risk on the probability of foreign bank entry we find that uncertainty is the most important element in the external environment that MNBs consider in the entry timing decision.

This investigation extends previous research in international business in several ways. First, we distinguish between risk in the institutional environment and uncertainty that arises from unstable macro-economic conditions. Second, we empirically scrutinize how both constructs have an impact on entry timing decisions and we investigate how the relation between these variables and the probability of bank entry is moderated by the level of competition. To the best of our knowledge this is the first attempt to empirically address this important issue in contemporary international business research. Finally, we demonstrate that institutional and real option theory can complement and advance current research in international business, especially in the context of transition economies and other emerging market economies.

The results yield important implication for managers of foreign banks investing in transition economies or other emerging market economies. Contemporary literature proposes that the globalization and integration of markets around the world encourages firms to internationalize quickly. However, the findings in our study indicate that this contention does not necessarily hold in markets where foreign investments are surrounded by institutional risk and macro-economic uncertainty. The outcomes also suggest that it is paramount that host country governments initiate changes to create a formal institutional framework and reduce uncertainty in the macro-economic environment in order to attract foreign investors.

This study also suffers from several limitations. First, no consideration is given to how multinational bank entry strategies interact with host country characteristics in transition economies and influence firm survival and performance. Second, we do not account for the effect of firm specific resources and capabilities on internationalization strategies and how

these resources moderate the relation between host country characteristics and entry timing. This issue is especially relevant since heterogeneity in resource endowments can have an enormous impact on the capacity of firms to cope with uncertain and risky market conditions. Another limitation is that we did not consider how informal institutions influence strategies pursued by MNBs. It has been noted that informal mechanisms are critical to facilitate business interactions in transition economies when a formal governance system is not yet established (Meyer, 2001). Even when a sound formal institutions framework has been created, the effectiveness of these institutions in attracting foreign investment can be seriously undermined by existing informal mechanisms in a host country (Estrin and Prevezer, 2010).

These limitations can be addressed in future empirical research. Subsequent studies could, for instance, combine institution and resource based perspectives in order to examine the interaction between institutional features, firm resources and multinational expansion strategies in the context of transition economies or other emerging market economies. Furthermore, it would be interesting to consider the role of informal institutions on multinational bank strategies.

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Table 1: MNB entry frequency

Company Name	Country of origin	Number of Entries	First entry	Last entry
ABN AMRO Bank	Netherlands	4	1993	1996
Agricultural Bank of Greece	Greece	2	2006	2006
Allied Irish Bank	Ireland	1	1996	1996
Alpha Bank	Greece	3	1994	2005
Banca Intesa	Italy	6	1998	2006
Banco Comercial Português	Portugal	2	1998	2007
Bank Austria	Austria	2	1991	1995
Creditanstalt	Austria	11	1990	2007
Bank DnB NORD	Denmark	3	2000	2002
BAWAG PSK Group	Austria	3	2002	2005
HVB	Germany	9	1992	2002
Bayerische Landesbank	Germany	4	1994	2006
BNP Paribas	France	9	1991	2006
Citibank	USA	7	1985	2000
Commerzbank	Germany	3	1993	1999
Crédit Agricole	France	3	2001	2006
Deutsche Bank	Germany	3	1995	1998
DZ Bank	Germany	2	1997	1998
EFG Eurobank Ergasias	Greece	5	1998	2007
Emporiki Bank of Greece	Greece	3	1996	1999
Erste Group Bank	Austria	7	1993	2007
HSBC	UK	3	2000	2003
Hypo Alpe Adria Bank	Austria	4	1996	2003
ING Bank	Netherlands	3	1993	1998
KBC Group	Belgium	8	1997	2007
National Bank of Greece	Greece	4	2000	2007
Nordea Bank	Sweden	4	1998	2004
Oesterreichische Volksbanken	Austria	9	1992	2007
Piraeus Bank	Greece	5	1997	2007
Rabobank	Netherlands	1	1996	1996
Raiffeisen Zentralbank Oesterreich	Austria	13	1987	2005
Sampo Bank	Finland	4	2000	2006
Sanpaolo IMI	Italy	5	1989	2006
SEB	Sweden	6	1998	2006
Société Générale	France	10	1991	2007
Swedbank	Sweden	5	1998	2007
UniCredit Bank	Italy	6	1999	2003
Veneto Banca	Italy	2	2000	2006
WestLB	Germany	3	1992	1995
Total number of entries		187		

Note: Bank Austria acquired Creditanstalt in 1997, subsequently changing the company name to Bank Austria Creditanstalt (BACA).

Table 2: Descriptive statistics: means, standard deviations and bivariate correlations

Variable	Obs.	Mean	s.d.	1	2	3	4	5	6	7	8
1 Enterprise Restructuring	6378	0.41	0.14	1.00							
2 Inflation	6378	2.34	1.65	0.63*	1.00						
3 Institutional Risk	6378	0.00	0.94	0.83*	0.68*	1.00					
4 Exchange Rate Volatility	6378	0.04	0.24	0.43*	0.56*	0.55*	1.00				
5 Foreign Competition	6378	1.71	0.86	-0.46*	-0.40*	-0.47*	-0.20*	1.00			
6 Parent Assets	6378	18.37	1.60	-0.03	-0.09*	-0.07*	-0.03	0.06*	1.00		
7 Branch/RO Dummy	6378	0.07	0.26	-0.04*	0.02	0.01	0.00	0.10*	0.13*	1.00	
8 Geographical Distance	6378	7.13	0.58	0.13*	0.07*	0.07*	0.05*	-0.08*	0.23*	-0.14*	1.00

* $p < 0.01$

Table 3: Results MNB entry

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Enterprise Restructuring	-3.740*	-5.486			-3.116	-2.190
	(2.122)	(4.044)			(2.048)	(3.163)
Inflation			-0.218**	-0.816***	-0.191*	-0.788**
			(0.101)	(0.295)	(0.100)	(0.354)
Foreign Competition	-0.645**	-1.792**	-0.552*	-1.697***	-0.715**	-1.697**
	(0.310)	(0.795)	(0.293)	(0.487)	(0.308)	(0.714)
Parent Assets	0.201	0.193	0.184	0.177	0.193	0.184
	(0.199)	(0.199)	(0.194)	(0.201)	(0.195)	(0.201)
Branch/Rep. Office Dummy	0.686**	0.673**	0.734**	0.679**	0.709**	0.673**
	(0.321)	(0.322)	(0.317)	(0.309)	(0.316)	(0.310)
Geographical Distance	-2.529***	-2.487***	-2.511***	-2.456***	-2.500***	-2.457***
	(0.333)	(0.335)	(0.329)	(0.326)	(0.326)	(0.327)
Enterprise Rest. * Foreign Competition		2.379*				-0.152
		(1.404)				(1.555)
Inflation * Foreign Competition				0.351***		0.340**
				(0.136)		(0.174)
17 Country Dummies	YES***	YES***	YES***	YES***	YES***	YES***
39 HQ Dummies	YES***	YES***	YES***	YES***	YES***	YES***
No. of failures	156	156	156	156	156	156
No. of observations	6378	6378	6378	6378	6378	6378

*p<0.1; **p<0.05; ***p<0.01. Notes: Standard errors in parentheses. Country and headquarter dummies significance based on joint test.

Table 4: Results Robustness MNB entry

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Enterprise Restructuring							-3.136 (2.182)	-4.440 (4.379)
Inflation			-0.172* (0.099)	-0.719** (0.308)				
Institutional Risk	-1.013** (0.397)	-1.155** (0.511)	-0.931** (0.403)	-0.477 (0.491)				
Exchange Rate Volatility					-1.782 (1.420)	-7.596 (6.376)	-1.285 (1.397)	-5.332 (5.507)
Foreign Competition	-0.904*** (0.349)	-0.971*** (0.358)	-0.948*** (0.340)	-1.712*** (0.495)	-0.477 (0.304)	-0.527* (0.297)	-0.629** (0.305)	-1.588* (0.870)
Parent Assets	0.187 (0.205)	0.194 (0.206)	0.179 (0.201)	0.175 (0.203)	0.182 (0.199)	0.174 (0.201)	0.191 (0.200)	0.178 (0.201)
Branch/Rep. Office Dummy	0.682** (0.315)	0.672** (0.318)	0.707** (0.312)	0.677** (0.308)	0.703** (0.318)	0.695** (0.316)	0.684** (0.319)	0.669** (0.317)
Geographical Distance	-2.499*** (0.341)	-2.477*** (0.338)	-2.479*** (0.333)	-2.457*** (0.331)	-2.520*** (0.334)	-2.514*** (0.332)	-2.517*** (0.332)	-2.482*** (0.333)
Enterprise Restr. * Foreign Competition								1.955 (1.578)
Inflation * Foreign Competition				0.303** (0.142)				
Institutional Risk * Foreign Competition		0.203 (0.227)		-0.047 (0.241)				
Exchange Rate Vol. * Foreign Competition						3.410 (2.607)		2.359 (2.481)
17 Country Dummies	YES***							
39 HQ Dummies	YES***							
No. of failures	156	156	156	156	156	156	156	156
No. of observations	6378	6378	6378	6378	6378	6378	6378	6378

*p<0.1; **p<0.05; ***p<0.01. Notes: Standard errors in parentheses. Country and headquarter dummies significance based on joint test.