From Global Firms to Global Boards?

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Abstract

This paper examines the internationalization of Nordic company boards during 2001-2008. Until recently, most firms in Scandinanvia and elsewhere had purely domestic boards despite the global reach of their business. However, during the last decade Nordic company boards have begun to change. Using Poisson pooled and panel estimators we find that financial rather than commercial internationalization drives board internationalization. The effect of commercial internationalization – in terms of sales and foreign operations - is positive but not significant. We find the same results when we enlarge the definition of board internationalization is extended to national directors with international experience related to boards,, work or education. However, we find no evidence that the internationalization of boards is limited by conservatism of existing national board members, language barriers or "old boys' networks".

Keywords: *internationalization, international directors, international board experience, board composition, nomination committee, corporate governance.*

JEL: *F23; G30; G34; L22; M16*

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1. Introduction

Until fairly recently, most multinational firms had largely domestic boards despite the global nature of their business activities. Swedish Ericsson, for example, or Finnish Nokia, started internationalizing their operations in the first half of the 20th century, but kept purely domestic boards up to 1996 and 1997, respectively. This lopsided internationalization raises challenging questions for research and practice. Are these truly multinational companies or monolithic giants dominated by old boys networks from their host countries? If internationalization is so important, why is it not practiced in the board rooms?

The above questions invite a rethinking of the function of international board members. What is their role? Do they exercise control? Or do they give advice and form valuable networks? The first role is associated primarily with the suppression of agency conflicts on behalf of investors, while the second function is associated primarly with a service role as part of a managerial team. In this paper, we propose that board internationalization is driven primarily by investor relations, whereas operational business needs to a greater extend support appointments of board members with international experience.

We examine the drivers of board internationalization in the Nordic countries (Denmark, Finland, Norway, Sweden), which have the world's highest incidence of multinationals (UNCTAD, 2008) and mostly begun internationalizing their boards recently. Arguably, these small open economies should have more need of international directors than other countries because of extensive internationalization and a relative scarcity of domestic candidates. Nevertheless, until recently, there were relatively few international directors on Nordic boards. However, the picture changes somewhat when we - as a novel contribution to the literature - consider an alternative dimension of national diversity: the international work, board or study experience of the national members. In fact, persons with such experiences make up around 40 percent of the Nordic boards.

We formulate the hypotheses concerning board internationalization based on an analysis of the factors influencing the demand and supply of international directors. Testing these hypotheses on the population of non-financial firms listed in the Nordic countries during 2001-2008, we find that international board membership is caused primarily by financial drivers, such as foreign ownership and foreign listing, rather than by business drivers, such as foreign sales. More specifically, using Poisson estimators on a final sample of 382 firms for which financial and board information was available over the entire 2001-2008 period, we find a clear and robust pattern. Firms with a higher percentage of foreign ownership, and firms whose shares are traded on non-national (mostly European) stock exchanges, have a higher number of international board members. The effect of commercial internationalization is positive but not significant across all specifications. The results improve slightly if we go beyond directors' nationality and widen the definition of the board internationalization to include national directors with international work and board experience, or foreign education.

We also examine whether the conservatism of an "old boys' network" reduce board internationalization, but find no evidence of this. On the other hand, we do observe that the presence of an international director on the firm's nomination committee motivates more appointments of international directors to the board. In line with our expectations, a higher number of international directors is observed in larger firms and firms with larger boards.

The rest of the article is organized in the following way. We review the scant existing literature in section 2. Our theory contribution and hypotheses are presented in Section 3. In Section 4, we discuss the Nordic corporate governance system and the trend towards internationalization of Nordic company boards. In Section 5 we present the methodology used, our definitions of variables and the data. Our results are presented in Section 6. Finally, concluding remarks are given in Section 7.

2. Literature Review

Despite its practical and theoretical importance, research on the association between internationalization and corporate governance has been largely neglected in the past (Sanders and Carpenter; 1998, Olie, 2010). The existing studies primarily concern US firms and examine nationality of the CEO or the management team - rather than the board.

In a recent survey, Olie (2010) names three studies that examine the antecedents of the internationalization of the top management teams. Greve, Nielsen and Ruigrok (2009) examine the impact of internationalization on the configuration of management teams of 41 large European banks and insurance companies. They find that firms match "managers with strategies" in the internationalization process. Van Veen and Marsman (2008) examine internationalization of management teams of 363 European Multinational Corporations in 2005. They find very limited international diversity, but substantial differences between European countries, which they interpret as a result of country corporate governance regimes rather than company characteristics. Stafsudd (2006) studies the characteristics of the senior executives in a small sample of the largest Swedish corporations in 1999. She reports that only 5 percent of the senior executives are non-Swedish, while the share of international executives in the top management team is a little bit higher – 10 percent. She argues thus under-representation of international members is attrubtable to socalled "homosocial reproduction" - i.e. that board members recuit board members of the same type (gender, nationality, education etc.).

Ruigrok, Peck and Tacheva (2007) examine the demographic characteristics of international directors in a sample of 210 publicly listed Swiss firms in 2003. The find that international directors are more independent and have fewer board seats in Schwitzerland. In the same sample Ruigrok Peck, Tacheva, Greve and Hu (2006) show that international membership of the nomination committee increases the frequency of international directors. This latter effect could also reflect reverse causality, however: since nomination comittes are composed of directors, a higher number of international

directors makes it is also more likely that one of them will be elected to the nomination committee.

Masulis, Wang and Xie (2010) examine the impact of international independent directors, i.e. independent directors with the domicile in a foreign country, on the governance and performance of S&P 1500 companies during 1998 to 2006. At least one independent international director is present in nearly 13 percent of their sample firms; in these firms, international independent members occupy about 18 percent of total board seats. Masulis et al. (2010) find that these directors improve the performance of companies with significant activity in the director's home region, and increase abnormal returns of international acquisitions if they take place in the home region of the international board member. They also find that stock markets react more favourably to international M&A in companies with international independent directors. However, international independent directors are more likely to be absent from board meetings. Boards with international directors are also more likely to misreport earnings and to overpay their executive. In other words, international directors may not be efficient monoritors. In fact Masulis et al. (2010) find a negative effect of international board membership on firm value and accounting profitability, and observe negative stock market reactions to announced appointments of international independent directors. They conclude that not all firms will benefit from hiring an international director and therefore advocate a careful case by case analysis of costs and benefits of international hires. In this paper, we respond to their call for a careful consideration of the costs and benefits of international directors.

A few studies have examined the impact of internationalization on governance more generally. Sanders and Carpenter (1998) find that large US firms react to internationalization by increasing the size of the management team, higher and more long term CEO pay as well as separating chair and CEO. In a sample of the largest US and European firms in 2005/2007 Rivas, Hamori and Mayo(2009) find that business internationalization tends to lead to boards with longer tenure and more international experience, but lower average age.

As a footnote to this literature, we prefer to speak of "international directors" instead of "foreign directors"- a term that is widely used in the literature. In addition to avoiding any implicit xenophobia in the distinction between say "Scandinavians" and "foreigners/strangers", the term international director is more precise. A director with a foreign passport is not necessarily "foreign". She may. for example, have lived in the host country for decades - or even all of her life. To avoid confusion we have nevertheless decided to keep other classic terms like foreign sales and foreign ownership. .

3. Theory development

Theorizing on the recruitment of international directors must arguably begin with the fundamental issues of supply and demand. Why do shareholders demand international directors? Why do directors accept seats on the boards of international companies? We propose that the demand and supply of international directors is influenced by commercial and financial internationalization of the firm, firm size, system effects and other factors.

The demand for international directors. According to the current theory, non-exective directors fullfil both control and service functions (Shleifer and Vishny, 1996; Becht et al., 2002; Tirole, 2006; Adams, Hermalin and Weisbach, 2010). The control function, which is highlighted in the agency theory (Fama and Jensen, 1983), consists chiefly in monitoring company managers on behalf of shareholders. With regard to this function, the "information economics" argument described by Sanders and Carpenter (1998) advocates that increased complexity from internationalization increases the asymmetry of information between the manager and the board, which in turn justifies an increase in the number of international members. The service role consists in giving advice and fostering network ties, which can lead to better decisions and open up new business opportunities (Johnson et al., 1996; Daily et al., 2003; Pfeffer and Salancik, 1978; Stearns and Mizruchi, 1993). International directors may be valuable in both respects, if they are better able to understand the business environment and compare the firm to global

competititors. In particular, the ability to source directors from all over the world should give the company a larger set of qualified candidates. Moreover, signaling theory (Scott, 2001) may explain why the appointment of international directors may be a positive signal to international employees and customers.

On the other hand, international directors may find if more difficult to exercise effective control because of both geographical and cognitive barriers (Coval and Moskowitz, 1999, 2001; Masulis, Wang and Xie, 2010) . This implies that international directors will be especially valuable in service functions, particularly when the company has extensive operations in their home region. Masulis, Wang and Xie (2010) find this to be the case. At the most basic level, we therefore hypothesize that a higher degree of commercial internationalization - as measured by a higher share of foreign sales in total sales – requires a higher number of international directors.

Hypothesis 1: The higher the proportion of foreign sales in relation to total sales, the higher the number of international members on the board.

An alternative to hiring international directors is to hire domestic directors with international experience. Although a potential board member may have neither passport nor a childhood history in the country of interest, he/she could have gathered the requisite international experience by spending considerable time in that country (Gregersen et al., 1998; Daily et al., 2000; Carpenter et al., 2001). Pertinent experience involves an individual's education (Carpenter et al., 2001), work life (Reuber and Fisher, 1997; Tihany et al, 2000; Wally and Becerra, 2001; Carpenter et al., 2001), experience with living in a foreign country ((Sambarya, 1996; Herrman and Datta, 2002), having international responsibility in a domestic company (Sambaraya, 1996; Herrmann and Datta, 2002), language capabilities (Piekkari et al., 1999; Buckley et al., 2002), international board positions (Carpenter and Westphal, 2001), other international connections (Athanassiou and Nigh, 2002) or exsposure to cultural diversity (Tihany et al., 2005). This leads to hypothesis 2.

Hypothesis 2: The higher the proportion of foreign sales in relation to total sales, the higher the number of national board members with international experience.

International ownership. In addition to commercial internationalization, we expect financial internationalization to influence board internationalization. Domestic shareholders usually have stronger personal networks at home. They are therefore better able to find the right candidates there and, due to personal relationships, they may also have greater confidence that home country directors will in fact represent their interests. For the same reason we conjecture that international shareholders or companies who cater to international shareholders are more likely to nominate international directors. Finally, large international shareholders may demand a board seat for themselves. This leads to hypothesis 3 and 4:

Hypothesis 3: The higher the international ownership, the higher the number of international board members.

Hypothesis 4: Foreign listing increases the number of international directors.

With the hypotheses 1-3, we can perform a joint test of potentially competing hypotheses concerning board internationalization. For variations in international ownership and commercial internationalization, we can study the significance of the two drivers, as well as the possible substitution effect between them (see Table 1 below).

Table 1: Theorizing on the antecedents of board internationalization

		International Ownership	
		Low	High
Commercial internationalization	High	? International experience	International boards
	Low	Domestic boards	? International experience

The situation is straightforward in situations when commercial and financial internationalization point in the same direction. However, two questions arise when these two drivers conflict. First, which driver is stronger? Second, will there be a substitution between international directors and domestic board members with international experience? Is it possible, for example, that strong domestic owners will recruit board members with international experience rather than international directors, when commercial internationalization calls for it?

Board member networks. Many studies in the social networks literature demonstrate that board members play a role in transferring governance practices between companies (e.g. Shipilov et al., 2010, Davies, 1991). Board internationalization may be regarded as one such practice. In addition to shareholders, boards are also known to play an important role in nominating new directors. International board members probably have a stronger international network, while domestic board members are more likely to have a stronger network among domestic directors. We therefore expect to observe a certain self-reinforcement in the sense that international directors on the board are more likely to nominate international directors. This should in particular be the case when international directors are members of the nomination committees and therefore in a privileged position to influence the choice of new directors. The specifics of the corporate governance model in two Nordic countries, Sweden and Norway, allows us to test for this effect, since in these two countries the members of the nomination committee are not members of the board (whereas they are in Denmark and Finland). This leads to hypothesis 5.

Hypothesis 5: The stronger the presence of international directors on the nomination committee, the higher the number of international directors on the board.

The supply of board members. Previous research has largely ignored the supply side and thereby implicitly assumed that there is a completely elastic supply of international directors. This would probably be correct if a foreign passport was all it took to qualifiy

as an international director. But the more interesting question is why highly qualified directors will bother to sit on the boards of international companies when they could, in principle , have equally prestigious, challenging and lucrative board positions in domestic companies, while avoiding the hazzle of travelling, language barriers, psychic distance and so on. The question becomes even more pertinent when considering the institutional context. The Nordic countries are known for low pay levels for executives and directors (Hedidrick and Struggles, 2009), while tax rates are high and board fees are income taxed at the source[1]. For example, clause 138 in the Danish company law states that board fees should not exceed what is considered to be normal for similar types of work. Moreover, the Nordic company laws currently prevent differentiation of fees based on nationality (although it is possible to differentiate between different kinds of board positions such as chair, vice-chair, committee membership, etc). The relative low director pay on Nordic boards is most likely an impediment to these companies ability to attract top level non-executive directors. We conjecture that some kind of amenity value might be necessary to induce international directors to sit on Nordic boards. For example, there may gain prestige value from sitting on the boards of large companies or companies with well known brands. We therefore hypothesize a positive size effect on international directorships.

Hypothesis 6. Large firms will attract more international directors.

Conservatism. Finally, we propose that appointments of international directors may be impeded by conservatism of the existing board, which we proxy with the average age and tenure of the domestic board members. Language barriers (Piekkari et al, 1999), age and generation effects will, we propose, have a negative effect on the number of international directors. In line with this, Vafeas (2003) finds that boards with long tenure are more management friendly and therefore presumably less inclined to "rock the boat". Similarly, Schnake, Fredenberger and Williams (2005) argue that board tenure may "*restrict the number of views and opinions that are openly discussed and debated by the*

[1] For Denmark See http://www.skat.dk/SKAT.aspx?oID=112711.

board…. Long-tenured board members may lose their ability to recognize and respond to changing environmental conditions… Such heightened conservatism and reduced information processing might encourage "sloppy" management oversight". On a similar line, Cochran, Wartick and Wood (1984) find a significant negative effect of average director age on company performance and perceived future growth. Rose (2005) also finds a negative effect of age on company performance in listed Danish firms. The main rationale for this evidence appears to be that younger boards are seen as more vigorous (Cochran Wartick and Wood 1984). Altogether this leads to hypothesis 7.

Hypothesis 7: The higher the age and tenure of the board, the fewer international directors.

Interestingly, Rivas et al. (2009) finds that the average tenure of the board is positively related to internationalization, while the average age of the board has a negative effect.

4. The Internationalization of Nordic Corporate Governance

Our empirical analysis concerns companies from the Nordic region, which is located in the northern part of Europe. In addition to the Scandinavian countries of Denmark, Norway and Sweden, the Nordic region also encompasses Finland and Iceland. Because of its small size, Iceland is excluded from this study. As the borders between the five nations have migrated over the last five centuries, these countries share a significant cultural similarity. Indeed, Denmark, Norway, Sweden, and Finland can be easily regarded as siblings. They have similar corporate governance systems, with focus on the alignment of interests between managers and industrial (corporate) owners; this can, in turn, be likened to a modified version of the German system (Angblad et al., 2001).

In a review of national culture and corporate governance, Peace and Osmond (1999) identify similarities between the "civil law" corporate governance system in Continental Europe (i.e. the Netherlands) and the Nordic countries. Important differences, however,

exist with regards to the enforcement of investor protection and the role of the capital markets' pressure. La Porta et al. (1998) argue that investor protection in the Nordic countries—an important aspect of corporate governance—equals or nearly equals the one in "common law" countries, such as the UK, US, Ireland or Australia. In addition, the four Nordic countries are characterized by an increasing internationalization of the ownership of the its publicly traded firms. This pattern has developed gradually since the early 1980s, when the restrictions on international ownership of Nordic firms were eased (Oxelheim, 1997). By the beginning of 1994, the use of restricted shares (for domestic owners only) was banned in accordance with the European Economic Area (EEA) treaty (Oxelheim, 2001). Since the mid-1990s, about one-third of the market capitalization of the Nordic exchanges has been owned by international investors.

As it varies by country, the concept of board of directors requires clarification. Legal scholars recognize two functional levels and distinguish between a management board, or referred to as top management in some countries, and a board of directors. These boards can be further classified into two systems: one-tier and two-tier. The one tier-system combines the two boards into one while strongly emphasizing outside and inside members. In the two-tier system, the management board and the board are kept separate. In some countries, however, some members of the management board also sit on the board; the CEO, for example, tends to be a member of both boards. The firms analyzed in this study have what we would call a semi-two tier system (Sinani et al., 2008)[2]. While CEO might sit on the board of directors, Nordic boards are mostly composed of non-executives. In this sense, they remain quite independent vis-à-vis managers. Furthermore, in all the Nordic countries roles of chairman and CEO are separated.

Table 2 conveys the sample characteristics with regards to the extent of firm internationalization in the Nordic countries. Descriptive statistics for the main variables reflecting the structure of the Nordic boards are presented in Table 3. Since some of the variables (i.e. the number of international directors on the nomination committee and the

[2] The Norwegian board system actually consists of no management board, but with the option of using one or two levels of boards ("styret" and "representantskap").

number of national members with international board, work experience or international education) are available only for the period 2006-2007, the descriptive statistics in Table 3 refer to a cross-section of firms in year 2007. Further descriptive data for the whole period of the analysis (2001-2008) can be found in Table 4. As illustrated in Table 2, Norway exhibits the highest commercial internationalization of the firms and the highest percent of international ownership, which to some extent reflects the international character of the oil industry. Norway also holds the highest relative number of firms that have recruited international members to their boards (see Table 3). At any rate, the percent of international sales does not vary much across countries and remained also relatively stable across the years of our analysis. In 2001, the firms in our sample sold a little bit more than 55 percent of their sales abroad, while in 2008 the share of foreign sales slightly exceeded 53 percent. We observe a slight increase in the percentage of the five largest blocks owned by foreigners, from 4.78 percent in year 2001 to 7.20 percent in 2008. Less than one third of Nordic firms list their shares on other European, UK or US stock exchanges; and less than one percent of firms are list in London or in the US. The highest financial internationalization is observed in Finland (nearly 44 percent of firms are listed on other exchanges) and the lowest level is found in Denmark (19.30 percent).

Insert Table 2

Denmark exhibit among the lowest figures also for other aspects of firm internationalization and for board internationalization. This can be, to some extent, explained by the structure of the Danish corporate sector, which consists mostly of small firms. Denmark's distinction as the country with the least amount of internationalized boards, is further shown when considering the average percent of the board members with international experience. The low share of foreign ownership among the top five reflects the low level of major foreign institutional ownership in the country.

Insert Table 3

To supplement Table 3 in Figure 1 we present the evolution of international board representation over the whole period 2001 to 2008. In order to isolate the changes in the average percentage of international representation, due to entrance of new firms in our sample, we calculate the average percentage of firms with international board representation only for firms that were present thoughout the period (i.e. balanced panel). We observe a general increase in the representation of international directors on Nordic boards, an increase that has been pronounced particularly in the recent years. While Finland and Norway have remained in the top position with regards to international directors, Denmark and Sweden have been slowly catching up towards the end of the period.

Insert Figure 1

Before we continue with the analysis of the antecedents of internationalization of Nordic boards, we like to take a closer look at the characteristics of the international directors. The first issue we address is to consider directors country of origin. A large share of international directors in our sample is indeed represented by the directors from other Nordic countries. In 2008 for example, only 7 percent of all international directors on Danish boards came from US or UK, about 18 percent from other European countries, while the largest part (around 40 percent) were nationals of other Nordic countries. The situation is quite similar in Finland, where directors from the common law countries represented 7 percent of all international directors, about 28 percent came from other European countries, and 46 percent from other Nordic countries. The share of UK or US international directors was, on the other hand, larger in Norway where these directors occupied 16 percent of all international seats, a relatively larger share than the directors from other European countries (7 percent). The largest percentage of US or UK directors was observed in Swedish boards, where English or American directors held 22 percent of all international seats, in comparison to 15 percent of seats held by directors from other European countries and 29 percent of seats held by directors from other Nordic countries.

What about other characteristics of the international members? Are international directors younger than the nationals? Our data show no significant difference in terms of age between the two director groups: the difference in age between the two groups is lower than one year and it is not statistically significant. However, the average tenure of international directors is significantly lower than for national directors: 3.7 years versus 5.7 years on board. This probably reflects that firms have started appointing foreigners on boards only recently. About 14.4 percent of international directors are females. This percentage is similar to the one for nationals (14.75 percent). The high percentage is partly driven by the quota effect in Norway, which has motivated the companies to search for qualified females – potential directors- from outside the country : in year 2008 nearly 32 percent of all international directors on Norwegian boards were females, and 17 percent of all females on Norwegian boards were from other countries, mostly Sweden (22 percent of all international females in our sample).

5. Methodology and Data

5.1 Case study evidence

Our hypotheses are based on the assumption that board internationalization derives from *firm* internationalization, and not vice versa. This direction of causality finds support in the qualitative studies from the Nordic region (e.g. Piekkari and Vesanen, 2009). The two global telecom giants in our sample, Ericsson and Nokia, exemplify this tendency. Ericsson was established in Sweden in 1876 and began to internationalize its operations some decades later. In 2008, about 95% of Ericsson's sales came from outside Sweden, international employment was about 73%, and the company's shares were listed on three major stock markets. With the recruitment of the Ericsson's first international board member, board internationalization began only in 1996; in 2004, it recruited its first board member from outside Europe. In 2008, Ericsson had three international members out of ten (owner elected). Finland's Nokia also dates to the nineteenth century, namely 1865. It began international operations (somewhat different from the current form) in 1940. In

1967, Nokia Corporation was formed. Nokia started internationalizing its board in 1997. In 2008, four out of eight board members (out of ten if we include the employee representatives) were foreigners and company's shares were listed on three major stock markets. Both companies were transformed by the 1994 ban on discrimination in the EU (and in the bigger EEA) as the albeit late internationalization of the board followed in its wake. Hence, regulations matter for the understanding of the board internationalization process. Figure 2 visualizes the lag between the internationalization of the firm and the internationalization of the board for a number of Nordic companies (including Ericsson and Nokia). These case studies represented the starting point of this research, and provided the case-based motivation for our hypotheses.

Insert Figure 2

5.2 Sample

Our statistical sample is based on the population of all publicly traded firms headquartered in Denmark, Finland, Norway and Sweden during 2001-2008. For these companies, we collected data on a number of board variables, such as the name of the CEO and the directors, their gender, year of birth, first appointment on the board, and nationality. These provided us with a total of 937 firm-year observations for Denmark (with complete information with regard to these variables), 893 firm-year observations for Finland, 799 firm-year observations for Norway and 1967 firm-year observations for Sweden corresponding to the 8 year period between 2001-2008.[3] The main sources of our information on directors are firm annual reports. However, data regarding the nationality of board members and their mandates were not always available from these secondary sources. When this was the case, telephone interviews together with fax-follow ups were

[3]Not all firms were listed on the stock exchange since 2001, and were included in the sample in the year corresponding to the year of listing. The same applies to firms that delisted during the period of the analysis. Furthermore, information on directors' age and tenure was not equally rich across all the years of our analysis, which means that we operate with unbalanced panel. About 10 percent of the companies were excluded from the sample due to unavailability of data on their corporate boards. No systematic pattern is revealed for the companies that are excluded.

used to identify the nationality of board members and to verify some of the variables. Due to source constraints, few pieces of additional and more detailed information were collected for a cross-section of firms (i.e. year 2007[4]). This limited information includes information on each director's international work, board experience, or their studies abroad. We also collected data on different board committees in terms of gender and nationality. The collected board information was then merged with financial data and ownership data. Financial data were collected from Worldscope/Thomson Financial Database, whereas ownership data are from Thomson Ownership database. Since financial and ownership data were unfortunately not available for all the firms in our sample, we ended up with a final sample of 2280 firm-year observations (382 firms). The main reason for the decrease in the number of observations is the lack of information on the percentage of foreign sales, which is (unfortunately) one of the key variables of our study and cannot be excluded from the analysis. The descriptive statistics for all variables used in our regression models are outlined in Table 4.

Insert Table 4

As evidenced in Table 4, the firms in our sample have on average between 6 and 8 directors, depending on the country. With the exception of Norway, the average age of directors is around 55 years; the lower age (50 years) for Norwegian national directors is probably the result of the gender quota and the appointments of relatively younger female directors on Norwegian boards (Gregorič et al., 2010). The longest tenure for directors is observed in Denmark: half of the domestic board members in an average Danish firm have been sitting on the board for more than 6 years. The average (median) tenure of a national director in other Nordic countries is slightly lower but still exceeds 4 years (i.e. one mandate). Except for Denmark, the average firm generates more than 50 percent of its income by selling abroad, and a substantial percent (nearly half) of the firms are listed on international (mostly European) capital markets.

[4] To be precise, the data were collected both at the end of 2006 and 2007. However, information for year 2007 is not equally rich as for year 2006. Therefore, the average value over both periods is used in the analysis.

5.3 Variables: definitions

We now continue by describing our dependent and explanatory variables and, discuss the estimation methodology.

***Dependent Variable*:** Board internationalization can be measured in many ways, each of which has its pros and cons. As commonly rendered in the literature, we choose to use the number of international members on the board as our main dependent variable (*INTERNATIONALDIR*). We also use an alternative, by , enlarging our measure of board internationalization to include the number of nationals with any type of international experience (i.e. international education, international work experience or international board experience). In this regard, international experience of an individual board member is registered as 0 or 1 in accordance with what is reported in the annual reports, or as a response to our follow-up questions. The collection of this particular information is extremely difficult in retrospective. Thus, for this variable we only have the information corresponding to the average of the years 2006 and 2007 (see footnote 4). We assume that the number of nationals with international experience does not vary much across the years, and consequently add the average 2006/2007 number to the number of international members in each year to construct the variable (*INTERNATIONAL_LARGE*).

***Explanatory Variables*:** Our regression models use a number of explanatory variables, chosen in accordance with the hypotheses stated above. We use five different variables to proxy for potential drivers of board internationalization. The explanatory variable used as a proxy for the firm's commercial internationalization is foreign sales as percentage of firm's total sales (*FOREIGN SALES_TS*).[5] As a proxy for a firm's involvement in international financial markets, we construct a dummy variable reflecting the

[5] It would be optimal if we had information on the distribution of firm sales by geographic region, since we could then test whether the country of origin of each of the foreign members corresponds to the importance of this country in firm exports. However, Thomson Financials provides such information only for a very few firms in our sample.

international cross-listing and equity trading. This variable *(FOREIGN LISTING)* takes the value of 1 if the company's shares are listed or traded on at least one foreign stock market, and zero otherwise. The foreign ownership variable *(FOREIGN OWN)* is measured as the percentage of shares that are held by foreigners among the top five owners of the firm. To check whether the impact of foreign listing varies with the size of firm foreign ownership, we in selected models introduce the interaction term for the two variables (*FOREIGNLISTING*FOREIGNOWN*). The variable (*DOMESTIC BOARD AGE)* refers to the median age of the nationals on the board and (DOMESTIC BOARD TENURE) to the median period the current national directors have served on board. In addition to the six variables mentioned above, we in selected models include the number of international directors on the nomination committee (*INTERNATIONALDIR_ NOMC)* as an additional explanatory variable. The models that include this variable are estimated only for Sweden and Norway, for reasons stated above[6].

Control variables: We control for firm size, expressed by the logarithm of market capitalization *(MARKET CAP).* The effect of firm size is captured also by our second control variable, i.e. the total number of board members (*BOARD_SIZE*). In selected models we include controls for firm financial performance (measured by *ROA* or *EBIT/TOTAL ASSETS*). Each regression includes industry dummies, country dummies and time dummies.

5.4 Statistical methods

We model the appointments of the international directors on board as a Poisson process, where the probability of a firm having (y) international members on the board equals $P(Y=y)=e^{-\mu}\,\mu^{y}/y!$, y = 0, 1, 2 etc. The use of Poisson estimator is appropriate in cases where the response variable is discrete, and takes only non-negative values. Our dependent variable–the number of international directors on board (*INTERNATIONALDIR*) corresponds to these characteristics: it takes only a few and only non-negative values. In year 2008, for example, 55 percent of the firms in our sample had

[6] See the discussion of Hypothesis 5 above.

no international director on board, 18.87 percent of firms had 1, nearly 11 percent of firm had 2 international directors on board, 7.74 percent of firms had 3 international directors, while the remaining 7.39 percent of the firms had 4 or more international directors on board. The maximum number of international directors in 2008 was eight. The standard linear regression cannot properly account for such a distribution of the dependent variable. While Poisson estimator addresses this issue, some problems remain. The Poisson estimator is based on the assumption of variance-mean equality; namely it assumes that the mean and the variance of the dependent variable (in our case the number of international directors) is given by μ, which is a parameter specific to the firm and a deterministic function of a number of firm observable characteristics $x_{k.}$ This equality is however hardly satisfied in practice. Following Cameron and Trivedi (2005), we check for this by computing a simple overdispersion test statistics: the outcome indicates the presence of overdispersion since the null of no overdispersion can be rejected at 0.01 percent. One solution to the over-dispersion problem is to employ the negative binominal regression, which is explicitly designed to account for overdispersion (see for example, Phene and Almeida, 2008). An additional approach – which we use – is to maintain the Poisson maximum likelihood estimator but relax the equivariance assumption to obtain a robust estimate of the variance-covariance matrix of the estimator (Cameron and Trivedi, 2005).

We first start by presenting the results of a pooled Poisson regression with cluster robust standard errors (Table 6). Since our sample spreads over a 2001-2008 period, we furthermore apply panel data estimators. Panel estimators have the same robustness properties as cross-section (pooled) estimators, while at the same time, allow us to capture both cross-section and time variation of the dependent variable and the regressors, improving the efficiency of our estimates. Since one of our main explanatory variables "*FOREIGN LISTING*" is time-invariant and since many of the firms in our sample remain without any international director during the period of our analysis, we

present the results for the Random effects (RE) Poisson regression[7].To account for overdispersion and serial correlation in the error term, we use cluster bootstrap standard errors.

The consistency of the above estimators depends on the assumption that, after controlling for various factors influencing the dependent variable, the remaining error term is not correlated with any of the explanatory variables. We believe that such assumption of "exogeneity" is a safe assumption in our model, except for the foreign sales variable. This requires some further discussion. The main assumption underlying our structural model is that international board members results from the internationalization of firm activities, such as listing on the stock exchange, or increase in the foreign sales. However, the causation for the foreign sales variable could also go the other way around: the appointment of a international member due to some unobservable factors might also lead to an increase in the firm foreign sales; these unobservable factors might also motivate an increase in foreign sales regardless of the international appointment. Differently put, a change in the disturbance term might not only influence the number of international members but also the percentage of sales abroad[8].

To account for the possibility of a feedback relationship between the foreign sales and international board representation or other unobserved effects, we perform a number of robustness tests. First, we replicate the main regression by using the lagged rather than current values of the explanatory variables. Alternatively, we instrument the share of foreign sales in total firm sales by the wage margin, expressed as the share of wage costs in firm's turnover. This variable has been suggested as important determinant of firm export behavior (Wakelin, 1998)[9], while at the same time should not impact the

[7] The Poisson Fixed Effect (FE) estimator only uses the observations where the dependent variable is non-zero for at least one period, which would in our case imply a substantial loss in the number of observations (for more, see Cameron and Trivedi, 2005).

[8] We however believe that such simultaneity is not a major concern of our study given our case studies' evidence.

[9]Other firm characteristics that might influence firm export performance are R&D, wage costs, differential resources, technological orientation, marketing skills, firm strategies, human capital, managerial attitudes and perceptions, etc. (Salomon and Shaver, 2005). These variables are not included in the first stage regression either due to data limitations, insignificant correlation with foreign sales or because they do not satisfy the exclusion restriction condition.

international board representation, after controlling for firm internationalization and other firm-specific variables, such as firm size and industry. Since the main regression is of a Poisson type, the standard linear instrumental variable method does not apply. Following Cameron and Trivedi (2005), we proceed as follows: In the first step, we regress the percentage of foreign sales on the wage margin and all the other independent variables that are considered exogenous in our model, and compute the residuals. Given that we have panel data, we use the RE estimator and cluster robust standard errors. In the second step, we estimate the RE Poisson regression including the residual from the first step as a regressor. These residuals should control for the endogeneity of the foreign sales variable. Since the estimated rather than the actual residuals are used in the second step, the standard errors are corrected by running a bootstrap with 200 applications. The results of the empirical analysis and robustness tests are presented in Tables 6-8 below and discussed in the next section.

6. Empirical results

The correlation matrix in Table 5 gives us a first insight in the pattern of correlations between our dependent and explanatory variables. As evidenced in the matrix, the number of international directors is higher in larger firms (in terms of market capitalization), in the firms with larger boards, and in the firms with lower average tenure of national directors. Contrary to our expectations, firms with older board members correlate with a higher number of international directors. Finally, we observe a significant positive correlation between the number of international board members and the variables reflecting the internationalization of firm activities, ownership and financing (foreign sales, foreign ownership and firm listing on foreign stock exchanges). Hence, the first impression from this matrix is that (apart from firm size) the resource access, and thus resource based theory, explains most of the internationalization of the board. However, other variables also exhibit significant correlation with the variables reflecting firm internationalization. In order to explore these relations more in detail, we proceed to the multivariate analysis, based on our seven hypotheses. At this point it must be noted that

the correlation table indicates no severe multicollinearity problem. This is confirmed by the variance inflation factors: the values for all our regressors are below the critical threshold of 10, confirming that there is no problematic multicolinearity.

- Insert Table 5 -

The main results of the multivariate analysis are presented in Tables 6 and 7 below. We start by presenting the baseline model (1) in Table 6. For the sake of comparison and robustness of our conclusions, we present the results of two different estimation methods: Pooled Poisson estimator with cluster robust standard errors (models (a)) and Random effects Poisson Estimator with bootstrap standard errors (models (b)). As argued above, the cluster (bootstrap) standard errors account for overdispersion and serial correlation in the error term. In our case the Random effects model is preferred to the Fixed effects model due to the nature of the dependent variable (i.e. many observations with no counts equal to 1 during the whole period of analysis) and the use of time-invariant explanatory variables.[10] In Model (2), we add the median age of the domestic board members (*DOMESTIC BOARD AGE*) and the number of international directors on the nomination committee (*INTERNATIONALDIR_NOMC*). For reasons explained above (see Hypothesis 5), this model applies to Norway and Sweden only. Given that the data on the nomination committee refer to a cross-section of firms, pooled OLS results with cluster robust standard errors are presented here. Models (3a) and (3b) replicate models (1a) and (1b) with the additional control for firm performance (*ROA*), and the median age of the nationals on board (*DOMESTIC BOARD AGE).*

-Insert Table 6-

As presented in Table 6, the variable for commercial internationalization (*FOREIGN SALES_TS*) has a positive impact on the number of international directors on the board. Economically, an increase in the share of foreign sales by 50 percentage points leads to at

[10] Note that the sign of the coefficients for the time-variant explanatory variables in the fixed-effect model are the same as in the random effects model. The significance is however weaker (we believe) due to limited time-variation in the data and a significant reduction in the number of observations.

least 10 percent increase in number of international directors. However, the positive effect is not significant across all specifications, and becomes insignificant when we account for the endogeneity of the foreign sales (see Table 8). Thus, our results provide only a weak support to Hypothesis 1. We discuss the results for Hypothesis 2 below.

In contrast to commercial internationalization, the impact of financial internationalization is stronger and more robust. In accordance with the agency theory, foreign ownership leads to appointments of international directors on board. An increase in the foreign ownership by 1 percentage point results in approximately 2 percent increase in the number of international directors on board. The significant positive relationship of the variable (*FOREIGN OWN*) leads us to accept Hypothesis 3. We observe no significant difference between the impact of foreign ownership for the firms that are listed abroad and other firms (i.e., no significant effect for the interaction variable *FOREIGN LISTING*FOREIGNOWN)*[11]. The effect of foreign listing (*FOREIGN LISTING*) is positive and significant across all model specifications, and supports Hypothesis 4; firms that list on at least one foreign stock exchange have more than 40 percent more international directors than firms that only list on domestic markets.

The results from Model (2), Table 6 provide support to Hypothesis 5. An increased number of international directors on the nomination committee leads to a higher number of international directors on the board (see the positive effect of the variable *INTERNATIONALDIR_NOMC*). In line with Hypothesis 6, we also observe that firm size, expressed by the logarithm of markets capitalization, has a positive and significant impact on the number of international directors on board. In the same vein, we observe that larger boards tend to have more international directors than smaller boards (see the positive effect of the *BOARD SIZE*).

We also test for a barrier to board internationalization as expressed by Hypothesis 7. We find no support of a negative relationship between the median age of the national board

[11] Results not reported .

members and the number of international member of the board. The effect remains insignificant when we use average age rather than the median age of the nationals, or when we use the average or median tenure of the nationals on board.

Among our control variables, firm financial performance (*ROA*) has a negative (weakly) significant effect on the number of international directors on the board. With regards to the institutional environment, we observe on average higher extent of internationalization for Finnish boards (results for country dummies not reported). Significant positive time effects are observed after the year 2003.

The nationality of the board members represents the most obvious measure of board internationalization. However, others dimensions of directors' internationalization have been considered in the literature, such as the extent of their international experience or international network ties. Unfortunately, we do not have information on the participation of the Nordic directors in the international networks but we do have information on their international experience (see section 5.3). We thus repeat our regression from Table 6 by using the total number of both international directors and national directors with international experience (*INTERNATIONAL_LARGE*) as the dependent variable.

The results for Pooled Poisson regression are presented in Table 7 below and are in line with the results from Table 6. Moreover, a comparison of the coefficients for the foreign sales in Table 6 and Table 7 provide support to Hypothesis 2: the statistical significance of the foreign sales variable improves when nationals members with international experience are added to the dependent variable. This imply that, with regards to the expertise needed for sales abroad, the firms might prefer to appoint nationals with international experience rather than bring in directors from abroad. The size of the coefficient for foreign sales remains statistically significant and of similar size when we look at number of nationals with international experience only (results not reported). One might then ask whether national directors with international experience might lead to less appointments of the international directors on board; i.e. whether these two dimensions of board internationalization substitute each other. To test this, we regress the number of

international directors on the number of nationals with international experience, see Model (4), Table 6. We observe a significant and positive relationship between the two board internationalization variables implying that there are no substitutions effects. However, better (longitudinal) data for directors' expertise is needed in order to explore this relation more in detail. We leave this as an issue for further research.

Finally, while the coefficient for the foreign listing variable (*FOREIGN LISTING*) remains significant, it decreases in size when applied to Model (4). This supports our initial proposition that investor relations primarily drive board internationalization defined by extranationality, while board internationalization defined by international experience is more likely to be driven by operational business needs.

-Insert Table 7-

Robustness tests

We perform a number of further robustness tests. For the sake of space, in Table 8 we present some additional results for the basic model (Model 1(a)) in Table 6. First, we estimate the same regressions with lagged explanatory variables. The significance and the size of coefficients for the main variables of interest remain significant and nearly of the same size (see Model (1) in Table 8). Secondly, given our concerns about the endogeneity of the foreigner sales variable, we instrument this variable by the wage margin in the firm, and apply the Poisson two-step estimator as described in the methodology section. The results are presented in Model (2) and Model (3) of Table 8. The two models differ only in terms of included explanatory variables; i.e we add the (*DOMESTIC BOARD AGE*) variable in Model (3). The positive coefficient of the first-stage residual can be interpreted in the way that the latent factor, which leads to higher share of foreign sales in the firm's total sales also motivates the appointments of international directors on board. The foreign sales coefficient remains positive but however not significant, implying that no significant conclusion can be made with regards to the impact of foreign sales on the appointment of foreigners on board. The coefficients for other variables of interest (number of board members, foreign ownership

and foreign listing) remain positive and statistically significant. These conclusions hold when using the wider definition of board internationalization (*INTERNATIONAL_LARGE*) as the dependent variable (results not reported).

-Insert Table 8-

7. Concluding remarks

In this paper, we explore the antecedents of the internationalization of corporate boards. Similar to the theory on internationalization of the firm, we contribute to the literature by identifying theoretically motivated reasons for the internationalization of *boards*. An eclectic framework has been used encompassing Resource based theory, Agency theory, and Signaling theory. Based on this theoretical framework we formulate seven hypotheses. The empirical test then applies a panel study on 382 firms from the Nordic region. The internationalization of the boards in this region started very late in comparison to the internationalization of the firms. The reason was the legal ban on international board members – partly due to perceived accountability reasons. However, in the mid-1990s this ban was replaced by a ban against discrimination of European board members (still 50% of the board members have to be domiciled in a EU country). Due to these historical reasons, the Nordic area provides an ideal setting for research on internationalization of the board, which reduce the risk of endogeneity and causality problems.

Our empirical results are robust across countries and time. As the first study of antecedents making a distinction between financial and commercial motivated board internationalization, we find evidence that the board competencies called for by the financial internationalization of the firm enhance board internationalization. The degree of commercial internationalization has also a positively impacts on board internationalization, but the effect of this variable is not very robust and subject to endogeneity concerns. Significant positive effect has been, on ther other hand, observed for the effect of foreign ownership, and firm size. Finally, the internationalization of the

nomination committee seems to be an important driver for the internationalization of the board room. Thus, our Nordic evidence indicates that internationalizing the nomination committee may be the first step to pave the way for international board members into the firm's board.

Future research on board internationalization should further expose the presented set of hypotheses, particularly by further elaborating on the matching of firms' geographic sales (markets) and the nationality of its board members. For example, one can explore whether, firms with its major market in China show a higher profitability when they have a Chinese board member? Will a firm listed in the UK have a higher probability of having a board member from that country – and how does this affect the profitability? Further research should also focus on the intertemporal character of the antecedents. Will the relative strength between commercial and financial competencies prevail for different time periods, or can we expect the relationship to change over time? Furthermore, it should be further tested whether the value creation effect of board internationalization is still valid today (as shown for the 1990s by Oxelheim and Randøy, 2003) – beyond the Nordic context.

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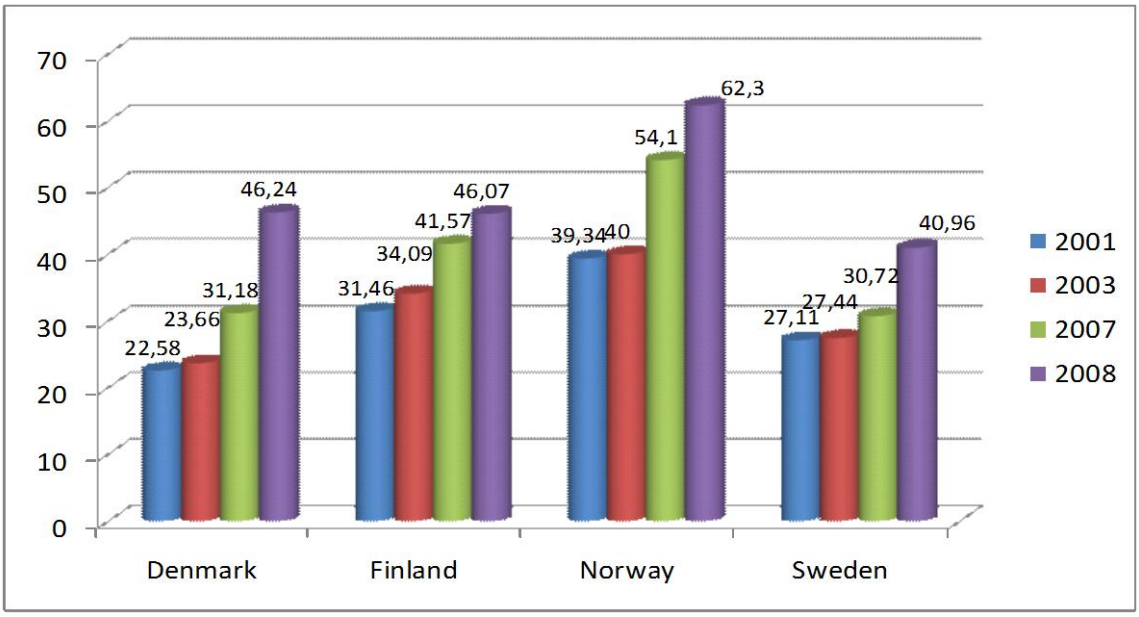
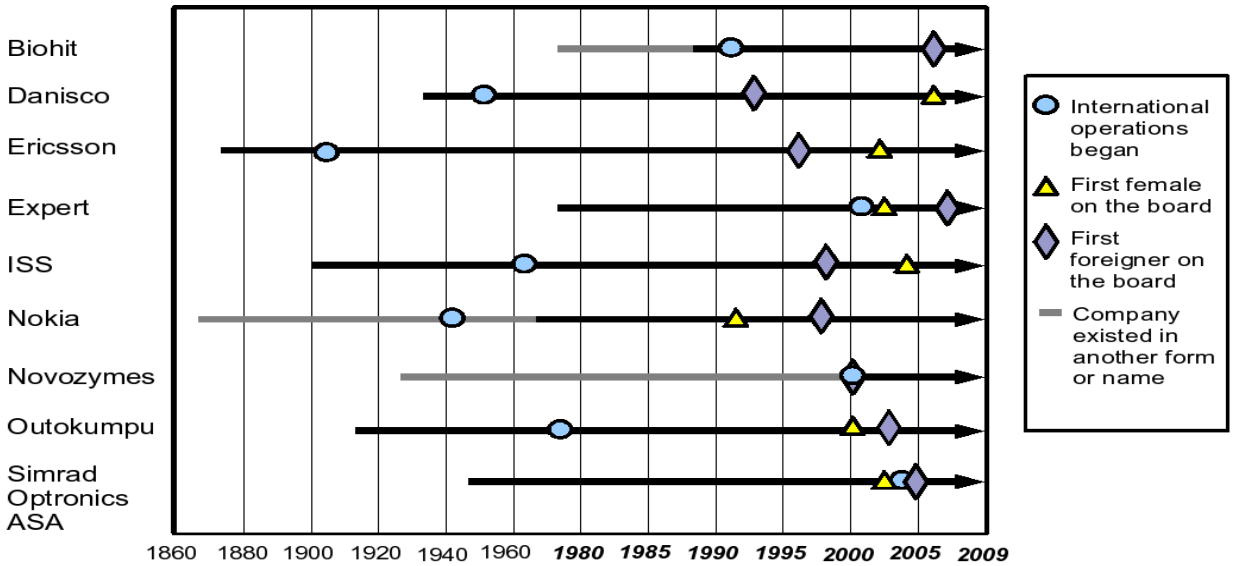
Tables and Figures

Figure 1: Percentage of Nordic firms with international directors during 2001-2008



Notes: The numbers stand for the percentage of firms with at least one international director on board in specific year. The percentage is calculated over a balanced sample of 83 Danish firms, 89Finnish firms, 61Norwegian firms and 166 Swedish firms that were part of our sample in each year during years 2001-2008.

Figure 2: Time line for firm and board internationalization



Note: The time axis is broken 1985 and 2005.

Table 2: Internationalization of Nordic firms between 2001-2008

Country	Foreign sales as percentage of total sales	Percentage of firms listed on at least one foreign market	Percentage of largest 5 blocks owned by foreigners
	Mean (Sd)	(Percent)	Mean (Sd)
DENMARK	49.71 (34.66)	19.30	5.86 (11.93)
FINLAND	52.49 (20.02)	43.39	5.16 (8.96)
NORWAY	58.07 (30.77)	29.76	6.75 (11.60)
SWEDEN	53.70 (29.83)	24.75	5.30 (10.08)
ALL	53.50 (31.90)	30.83	5.67 (10.58)

Notes: The mean values and percentages are calculated over the whole 2001-2008 period and for the unbalanced sample including of firms for which data on firm internationalization were available in Worldscope.

Table 3: Internationalization of Nordic boards in year 2007

Country	International board members (average %)	Percentage of boards with international directors	Percent of directors with international experience		Percent of international directors on nomination committee	
			All	Restricted	All	Restricted
Denmark	9.23	31.19	33.97	36.63	42.5	56.67
Finland	13.17	33.86	36.20	41.12	11.31	41.19
Norway	15.01	48.67	42.45	45.40	10.73	56.14
Sweden	9.35	33.22	41.48	47.17	4.81	31.72
All	11.20	36.19	39.25	44.26	7.57	40.47

Notes: The numbers for board internationalization refer to 141 Danish firms, 127 Finnish firms, 150 Norwegian firms and 295 Swedish firms listed on the Nordic stock exchanges at the end of the year 2007. Data on directors' experience were available for 133 Danish, 117 Finnish, 139 Norwegian and 274 Swedish firms. The data on the nomination committee refer to a much smaller sample since many of the firms subject to our analysis do not have a nomination committee: the firms with such a committee in place were only 4 in Denmark, 51 in Finland, 68 in Norway and 198 in Sweden. Percentages for the directors with international experience and for international directors on the nomination committee are presented separately for all firms and for a sample that was restricted conditional by the firm having at least one member with international experience, or at least one international director on the nomination committee.

Table 4: Descriptive statistics for the variables used in the regression model

	DENMARK	FINLAND	NORWAY	SWEDEN
	Mean (S.d.)	Mean (S.d.)	Mean (S.d.)	Mean (S.d.)
INTERNATIONALDIR	0.70 (1.15)	0.82(1.42)	0.94(1.25)	0.86(1.32)
BOARD SIZE	7.16 (2.15)	6.30(1.58)	7.06(1.85)	8.13(2.21)
DOMESTIC BOARD AGE (average)	54.86 (4.73)	54.6(4.32)	50.71(4.46)	54.10(3.74)
DOMESTIC BOARD AGE (median)	55.28 (5.55)	55.95(4.93)	50.48(5.23)	54.57(4.61)
DOMESTIC BOARD TENURE (average)	7.00(3.31)	6.38(3.40)	5.15(4.20)	6.16(2.91)
DOMESTIC BOARD TENURE (median)	6.09 (3.63)	5.64(3.66)	4.40(3.69)	5.22(2.91)
FOREIGN SALES_TS (%)	49.10(33.59)	53.95(27.74)	61.44(27.66)	53.78(28.91)
FOREIGN LISTING (%)	28.47	52.93	52.13	50.00
FOREIGN OWNERSHIP	6.98 (12.57)	6.43(10.03)	8.96(12.88)	6.58(11.33)
TOTAL SALES in millions of domestic currency	8806.95 (28310)	1968.10 (5113.87)	19594 (63681)	15793.6 (35418.6)
MARKET CAP in millions of domestic currency	10544.6 (30016)	2066.81 (9639.30)	17785.8 (52624.7)	16462.4 (44673.3)
EBITDA/TOTAL ASSETS	9.47(33.61)	13.75(10.80)	9.69(16.76)	9.88(18.21)
EBIT/TOTAL ASSETS	4.47 (35.17)	8.34(10.84)	5.16(17.13)	5.18(21.27)

Notes: The number of firm-year observations varies across different explanatory variables. The descriptive statistics are calculated for the 2290 observations that correspond to the sample size in our baseline model (model1).

Mnemonics: INTERNATIONALDIR– number of international directors on the board; BOARD_SIZE – the number of total board members; DOMESTIC BOARD AGE (average)- average age of the national directors; DOMESTIC BOARD AGE (median) – the median age of the firm's national directors; DOMESTIC BOARD TENURE (average) – the average number of years since the first national directors' appointment on board; DOMESTIC BOARD TENURE (median) – the median number of years since the national directors' appointment on board; FOREIGNSALES_TOTALSALES (%)-the percentage of firm's foreign sales in total sales; FOREIGN LISTING – average percentage of firms listed on at least one foreign market. FOREIGN OWNERSHIP- the percent of shares held by foreigners among the 5 largest investors; MARKET_CAP-total market capitalization in million, in domestic currency.

Table 5: Correlation matrix

	INTERNATIONALDIR	INTERNATIONAL_LARGE	INT EXPER.	BOARD SIZE	DOMESTIC BOARD AGE	DOMESTIC BOARD TENURE	FOREIGN OWN	FOREIGN LISTING	FOREIGNSALES_TS	LN(MARKET CAP)
INTERNATIONALDIR	1.00									
INTERNATIONAL_LARGE	0.76*									
INT_EXPERIENCE	0.42*	0.91*								
BOARD SIZE	0.28*	0.44*	0.41*							
DOMESTIC BOARD AGE	0.06*	0.07*	0.07*	0.08*						
DOMESTIC BOARD TENURE	-0.05*	-0.05*	-0.02	-0.06*	0.32*					
FOREIGN_OWN	0.30*	0.22*	0.12*	0.01	-0.09*	-0.09*				
FOREIGN_LISTING	0.25*	0.34*	0.31*	0.27*	-0.05*	-0.15*	0.03			
FOREIGNSALES/ TOTALSALES	0.15*	0.26*	0.25*	0.13*	0.05*	0.02	0.03	0.18*		
LN(MARKETCAP)	0.29*	0.45*	0.44*	0.62*	0.12*	0.01	0.05*	0.33*	0.16*	
ROA	-0.03	-0.03	-0.01	-0.11*	0.09*	0.12*	0.01	-0.05*	-0.01	0.25*

Note: The table present partial correlation coefficients for the main variables used in the empirical analysis. The coefficients are calculated over the sample of 2280 firm-year observations for which complete information is available.

Table 6: Determinants of the number of international directors on the board

Dependent variable: INTERNATIONALDIR	(1a)	(1b)	(2)	(3a)	(3b)
ESTIMATOR	Pooled Poisson	RE Poisson	Pooled Poisson	Pooled Poisson	RE Poisson
BOARD SIZE	0.130***	0.184***	0.100***	0.126***	0.178***
	[3.50]	[4.98]	[2.60]	[3.338]	[7.113]
FOREIGN OWN	0.027***	0.014***	0.018***	0.027***	0.015***
	[7.71]	[5.03]	[3.98]	[7.403]	[4.616]
FOREIGN LISTING	0.327**	0.477***	0.379**	0.280*	0.439*
	[2.03]	[2.67]	[1.97]	[1.709]	[1.706]
FOREIGN SALES_TS	0.004**	0.002	0.006***	0.004*	0.001
	[2.12]	[1.59]	[2.54]	[1.954]	[0.881]
LN(MARKET CAP)	0.110***	0.037	0.105**	0.137***	0.063**
	[2.89]	[0.76]	[2.02]	[3.262]	[2.033]
DOMESTIC BOARD AGE			0.010	0.009	-0.003
			[0.68]	[0.711]	[-0.264]
ROA			-0.004	-0.006***	-0.002
			[-1.35]	[-3.514]	[-1.241]
INTERNATIONALDIR_NOMC			0.114**		
			[1.95]		
Constant	-3.852***	-2.699	-3.985***	-4.888***	-2.427
	[-8.87]	[-0.270]	[-4.68]	[-6.165]	[-0.233]
R^2	0.19		0.24	0.20	
	[0.32]	[0.25]	[0.27]	[0.32]	[0.25]
Log likelihood	-2587.24	-2002.28	-1223.23	-2537.12	-1963.89
N	2,280	2,280	1,163	2,254	2,254

*Notes: The R^2 stands for Pseudo R^2. For comparison, in the brackets we report an alternative measure of fit: the squared coefficient of correlation between the fitted and observed values of the dependent variable. The dependent variable in all specifications is the number of international directors on the board (FOREIGNERS). Z-statistics are reported in the brackets. The standard errors are adjusted for 389 clusters. All regressions include country dummies, common time and industry effects.. ***,** and * denote statistical significance at 1, 5 and 10 percent, respectively.*

Mnemonics: BOARD_SIZE – the number of total board members; FOREIGN LISTING- a dummy variable, which takes the value 1 if a firm's shares are listed on at least one foreign stock exchange and, zero otherwise; FOREIGN OWN- the percent of shares held by foreigners among the 5 largest investors; FOREIGNSALES_TS(%)-the percentage of firm's foreign sales in total sales; MARKET_CAP-total market capitalization in million domestic units; ROA is EBIT over total firm assets. DOMESTIC BOARD AGE– the median age of the firm's national directors; INTERNATIONALDIR_NOMC is the number of international directors on the nomination committee.

Table 7: Determinants of international directors and directors with international experience on the board

	(1)	(2)	(3)	(4)
Dependent variable	**INTERNATIONAL_LARGE**			**INTERNATIONALDIR**
BOARD SIZE	0.073***	0.071***	0.067***	0.091***
	[4.49]	[4.323]	[3.465]	[5.36]
FOREIGN OWN	0.012***	0.012***	0.010***	0.023***
	[7.310]	[7.317]	[4.095]	[13.74]
FOREIGN LISTING	0.226***	0.197***	0.233**	0.193***
	[3.12]	[2.681]	[2.367]	[3.17]
FOREIGNSALES_TS	0.004***	0.004***	0.004***	0.001
	[4.436]	[4.345]	[3.354]	[0.67]
LN(MARKET CAP)	0.085***	0.099***	0.051*	0.060***
	[4.337]	[4.713]	[1.819]	[2.94]
DOMESTIC BOARD AGE		0.001	0.004	0.007
		[0.110]	[0.544]	[1.22]
ROA		-0.003***	-0.003***	-0.005***
		[-3.026]	[-2.311]	[-4.76]
DOMESTIC_INTEXP				0.233***
				[14.73]
INTERNATIONALDIR_NOMC			0.085**	
			[2.132]	
CONSTANT	-1.641***	-1.976***	-0.727*	-18.35
	[-5.29]	[-5.061]	[-1.81]	[-0.02]
R^2	0.17	0.17	0.17	0.23
	[0.44]	[0.44]	[0.38]	[0.54]
Log likelihood	-4786.86	-4719.50	-2490.86	-2398.03
N	2,280	2,254	1163	2216

*Notes: The R^2 stands for Pseudo R^2. For comparison, in the brackets we report an alternative measure of fit: the squared coefficient of correlation between the fitted and observed values of the dependent variable. The dependent variable in all specifications is the number of international directors plus members with international board, work experience or international education on the board (INTERNATIONAL_LARGE). Z statistics are reported in the brackets. The standard errors are adjusted for 389 clusters. All regressions include country dummies, common time and industry effects. ***,** and * denote statistical significance at 1, 5 and 10 percent, respectively.*

Mnemonics: BOARD_SIZE – the number of total board members; FOREIGN LISTING- a dummy variable, which takes the value 1 if a firm's shares are listed on at least one foreign stock exchange and, zero otherwise; FOREIGN OWN- the percent of shares held by foreigners among the 5 largest investors; FOREIGNSALES_TS(%)-the percentage of firm's foreign sales in total sales; MARKET_CAP-total market capitalization in million domestic units; ROA is EBIT over total firm assets. Domestic board age – the median age of the firm's domestic directors; DOMESTIC_INTEXP is the number of national board members with international work, board experience or international education. INTERNATIONAL_NOMC is the number of international members on the nomination committee.

Table 8: Determinants of the number of international directors on board

	(1)	*First stage for (2), RE*	*(2)*	*First stage for (3), RE*	*(3)*
Dependent variable	**INTERNATIONAL DIR**	**FOREIGN SALES_TS**	**INTERNATIONAL DIR**	**FOREIGN SALES_TS**	**INTERNATIONAL DIR**
WAGE MARGIN		-0.003***		-0.003***	
		[-5.80]		[-5.77]	
BOARD SIZE	0.121***	-0.078	0.185***	-0.052	0.179***
	[3.074]	[-0.17]	[7.22]	[-0.11]	[6.982]
FOREIGN OWNERSHIP	0.027***	0.064	0.015***	0.059	0.015***
	[7.310]	[0.97]	[4.14]	[0.83]	[4.675]
FOREIGN LISTING	0.309*	2.51	0.492***	2.55	0.501**
	[1.852]	[0.85]	[2.572]	[0.86]	[2.570]
FOREIGNSALES_TS	0.004*		0.000		0.000
	[1.726]		[0.160]		[0.043]
LN(MARKET CAP)	0.119***	1.592*	0.032	1.551*	0.040
	[2.784]	[1.70]	[0.790]	[1.66]	[0.842]
DOMESTIC BOARD AGE	0.006			0.149	-0.005
	[0.452]			[0.95]	[-0.540]
FIRST STAGE RESIDUAL			0.007*		0.006
			[1.64]		[1.58]
CONSTANT	-3.688***	50.46***	-2.518	58.112***	-2.262
	[-4.865]	[5.71]	[-0.247]	[5.44]	[-0.237]
R^2	0.20	0.23		0.23	
	[0.31]		[0.26]		[0.27]
Log likelihood	-2453.73	-	-1989.89	-	-1971.32
N	2164	2267	2,267	2259	2,259

*Notes: The R^2 stands for Pseudo R^2. For comparison, in the brackets we report an alternative measure of fit: the squared coefficient of correlation between the fitted and observed values of the dependent variable. The standard errors are adjusted for 389 clusters. All regressions include country dummies, common time and industry effects. Z-statistics are reported in the brackets. ***,** and * denote statistical significance at 1, 5 and 10 percent, respectively.*

Mnemonics: BOARD_SIZE – the number of total board members; FOREIGN LISTING- a dummy variable, which takes the value 1 if a firm's shares are listed on at least one foreign stock exchange and, zero otherwise; FOREIGN OWN- the percent of shares held by foreigners among the 5 largest investors; FOREIGNSALES_TS(%)-the percentage of firm's foreign sales in total sales; MARKET_CAP-total market capitalization in million domestic units; DOMESTIC BOARD AGE – the median age of the firm's national directors;