

**Multinational Enterprises from Small Economies: The Internationalization  
Patterns of Large Companies from Denmark, Finland and Norway**

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### **Abstract**

Analyzing the internationalization of large companies from small countries requires understanding the process of internationalization by examining the interface between micro (firm strategies) and macro (the forces of centripetal and centrifugal) level factors. We examine the growth and international expansion of the ten largest companies in Denmark, Finland, and Norway over the period 1990 to 1999. Most companies in the sample became more international during the last decade across basically all the investigated dimensions of internationalization. This was particularly accentuated in the case of Norwegian firms, possibly due to their lower degree of internationalization at the beginning of the period. The study also shows that companies mainly have internationalized their operations activities, while such strategic activities as research and development activities and headquarters functions to a much larger extent are kept in the home country.

It is generally accepted that, *ceteris paribus*, firms from small open economies (SMOPECs) tend to demonstrate a higher propensity to internationalize their operations than those from larger home economies (Bellak and Cantwell, 1998). The most obvious factor is market size, and the tendency for SMOPEC firms to venture to foreign markets is often explained primarily by this constraint.

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At the same time, many industries are increasingly becoming global. Factors like increasingly rapid technological change, convergence of consumers' tastes, and increased worldwide competition, have led to a quest for scale, scope, and learning economies that, in turn, has motivated the development of increasingly larger corporations through international mergers and acquisitions (Goshal, 1987; Yip, 1989; Kozul-Wright and Rowthorn, 1998). These are the factors that act as centrifugal forces in the internationalization process. Indeed, as firms are becoming increasingly global, the question is if there remains a role to be played by the local environment.

We propose, along with Porter (1990) that centripetal forces are at play as well. Institutions, support infrastructure and related companies exist around, and because of, firms in a given location (Markusen, 1996). The ability of such factors to meet the needs of the multinational enterprise (MNE) play a crucial role in determining the extent of their internationalization (Narula, 2002). For this reason, it has been argued that the home base play a continued or possibly increasingly important role for the global firm (Porter, 1990; Porter and Sölvell, 1998).

Thus, there is an important interface between the micro level (firm-specific) issues and the macro level (country-specific) issues in firm internationalization that is not well understood. In addition to the issues of internationalization being a matter of understanding the centripetal and centrifugal forces, there is a symbiotic relationship between the MNE and its environment that has become exceedingly complex. This is not to say that there is no role for idiosyncratic behavior of firms due to differences in strategy (Shaver and Flyer, 2000). Rather, as suggested in Figure 1, the strategy of the MNE is formulated within the framework of the micro-macro interface.

[insert Figure 1 about here ]

This interaction between firms and locations is axiomatic for all countries, regardless of size. However, the micro-macro interaction is likely to be much more pronounced in the case of MNEs from SMOPECs, since they outgrow their home base more easily, and small countries are more dependent on their large companies (Kozul-Wright and Rowthorn, 1998). A major strategic error by management in a single enterprise can create a substantial shock wave to the total economy. Therefore, the main issue for small countries is whether the centripetal forces stemming from the quality of the location bound assets compensate for the centrifugal forces stemming from the limited size of the local market. Or put differently; can the limited size be traded-off by a higher quality of locally bound assets?

The firm's international activities can be divided into operations (such as production and sales abroad) and strategic activities (such as internationalization of capital, R&D and headquarter functions). We expect that the internationalization has, over time, moved from being predominantly “operations” oriented to becoming more strategic in the sense that it involves the ownership and decision-making entities of the companies, and that development patterns will differ across companies and countries depending on the nature and strength of various centrifugal and centripetal forces.

We will investigate these issues for three SMOPEC-countries: Denmark, Finland and Norway. These three countries compose a particularly interesting set since they share many common features: they are affluent neighboring countries of about the same size, they belong to the same cultural “block” (Ronen and Shenkar, 1985), and their political institutions and traditions share many characteristics. Sweden and Iceland, -- the two other Nordic countries -- were left out because there are markedly different in terms of size.

We focus on the ten largest companies in each country over the period 1990 to 1999, since these companies are those that are particularly exposed to the dilemma of retrieving the local roots while globalizing. These companies basically make up the set of large companies

in Denmark, Finland, and Norway, and the companies are commonly regarded as the economic locomotives of their home countries.

The remainder of our analysis proceeds as follows. We provide a brief overview of the possible implications of globalization on the behavior of MNEs originating from small economies. The data are then described. The two following sections then report and discuss the findings of the study, with an emphasis on the implications for home countries.

### **Globalization, small economies and MNEs: Centrifugal and centripetal forces**

There is considerable evidence (e.g., Freeman and Lundvall, 1988; Dunning and Narula, 1996; van Hoesel and Narula, 1999; Bellak and Cantwell, 1998; Van Den Bulcke and Verbeke, 2001) that there are certain common characteristics of the small open economy that cause their firms to be more globalized than firms from larger countries. Globalization as used here will refer to economic globalization, which we define as the increasing cross-border interdependence and integration of production and markets for goods, services, and capital. This process leads both to a widening of the extent and form of international transactions, and to a deepening of the interdependence between the actions of economic actors located in one country and those located in other countries (Narula and Dunning, 2000). The literature has illustrated that small open economies tend to be more internationalized, with a relatively large share of the value-added activity being conducted with the explicit purpose of serving overseas markets. Furthermore, firms from these countries tend to be competitive in a few niche sectors, as small countries tend to have limited resources and prefer to engage in activities in a few targeted sectors, rather than spreading these resources thinly across several industries.

At the same time, there is considerable variation between countries: SMOPECs are by no means a homogenous group. It is useful to analyze the determinants of internationalization

of SMOPEC-based multinational firms from two perspectives: factors that encourage internationalization (centrifugal forces) and factors that encourage concentration of these firms' activities in their home location (centripetal forces).

Some of the characteristics of small economies are a function of size *per se* (Krugman, 1991). The limited domestic market size means that if such firms are to achieve economies of scale in production, they must seek additional markets to that of their home location in order to increase their *de facto* market size (Walsh, 1988; Narula, 1996; Bellak and Cantwell, 1997). The demand conditions at home may restrain the sectors and kind of ownership advantages that firms of a particular nationality develop. First, small market size constitutes a disadvantage in the development of process technology as economies of scale are not present, but may provide a competitive advantage in product innovation (Walsh, 1988). Second, firms from small countries have access to fewer kinds of created location advantages at home. That is, the infrastructure and national business systems tend to be focused in fewer industrial sectors. Globalization has also meant that firms increasingly need to maintain competencies in several areas, as products become increasing multi-technology in nature (Granstrand, Patel and Pavitt, 1997). A benefit of industrial concentration is that it supports "thick labor" markets locally, particularly for specialized skills, so that employers and employees find each other more easily (Krugman, 1998). Thus, if firms from SMOPECs require technological inputs not available locally they must therefore seek these in overseas locations (see Narula (2002) for a discussion). Also, companies seek out capital markets outside their home country for equity as well as for loan capital with the aim of lowering their cost of capital (Oxelheim et al., 1998). All in all, the limited size of the home market works as the main centrifugal force of the companies located in SMOPEC-countries (Krugman, 1998). It should be noted that globalization has resulted in *de facto* economic integration – at least amongst the Triad countries – in addition to *de jure* economic integration projects such as the Single European

Market. These exogenous developments have further enhanced the centrifugal forces on companies located in SMOPEC countries (Kozul-Wright and Rowthorn, 1998).

On the other hand, the main centripetal forces are the kinds and quality of assets that are bound to the home country. Industrial specialization in a given location is often associated with the kinds of assets that it possesses (or possessed) in abundance. Such asset advantages lead to a specialization of domestic firms in particular niche sectors (Soete, 1987; Archibugi and Pianta, 1992; Narula, 1996), and those firms that survive the intense rivalry that commonly exist in such sectors are likely to develop strong competitive (or so-called ownership) advantages. Hence, as pointed out by Cantwell and Narula (2001) the ownership advantages underlying firms' internationalization tend to reflect the particular location advantages of their country of origin. Obviously, these assets also tend to attract inward investment in these same sectors. Such specialization over a long period often leads to a development of successful clusters of firms and institutions that support a given industry, creating agglomeration economies in production and technology (Krugman, 1998). For instance, in Denmark, the food sector has the features that characterize a strong cluster: several highly competent companies, strong links with suppliers, internationally competitive related industries -- e.g. manufacturing specialized machinery -- and a variety of supporting institutions and organizations in the areas of research, teaching, and quality control. In Finland, the forestry and pulp and paper industries constitute a particularly strong sector (Hermesniemi et al., 1996; Moen and Lilja, 2001), whereas in Norway clusters can be found in the oil and gas, offshore, and maritime sectors (Benito et al., 2000; Reve and Jakobsen, 2001; Reve et al. 1992).

So far, our discussion has focused on the macro-level implications of increasing global competition, rapid technological change, and economic integration, including the possible impact of these forces on the economies of small countries. However, the forces of

globalization also shape decisions and processes at the firm level. In order to understand the strategic moves by companies, we must distinguish between the degree of mobility of tangible assets (like materials, components, blueprints and products) and of intangible assets (like business practice, expertise and supporting institutions). Whereas companies can access global markets for most tangible assets, the intangible assets that are critical to such activities as R&D, design and core manufacturing are typically more embedded in the local clusters (Porter and Sölvell, 1998).

Even where strong clusters do not exist, firms are often most familiar with their home-country situation, creating inertia. This inertia is associated with the nature of the national business systems of their home countries, and the level to which these firms are locally embedded. The level of internationalization reflects the extent to which firms are interdependent and co-dependent on domestic institutions and policies that have not only formed them -- and with which they are most familiar -- but which they have also helped create (Narula, 2002). Clusters are strongly path-dependent, and companies that operate in clusters have tended to maintain their strategic activities at home despite the internationalization of their production and sales. As argued by Porter and Sölvell (1998) while the MNEs may have global networks of subsidiaries involved in operating activities (like sales, service, local assembly and production), typically, strategic activities (like R&D laboratories, design and headquarters functions) are much less dispersed.

However, this implies a view of the MNE as a traditional unitary firm in which the headquarters of the parent firm constitutes the center and other units -- domestic or foreign -- make up the periphery. In the past, the distribution of power and authority within the corporation, the control over critical resources, and the location of strategic activities versus operational activities, has been depicted as a center-periphery pattern with corporate headquarters firmly “planted” in the home country of the MNE as the unchallenged center.

Even though such a description of a MNE may still find proponents, and perhaps even provides a sufficiently accurate description of some companies with international activities, it is a view that is now increasingly challenged (Forsgren, 1990; Forsgren et al., 1995; Zanfei, 2000). Companies are becoming more complex, less hierarchical, and less dependent on firm-specific advantages based on location-bound assets in their home countries (Hedlund, 1986). Several important developments have been identified: the move towards more “geocentric” mind-sets, structures, and policies (Perlmutter, 1969), the evolution towards multi-center or network structures in MNEs (Forsgren, 1990; Ghoshal and Bartlett, 1990), and the emergence of subsidiaries -- so-called “centers of excellence” -- that enjoy positions and roles of substantial strategic character and weight in a corporation (Birkinshaw and Morrison, 1995; Holm and Pedersen, 2000).

The ongoing transformation of MNEs is likely to affect companies from large as well as from small countries, but the impact and speed of change could differ. The relative importance of foreign activities is likely to be greater, on average, for companies based in small countries. Hence, small country MNEs may have had to respond quicker and make more substantial changes than their large-country based competitors. Likewise, small countries are hit harder than large countries by adverse home-country effects. Also, because small country MNEs typically take up a larger part of the economic activities, strategic misjudgment by their management may have severe implications for the national economy of a country. Our interest is, in particular, to investigate to what extent the internationalization development of small-country MNEs in recent years has followed the patterns described above. Based on the preceding discussion, we propose that:

- (1) Large companies have expanded their international activities at a greater rate than their home countries;

- (2) Their internationalization has, over time, moved from being predominantly “operations” oriented -- that is, selling and/or producing goods and services abroad -- to becoming more strategic in the sense that it involves the ownership and decision-making entities of the companies;
- (3) Development patterns will differ across companies and between industries and countries depending on the nature and strength of various centrifugal and centripetal forces.

### **Data**

For each of the three Nordic countries Denmark, Finland and Norway, the 10 largest companies were selected. These are the companies that are particularly exposed to the dilemma of retrieving the local roots while globalizing. The group of “top-10” companies was chosen on the basis of total sales figures in 1999. In addition, the following selection criteria were observed. First, the companies should be predominantly nationally owned: i.e. the largest owner group should be domestic, or alternatively that home-country nationals own the majority of stock.<sup>1</sup> Second, because state-owned companies usually have rather restricted scope for strategic action, especially with regard to internationalization, such companies were excluded.<sup>2</sup> Third, companies in the financial services sector (banking and insurance) and in food retailing typically have restricted market scopes. Historically, most companies in these sectors have focused exclusively on domestic markets, and even though an increasing internationalization has been observed in these sectors in recent years (see Benito and Strøm (2000) for a discussion of internationalization in food retailing), the scale of international operations has been modest so far. These sectors were hence excluded.

Having decided on the companies, the bulk of data was taken from company annual reports.<sup>3</sup> Additional sources of data were the companies’ web pages and company directory services such as General Business File International. Furthermore, the companies were also

contacted to obtain the information unavailable elsewhere (such as data on R&D). For all companies, data were collected for the years 1990 and 1999, thus making it possible to track the internationalization of companies over time.

The information collected can be put into three broad categories: (a) general company information, such as number of employees, type and number of industries; (b) accounting data such as annual sales, profits, return-on-equity, return-on-assets; and (c) a wide range of data regarding their international activities (see Dörrenbächer (2000) for a discussion of internationalization indicators). Data in the latter category included, *inter alia*, foreign sales, number of foreign subsidiaries and international joint ventures (IJVs), number of division, business area, and/or corporate headquarters located abroad, and the share of equity held by foreigners. Also, information on R&D employment at home and abroad was obtained for Danish and Norwegian companies, but such data were unfortunately unavailable for Finnish companies.

## **Results and Analysis**

### ***The Nordic economies in the 1990s***

Table 1 shows that these three economies share many similar features at the macro-level, but also considerable differences. First, they are roughly the same size in terms of overall GDP and population. They have also shared a similar high growth rate over the whole decade in question, but all three countries experienced some level of recession in the early 1990s, with high unemployment and economic crises, resulting in industry restructuring by policy makers.

In the case of Finland, the recession was associated with an exogenous shock. There was a collapse of the Finnish trade with Eastern European countries, especially with the former Soviet Union. In 1990, exports to the Soviet Union still represented almost 13 percent of total exports, but because of the economic and political changes in Russia and the

abandonment of the earlier bilateral trading system, the share export to Russia dropped to two percent in 1992. That, and the reduction in domestic demand, commanded considerable restructuring in several industries and caused a number of bankruptcies. The Finnish currency was devaluated in 1991 and the exports to other markets than Eastern Europe grew steadily. The recovery of the Danish economy was associated with a substantial increase in Danish exports (up 33 percent from 1990 to 1999) resulting in a significant surplus on the trade balance. In the case of Norway, the recession in the early 1990s was gradually overcome through, principally, disciplined fiscal policies, a centralized system of wage bargaining that was able to agree on fairly moderate wage increases, and a consistently high demand for oil and gas in a period that saw high prices for these commodities.

Although all three economies have always had a dependence on a natural asset base, Norway has remained more dependent on natural resources, due largely to the discovery of significant off-shore petroleum reserves in the late 1960s. However, it has also managed to maintain a strong position in the fishing industry. It is a peculiar feature of the Norwegian economy not shared to the same extent by the others that the Norwegian state has always taken a strong interventionist position. There have been several waves of infant-industry development implemented through various degrees of import-substituting policies. During the early part of the post-war era, the focus had been on scale-intensive process sectors such as chemicals, while in the 1970s, its focus was electronic-based industries. The late 1960s was associated with a strong emphasis on fostering firms in this industry during the following decade. In some cases, the state has intervened through ownership of “strategic” firms, and in others they have fostered national champions. In most cases, institutions and infrastructure were built to support the targeted sectors. National control was retained through stringent state controls on inward and outward capital movements, although these has been a gradual phasing out of these institutions. Its membership of the European Economic Area has affected

the Norwegian state's continuation of its interventionist policies, as it must abide by EU regulations on subsidies and competition policy. Contrary to both Finland and Norway, state ownership of manufacturing companies has always been insignificant in Denmark. The Danish state has also consistently followed a strategy of no direct intervention in the industry. However, it has been active in shaping the conditions for developing the manufacturing sector, including educational policy, tax policy, competition policy and as a large demanding customer.

Finnish exports were dominated by metals, engineering, and paper and pulp from the 1960s until the mid-1990s. Since then there has been a clear change in the structure of exports. Electronics and electro-technical industry have become the largest export sectors accounting for close to 30 percent of the total manufacturing exports in 1999. Nokia has played a central role in this change -- and even in the whole recovery of Finland. The growth of Nokia, and its main suppliers, has been exceptional even by global standards. It has been calculated that in 1999 Nokia accounted for more than three percent of Finnish GDP and 20 percent of total exports (Ali-Yrkkö et al., 2000).

All the countries in question are highly dependent on external trade and outward FDI (see Table 1), with trade accounting for more than 50 percent of GDP, and outward FDI at roughly 25 percent of GDP. It is important to note that the significance of trade has remained stable over the 1990s, while the importance of FDI has grown considerably, although there are important differences between the countries. Norway has remained outside the EU, rejecting membership twice, first in 1972 and again in 1994. This has 'pushed' Norwegian firms to internationalize more strongly than what might otherwise have been the case. In contrast, Denmark joined the EU as the first Nordic country in 1972 and the membership of EU has since then been the main gateway for the integration of the Danish economy into the global marketplace. In the 1990s, almost two thirds of Danish exports went to other EU-

countries and more than 70 percent of the total imports came from other EU-countries. Finland became a member of the EU in 1995, and this has played an important role in its economic recovery.

[insert Table 1 about here]

### ***Large companies in the Nordic countries***

**Denmark.** Historically the agricultural sector has been important in Denmark, both politically and economically. This is reflected in the composition of the largest Danish firms by industry in Table 2, where food-related sectors including food manufacturing, and their suppliers (e.g. farmers and manufactures of machinery) make up a large share of the economy. The vertical links between suppliers and production companies are often strengthened by an ownership link where the production company is owned by the suppliers as a cooperative, as is the case with the second largest Danish company (see Table 2), MD Foods. MD Foods is a dairy company owned by the farmers delivering the raw milk to be manufactured into all types of dairy products. Over the years many supporting institutions, like research and quality control centers, have been developed around these companies to constitute a food-cluster.

Three of the ten Danish companies belong to the food-cluster. These are Carlsberg (the sixth largest brewery in the world), MD Foods (the largest dairy company in Northern Europe), and Danisco (the largest sugar company in Northern Europe). The remaining companies are more scattered in terms of industry category or cluster, although, four companies are included in activities related to construction; namely FLS Industries (cement factories), Danfoss (valves), Grundfos (pumps), and Rockwool (insulation).

In the last decade, most of the companies have been involved in substantial restructuring globally in their industry where the name of the game have been either to grow by acquisition and thereby become one of the big global players or be acquired by others. Several of the companies have made substantial acquisitions abroad -- like MD Foods

acquisition of Swedish Arla Foods, and Danisco of Finnish Cultor -- becoming the market leader in their industry.

There is a distinction between the highly internationalized companies with a foreign sales total scale ratio above 90 percent and the companies in the food-cluster that are more domestically oriented with a foreign sales ratio below 80 percent (see Table 2). However, it is the companies in the food-cluster that have been most active in foreign acquisitions in the last decade. This is illustrated by the foreign employment ratio of 49 percent for Carlsberg and 60 percent for Danisco, which clearly exceeds the foreign employment ratio of some of the highly internationalized companies such as Novo Nordisk (38%) and Lego (28%).

The companies in the food-cluster serve as an illustration on the interplay between the centripetal and centrifugal forces, where the centripetal forces consist of the strengths of the Danish food-cluster and the centrifugal forces stem from the international competition and the pressure for restructuring of the industry. The question that remains to be answered is whether the expansion of international activities will be at the expense of strong roots in the Danish cluster or whether it will strengthen the competencies in Danish companies by tapping into other knowledge bases.

A survey of the internationalization patterns of Danish companies indicates that Danish companies had, until quite recently, mainly internationalized their “operations” (Pedersen et al., 1998). Sales and service activities were internationalized to a large extent in the sense that these activities are located abroad. Production activities (including assembly and packaging) were also highly internationalized, but at a somewhat lower rate than for sales and service. Activities that were least internationalized were the most value-adding activities like design, marketing, R&D, and headquarters activities.<sup>4</sup>

[insert Table 2 about here]

**Finland.** Although foreign trade has historically been very important the more intensive internationalization of Finnish companies only started in the 1960s and 1970s. Truly active internationalization began in the 1980s. The 1990s saw a great deal of restructuring taking place in several of the largest Finnish companies, but companies continued to internationalize in those business sectors that they had not divested. In 1990, the mean foreign sales ratio in the ten largest Finnish companies was close to 70 percent. (see Table 3) The highest ratio was 93 percent in Outokumpu and the lowest – 40 percent – in Metra. Table 3 shows that by 1990 the sales of Finnish companies were highly internationalized, reaching in 1999 a mean foreign sales ratio of 88 percent. This figure indicates the critical role of foreign sales in the largest Finnish companies. A typical example of significant increases in foreign sales is the Metra Corporation, where foreign sales increased from 40 percent in 1990 to 95 percent in 1999 because of the substantial restructuring of operations over those years.

The expansion of production abroad lagged behind foreign sales throughout the decade: the share of foreign employment remained clearly lower than the share of foreign sales (see Table 3). In 1990, the mean foreign employment ratio was about 36 percent, or half of the foreign sales ratio. The mean employment ratio had increased to about 55 percent in 1999, a rate of increase in the mean value about the same as the rate of increase in foreign sales.

All the largest Finnish companies have traditionally preferred acquisitions to greenfield investments. In the case of Nokia, there was also an intensive network of strategic alliances and other co-operative arrangements. The considerable growth in foreign sales of Nokia also increased the internationalization of the company's main Finnish subcontractors, with subcontractors establishing and acquiring their own foreign manufacturing units close to Nokia's main foreign units. The internationalization and foreign establishments by other large Finnish firms have not had similar effects to those of Nokia. In Kone and Nokia about half of

the sales were from European countries and half from outside Europe, whereas in the other large companies at least two-thirds, in some cases even over 80 percent, were from European countries. Hence, most of the top Finnish firms are mainly European oriented in their operations, and some companies -- like Metsäliitto and Rautaruukki -- did not own manufacturing units outside Europe in 1999.<sup>5</sup>

[insert Table 3 about here]

**Norway.** The sample of Norwegian firms is an eclectic collection, including their industry, size, and degree and rate of internationalization. From Table 4, three main observations can be made. First, there are no clear cases of companies that are dependent upon a single industrial cluster. Three companies in the set are, at least partly, involved in industries that have cluster-like characteristics; namely, Norsk Hydro, Kværner, and Aker that operate in the petroleum and offshore sectors. A much more obvious feature is the fact that the companies, including the ones just mentioned, are almost without exception “old-fashioned” conglomerates that operate in a variety of industries and product categories. Second, there seems to be a distinction between those companies that operate in sectors that traditionally have been highly internationalized, and sectors that have been domestically oriented. This dichotomy is not unrelated to the predominance of resource-based advantages, which has been the mainstay of the Norwegian economy throughout the 20th century. Companies in resource-based sectors such as petroleum, metals, and pulp and paper (i.e. Norsk Hydro, Elkem, and Norske Skog) are all dependent on foreign customers -- as indicated by foreign sales ratios ranging from 85 to 93 percent (see Table 4). However, as expected given their reliance on local resource advantages, the foreign employment ratios of these companies are considerably lower, ranging from 23 percent in Norske Skog to 53 percent in Norsk Hydro.

The traditionally high degree of state involvement in business (both as an owner, and as a pro-active regulator), has resulted in a certain tolerance for monopoly-like market structures

in some sectors and targeting others through various levels of import-substituting policies. For some companies the tendency for home market-orientation is also associated with their protection from international competition. These firms have gone abroad relatively later than the resource-oriented firms that have had to face international competition much earlier. This can clearly be seen from Table 4 where companies such as Orkla, Mekantildata, Rieber and Schibsted have a substantially lower foreign sales ratio on average than “traditional” industrial firms.

Third, there were no distinctively large firms within the Norwegian sample by international standards. The largest company in the Norwegian top 10 -- Norsk Hydro -- had total worldwide sales in 1999 of US\$ 13.1 billion. In general, though, compared with other small countries such as Netherlands -- or Belgium, Sweden, and Switzerland -- Norwegian firms were predominantly small with nine of the 10 firms in Table 4 having less than US\$10 billion in annual sales, and 8 out of 10 having annual turnover of less than US\$4 billion.

[insert Table 4 about here]

### ***Large companies in the Nordic countries: similarities and differences***

Firms from all three Nordic countries tend to demonstrate some similarities, as shown in Table 5. First, there is a predominance of resource-based firms. This is, in part, due to the traditionally strong clusters found in these countries in the resource-intensive sectors (see Hermesniemi et al., 1996; Reve et al., 1992). Second, Table 5 shows there were no truly large companies -- or “global giants” -- in these countries. In fact, with the possible notable exceptions of Nokia and Stora-Enso in Finland and Norsk Hydro in Norway, the top 10 firms really consists of companies that in other contexts would probably have been termed medium-sized. One possible explanation can be that in all three countries governments have had an inclination to encourage and support the development of “national champions”, albeit less so in Denmark. Even though such companies have come to dominate their domestic markets,

barriers to and/or lack of incentives to internationalize and the restricted sizes of these markets have prevented them from developing into large companies with worldwide presence.

[insert Table 5 about here]

Third, a general observation from Table 5 is that companies in the top 10 league in each of the countries have become more internationalized across a number of relevant dimensions over 1990s, specially in terms of foreign sales and employment rates. Moreover, their internationalization has been much stronger than the corresponding international trade figures at the national level. Internationalization patterns in Table 6 were measured by “operation” and “strategic” variables, which shows that the top 10 companies Danish and Norwegian firms have predominantly grown by expanding their international operations. This pattern was less easily observed in the case of Finnish firms, where the number of subsidiaries remained stable and the number of IJVs actually fell, although both the foreign sales and employment ratios increased between 1990 and 1999.

[insert Table 6 about here]

Internationalization patterns in Table 6 also revealed interesting differences between the national samples. First, the Norwegian companies have on average experienced a higher rate of internationalization during the 1990s than their counterparts from Denmark and Finland. This is true for most indicators of internationalization used in the study apart from growth in the number of IJVs, where the Danish companies display a marginally higher percentage change over the 1990 to 1999 period. The fact that the Norwegian companies on average were less internationalized in the early 1990s than their Danish and Finnish counterparts suggests that the Norwegian companies experienced “catch-up”, which in turn may partly explain their quicker internationalization pace through the decade. However, as argued by Oxelheim and Gärtner (1994), their stronger internationalization also reflects

Norway's decision to stay outside the EU, thereby promoting the re-location of value-added activities to units within the EU.

Second, there are also important differences between the countries with regard to the extent to which their companies have internationalized beyond merely gained a larger market presence abroad or relocated production to foreign locations. For example, while the average number of foreign subsidiaries of Danish and Norwegian companies increased by 76.5 percent and 110.7 percent respectively from 1990 to 1999, the corresponding figure for Finnish firms is only 7.1 percent (see Table 6). In the case of Norway, Table 6 shows that there is also a clear development towards internationalizing strategic activities such as R&D, and the ownership of their largest companies has also become increasingly international. Even though there has also been a strong internationalization of Finnish companies' equity, other measures of strategic internationalization have been less pronounced in the case of Finland, and almost absent amongst Danish companies. The internationalization of strategic activities is best illustrated by the increasing number of division or business area headquarters located abroad, which has gone from 1 in 1990 for Norwegian companies to 27 in 1999. The corresponding figures for Danish firms are 1 and 4, respectively. (see Table 6) By contrast, the number of foreign located divisional headquarters declined over the same period among Finnish companies. In addition, the only company in our sample that had moved their corporate headquarters to a foreign location was the Norwegian company Kværner.

The overall impression is clearly that for all three countries the largest companies have expanded their operations activities abroad, but whereas Danish and Finnish companies have concentrated their strategic activities at home, several exceptions to that rule can be found among Norwegian companies. This may reflect a number of developments, of which two appear particularly important. First, the outsider status of Norway vis-à-vis the EU has pushed some Norwegian firms to re-locate strategic activities to take advantage of benefits that accrue

to firms based within the EU. Second, Norwegian firms have tended to internationalize more as a result of weaker clusters at home. One example is the forest, pulp, and paper sector that, in striking contrast to Finland, did not develop into a competitive cluster in Norway, leaving the only remaining major company, Norske Skog, alone on the international scene. Norske Skog has been successful in its internationalization, recently becoming the second largest newsprint producer in the world through a series of acquisitions, but the company is much less nationally anchored than the Finnish-based firms (Moen and Lilja, 2001). Another example is the Norwegian metals sector, which has lost many of its former cluster characteristics (Reve et al., 1992). There is also evidence that the traditional strong linkages between various maritime sectors -- e.g. between shipping, yards, and ship equipment -- have eroded over time (Benito et al., 2000). Companies have been obliged to seek access to clusters in other locations, and therefore tended to re-locate strategic aspects of their activity more than Finnish or Danish firms.

### **Summary and Discussion**

We have investigated the internationalization patterns of the top 10 companies from three small Nordic countries -- Denmark, Finland, and Norway -- over the period 1990 to 1999. Most companies in the sample have become more international over the last decade across all investigated dimensions of internationalization. This finding holds across the three countries, but is particularly accentuated in the case of Norwegian firms, partly due to their lower degree of internationalization at the beginning of the period.

Small nations are becoming more dependent on their MNEs, yet find themselves in an exceedingly vulnerable position. On the one hand, the growth rates of their largest companies are typically vastly superior to the growth of the national economies, and as a result, the relative importance of the activities of such companies has increased. On the other hand,

increased globalization pressures have forced MNEs to reconfigure their activities worldwide. In order to survive, companies base their actions on what makes sense from a business perspective, and sometimes these actions may be in conflict with home country goals and policies.

Globalization is characterized by increased cross-border interaction, but that does not necessarily imply a simple uni-directional outward movement. While MNEs may be forced to internationalize their activities and hence “grow” out of their home countries, at the same time they also tap into local clusters and knowledge and resource pools. Differences between the internationalization patterns of the top 10 firms in the three Nordic countries investigated suggest that centrifugal and centripetal forces are working with varying strength across countries. Norway seems generally to have been hit harder than Denmark and Finland over the last decade by the centrifugal forces of globalization and/or, conversely, by a lack of correspondingly strong centripetal forces. The findings in this study regarding “operational” versus “strategic” internationalization are of particular interest. The high degree of “operational” internationalization can largely be explained by the needs to seek markets, lower costs and access resources outside the home country. Scale, scope, and cost pressures act as strong centrifugal forces that, in an increasingly liberalized and global economy, largely drive “operational” internationalization. There has been a convergence across the countries through the 1990s for all investigated dimensions of “operational” internationalization, and the average values for the Danish, Finnish, and Norwegian data sets turn out to be very similar at the end of the period.

“Strategic” internationalization is less a function of exogenous factors such as country size *per se*. A strong home country “embeddedness” counterbalances or neutralizes the motives for moving strategic activities and units to foreign locations. Such “embeddedness” is the result of strong linkages to government and to state and local authorities, of cultural

affinity, the existence of well-developed and well-functioning national innovation systems and infrastructure, and the existence of strong industrial and local clusters. The essence is that such factors work as centripetal forces keeping certain types of activities in a given location. Of course, in the absence of sufficiently strong centripetal forces, internationalization of a “strategic” kind becomes more likely.

Overall we find that a low degree of “strategic” internationalization typifies the top 10 MNEs, especially those from Denmark and Finland. There has been some re-location of strategic activities among top 10 Norwegian companies. Our results indicate that this cross-country variance between MNEs reflects not just varying firm-specific strategies. Although our analysis here is necessarily tentative, it suggests that important idiosyncratic differences exists between the three Nordic home countries, which ultimately reflect themselves in the activities of their MNEs. A more detailed analysis is called for to separate these various influences. For instance, the dichotomy between Finland and Denmark on the one hand, and Norway on the other, is influenced by the integration of the former in the EU, while also reflecting the latter’s less developed clusters. The behavior of MNEs involves a complex set of issues, and the macro-micro interface deserves more careful study than has hitherto been the case.

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Figure 1. The interface between micro and macro level factors

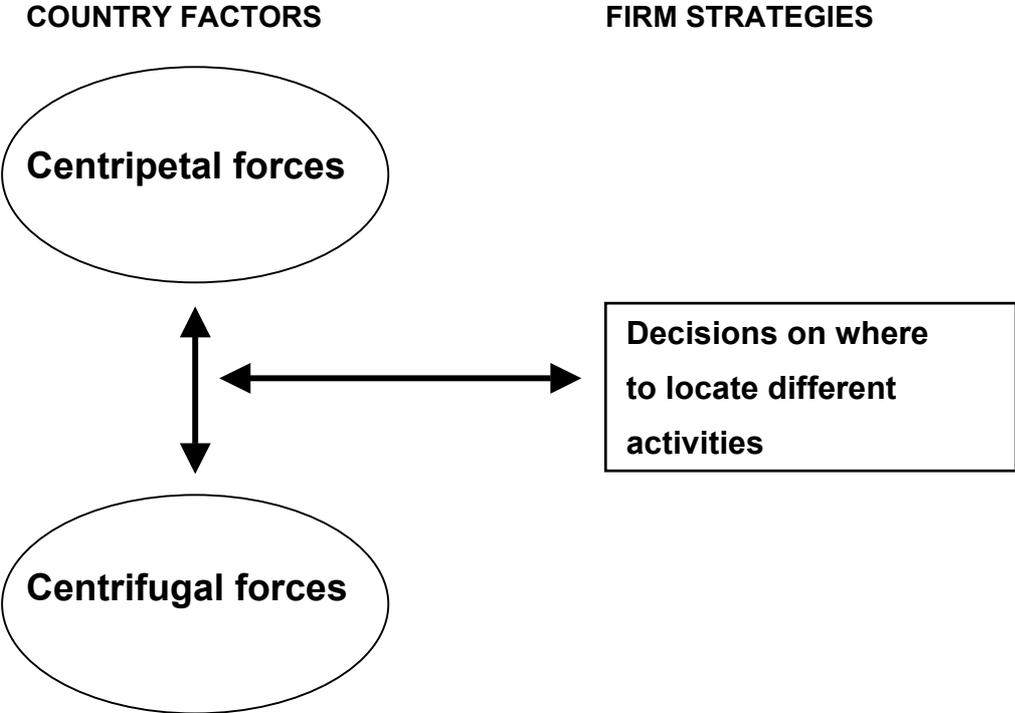


Table 1  
**Macroeconomic indicators, Denmark, Finland, and Norway: 1990 and 1999**

|  | Denmark   | Finland   | Norway    |
|--|-----------|-----------|-----------|
| <b>GDP</b>   |           |           |           |
| • 1990, in current USD                               | 133,430   | 136,911   | 115,430   |
| • 1999, in current USD                               | 173,830   | 129,677   | 152,926   |
| <i>GDP growth 1990-1999:</i>                         |           |           |           |
| • At current prices/USD-rates                        | 30.3%     | -5.3%     | 32.5%     |
| • At 1990-prices/USD-rates                           | 25.8%     | 19.0%     | 35.4%     |
| <b>External Trade and Investment</b>                 |           |           |           |
| <i>Exports:</i>                                      |           |           |           |
| • 1990, in current USD                               | 36,892    | 31,152    | 46,925    |
| • 1999, in current USD                               | 48,993    | 48,520    | 59,681    |
| <i>Imports:</i>                                      |           |           |           |
| • 1990, in current USD                               | 33,353    | 33,443    | 39,354    |
| • 1999, in current USD                               | 44,274    | 37,996    | 50,481    |
| <i>External trade in percent of GDP:<sup>a</sup></i> |           |           |           |
| • 1990   | 52.6%     | 47.2%     | 74.7%     |
| • 1999   | 53.7%     | 66.7%     | 72.0%     |
| <i>Stock of outward FDI, mill. USD:</i>              |           |           |           |
| • 1990   | 7,342     | 11,227    | 10,888    |
| • 1999   | 42,035    | 31,803    | 38,423    |
| <i>Stock of FDI in percent of GDP:<sup>b</sup></i>   |           |           |           |
| • 1990   | 5.5%      | 8.2%      | 9.4%      |
| • 1999   | 24.2%     | 24.5%     | 25.1%     |
| <b>Employment</b>                                    |           |           |           |
| <i>Total employment:</i>                             |           |           |           |
| • 1990   | 2,605,700 | 2,504,000 | 2,054,200 |
| • 1999   | 2,678,700 | 2,296,000 | 2,280,600 |
| • Growth 1990-1999                                   | 2.8%      | -9.1%     | 11.0%     |
| <i>Manufacturing industries:</i>                     |           |           |           |
| • 1990   | 479,500   | 556,000   | 294,500   |
| • 1999   | 447,100   | 488,000   | 311,000   |
| • Growth 1990-1999                                   | -6.8%     | -12.2%    | 5.6%      |

Notes:

<sup>a</sup> Calculated as:  $[\text{Export}_t + \text{Import}_t] / \text{GDP}_t \times 100$

<sup>b</sup> Calculated as:  $[\text{FDI}_t / \text{GDP}_t] \times 100$

Sources: Statistics Denmark, Bank of Denmark, Statistics Finland, Bank of Finland, Statistics Norway, Bank of Norway, *World Investment Report 2000*

Table 2

**The 10 largest private, non-financial companies in Denmark: some characteristics, 1999**

| <i>Company</i> | <i>Main industry</i>   | <i>Total sales 1999,<br/>in million USD</i> | <i>Foreign sales in<br/>percent of total<br/>sales 1999</i> | <i>Number of<br/>employees in<br/>1999</i> | <i>Foreign<br/>employment in<br/>percent of total<br/>employment in<br/>1999</i> |
|----------------|------------------------|---|---|--|--|
| Carlsberg      | Brewery                | 4671.5                                      | 70%   | 21,906                                     | 49%  |
| MD Foods       | Dairy products         | 3790.0                                      | 64%   | 13,604                                     | 35%  |
| FLS Industries | Special machinery      | 3134.7                                      | 80%   | 14,140                                     | 65%  |
| Novo Nordisk   | Organic chemicals      | 3124.4                                      | 99%   | 15,184                                     | 38%  |
| Danisco        | Sugar                  | 2869.8                                      | 77%   | 15,413                                     | 60%  |
| Danfoss        | Valves and compressors | 2152.9                                      | 90%   | 18,860                                     | 58%  |
| Egmont         | Publishing             | 1221.3                                      | 75%   | 4,164                                      | 47%  |
| Grundfos       | Pumps and compressors  | 1122.9                                      | 92%   | 9,699                                      | 57%  |
| Rockwool       | Non-metallic minerals  | 1076.9                                      | 91%   | 7,346                                      | 81%  |
| Lego           | Manufacturing of toys  | 954.8                                       | 94%   | 6,284                                      | 28%  |

Table 3

**The 10 largest private, non-financial companies in Finland: some characteristics, 1999**

| <i>Company</i> | <i>Main industry</i> | <i>Total sales 1999,<br/>in million USD</i> | <i>Foreign sales in<br/>percent of total<br/>sales 1999</i> | <i>Number of<br/>employees in<br/>1999</i> | <i>Foreign<br/>employment in<br/>percent of total<br/>employment in<br/>1999</i> |
|----------------|----------------------|---|---|--|--|
| Nokia          | Communication equip. | 21067.9                                     | 98%   | 55,260                                     | 58%  |
| Stora-Enso     | Paper and pulp       | 11333.2                                     | 93%   | 40,226                                     | 62%  |
| UPM-Kymmene    | Paper and pulp       | 8802.5                                      | 87%   | 30,963                                     | 32%  |
| Metsäliitto    | Paper and pulp       | 6077.6                                      | 82%   | 20,854                                     | 47%  |
| Metso          | Special machinery    | 3609.0                                      | 90%   | 23,274                                     | 52%  |
| Outokumpu      | Non-ferrous metals   | 3099.6                                      | 92%   | 11,972                                     | 45%  |
| Metra          | Engines and equip.   | 2876.9                                      | 95%   | 15,551                                     | 76%  |
| Kemira         | Fertilizers          | 2691.6                                      | 82%   | 10,743                                     | 53%  |
| Kone           | Elevators            | 2570.1                                      | 96%   | 22,630                                     | 93%  |
| Rautaruukki    | Steel and iron       | 2544.4                                      | 69%   | 12,491                                     | 38%  |

Table 4

**The 10 largest private, non-financial companies in Norway: some characteristics, 1999**

| <i>Company</i>    | <i>Main industry</i>     | <i>Total sales 1999,<br/>in million USD</i> | <i>Foreign sales in<br/>percent of total<br/>sales 1999</i> | <i>Number of<br/>employees in<br/>1999</i> | <i>Foreign<br/>employment in<br/>percent of total<br/>employment in<br/>1999</i> |
|-------------------|--------------------------|---|---|--|--|
| Norsk Hydro       | Fertilizers, oil, metals | 13132.4                                     | 90%   | 37,900                                     | 53%  |
| Kværner           | Oil field machinery      | 9085.1                                      | 76%   | 61,955                                     | 85%  |
| Orkla             | Food                     | 3952.9                                      | 58%   | 25,037                                     | 56%  |
| Aker RGI          | Oil and gas services     | 3673.8                                      | 51%   | 18,995                                     | 44%  |
| Norske Skog       | Paper and board          | 2314.6                                      | 85%   | 6,315                                      | 23%  |
| Dyno Industrier   | Explosives               | 1377.3                                      | 91%   | 7,757                                      | 81%  |
| Elkem             | Metals                   | 1228.6                                      | 93%   | 4,030                                      | 23%  |
| Merkantildata     | Computers, software      | 1294.4                                      | 65%   | 3,830                                      | 67%  |
| Rieber & Søn      | Food                     | 988.8                                       | 67%   | 8,428                                      | 74%  |
| Schibsted konsern | Media and publishing     | 963.3                                       | 44%   | 4,910                                      | 55%  |

Table 5

**Large companies in Denmark, Finland, and Norway: mean values, 1990 and 1999**

|                                  | <b>Denmark</b> | <b>Finland</b> | <b>Norway</b> |
|----------------------------------|----------------|----------------|---------------|
|                                  | <i>Mean</i>    | <i>Mean</i>    | <i>Mean</i>   |
| Total sales 1990, in million USD | 1,336.52       | 3,452.09       | 2,022.78      |
| Total sales 1999, in million USD | 2,411.90       | 6,467.28       | 3,801.14      |
| • Percentage growth 1990-1999    | 80.5%          | 87.3%          | 87.9%         |
| Foreign sales ratio, 1990        | 0.75           | 0.69           | 0.45          |
| Foreign sales ratio, 1999        | 0.83           | 0.88           | 0.72          |
| Number of employees, 1990        | 8,317.00       | 21,382.00      | 9,060.00      |
| Number of employees, 1999        | 12,660.00      | 24,396.00      | 17,916.00     |
| • Percentage growth 1990-1999    | 52.2%          | 14.1%          | 97.7%         |
| Foreign employment ratio, 1990   | 0.34           | 0.38           | 0.27          |
| Foreign employment ratio, 1999   | 0.51           | 0.56           | 0.56          |

Table 6

**Internationalization of the 10 largest companies in Denmark, Finland, and Norway: mean values**

| <i>Dimensions of internationalization</i> | <b>Denmark</b> |             |                                    | <b>Finland</b> |             |                                    | <b>Norway</b> |             |                                    |
|---|----------------|-------------|------------------------------------|----------------|-------------|------------------------------------|---------------|-------------|------------------------------------|
|   | <i>1990</i>    | <i>1999</i> | <i>Percentage change 1990-1999</i> | <i>1990</i>    | <i>1999</i> | <i>Percentage change 1990-1999</i> | <i>1990</i>   | <i>1999</i> | <i>Percentage change 1990-1999</i> |
| <i>"Operations oriented"</i>              |                |             |                                    |                |             |                                    |               |             |                                    |
| • foreign sales ratio                     | 0.75           | 0.83        | 10.7%                              | 0.69           | 0.88        | 28.8%                              | 0.45          | 0.72        | 60.0%                              |
| • foreign employment ratio                | 0.34           | 0.51        | 50.0%                              | 0.38           | 0.56        | 47.4%                              | 0.27          | 0.56        | 107.4%                             |
| • # subsidiaries                          | 38.70          | 68.30       | 76.5%                              | 82.80          | 88.70       | 7.1%                               | 29.80         | 62.80       | 110.7%                             |
| • # IJVs                                  | 7.00           | 10.80       | 54.3%                              | 12.80          | 11.90       | -7.0%                              | 8.60          | 13.20       | 53.5%                              |
| <i>"Strategic"</i>                        |                |             |                                    |                |             |                                    |               |             |                                    |
| • foreign R&D ratio                       | 0.22           | 0.23        | 1.2%                               | n.a.           | n.a.        | n.a.                               | 0.09          | 0.37        | 298.2%                             |
| • foreign equity share                    | 3.50           | 4.70        | 34.0%                              | 2.80           | 40.6        | 1350.0%                            | 13.70         | 23.00       | 67.9%                              |
| • # division HQs abroad                   | 0.10           | 0.40        | 300.0%                             | 0.30           | 0.10        | -66.7%                             | 0.10          | 2.70        | 2600.0%                            |
| • # corporate HQs abroad                  | 0.00           | 0.00        | -                                  | 0.00           | 0.00        | -                                  | 0.00          | 0.10        | -                                  |

Note: "n.a." denotes that data was not available.

## Notes

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<sup>1</sup>In the cases of Denmark and Finland, none of the foreign owned firms were large enough to being considered for inclusion, whereas in Norway there is a number of large companies that are foreign owned (e.g. ABB Norge, Esso Norge, Norske Shell, Elf Petroleum Norge). This is largely due to the importance of the oil and gas sector in Norway, in which some of the biggest oil companies in the world operate.

<sup>2</sup> In the case of Norway, that means that companies such as Statoil (oil and gas) and Telenor (telecommunication) were not included in the sample.

<sup>3</sup> The companies were selected from the following lists; *Børsens Nyhedsmagasin: Danmarks 500 største koncerner* in Denmark, *Talouselämän 500 suurinta yritystä* in Finland, and *Kapitals 500 største* for Norway.

<sup>4</sup> A recent econometric analysis on the Danish survey-data shows that the number of white-collar workers in Denmark is significant and positively related to FDI, while the number of blue-collar workers in Denmark is negatively related to FDI (Pedersen et al., 1998). This indicates that the Danish companies are structuring their international network with operations activities dominated by blue-collar workers increasingly located abroad at the expense of their activities in Denmark, while strategic activities associated with innovation and value adding are retained in Denmark.

<sup>5</sup> The large acquisitions made by Stora-Enso in the summer of 2000 in the United States have led to an expansion of sales to cover more of the Triad area, and may be indicative for a future trend among other large Finnish companies as well.