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**FOREIGN DIRECT INVESTMENTS AND
REGIONAL EFFECTS:
The case of Norway**

by

**Grete Rusten, Stig-Erik Jakobsen
and Torunn Kvinge**

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GRETE RUSTEN, STIG-ERIK JAKOBSEN AND TORUNN KVINGE*)

FOUNDATION FOR RESEARCH IN ECONOMICS AND BUSINESS
ADMINISTRATION (SNF) BERGEN

*) FAFO INSTITUTE FOR APPLIED SOCIAL SCIENCE

ABSTRACT

Foreign direct investments (FDI) have had an important role in Norway since the start of the manufacturing age in the beginning of the 1900s. Traditionally these were mostly export-oriented manufacturing companies. However, shifts have taken place since the 1960s. In 1996 nearly $\frac{3}{4}$ of the employment in foreign majority owned companies are within trade or services mostly oriented towards the Norwegian market. This article aims to discuss more closely some business strategies and regional linkages among FDIs in order to focus on factors that may tempt such investments. This is followed by a discussion of regional policy implications. Empirical evidence is mainly based on case interviews from two research projects that took place in the period 1998-99. One main conclusion from the two research projects is that investments from abroad are a logical consequence of an increasingly international economy. The overall picture is that there seem to be many similarities between foreign and domestic firms concerning structural conditions, location and linkages. A market orientation with mergers and acquisitions as dominating investment strategy seem to be an important explanation for these findings.

INTRODUCTION

Foreign direct investments (FDI) in Norway have traditionally played an important role in the development of the economy. Foreign ownership was the basis for the metallurgical and chemical industry located near abundant hydroelectric-power resources in the first part of the 1900s. Several foreign owned trade and service companies set up an outlet to serve the Norwegian market, some already in the 1920s. These businesses started occasionally as greenfield investments, but were in most cases a result of mergers or acquisitions. Foreign ownership did additionally play a major role in the development of the offshore-based petroleum-industry since its beginning in the late 1960s. At the end of the 20th century, the main industries when it comes to inward FDI (capital holdings) are petroleum, trade and services. During the last twenty years also Norwegian outward FDIs have experienced growth. A minor part of inward FDI are in the manufacturing industry, but this sector dominates among Norwegian investing companies abroad. The Norwegian economy is all together highly internationalised, but still there is some public scepticism towards multinational companies (from now on MNC which is defined as companies with direct investments in more than one country). The arguments are mainly of two kinds: One concerns changes in ownership from domestic to foreign, which implies that decision making has been moved abroad. The other concerns cases of strategic asset or efficiency seeking multinationals, which implies that domestic firms are closed down or moved out of the country.

This article aims to discuss more closely the relationship between business strategies and regional linkages and thereby focusing on factors that may attract foreign direct investments. For methodological reasons the empirical evidence only includes firms which have business in Norway.

The economic literature usually discusses FDI-effects from the viewpoint of the nation, and neglects the fact that cross-border operations take place in order to exploit economic advantages in or from a certain region. Links as one way of measuring effects are as we see it not only related to supply of goods and services, but also to employment possibilities, R&D, management practise and community commitments. Classical regional studies such as Firm (1975), Marshall (1979), and Massey (1984), have all concluded that foreign owned companies, and especially branch plants form weaker linkages to the local economy compared

to firms where ownership and company headquarters are placed closer. More recent studies have altogether played down the role of ownership by claiming that local linkage differences are more a function of the type of business management and characteristics of location than where ownership geographically belongs, (Barkley and McNamara, 1993, Invest in Sweden, 1999).

The paper is organised as follows; the first section includes a theoretical discussion of structures and strategies and their influence on the formation of linkages. Section two compares FDI in Norway with other OECD-countries. The third section contains an empirical investigation of FDI-linkages in Norway. The paper closes with some concluding remarks on policy implications concerning FDI and regional effects.

The empirical evidence is based on data from two different studies. Statistics based on census data, include an international comparison as well as national and regional figures. Evidence from two different case studies covering respectively 21 and 5 subsidiaries in majority owned companies (where foreigners control more than 50 % of the share capital), comprises more detailed information about structures and strategies. Both samples have been stratified to be broadly representative according to target population, seeking a balance between location, sector, size and nationality (measured by location of head office). The fact that the two studies has been planned separately and received support from different research-programmes explains the split between metropolitan and non-metropolitan locations for the two data sets.

The definition of regions is based on centralisation, economical structure and population density in accordance with official measures reported in Official Statistics of Norway (1994). According to this official standard the non-metropolitan category includes municipalities outside the four largest cities Oslo, Stavanger, Bergen and Trondheim (the metropolitan area is an urban municipality with suburbs).

The manufacturing (17), trade (6) and service (3) sectors are all included among the cases in our study. Fifteen of the cases are chemical, electronic or optical industry firms. Classification by size divides the firms into two equal categories, one includes firms with less than 100 employees, and the other with employment between 100-400. The dominant ownership nations among the cases are the USA (7), Sweden (6) Finland (4) and Germany (3), while 6

other firms have ownership placed elsewhere in Europe. (Keeping the firms' anonymity explains why we have chosen not to document combination of the different variables).

The case studies were approached by in-depth interviews with firms' senior staff with various questions about structures and strategies. Working in field took place from fall 1998 to early spring 1999 including different urban and rural locations in Trøndelag, as well as East- and West-Norway. This paper is mostly based on the empirical evidence of information drawn from these interviews. Data from a postal-survey among 225 non-metropolitan foreign firms, comprehensively analysed and discussed in Jakobsen and Rusten, 2000, do however give some additional details about linkages. (This latter survey from 1999 targeted all foreign firms in non-metropolitan Norway, and finally received information from 54%).

ORGANISATIONAL CONTEXT, STRATEGIES AND LINKAGES

The extension of regional effects will to some degree depend on the companies' organisational form and strategic orientation, which will be discussed in more detail below.

Company position and regional linkages

Jay Galbraith (1994) has identified four different organizational models in order to describe subsidiary positions in the company. The first, the remote controlled daughter implies that control, strategy and R&D operations are centrally placed near headquarters. The subsidiaries' role is merely to undertake sales or production instructed from the top level, accordingly local linkages are usually few. Conditions for forming linkages that may include the local or regional level are usually better for subsidiaries that have a more independent position. This brings our attention to the second organisational model; the autonomous daughter, where authority and even some strategic decisions are delegated. The third model is the regional head office, where management of the subsidiary also has some control over units in other countries. Due to communication infrastructure regional head offices will usually be located to the capital or another central city. Several multinationals consider the Nordic countries as a relatively small market with common characteristics. Having only one subsidiary placed in this region does in some cases give sufficient coverage, in others the subsidiaries in the different countries are given different hierarchical status. In some cases the organisational solution is a result of a power struggle between subsidiaries in the different countries. On that score individual management qualifications and status within the organisation seem important (Rusten et al., 1999).

The fourth organisational form, and which gives the subsidiary the most powerful position, is centre of excellence. This latter title implies that the subsidiary on behalf of the company has been assigned responsibility for a certain segment on which other parts of the company depend their operations. These subsidiaries have responsibility for strategic initiatives that go beyond their local role, and therefore represent a more complicated system than the traditional hierarchical organisation (Holm and Pedersen, 2000). The very fact that there are variations among researchers as well as companies regarding use of the term “centre of excellence” makes it somewhat difficult to make an exact count. Some studies, as for instance Benito (2000) which studied cases located in Norway, use direct or indirect R&D involvement as the main criteria, a definition which also matches our data.

We have so far presented more or less theoretically ideal organisational models. In real life classifying may not be so simple, because of combinations. As already suggested for centre of excellence there might also be different understandings of labels. Identifying the supply chain relationship for subsidiaries, opens up a way of exploring the real difference between appointed formal positions and actual management autonomy. Linkages related to the “remote daughter” will usually be less developed than what is usually found among the three other organisational models.

Nor are control and power relations between parent and subsidiary necessarily static. For instance does the literature on multinational development and centre of excellent illustrate how subsidiaries some times change status from subordinate to strategically important units both in relation to the company and the region where they are located (Holm and Pedersen, 2000).

Changes in the owner-leadership situation, strategies and market conditions might all influence on positions. A low turnover situation may imply that the parent company is more concerned about daughters running operations, than cases when business is doing well. Negative profits will eventually imply closure of the business, which will not only affect the actual firm but also various contract partners.

Investment motives and regional linkages

Foreign direct investment motives may be resource-seeking, market-seeking, efficiency-seeking or strategic asset-seeking (Dunning, 1992). We concentrate our discussion on resource- and market seeking investments, as these motives seem to be most relevant for FDI in Norway.

Direct investments based on natural resources are generally recognised by weakly developed or missing linkages to other industries and markets in the host country (Reuber *et al.*, 1973). Export based production with imported raw materials (for instance bauxite) few local supply possibilities and a relatively scarce employment base, limits regional effects for many of Norway's one-company towns hosting an MNC (Hansen and Selstad, 1999). The isolation from other places intensifies these local conditions. Neither has the climate for entrepreneurial activities or business moving in from elsewhere been the best. Whether the dominant company of the community is domestic or foreign owned, seems in this respect to be of no matter. Larger urban areas have a greater variety of business activities than these towns. The situation is all together, quite different for the category of resource based investments which are part of the petroleum industry. This sector which is strongly export-oriented, represents an advanced technological cluster of foreign and Norwegian owned companies. The regional synergies within and towards related sectors are considerable, especially for Stavanger, Bergen and Oslo.

Another resource-based investment category is according to Reuber *et al.* (1973) based on cheap labour force. Some countries, among them Ireland, offer favourable conditions for these types of investments. The employment effects have been considerable, but even so created a relatively vulnerable and one-sided economy with weak linkages to other sectors (Coe, 1996). Due to high wages, labour intensive investments are usually not the most pronounced motive for MNCs heading for the Nordic countries. Still if concerned suitable, a location will require access to available personnel with the right qualifications.

Yet another category of MNCs is market oriented (Reuber *et al.*, 1973). Host-market requirements, motivate adjustments and formation of relatively strong regional links. Hiring persons from the host country as managers may be part of such a strategy. Even choice of suppliers can if economically justified, sometimes reflect community support motives. Especially pronounced are these links when managers have local ties. Several foreign

companies regard Norway as a relatively small, geographical peripheral market. Still, it is a market with considerable purchasing power among business and consumers and therefore profitable for many types of investments. Market oriented investment does therefore dominate among the MNCs, and especially those that have chosen a metropolitan location (Rusten et al., 1999).

So far we have discussed the relationship between linkages, organisational positions or investment motives. A further element concerns cases where foreign firms are instructed from authorities to choose suppliers from within the host country or even a certain region. One example from Norway is the earlier version of the Petroleum Law, which instructed foreign oil companies to inform potential Norwegian suppliers of planned purchases, and thereby give them a chance to compete for deliveries (Kristiansen and Lorentzen, 1996). According to the same Petroleum Law foreign firms were also required to collaborate with domestic R&D institutions when possible. These instructions were excluded when the law was revised in 1996. Governments inviting MNCs to bid for larger contracts, represent are a further example where other motives than those strictly related to the interest of the business might influence on regional effects.

Type of industry

The regional effects will also depend on type of industry. It seems quite obvious that firms merely engaged in sales, will produce less regional effects than firms engaged in manufacturing or advanced services. The reason is that trade represents a relatively standardised part of the value chain. Many of the needed supplies have therefore been obtained during an earlier stage of production, involving units within the company or from elsewhere.

Investment strategies and regional linkages

A study based on major economies, following a longer period, shows that greenfield establishments dominated between 1880 and 1980. The situation has however changed the two last decades with mergers and acquisitions as the dominant investment strategy (Holm and Pedersen, 2000). According to statistics from United Nations as much as 60% of the FDI-capital flow in the world in 1997 was a result of mergers and acquisitions (United Nations, 1998). Among foreign owned firms in Norway we also find a dominance of mergers and acquisitions (Jakobsen and Rusten, 2000). With this shift in investment strategies, the potential

supply of domestic candidates will have obvious influence on where the MNCs will eventually be located. Selections of companies are best in metropolitan areas, and this is therefore where a substantial part of FDI ends up (Ó hUallacháin and Reid, 1996). Trade and services as dominant sectors, are additional explanations why these investments find their way to larger metropolitan areas.

Adjustments and specialisation to meet local needs, tastes and regulations are additional explanations to why many foreign owned firms do not differ from local firms. The expenses searching for suitable supplies, identification of market possibilities, recruitment and remote production control, favour a risk minimising strategy which means imitation of established business structures in the host-country (Caves, 1971). Part of this strategy may be taking over a sales-network from competitors, and thereby winning market shares. Other firms may want to gain control over promising product developments. Foreign firms which differ most from domestic owned firms, have usually started as greenfield operations, and thereby been built up in accordance with the specific needs and tastes of their owners from scratch.

For many firms innovation is of competitive importance. The most common way of organising R&D activities are by locating this function or this kind of purchasing responsibility to the home base (Behrman and Fisher, 1980, Porter, 1990 and Fors, 1996). The way R&D activities is organised in the company tells something about hierarchical order, but also about direction of technology transfer. The chance to link R&D institutions from the host country is likely to be better if the subsidiary is directly involved, compared to when these activities are placed elsewhere in the organisation. A decentralised R&D responsibility may according to Fors (1996) be a strategy to adjust to host country conditions and include:

- local- process or product adjustments
- technical support for the subsidiary
- establishment of local R&D activities to ease technology transfer between “parent” and “daughter”

Adjustments are made in accordance with laws and instructions, and match local preferences. R&D may represent activities before the product reaches the market. It can be fully arranged by the firm itself or sometimes organised as a project in near collaboration with the customer. What so far has been mentioned concerns adjustments. Other examples of adjustment related

projects are technical support for product testing, or adjustment that takes place in order to ease technology transfer between systems.

It is, according to Behrman and Fisher (1980), sometimes likely that responsibility will be split between units, where basic research will be organised through headquarters while subsidiaries are engaged in projects of more adaptive character. Other decentralised organisational models concern product specialisation based on local comparative advantages (Fors, 1996). The competence found in these subsidiaries, often defined as centres of excellence, might also represent a valuable resource base for other parts of the organisation. Using R&D involvement as the main criteria, Benito (2000) found that one third of 255 foreign subsidiaries in Norway matched the centre of excellence label. According to Benito's data, centres of excellence were almost absent in traditional raw material sectors such as basic and fabricated metals (2 of 15), likewise food and beverages (1 of 13), while the presence in others, especially the marine sector is substantial. It is interesting to note that a majority of these centres of excellence have been based on local activities and competence rather than on technology developed elsewhere. Nor is Norway with its relatively tight labour market situation and high production costs, very often the number one choice for setting up business if markets are mainly elsewhere. We found four examples of centres of excellence among our cases, three within petroleum related activities which is a sector Norway has developed considerable knowledge. Both Norwegian and foreign firms have been involved in developing technology which enables extraction of far larger quantities of oil and gas from the reservoirs than previously. This industry has had success developing unmanned installations and technologies for deep sea drilling operations. This technology will also be of importance for extraction elsewhere in the world, and therefore an important argument for having activities in our country. (Rusten et al., 1999).

Other related forms of resource centres are test labs, for instance among firms in the food processing industry or pharmaceutical industry. Examples are new medical products developed and tried out through projects in collaboration with hospitals or other medical institutions. The involvement of these institutions which also represents target customer groups, probably also has promotional effects.

National effects and the role of governments

Generally positive host country effects are usually connected with taxes and duties paid by the foreign company. Furthermore, positive effects may be achieved through increased domestic

value added based on import substituting investments. A growth in countries' export may also be a result of production in FDI. Other positive effects are when foreign companies provide the country with know-how previously in short supply. However, foreign companies buying businesses in the host country in order to reduce competition, or transferring technology for utilising abroad is of course undesirable.

Some of the effects of FDI are directly generated through the businesses in operation and their external links. Whenever foreign companies engage local suppliers, this might create new local jobs and represent market opportunities for indigenous firms (Rusten et al., 1999).

Effective governmental policy will differ with the various MNC motives. If foreign companies are investing with the purpose of gaining access to resources or markets, it may be possible for the authorities in the host-market to bring forward requirements concerning intermediate goods and services, etc. The host country may for instance have law-regulated requirements instructing foreign owned firms to use supplies or labour in order to increase regional effects.

FOREIGN DIRECT INVESTMENTS IN NORWAY

An international comparison of MNCs' role in the economy

International direct investments positions in OECD-countries for the period 1991-95, comparing the balance between inward and outward investments, form three categories of countries. Spain, Canada and Australia stand out as a typical host-country economies. Japan, USA, Germany, United Kingdom, Netherlands, France, Sweden and Italy are typical home-country economies, while Finland, Switzerland and Austria have a fairly balanced account of inward and outward investments. Norway, which also started out as typical host-country economy in the first half of the previous century, has during the period 1991-95 experienced a more balanced inward/outward investment account (Rusten, et al., 1999). In fact figures for Norway for later years show that the holdings of outward industries are starting to surpass inward investments (according to data from Norges Bank published in Nordby, 2000).

Companies operating across borders are no doubt increasing in numbers in the world economy. Table 1, which is based on statistics from 1980 to 1996, shows a growing trend of inward FDI for most countries. Australia has the largest host country economy measured in

FDI-stock relative to GDP, while the Netherlands, Ireland, UK and Spain are largest in Western Europe. Norwegian inward FDI share corresponds to 13 percent of GDP in 1996, and is identical to the Western European average for the period. The Norwegian inward FDI tripled from 6.6 billions US dollars in 1980 to 20.5 billion US dollars in 1996. Comparing inward FDI-stock in table 1 shows that other European countries have grown even more.

A further major proposition about how economies in western countries develop, is a growing service intensity in business activities, among consumers and in other parts of society. Furthermore, in recent years the service sector has been characterised by more MNCs. The effect of this trend is illustrated by Table 2, which compares foreign direct investments with sectors for some OECD-countries. The figures are based on a classification of firms by dominant industry for 1986/87 and 1996/97 respectively (Figures are based on data from OECDs International Direct Investment Statistics Yearbook 1998, and only include countries where figures for both periods exist). For the first period the countries are nearly split even between those dominated by the manufacturing and the service sector. The two outsiders are Norway and Korea, with primary industries as dominating sectors (includes farming and fisherie, mining and oil, and where the latter explains the status of Norway). However, in 1996/97 10 of the 13 countries are dominated by service industries, and among them Norway.

The increasing globalisation of the economy combined with a growing service sector will have implications for choice of location. Nearness to important customer groups, labour, and an international airport are among the most important factors needed, and explain why foreign companies in many Western countries prefer metropolitan area locations. The following section will give more details about the location pattern for Norway.

The national level

The fact that almost two thirds of the total population in Norway live in non-metropolitan areas illustrates relatively large urban/rural contrasts. Foreign companies do however with the exception of the plants based on hydroelectric production usually prefer a location to central parts of the country. According to the data presented in Figure 1 measuring MNCs by employment for 1996, shows that the Oslo-areas` (the capital) share is nearly 46 percent. The Stavanger-area, (is the number one oil city and third largest urban area measured by population) represents 9 percent of the employment in majority owned foreign firms, whereas Bergen (the second largest city) and Trondheim (the fourth largest city) together possess the

same share as Stavanger alone. The remaining 36 percent are employed outside the metropolitan areas, and thus constitute a far smaller share than the metropolitan areas, and thus constitute a far smaller share than the 58 percent share of employment in domestic and minority owned foreign firms for these non-metropolitan areas.

In 1996 five percent (5573) of all firms in Norway within the oil, mining, manufacturing, building and construction, hotel and restaurant, transport, trade, real estate and business services had foreign majority ownership. However, the comparable figures measured in number of employees were 14.4 percent (based on Official Statistics of Norway 1999 published in Rusten et al.,1999). The reason for this higher employment share among the “foreigners,” is the fact that on average, they are larger than domestic firms.

Table 3 shows data on the number of employees divided by region and industry. For the large urban areas real estate and business services are both the largest employment sector in real figures and measured by the share of employees in firms with foreign majority ownership. The transport sectors represent the other end of the scale using these measures. The largest rural sector when it comes to employment in foreign majority owned firms is the manufacturing industry. In metropolitan as well in other parts of the country a relatively high part of employment in the petroleum and mining sectors is to be found in foreign majority owned firms.

AN EMPIRICAL INVESTIGATION OF FDI-LINKAGES IN NORWAY

The external network of a foreign owned company is often inherited from an indigenous firm that has been acquired. Locally recruited leadership is quite common, which is yet another element that makes MNCs quite similar to domestic firms (Behrman and Grosse, 1990). Management with a local background has considerable knowledge about what the community can offer. We even find some cases of managers practising patriotism, by choosing regional suppliers, whenever possible. The different organisational models referring to status in the company, which were presented earlier in this paper, are all represented among our cases. However, both the case studies and survey result indicate that subsidiaries with a fairly autonomous status dominate among MNCs in Norway. In that way the linkages to the host country are stronger than would have been the case if infusion of “remote daughters” had been stronger (Jakobsen and Rusten, 2000).

Goods and services

Many firms base their products on international markets for goods, sourcing strategies have become an important competitive element for all categories of ownership. Earlier studies have found that firms usually put considerable efforts into search for the best suppliers (Reve et al., 1992). A quite different matter is the way service purchasing is taken care of. A recent Norwegian study based on 416 manufacturing SMEs within the food, mechanical and electronic industries, showed that purchasing activities are dependent on firm characteristics as well as location (Rusten, 2000). The study showed that smaller firms in general have a lower purchasing probability (less than 50 employees), but also that purchasing probability is lower for rural located firms. The mechanical industry did also show less purchasing activities than the two other studied sectors. In general the study found relatively few firms using service suppliers outside its own region. Relevant factors for making use of nearby suppliers were:

- A simplified searching process
- Use of local alternatives gives an advantageous access, which minimises transaction costs
- The parties can easily communicate with each other, as they are part of a common local culture
- The choice of suppliers is based on acquaintances and informal agreements
- Basing the choice on the firms` own or others` previous experience is a way of avoiding too many failures
- A local commitment to keep local businesses alive

Data from the postal survey among the 225 non-metropolitan foreign owned firms in Table 4 (this time with county as the lowest geographical level), show similar results as the earlier mentioned SME-study. Among the subsidiaries goods were mostly bought from other parts of the company, and few report regional suppliers as a main source. As for standardised services the situation is the very opposite. For business services roughly half of the reported supplies are from the same region, while the rest are almost equally split between sources other places in the country or through other units within the company. Unfortunately we do not have a similar survey for the metropolitan firms, but our case-study covering those areas indicates that the local share there is likely to be higher for both goods and services than what we found for non-metropolitan areas. This is a logical consequence of the fact that the ability to form linkages with varied supplies of goods and services will have the best conditions in larger cities. We also assume that with trade and services as dominating MNC-sectors in

metropolitan areas, the average firm will have a more autonomous status at least compared to resource based investments elsewhere.

Employment

A further element related to linkages and regional implications in our study, concerns recruitment strategies. Labour shortages seem to be a common problem amongst the firms we have studied in both metropolitan and non-metropolitan locations. Still ways of getting out of this problem will vary with firms and what the surroundings have to offer. For instance is use of temporary work force not common outside the larger cities, due to the centralised location pattern of agencies (Rusten 2000). Relations to other firms and recruitment effects vary from case to case. Unfortunately we only have observations from the case studies, which make us unsure about whether these variations can systematically be related to location. We have for both location categories found that some firms deliberately try to recruit from competitors, while others have arranged a reciprocity treaty about leaving each others` personnel alone.

For some firms, high turnover figures, the need to raise the number of employees or change composition of qualifications, imply extensive resources spent on internal training. In order to make jobs attractive, certificates with competence specifications have been offered. The experience with this type of initiative is however not only positive, as attestations make these employees more attractive to other firms.

To sum up the results related to employment from our two studies, the following ways of getting qualified personnel were:

- Recruitment from competitors
- Collaboration with local educational institutions for special training
- Recruiting graduated students from universities
- Offer regular positions to personnel from employment agencies
- Arrange systems for internal practice and career moves

These elements were discovered through our two case studies with 2-6 reports for each category. In particular, we expected to find more career moves, especially as these are supposed to be a common way of transferring competence in multinational companies. The reason why this way of recruiting does not seem common for MNCs placed in Norway may,

as one of the managers explained to us perhaps, be that our small country usually does not represent the most prestigious address for personnel wanting a company career.

R&D linkages

Technological innovations are seen as a key to recover, sustain or improve economic performance. Still, international research is in no way unambiguous in concluding in what way MNCs contributes technologically towards the host economy. According to Behrman and Fisher (1980) some studies demonstrate positive contributions, while others point out that effects are marginal or even negative. Conclusions may vary due to different methods of measurements (choice of variables, time period studied etc.). Second, structural internal as well as external conditions will influence the results. In addition, the effects will depend on type of competence and technology involved. The way R&D is organised in the company tells something about hierarchical order, besides directions of technology transfers.

Our two studies have focused on R&D either as an internal part of the subsidiary, linked to other parts of the company or bought externally. Whether these kinds of supplies have been based on local, regional or more far distance national or international sources will of course depend both on the specific demand and supply situation. Eight out of 26 subsidiaries had no registered R&D involvement internally or externally. We however found as much as 14 cases where the subsidiaries had direct links to Norwegian R&D institutions. According to a study published in 1999 this relatively high share of subsidiaries involved in R&D seems relatively pronounced for the sectors we have studied. With data from 1997, the mentioned study reported that 17 per cent of all firms in Norway have R&D expenses (Norges forskningsråd, 1999). Further the data showed that manufacturing sector firms more often were involved in R&D activities (20 per cent) than firms belonging to the service sector (12 per cent). Highest share measured by units with R&D, were found among chemical industries (57 per cent), the electronic and optical industries (45 percent) and petroleum industries (45 per cent). (These sectors represented all together 15 cases in our two studies, and had with few exceptions, directly or indirectly R&D engagements).

Due to the size of our project, we were not able to go into more detail about the way R&D creates regional effects in the subsidiaries with related activities. However, a general conclusion is that when subsidiaries are involved in R&D, this usually either helps strengthen the technological and economic base of the subsidiary and thereby secure or even create new

jobs. Exceptions, which cause negative economical and social effects, are when key competence and patents are turned over to institutions outside the country. Such situations are nevertheless hard to uncover by the way data have been collected. Additional information have been through internal firm documents, annual reports or newspaper articles, but still we have not fully been able to follow and see how the firms develop for a longer period.

Community engagements

Our two studies have shown considerable variation in firms strategies aiming to be noticeable and play a social part in the community. Sport or culture sponsorship programmes, public tour arrangements for school classes or pensioners, are examples. The firms motives for sponsoring these activities do of course vary. It is in some cases a marketing strategy letting those who are sponsored use a product and in that way have it exposed or tested. A pharmaceutical firm supporting a patient organisation is among the examples we have registered in this category

Another category of motives is related to personnel policy, for instance by financially supporting employees' sports club(s). Another type of sponsorship seems to be a more general contribution to the community.

The effects of these engagements might also vary. Engagement can give welfare effects, by for instance improving infrastructure in the community. At the same time may these projects may help developing a good business "climate" in the community. However some managers were not quite sure about benefits, but found it hard to stop supporting what had been going on for some years, as this would have negative consequences for the recipient. A rural firm pointed out the need for these initiatives in order to try to attract potential employees to the community. In addition it was seen as part of the job to build a positive image of the firm and in that way receive loyalty from the staff.

The size of the community and firms seems sometimes to play a role for type of engagements taking place. It is for instance lot harder to refuse any type of community involvement for a number one firm in a smaller community, compared to a situation where the firm is one of many, often the case when located in a city. Other variables that may count are tradition and management culture. There are sometimes cases where the attitude at the subsidiary is not fully shared by the company's top management. A manager of a rural firm put it this way:

Everybody knows there are cultural differences between top management abroad and us Norwegians, but this is usually no problem. It seems however difficult for them to understand that society and firms are much more interwoven here than in their country. They pay their company taxes and that is about it. Here in Norway and especially in a smaller community like ours, it is almost taken for granted that the towns` major company supports the community by raising funds for instance when the town is planning to build a new concert hall. I have to spend time explaining this to headquarters, so that they understand the importance of our firm taking part in our community.”

In another of the cases we studied the company was eager to support the local football club, and instructed the subsidiary to give headquarters regular reports on progress in this particular project. Yet another rural firm reported that they usually sponsored cultural events, but had to drop this type of project for this year, as the economic situation for the business was not too good.

The overall picture is that this type of goodwill engagements in the community varies from firm to firm, and it seems hard to find a systematic pattern that can be related to type of location. Type of business does not seem to explain whether the firm is engaged or not, but rather how support is given. Product related sponsorship is for instance a much more obvious solution in cases where the products are aimed for the consumer market, compared to firms with business products. One might at least question promotional effect for cases with only few customers and deliveries based on long term contracts.

A brief overview

The linkage factors have so far been presented individually. Table 5 summarises the results according to how individual cases have scored. Note that this information does not say anything about how extensive each link is (for instance number of suppliers or stability of contracts). These figures tell us that goods are supplied from various sources when related to distances, whereas service suppliers usually are found in the region. The R&D links are in many cases elsewhere than in the region, which in most cases has to be explained by the supply situation. The number of goodwill engagements is relatively impressive, as one would expect that these kinds of local relations would weaken in favour of stronger commitment to the parent company. Only R&D among the categories of linkages that have been analysed seems to show clear urban/rural contrasts.

POLICY IMPLICATIONS AND CONCLUSIONS

The international literature identifies four motives for foreign direct investments; resource-seeking, market seeking, efficiency seeking and strategic asset seeking. As the consequences for the economy may vary with the motives for FDI, so may governmental policy differ from one industry to another. For instance it may be possible to attract resource-seeking FDI, despite governmental demands of contributions to the host-country, if the resources are to be used where they are cited. On the other hand, if FDI is of the strategic-asset seeking type, governmental policy may be extremely restrictive and even denying MNCs all together.

Existing foreign direct investment policies

Policies directed to affect inward greenfield investments comprise conditions of entry, operating requirements and different forms of incentives. Conditions of entry include the allowed degree of foreign ownership of domestic resources, the kinds of value-added activities in which the foreign company is allowed to participate, the way of financing inward investments and the location of activities within the host country. Operating requirements may include requests in respect of local purchases of capital goods, raw material, intermediate goods and services, R&D, etc.

Incitements may be fiscal or market related (Behrman and Grosse 1990). In the first category, are tax reductions, favourable depreciation premises, duty-free status, loans, and even governmental financial support for certain projects. Regulations that imply that the authorities accept the market power situation, use of import protection, as well as favourable governmental contracts belongs to the other group. These arrangements are usually made to attract foreign capital and competence, hoping that this will lead to a more effective production base. Furthermore, projects are often aimed at attracting foreign investments within certain industries. Several countries and regions do for instance target high product value industries such as electronics, ICT and biological technology products.

Official policies towards MNCs can in accordance with what we have just mentioned, be labelled as an avoidance, attraction or neglecters policy. In relation to Norway, the attitude towards MNCs can be characterised as rather mixed, but has in some regions become an element included in regional policy initiatives.

Our metropolitan survey does, however, show that governmental initiatives have in general not been a major determinant previous to deciding for investment in Norway. Neither does the government seem to have played an important role affecting the choice of location. There are several reasons for having relatively few contacts with the authorities unless instructed by law. One explanation is that a majority of our firms came to the country in a period when the government gave mostly priority to rural investments. A further explanation is that governmental support is mostly relevant for greenfield investments, rather than cases when firms just inherit others' historical location decision. Mergers and acquisitions as earlier mentioned, seem to be the dominant investment strategy. A third element is related to the fact that most of our cases have been investments with market orientation. This is what attracts many firms to Norway, and not its regulatory regime. A fourth element, which might explain our results, concerns data sources. An empirical investigation, which has only focused on the subsidiaries and not the process of decision making by interviewing management at the company headquarters, might imply that some information about initial contact with the authorities before location, has not been registered by us.

Our discussion has mostly been concentrated on positive regional effects. Fully consequences of changes in ownership, do of course vary from firm to firm. Sometimes this will affect network of suppliers. The reason may be that responsibility for this type of trade is centralised (to headquarters). If an important contract is lost, in worst cases this may imply job losses for the firm that used to be the supplier. In other cases the foreign company may contribute by putting fresh capital into a project that otherwise would be stopped. Access to the parent companies' competence or sales network could be yet another positive effect. Alternatively, competence may be "drained" and moved out from the region where it was originally created.

Most host countries treat trans-border acquisitions and mergers in accordance with domestic competition and anti-trust legislation. Some countries do not allow acquisitions at all, while other countries have distinct rules concerning major companies, national security, etc. (Dunning 1993:563)

It is difficult to co-ordinate different arrangements in a manner that maximises efficiency and the total positive effects for society. Co-ordination challenges are both related interest differences between institutional bodies as well as between regions. There are in addition considerable costs connected to administration of governmental agents. Positive effects such

as regional linkages are likely to have the best conditions in larger urban areas, as these locations can offer a relatively extensive supply of goods, service and labour compared to rural areas. Methodologically, it is difficult to study differences concerning effects formed by respectively domestic and foreign owned firms due to the complexity in the number and types of elements of importance. For instance it is difficult to find comparable firms in both categories. Furthermore, regarding firms that have gone through ownership changes, it is also difficult to know how things would have developed if ownership had been kept unchanged, i.e. these are counterfactual problems.

That role of foreign direct investments should no doubt be related to the size of the country. For instance technology input is important to smaller countries not being able to cover all types of competence themselves. For Norway, competence from abroad has for instance meant a great deal for the development of the petroleum sector, not least, during the first years. One main conclusion from these two research projects is that investments from abroad are a logical consequence of an increasingly international economy. This also includes Norwegian companies investing abroad.

Compared with many Western European Countries Norway has an economy increasingly dominated by public, business and private services. The representation of MNCs does not seem to strengthen the future employment in the manufacturing sector. The very fact that most inward FDIs concern other sectors than manufacturing and also that many Norwegian manufacturing enterprises move their production abroad, run in the same direction. We have already showed that foreign owned companies are mostly attracted to larger urban areas. The fact that trade and services are dominating sectors, especially when we look at the newcomers, means that MNCs neither will be of any help in solving the regional unbalance problems concerning jobs and employees that Norway obviously has.

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Table 1. FDI inward stock by year and related to GDP in selected countries¹

LAND	1996 Bill. US dollars Inward FDI as percentage of GDP	Growth in FDI 1980-1996 Percentage
Australia FDI	116,7	786%
FDI/GDP	30%	
Netherlands FDI	119,2	522%
FDI/GDP	30%	
Canada FDI	128,9	138%
FDI/GDP	22%	
Ireland FDI	14,2	728%
FDI/GDP	21%	
UK FDI	237,5	277%
FDI/GDP	21%	
Spain FDI	105,0	1943%
FDI/GDP	18%	
Switzerland FDI	53,0	524%
FDI/GDP	18%	
Sveden FDI	34,2	843%
FDI/GDP	14%	
Denmark FDI	23,4	458%
FDI/GDP	13%	
Norway FDI	20,5	212%
FDI/GDP	13%	
France FDI	155,9	589%
FDI/GDP	10%	
USA FDI	630,1	659%
FDI/GDP	8%	
Finland FDI	8,8	458%
FDI/GDP	7%	
Japan FDI	29,9	816%
FDI/GDP	7%	
Portugal FDI	6,9	524%
FDI/GDP	6%	
Germany FDI	137,9	277%
FDI/P	6%	
Western Europe FDI	1162,9	485%
FDI/P	13%	
EU FDI	1088,8	493%
FDI/GDP	13%	

Source: United Nations *World Investment Report 1998*

¹ Countries with incomplete figures are not included

Table2. OECD countries classified by FDIs sorted by the companies most important sector for the period of respectively 1986/87 and 1996/97.

1986/87	1996/97	SERVICES ²
PRIMARY	Korea	Norway
MANUFACTURING	Canada	Netherlands Mexico Italy UK
SERVICES	Sweden	Australia Austria Germany USA Switzerland

² OECD includes trade, hotels and restaurants in the service sector.

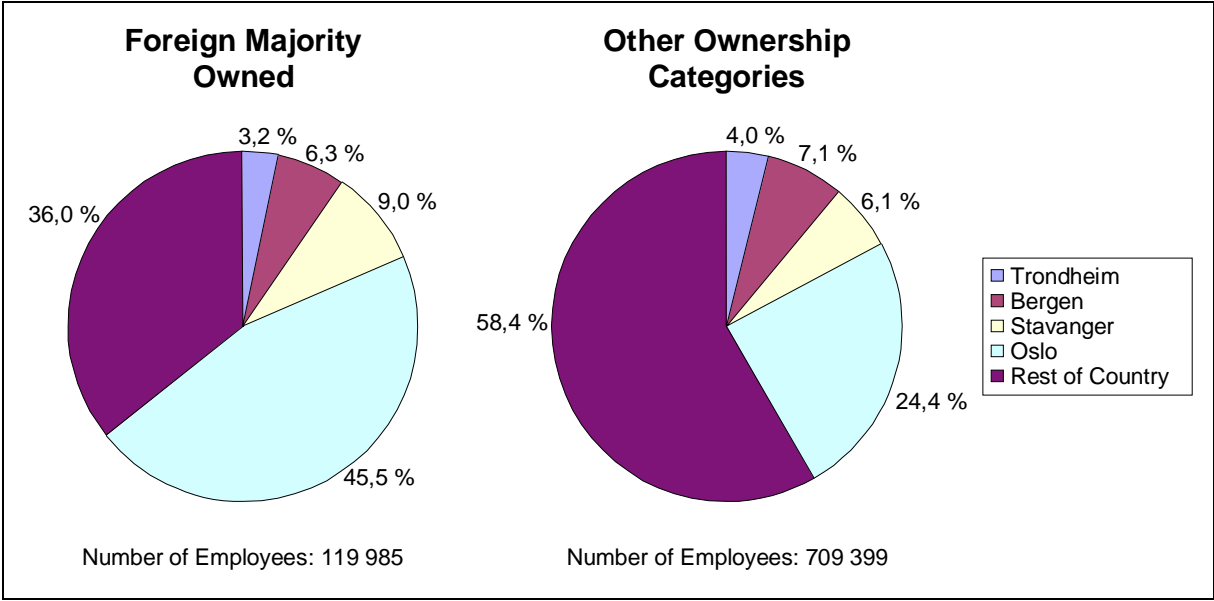


Figure 1. Employment in Norway 1996 divided by regions and ownership categories. Includes oil and mining, manufacturing, construction, trade, hotels og restaurants, transportation, real estate and business services.

Table 3. The number of employees divided by region and industries 1996

REGION	LARGE METROPOLITAN AREAS			NON-METROPOLITAN AREAS		
<i>INDUSTRY</i>	Domestic owned 2)	Majority foreign owned	Percentage majority foreign owned	Domestic owned	Majority foreign owned	Percentage majority foreign owned
Extraction of petroleum and mining (10-14)	7 295	2 545	25.9	6 766	1 374	16.9
Manufacturing (15-37)	60 689	15 040	19.9	156 791	23 387	13.0
Construction (45)	29 107	5 208	15.2	45 803	2 701	5.6
Whole- and retail sale (50-52)	95 985	26 292	21.5	114 619	7 169	5.9
Hotels and restaurants (55)	22 791	3 493	13.3	28 357	870	3.0
Transport (60-63)	20 737	2 804	11.9	27 892	1 173	4.0
Real estate and business services (70-74)	58 402	21 522	26.9	34 165	6 407	15.8
Sum	295 006	76 904	20.7	414 393	43 081	9.4

Note: 1) Larger urban areas include Oslo, Bergen, Stavanger and Trondheim with suburbs. Small urban areas and rural districts include all areas outside these larger urban areas.

2) Domestic owned firms include employment in foreign minority share owned companies.

3) Unfortunately, comparable data for financial services do not exist

Table 4. Non-metropolitan firms in Norway according to where they have their most important suppliers of goods, standardised services and business services

	Within the region (county)	Other Regions	Abroad	From other Parts of the company	Sum	N
Goods	6,9	12,3	35,3	45,4	99,9	218
Standardized services	82,1	17,9	0	0	100	216
Business services (eg. management, accountants, ICT)	48,6	26,6	1,4	23,4	100	216

Table 5. The regional linkages observed among the case studies

LOCATION	GOODS	SERVICES	R&D	GOODWILL RELATIONS
Oslo	X	X	X	
"	X	X		X
"	X	X		
"	X	X		
"	X	X		X
"	X	X		
"		X		
Stavanger		X		
"	X	X		X
"	X	X		
"	X	X	X	X
"	X	X	X	
"	X	X	X	
Bergen		X		X
"	X	X	X	
"	X	X	X	X
"	X	X		X
"	X	X		X
Trondheim	X	X	X	
"	X	X	X	
"		X		
Small urban		X		
Small urban	X	X		
Rural		(X)	X	X
Rural		(X)		X
Rural		(X)		

Note: (X) indicates cases where major service categories due to the supply situation has to be bought in from sources outside the region.