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Foreign firm location and local multiplier effects
The case of Norwegian industrial towns

by

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1. Introduction

The increased importance of foreign ownership in the operation of different kinds of firms makes them interesting targets for analysis, and some literature have been focused on these how these economic activities form regional effects (Dunning 1998, Nachum and Keeble 1999). Foreign owned firms (FDI) in Norway are mainly market-oriented investments and concentrated to metropolitan areas. FDI-projects elsewhere in the country are more scattered and in many cases resource motivated (Rusten et. al 1999, Jakobsen and Rusten 2000, Kvinge 2001). Some are located in industrial towns where the economy is concentrated to certain sectors.

The resource seeking investments found in Norway are according to Jakobsen and Rusten (2000) of two kinds, one which is based on natural resources, the other on technology and competence. Our choice to study two different industrial towns has been based on the recognition of this heterogeneity. Investments are made by firms with quite different characteristics, are initiated for different reasons and have logically ended up in different locations. *The main aim of this article is to discuss to which extent different motives for foreign investment create different multiplier effects, measured as jobs, increased local production and new firms.*

The empirical evidence is from two different industrial towns in Western Norway, the one in which natural resources have attracted the firm, and the second where access to intangible technology resources has been the main attraction. The intention is to compare some major differences and similarities in the way these investments influence local linkages and represent a contribution to local growth processes in regional settings that to some extent are similar, but also show some variations.

Our main objective is to analyse existing local linkages, but in order to understand the present plant operations we also have to outline the history of the FDI-projects. The empirical basis has been personal interviews with managers of foreign firms, supplementered by information from key-informants at local governmental administration. By carrying out this analysis we hope to somewhat balance the discussion about how FDIs contribute in relation to regional development.

The first section of our paper presents a theoretical framework, outlining two different perspectives for analysing the success of local production systems (chapter 2). The next section gives an empirical overview of foreign direct investment in industrial towns (chapter 3), before presenting the empirical case studies of two selected industrial towns where the dominant economic player is a foreign owned firm (chapters 4 and 5). Finally, we discuss differences and similarities between our two cases and policy implications of these findings (chapter 6).

2. A theoretical framework

International research trying to explain the success of a local production system can mainly be divided into two categories. One is the theoretical tradition that explains success by the existence of modern management, professionalism and formal systems of information flows, which often presuppose the existence of large and even multinational companies (Chandler 1977). Large manufacturers are important in the restructuring of old production systems including an extensive supplying network to new dynamic organisational forms (Yeung 2000). Other researchers explain local success by the development of network formations based on interpersonal ties, common values and informal information flows, and expressed in terms such as industrial districts (Piore and Sabel 1994), local milieu (Crevoisier and Maillat 1991) and regional innovation systems (Braczyk et. al 1998). The following section discusses these two theoretical approaches in more detail.

2.1. The management model

Alfred Chandler (1962) was critical to the traditional family ownership as this organisational form was too conservative and had difficulties adjusting when markets changed direction. When enterprises became larger and more complex, ownership and management would have to be divided (Galbraith 1967, Chandler 1977). This new divisionalised organisational form came into existence in the US already around 1920, but was not common in Europe before the 1960-70s (Chapman and Walker 1991). The formation of divisionalised organisations can also be connected with new technological innovations within transport and communication (Dicken 1996). Division of labour in leadership did first concern control and management of the

production process, but did later also involve other tasks for instance those connected to innovation, routine administration and other institutional functions.

The ways firms are organised have regional implications. The presence of economies of scale gave the firms the ability to divide the activities among different sectors and production categories, and at the same time operate more geographically spread. Important decisions are taken at headquarters in larger urban areas, while more local management is responsible for standard work tasks. This geographical division of labour may imply that the most ambitious and qualified managers will avoid rural areas. Scale economies and special investment requirements also mean that larger firms will have a powerful advantage over smaller ones.

Massey (1984) has claimed that some multinational companies, because of the geographical distance between the head office and the production, have the ability to distance themselves from local problems at the production site. The situation is different for local owners who often will feel a stronger commitment to the community. Distance may also be of importance to holding companies that are involved in buying and selling firms, as well as for businesses that have extensive restructuring or rationalisation plans.

Subsidiaries may perform different functions. Some will duplicate the production of the parent company, others will produce components which will be included in other products produced by the company, while yet others are responsible for products that are altogether unrelated to the products elsewhere in the company (Rumelt 1974). The very fact that the foreign firms differ according to positions along the value chain is of importance as to how independent and stable these local investments are in relation to the strategic moves of the parent company.

The tendency for industries to remain in its existing location rather than to move with changing economic circumstances is also influenced by inertia. One example is large investments in buildings and equipment that are difficult to move or sell without economic loss. Inertia also concerns local advantages such as skilled labour or ancillary activities. Nor is it easy to transfer non-physical qualities such as local codified knowledge or trust. These latter elements have traditionally not counted within the classical inertia concept as is for instance defined by Johnston (1994), but are nevertheless factors that “glue” the production to the community.

In its classical version the management model within large companies was characterised by the dispersal of activities which had initially been conceived, tested and developed at the headquarters. Decentralisation of production to a given location was a way to reduce transaction costs and utilise scale economies and skill advantages associated with these locations. Local multiplier effects of multinational plant locations have traditionally been measures such as job creation and, to a certain degree, local purchases of goods and services. However, newer contribution has analysed large firms as a complex knowledge environment, and not simply as a processor of contract-based informational transactions (Amin and Cohendet 1999). The management of large firms can no longer rely solely on the accumulation of competence in a given location. Shorter product life-cycles, rapid technological changes and increased competition make it necessary for multinational firms to locate a greater variety of functions and more responsibility at the plant level, allowing plants to respond rapidly to changes and utilise local competence (Morris 1992). Large plants must take advantage of their proximity to local resources in different locations. The highly advanced competence of large multinational firms, both when it comes to technology and modes of organisation, represents a potential for local learning and innovation, processes that will also include other local firms.

2.2. Innovation and growth in networks

The processes of networking are the point of departure for the other main theoretical perspective. The transition from the regime of fordism to post-fordism within Western economy implies the introduction of more flexible modes of business organisation, competence and innovation as critical factors for business success, and the development of more heterogeneous markets has resulted in a stronger emphasis on networking between firms, as sources of competitiveness (Amin 1994).

When analysing local networking and the development of local capabilities, two types of assets can be identified. First, assets related to traded interdependencies between firms (Scott 1995, Storper 1997). Traded interdependencies concern the relationship between firms, involving purchasing of intermediate and final outputs. Assets related to these transactions in the value chain are emphasised in recent studies of agglomerations in economic theory (Krugman 1991). First, agglomerations of firms facilitate the development of specialised inputs and services. Second, they constitute a pool of workers with specialised skills. These positive externalities are

generated by scale effect, which means lower factor price when demand increases (Krugman 1991, Venables 1996). Firm agglomerations can also reduce transaction costs, as the cost of finding potential sellers and buyers is lowered. It may also stimulate horizontal co-operation between firms which in turn can generate external scale effects (Williamson 1985, Appold 1995). Knowledge transfer does also become easier when firms meet face to face. Finally networking can stimulate formation of collective innovation projects and complementary utilities (Maskell et al. 1998).

Secondly, contributions based on evolutionary theory have also included untraded interdependencies when analysing firm agglomerations (Grabher 1993, Storper 1997). Relationships between firms can be untraded, which means that they do not involve the buying and selling of inputs or outputs. Still firms are related to each other, for instance by being part of the same local milieu or business network. Assets related to untraded interdependencies are technological spill-overs, a common practical knowledge and institutionalised formal and informal "rules of the game" (the local culture). In places with an entrepreneurial climate individuals will more easily find possibilities for further entrepreneurial activities compared to places with few entrepeneurial models for innovation (Spilling 2000). In many cases traded and untraded interdependencies overlap; a physical transaction between a buyer and a seller can also involve the knowledge sharing and collective learning processes (Håkanson and Snehota 1995, Storper 1997).

2.3. Integrating different perspectives

The management and network models described above have often been defined as two distinctive ideal models, and as alternative explanations to the success of local production systems. The former model has been associated with strategies and structure performed by larger companies, the latter with small and medium sized firms (Hirst and Zeitlin 1992). Sabel (1994) reports a "double convergence" in how these organisational models more recently have been practised. For instance have some smaller firms started to build internal service utilities that resemble the managerial form, while some larger firms have started to collaborate in networks with some of the qualities found among smaller firms.

A further element is that the outcome is affected by economic and spatial conditions.Some authors especially stress the role of the firm, particulary when it concerns ownership. One example is Glasmeier (1988) who concludes that branch plant operations have a general tendency to lead to weaker local linkages and spin-offs than other types of ownership. Amin and Cohendet (1999) are far more optimistic, by claiming that branch plants can utilise local competence and network systems in a way that will effectively cope with rapid market changes.

A local production systems' history, structure, culture, competence and technology are altogether crucial to the way firms of different ownership categories affect the regional economy. Our empirical experience is that local multiplier effects are not determined per se, but take different forms that will have to be analysed in each case. This article analyses in detail how motives behind foreign direct investment in combination with the characteristics of local production systems influence the effects of these investments.

3. Foreign direct investment in industrial towns: An overview

In Norway industrial towns, either unilateral or multilateral, have been defined by the governmental appointed "Buvik-commitee" as a densely populated area where residents populated in manufacturing sectors (or food manufacturing sectors in combination with fisheries) comprise at least 50 percent more than the national average in 1980. An additional requirement is that the size of the population is less than 20 000 and that the community is located beyond normal commuter distance from the nearest larger urban settlement. The committee found 104 towns within 87 different municipalities (NOU 1983). The industrial towns are mainly located to Western or Northern-Norway often in isolated places, usually with mining, smelting industry, fish processing or machinery industry as the dominant sectors.

Foreign ownership in these towns has been most pronounced in the mining and smelting industries. According to 1996-figures industrial towns comprise 12 percent of the national employment within the manufacturing, mining, construction, transport and service sectors. The highest employment figures registered in firms with foreign ownership are found in the manufacturing sector. The total of 7 percent employment in foreign firms is lower than the national average of 15 percent, which is logically as the foreign firms are concentrated to

metropolitan areas (Jakobsen and Rusten 2000). Note however that the share of foreign ownership shows considerable local variations. For some towns as much as 50 percent of the employment can be found in these sectors, while in others foreign owned firms are altogether absent.

Table 1 The number of employees within domestic owned and major foreign owned firms 1996 1)

	Municipalities with industrial towns			**Total number for Norway**		
Industry	Domestic owned 2)	Majority foreign owned	Percentage maj.foreign owned	Domestic owned	Majority foreign owned	Percentage maj.foreign owned
Extraction of petroleum and mining (NACE 10-14)	967	501	34,1	14061	3919	21,8
Manufacturing (15-37)	46459	4860	9,5	217480	38427	15,0
Construction (45)	8012	278	3,4	74910	7909	9,5
Whole- and retail sale (50-52)	18609	629	3,3	210604	33461	13,7
Hotels and restaurants (55)	5075	91	1,8	51148	4363	7,9
Transport (60-63)	5349	56	1,0	48629	3977	7,6
Real estate and business Services (70-74)	6178	656	9,6	92567	27929	23,2
Sum	**90649**	**7071**	**7,2**	**801455**	**27929**	**14,5**

Note: 1) Comparable data on the sectors: agriculture and fishing (1-5) financial services (65) and public administration (75) are not available
2) The category "domestic owned firms" include employment in foreign minority share owned companies

The following section presents two different industrial towns in Western Norway, dominated by the smelting industry (chapter 4) and electrotechnical industry (chapter 5) respectively. An above average rate of employment in the manufacturing and oil-related industries is among the factors these two municipalities have in common. Another similar characteristic is the dominance of foreign ownership. In both communities a quarter of all work-places outside the primary and public sectors are foreign owned. Being located more than two hours from the nearest metropolitan area, also shows that both towns are relatively remote.

In spite of these similarities, these towns have altogether different economic histories. They also differ when it comes to present conditions, especially concerning factors such as competence, employment and conditions for innovation. This represents the topic that will be discussed in more detail below. Our main objective is to analyse existing local linkages, but to fully

understand the role of the present plan operations we also have to outline the history of how these firms chose their location.

4. The smelting industry town

The smelting industry in this and many other similar townships was based on nearby-water power resources in the early 1900s.This was before the transmission technology was sufficient for the transport of electricity over longer distances without considerable loss. A location near the waterfalls was therefore an important criterion for location of an industry that needed much electrical power at low prices. Thanks to ice-free ports, shipments were possible throughout the year. From the 1930s large improvements in energy transmission did enable the second generation of smelting factories to choose other locations than these rather isolated places. Aluminium factories established after the Second World War became part of the government`s industrialisation plan and was placed near larger settlements where new job opportunities were much needed. With the transmission improvements some of the industrial towns' initial advantages were actually lost. The older factories were still forced to stand as large buildings and machinery were too costly to move and almost impossible to sell for other purposes without considerable loss.

In the early 1900s Norwegian engineers carried out promising technology experiments for new production methods and products, but in most cases lacked the necessary experience and capital to build up and run a smelting industry (Hodne 1981). Foreign capital therefore played an important role for the start up and production of Norway's many factories within the metallurgical and chemical sector established in that period. What we have described here was also the case for three different factories on which this particular township in Western Norway was based. The nationality of these foreign owners has changed over the years. One of the factories was built by British capital in the beginning of the 1900s, then owned by Norwegians for a couple of years during the 1920s before it became British once again, but now with other owners than when it started. This ownership situation was stable until the 1990s when an American company took over this plant as well as much of the control of this industry on a world basis. The second company was established by Belgian capital in the 1920s. A Swedish company that was the production's ore supplier joined the Belgians in 1965. Then the Belgians sold their

part to a British company in 1980, and this has been the situation until recently when the plant were bought by a Finnish firm. To sum up, we may conclude that these two firms have experienced relatively many changes in ownership. In most cases, however, the local management culture and positions has not been much affected by these changes, but has been kept stable for many years. Access to natural resources is no doubt the original investment motive. Still, changes in foreign control as the result of acquisitions or mergers of the parent companies have other reasons. The company that was the buyer of one of the three factories in 1998, did this not because it needed access to the energy resources. Rather this move was a strategy to become more efficient by complement existing activities.

The situation has been somewhat different for the third smelting factory. This firm started with the help of French capital, but after a few years investors from the UK and the US took control. The difficult market situation in 1970s forced these owners to sell. No new private investors wished to run the old fashioned and worn down factory, and eventually the Norwegian government bought the business. They decided to entirely reorganise the production so it could be based on a different mineral that could better match the size of the facilities. Large machinery investments were necessary before production again could start. As part of this strategy of reorganising the production the government invited a Norwegian and an American company as partners. A couple of years later the government sold out its share. A Norwegian private investor took over as the majority shareholder, while the rest of the shares were split between two foreign and one domestic investor.

What we find when we study the present situation for the smelting industry in this and similar industrial towns, is that the firms' historically relatively strong position as a workplace has weakened. From 1994 to 1999 the numbers of employees at the three smelting factories we have studied, have been reduced from 1010 to 830. Despite this reduction many factories have experienced an increase in production volume. Important explanations are technology improvements that have enhanced productivity and reduced the need for manpower. Activities being co-ordinated with other parts of the company as well as the use of outsourcing, are additional explanations why employment has been reduced.

When compared, reductions have been more extensive in the two foreign owned subsidiaries than what we find for the one that is Norwegian owned. Still, we believe the explanation is not

the nationality of the ownership, but sector differences. We find support for this assumption when comparing a larger material on employment trends amongst foreign and Norwegian owned firms (Kvinge 2001). Partly as a consequence of this decline of employment in the core industries in the area, people especially many younger ones have moved. The demographic figures show that there has been a population reduction of 8% during the 1990s.

Their role as a provider of different social services in the community has also been reduced over the years as compared to some decades ago. These firms used to provide housing, arrange leisure activities, operate shops, organise local transportation and run different private services. In fact they even took responsibility for normally public infrastructure. These functions are now mostly the responsibility of other private firms or the public sector. Declining social engagement implies that these firms nowadays have a more ordinary position.

Goods and service supplies from local firms are further examples of potential external effects. Large firms can also come forward as models of efficient ways of running a business, which eventually may be adopted by other firms in the community. Other externalities concern possibilities of transferring technologies and competence from the externally owned to local firms, through different kinds of business relations, or simply by employees bringing with them new ideas when leaving either to work with others or start their own business (Krugman 1991, Knarvik and Orvedal 1997, Rusten et al 1999).

The total number of firms within manufacturing industry and business services in our industrial town is 60 and most of them have less than 20 workers. The smelting industry gets goods and services from firms outside the industrial town, whereas local alternatives are either lacking or cannot compete. The cases of local linkages involve maintenance and standardised in-person services not exposed to longdistance competition.

Innovative networks, joint projects and technology transfers between the smelting industry and the other firms in the industrial town seem more or less absent. Nor have any spin-off activities been reported through our interviews. Instead these firms are involved in national and international R&D, networks in most cases directly through the headquarters abroad which have the main responsibility for these kinds of activities. The formation of networks is partly a result of the way these companies are organised internally. Dominant and few players among producers

as well as customers are further conditions to be mentioned when explaining networks. Linkages locally and elsewhere in the country are necessarily weak as nearly all customer relations are abroad. Nor have subsidiaries or anyone else in the community any local R&D activity.

Another element, which could have created a positive business climate, is related to the fact that the town has three large companies in related sectors and therefore some similarities in competence and skills that enable collaboration, but such projects do hardly exist. Exceptions are activities well outside core activities, such as health services, finding ways of making the waste from the production tradable, and not least running a hydro-electrical power station. Collective innovation projects related to core-activities are absent. These kind of activities would have implied exposure of weakness and strength and would have required trust, something which are often difficult to develop (Porter 2000). In addition, the parties are probably technologically too far apart to find a reason to collaborate further.

All economic activity is embedded in socio-cultural systems and therefore ”socially situated” (Granovetter 1992). These socio-cultural systems consist of collective knowledge and informal rules, which are constantly produced and reproduced through action of economic actors at the same time forming conditions for their action (Lash and Urry 1994). The industrial culture in the smelting industry town is grounded on a long history with dominant foreign ownership. This business climate is characterised by large hierarchical and specialised organisations and modern technology with strong external ties. This has resulted in less room for individual agency, limited local entrepreneural experience and focus on industrial creativity and innovations. A representative of the local milieu made the following statement: *”There is no culture for entrepreneurship in this area. We have always expected the large foreign firms to provide the necessary number of jobs. This has been our attitude, and it is very hard to change it.”* Another key-informant put it this way: *”Large firms have been running this society, and people have not taken the initiative to be creative. We almost have to force people to change their way of thinking in order to create new job opportunities in the area.”* The culture of this industrial town is in other words a reflection of ”yesterday’s” accumulation regimes that obviously have difficulties coping with rapidly changing environments.

5. Foreign direct investment in an entrepreneurial industrial town

Our second industrial town is part of a municipality with a more diversified industrial structure, but with the electrotechnical as the dominant sector. Many of the firms are started by local entrepreneurs and based on family ownership. A smaller number has later changed ownership through mergers or acquisitions by other Norwegian owners. There are only two foreign firms in the area. The largest is an electromechanical factory that was rescued by foreign capital when it went bankrupt in the 1970s. The other foreign owned firm belonging to the trade and service sector is small and has not been included in the case study. The electromechanical plant, which employs about 500 started up as a family business around the turn of the last century. The earlier owner's willingness to change the organisational structure to a managerial form, introducing new technology and at the same time expanding internationally had simply been too ambitious at a time when the economy was quite turbulent. This strategy was nevertheless financially supported by the central government, which after the Second World War and until the 1990s was engaged in several industrial rescue- and development plans in rural areas. In fact did another Norwegian owned electromechanical firm in the same community, also receive governmental support in that period. It is however questionable whether this community was worse off than other places, or that these actions simply was a consequence of having the right connections.

Foreign ownership became the final solution in order to get this particular firm out of its economic crisis. There was an extensive search for owners that could keep the business running. Due to conflicts between various business and regional interests, this turned out to be a very difficult task. From the point of view of several of the involved parties, a foreign take-over was considered the second best solution. The search for a Norwegian owner that was really interested in running the business did however fail. The new owners used the acquisition as a way of getting access to a technology and product that enabled them to deliver a complete technology system to customers. It was also a step to get better control over the Norwegian market. Major customers were both in Norway and in many other countries. Nevertheless did the new ownership eventually mean extensive technology rearrangements and product adjustments of the subsidiary. This strategic move had to take place in order to fit in with the package of products offered from other parts of the company. According to local key informants this was a rather painful process for the subsidiary, as the original product was what the Norwegian firm

had been known for in Western Norway. Additionally it requires a lot of effort to change the production away from a technology that the workforce knew very well.

The new strategy did however turn out to be a success and a basis for competitive strength and growth. Nor did external ownership seem to have turned the subsidiary into “a puppet on a string” as many had feared. Instead the subsidiary has, according to the manager, had a relatively independent position in the company both when it comes to daily tasks and to more long-term decisions. The local unit does for instance include a relatively large R&D unit with several projects engaging major research institutions in Norway.

Several spin-offs have been started up by previously employers from the foreign owned subsidiary. This foreign owned firm has in fact been considered an important learning arena for many local entrepreneurs and a reason why several related business activities have been established in this community. These local firms sometimes compete, at other times cover different market niches. This similarity in technology and product orientation partly explains why local collaboration projects hardly exist. Exceptions are agreements about production capacity exchange in busy periods. Occasionally there are also examples of neighbouring firms borrowing machinery from each other. In that way costly investments in machines that otherwise rarely would be used are avoided. An important basis for these deals is that the parties know each other and what they get. Local customer links are sometimes based on long-lasting relations. These customers’ product opinions are of great value to the producers, suggesting improvements or all together new products. The foreign owned firm is no doubt part of a community where business seems to have a relatively strong competitive force also when counting markets outside the country. The firms share the same values, background and understanding of technical problems. Further, it does not seem that being owned from abroad has been a negative element to the business community. On the contrary, the foreign owned company’s success has been a positive inspiration to those that wanted to start on their own. Still, as we see when we study the existing local linkages in more detail, there are too few vertical and horizontal linkages to characterise this gathering of firms as a true geographical cluster or industrial district. This foreign owned firm has some Norwegian connections, but above all is it part of a global network by itself as well as through the activities of the parent company.

In the light of this international orientation, what are the local constraints? One major problem for firms in rather isolated communities is getting the necessary human capital when needed. The foreign owned company noted this when it increased its employment in the second half of the 1990s. This growth was a true challenge in a period when the labour market situation in Norway was considered rather tight. Traditionally most of the workforce was recruited locally, but in recent years the company have also managed to hire persons from other parts of the country and from even abroad (including some from the home country of the parent company).

Work in the manufacturing sector in general in this municipality has traditionally been dominated by men, which is also a reason why many young local girls have decided to move out to get an education and find a job elsewhere. The fact that there are too few girls to marry has also been a reason why some of the local men have chosen to move and live elsewhere. This unbalanced gender composition determines the economic conditions for existing and the potential for new activities. According to one of the managers, one effect of this tight labour market situation is that there are not always enough available engineers. The fact that wages are at a competitive level compared to other nearby communities is on the other hand a positive element. Also local firms mutual commitment of not stealing each others employees as part of the informal "rules of the game," are factors that count as stabilising elements concerning the local labour market.

Recruitment strategies are a reason why the foreign owned firm regularly has contact with local schools. Teachers and students are invited to guided-tour arrangements at the factory and apprenticeship contracts are offered from time to time. Being foreign owned but also relatively large has been used as a competitive element when the firm promotes itself as an attractive workplace. The following statement from the management further illustrates this: "*One of the inducements of choosing this type of career for younger generations is that we are an international company. We have in fact about 26 of our people travelling different places in the world every day*."

Foreign firms are sometimes claimed to have weaker community ties than what is the case with firms that have local ownership (Firn 1975, Massey 1984). This will however probably depend on the role this workplace has compared to other firms in the community and the background of the local managers. Our experience with foreign firms in different parts of the country is for

instance that being a relatively dominant actor and having a management with local ties tend to have a positive influence on how much the firms support social activities in the community. Still the attitude of how to deal with these issues does not necessarily have to be shared by the company's top management. The local manager we interviewed did explain to the headquarters that local social engagement was important in order to build a positive image of the firm, and in that way receive loyalty from the staff (Rusten et al. 2000).

A foreign owned firm will still necessarily have some loyalty ties towards the parent company. One way of nursing these relations is by exchanging personnel. This subsidiary has for instance 2-3 of their people placed at one on the companies' sales offices from time to time.

We have tried to identify some of the values for the community of having this foreign firm, but also what the firm finds attractive by being located in the community. Human-capital inertia no doubt "glues" the firm to the community. Another important aspect is related to image. The coast, sea and scenery are an important part of the image of this foreign owned firm. "*We have not always been so much aware of these values, as they seem so ordinary and not very exotic. We now believe that these elements represent qualities that others may find attractive. This is at least what we experience when we take foreign visitors on fishing trips*."

The municipality as a whole has relatively high work-place coverage (measured as workplaces in percentage of registered employees) and therefore a relatively low unemployment rate and few commuters to other places. The population has for many years showed a moderate growth with a relatively young population compared to the rest of the county. The community wishes to create a reputation about the place being "high-tech" and offer inhabitants jobs and a high quality of life. The local authorities welcome a steady population growth. Making building sites available for new business activities is in that respect considered an important development strategy. Communication improvements that are in progress will be a great help for dual-career families that need a more varied labour market if both parties are to get a job in accordance with their formal education. Better access to the outside world are also welcomed especially by persons from time to time wanting to take part in the more urban lifestyle. Finally will better communications to the community simplify logistics of goods and services, a factor of great importance in a global market situation, where just-in-time really counts.

6. Differences and similarities

Two distinctive outcomes of foreign ownership in industrial towns have been illustrated through our empirical discussion. The smelting industry town does to a certain degree represent the classical version of the management model where the local multiplier effects from a FDI-location are measured by work-place numbers, and a few goods and services supplies. Historically the foreign firms have been social entrepreneurs in this locality, but at the turn of the century they do not in the same way manage their role as a provider of employees' possibilities and social services for the inhabitants. Their local purchases of goods and services have been restricted to maintenance and standardised services. There is an absence of innovation network and co-operation projects between these dominant firms and small and medium sized local firms, and a lack of spin-offs. This restricts the diffusion of technology, competence and business philosophy from the cornerstone firms to the local milieu.

Foreign ownership in the entrepreneurial industrial town represents a quite different situation. Multiplier effects measured as innovation networks and new firm formation have been developed. The foreign owned plant includes a relatively large R&D unit, and local firms have been involved in R&D co-operation projects. To some extent the foreign firm has been a provider of employees' possibilities, but they also represent an important arena for learning. Several entrepreneurs that used to be employed by the foreign owned subsidiary have started up spin-offs. The foreign owner has used this plant as a step to utilise specific local technology and competence, through development of local and region network systems. This utilisation of localised capabilities is according to Amin and Cohendet (1999) an important aspect when coping with rapidly changing technological and market conditions.

The different outcomes in the two industrial towns can also be related to different investment motives. When the main motive is control of natural resources as we found in our first case it often implies heavy technology investments and large-scale production. Prospects of getting spin-off activities from a smelting industry plant in other than rather standardised activities, seem relatively small, due to technological and economical necessity of producing at a large scale.

When the investment is motivated by access to intangible technology and competence related resources, this seems to trigger off investment within R&D intensive activity, as seen within for

instance the electromechanical sector and the information and communication sector. This means greater possibilities for spin-offs and external networking. In addition, possibilities for spreading production and operation at different scales are far better within these sectors than in the smelting industry.

Thus, our finding indicates that it is not the foreign ownership per se which explains multiplier effects. Instead the motives and the characteristics of the sector where the investment takes place give a more reasonable explanation. There is a wide range of evidence that supports the view that branch plant economies are threatened by cases of corporate restructuring. Nevertheless, chances for negative local implications may take place regardless the nationality of the owner. An ongoing crisis in two smelting industry towns one with Norwegian ownership the other with foreign, even shows that that the latter seems to be more concerned about community effects compared to the Norwegian owned firm.

Different outcomes of foreign direct investment can also be explained by referring to the history of the local production system where these investments take place. The industrial town dominated by smelting industries has a long history of large firms, and has constructed a specific industrial culture in the area, characterised by hierarchical modes of organisation and strong external control. Traditions for local innovation and entrepreneurship are absent, a general characteristic of many industrial towns dominated by one or a few large firms (Hansen and Selstad 1999). Thus, as a consequence of the history of the place it is difficult for the foreign firms to find potential local partners for networking and innovation. In addition, there is no tradition or culture among labourers at the large firm for starting their own business. Instead there is an attitude among them that “the cobbler should stick to his last.”

The entrepreneurial town represents a quite different industrial culture. The dominance of locally owned small-scale activities based on informal competence and a differentiated technology has historically dominated this locality, and attitudes toward creativity have become institutionalised. These communities represent a type of culture that promotes innovative activities and entrepreneurship (Wicken 1997). The disparity in culture between our two cases can be illustrated by referring to the registration of new firms in these localities shown in Table 2.. In the entrepreneurial industrial town the relative number of new firm formations is considerably higher than in the traditional industrial town.

Table 2. Firm formation in two municipalities, and average for the county 1996-1998 1)

	Total numbers of new firm formations	Annual average	New firm formations per 1000 inhabitants
The municipality with the Smelting industrial town	91	30,3	**3,8**
The municipality with the Entrepreneurial industrial town	172	57,3	**5,7**
Highest value within the county			**9,0**
Median for the county			**4,7**
Lowest value within the county			**2,1**

Note: 1) These data are based on the database at The Directorate of Taxes on enterprises that are on the VAT-list. Some service industries that are exempted from this tax are not included. These are banking and insurance, culture, sport, education, health, research, consultants and broadcasting institutions (Spilling 2000).

The results from the case studies and these figures have both shown that the introduction of a large foreign firm in this entrepreneurial area has had a positive effect on the innovation local capacity. One directly effect is spin-offs, additionally has this foreign firm supplied the local economy with formalised and research informed knowledge, introduced professionalism and a modern way of managing a business firm. This replenishes the local practical competence and the informal modes of organisation which up until recently have dominated business life in the area.

The industrial town, on the other hand, seems to be in a ”locked-in-situation” with specific trajectories for development as a consequence of comprehensive material investments and the development of deep and specialised industrial competence (Grabher 1993). This development of trajectory makes it hard to establish new paths of development and increase the level of innovation and new firm formation.

So what are the policy implications of our findings? In general, the Norwegian authorities have conducted a re-active policy toward foreign direct investment. One of the findings in our previous FDIs in metropolitan areas is that location decisions seldom have been a result of governmental initiatives (Rusten et al. 1999, Jakobsen and Rusten 2000). The industrial town studies with stories about governmental rescue plans seem therefore to be an exception from this rule. Our studies on FDIs in Norway have also shown that in the majority of cases, it is difficult

to co-ordinate different arrangements in a manner that maximises local efficiency and the total positive effects for society. Still, some elements regarding policy toward foreign investment can be outlined. First, the possibilities of generating local multiplier effects, networking and spin-offs, are most likely when the foreign investments are within competence and R&D intensive sectors (for instance electromechanical and the information and communication sector). Second, these kinds of positive local effects also presuppose the existence of a local industrial economy that match, containing firms and entrepreneurs that can be involved in co-operation projects and utilise the new opportunities these investment projects represents. Third, local networking and collective innovation projects seem to presuppose a certain degree of equality and or complementary between the partners.

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