Abstract: One of the most significant characteristics of recent years economic development is the profound growth in international production by transnational corporations (TNCs). This paper presents the results of a major survey of the involvement of Danish industry in this internationalization process. In particular, the paper focuses on Danish investments in the emerging economies of Eastern Europe and less developed countries (LDCs), an aspect of Danish foreign investment which is highly under-researched. The main findings of the paper is that around 1100 Danish companies are involved in international production, having almost 2900 subsidiaries abroad. 350 of those subsidiaries are located in the emerging economies of LDCs and Eastern Europe. The paper observes that the Danish involvement in emerging economies is significantly below that of other OECD countries, a finding which is linked to the relative dominance of small and medium sized companies in Danish industry. The paper notes that whereas the most important emerging economy destination in the seventies and eighties was Latin America and here in particular Brazil, Danish companies now prefer to invest in Asia and Eastern Europe, Poland being the by far most important emerging economy country. In general, the paper argues that small and medium sized companies play a pivotal role in the internationalization of Danish industry, less so in LDCs, more so in Eastern Europe. The survey also confirms that the Danish investment promotion agency IFU, participating in 40% of all investment projects in LDCs, plays a pivotal role in the expansion of Danish industry into LDCs. Finally, an inquiry among 167 companies with manufacturing activities in LDCs or Eastern Europe reveals that more than 50% of all investment projects in emerging economies are undertaken mainly in order to get access to the emerging economy market. Only 18% of the investment projects are motivated with the more favorable cost conditions - mainly lower salaries - offered by many emerging economies. This finding challenges the widespread belief that Danish investments in LDCs and Eastern Europe will cause a general loss of Danish jobs and productive capacity.

Danish Foreign Direct Investment in Less Developed Countries and Eastern Europe

A survey of the international operations of Danish companies

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Introduction[2]

In recent years, Danish industry has undergone a transformation toward a more international orientation of value adding activities. Numerous Danish firms have adopted international production strategies by placing affiliates abroad, engaging in joint ventures with foreign companies or engaging in various non-equity arrangements outside Denmark. Initially, the internationalization of Danish industry was led by a few very large companies, but recently a host of small and medium sized companies have engaged in international production too. The aim of this essay will be to portrait this internationalization process, in particular as it relates to the emerging economies of Eastern Europe and less developed countries (LDCs). The operations of Danish companies in LDCs and Eastern Europe have been devoted little interest in the literature and apart from a series of studies from the early and mid eighties no comprehensive portrayals of Danish investments in emerging economies exists. As the future success of Danish industry to a large extend will depend on its ability to compete in the rapidly expanding markets of Eastern Europe and LDCs, it is particularly important to illuminate this aspect of Danish foreign investments.

Three indicators will be employed in the following review of the international orientation of value adding activities in Danish industry. These are 1. Danish outward foreign direct investment (FDI); 2. FDI stock held by Danish companies; and 3. foreign affiliates held by Danish companies.

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2 I am grateful to Knud Bab from the Department of Marketing for his assistance with collecting data on Danish investment projects in emerging economies. I am also grateful to Torben Pedersen from the Department for International Economics and to my colleagues at the Department for Intercultural Communication and Management for comments to this paper.

These are all proxy measures for foreign value adding activities of Danish companies, and therefor great caution in the interpretation of findings based on these measures are warranted[3].

The review will be based on two sources namely the Danish National Bank's registration of FDI flows and FDI stock, and data on foreign affiliates of Danish companies. The information on the foreign affiliates of Danish TNCs is consolidated in two data bases, the 1995 Foreign Affiliate Survey (FAS) and the 1995 Emerging Economies Affiliate Survey (EEAS). The FAS data base contains information on 1079 firms with 2792 foreign affiliates in both OECD and non-OECD countries all of whom are majority owned. The EEAS data base contains information on 389 companies holding 858 majority as well as non-controlled affiliates in non-OECD countries[4].

The review will be divided into two parts. Part I will, based on FDI data from the National Bank and on the 1995 FAS of majority owned Danish subsidiaries in both OECD and non-OECD countries, examine general trends in the internationalization of Danish industry and characterize activities in emerging economies in relation to these trends. Part II will, based on the 1995 EEAS of all Danish investment projects in emerging economies, take a closer look at the scope and content of the activities of Danish companies in emerging economies.

Part I. General trends in the internationalization of Danish industry

a. Historical developments in Danish FDI

The Danish economy is a small open economy extremely susceptible to world market conditions and with a very high export proportion of GNP[5]. Denmark became a member of the EU in 1972 and in recent years the implementation of the European Single Market has further increased the trade dependence of the Danish economy. As a consequence of the paramount importance of trade for the Danish economy, the Danish approach to international trade liberalization has been relatively positive and Denmark has been supportive of trade liberalization's in the EU, in GATT and in the OECD. According to Rasmussen (1990), Denmark has also been comparatively liberal in her trade relations with LDCs. This liberal approach has been affordable, he argues, as Danish trade with LDCs

[3] See the methodological section of this essay for the validity problems associated with these measures.

[4] For an extensive account of the methodologies behind the two databases on foreign affiliates of Danish companies, please refere to the methodological section.

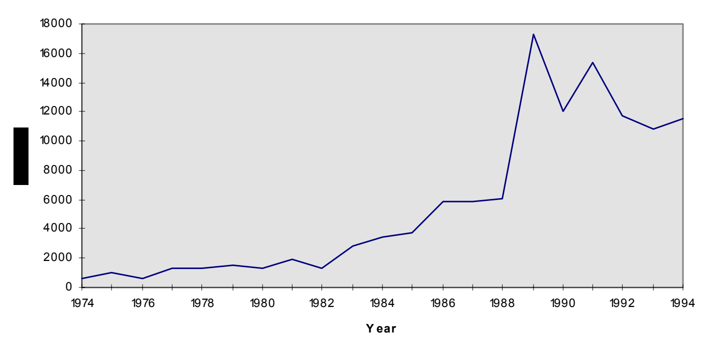
[5] Whereas exports as percentage of GNP in 1970 was 21% it was 29% in 1984 (Rasmussen, 1990;73).

is only around 10% of imports and exports, a smaller proportion than that of larger OECD countries, and as only a small fraction of Danish industry is directly exposed to competition from LDCs[6].

1. Trends in outward FDI

Whereas the Danish economy is highly open and export dependent, the internationalization of the Danish industry has mainly taken the form of exports, and value adding activities have only to a limited degree been located abroad. Thus, historically Danish FDI has been fairly low and the international operations of Danish companies relatively modest compared to those of other European small and middle sized countries. For instance, FDI as a percentage of GNP was between 1985 and 1991 around 1% in Denmark compared to 4% in Sweden and Holland (Pedersen, 1994;25) and Denmark ranked only thirteenth among the OECD countries in terms of FDI as share of GNP. The explanation on the relatively low level of internationalization of Danish industry is probably related to the fact that the Danish economy is dominated by small and medium sized companies and that virtually no internationally large transnational corporations exists in Denmark[7]. Another explanation could be that internationally oriented sectors such as oil and electronics historically have been relatively absent in the Danish economy.

FIG 1. Danish outward FDI, 1974 - 1994



Source: Nationalbanken

However, in recent years there is evidence that the internationalization of value adding activities of Danish companies is speeding up and that Danish internationalization patterns are becoming more similar to those of other small OECD countries: As demonstrated in Figure 1, Danish FDI followed a relatively stable pattern up until the early eighties; from 1974 and until 1976 Danish FDI was less than Dkr.1 billion per year and between 1977 and 1982 FDI grew to a relatively stable level between Dkr.1 and 2 billion. However, in the early eighties an important change in Danish foreign economic relations took place: From 1983 and onwards, outward FDI virtually exploded so that while

[6] However, the liberal approach was not extended to industries where LDC exports were a real threat; industries such as shipbuilding and textiles (Rasmussen, 1988;72).

[7] In 1993, none of the worlds 100 largest TNCs were based in Denmark, although 38 were from the EU (excluding Sweden and Finland) (UNCTAD, 1994).

Danish trade increased with an annual 5.6% from 1983- 1989, the annual growth in FDI was 40% in the same period (Lindholm, 1994; 28). This surge in FDI made Denmark a net capital exporter, where she previously had had a large surplus of inward investment.

The dramatic increase in Danish FDI might to some extend reflect domestic or regional factors, such as the general improvement in the Danish economy during this period, a strengthening of the competitiveness of Danish industry vis-à-vis other OECD countries or the establishment of the European Single Market making it easier to undertake foreign operations in Europe. But it should also be noted that the surge in Danish FDI to a large extend reflects a broader international trend of the last decade, where global FDI from 1986 and onwards has increased significantly faster than GNP and trade. In this sense, the surge in Danish FDI reflects the widespread trade and investment liberalization's that have taken place since the end of the Cold war, as well as various technological developments - e.g. the spread of communication technologies - that make it easier to organize production across borders and spread technologies and know-how.

2. Danish subsidiaries abroad

Apart from trends in FDI flows, the historical evolution of the internationalization of Danish industry can be illustrated by examining trends in the establishment of foreign subsidiaries. The establishment of subsidiaries abroad is not a new phenomena in Danish industry. In the latter part of the 19th century Danish companies such as ØK, Store Nord and Chr. Hansens Laboratorium opened operations abroad. However, these early operations were rather sporadic and between 1900 and 1964 only around 70 Danish foreign subsidiaries were established (Strandskov,1987).

Table 1.

The concentration of foreign subsidiaries

	# of subsidiaries
More than 30 subsidiaries	226
20 -29 subsidiaries	192
10 - 19 subsidiaries	303
5 - 9 subsidiaries	594
3 - 4 subsidiaries	483
2 subsidiaries	374
1 subsidiary	620
Source: FAS, 1995	n=2792

In the 1960ties a concentration of Danish industry took place, and some of the large trading and shipping companies diversified. This development speeded up the internationalization of Danish industry. From 1965-1983, 277 foreign subsidiaries were established and between 1984-1989 344 subsidiaries were established (Pedersen et al, 1993;44). By 1987, it was estimated that there were around 1800 Danish subsidiaries held by 460 parents. On average each company had 3.9 foreign operations. Four years later Pedersen et al identified 709 Danish parents with 2326 foreign subsidiaries. On average each company now had 3.2 foreign subsidiaries. It was estimated that this latter survey included up to 95% of all Danish companies with foreign subsidiaries.

The 1995 Foreign Subsidiaries Survey (FAS) identified 2792 Danish subsidiaries held by 1079 companies that is 2.6 foreign operations per company on average. As the methodology of the 1995 FAS is comparable to those employed by Pedersen et al (1993) and Strandskov (1987), it seems safe to conclude that Danish industry is continuing a trend toward widespread, but thin internationalization (from 3.9 foreign subsidiaries per company in 1987, over 3.2 in 1991 and then 2.6 subsidiaries per company in 1995). Moreover, it seems that in an international perspective, Danish companies hold comparatively few foreign subsidiaries. Thus, UNCTAD (1995) estimates that there are more than 40.000 TNCs world-wide with 250.000 foreign subsidiaries. This is 6.25 affiliates per company on average.

Table 2.

30 Danish Transnational Corporations

	# of subsidiaries		# of subsidiaries
ØK A/S	48	Sophus Berendsen A/S	18
Novo Nordisk A/S	40	Danfoss A/S	14
Danisco A/S	36	Lego A/S	14
Chr. Hansens Labor	34	Schur International A/S	14
J. C. Hempel's	34	Coloplast A/S	13
Superfos	34	H. Lundbeck A/S	13
A.P.Møller	28	ISS-International Service	13
SAS	28	Oticon Holding A/S	13
Niro A/S	27	A/S Foss Electric Holding	12
Grundfos International	24	Gram A/S	12
F.L. Smidth & Co. A/S	23	S. Dyrup & Co. A/S	12
Winterthur Schweizisk	22	A/S Eccolet Sko	11
Carlsberg A/S	20	Bestseller Wholesale A/S	11
Egmont	20	In Wear A/S	11
Royal Copenhagen A/S	19	Louis Poulsen & Co. A/S	11

Source: FAS, 1995

The impression of a relatively thin but widespread internationalization of Danish companies is supported by the fact that the bulk of Danish foreign subsidiaries are held by companies with only few subsidiaries. Thus, as seen in Table 1, 22% of Danish subsidiaries abroad were held by companies with only one affiliate abroad and almost 60% of Danish subsidiaries were held by companies with fewer than 5 foreign subsidiaries. In contrast, companies with 20 or more foreign subsidiaries held only 15% of all Danish foreign subsidiaries.

Although companies holding one or two foreign subsidiaries seem to dominate the internationalization of Danish industry, there is a small group of companies which in terms of foreign subsidiaries are highly international in their orientation. The thirty most internationalized companies identified through the 1995 FAS are displayed in Table 2. The company with most fully controlled foreign subsidiaries is ØK, that is the East Asian Company. This is a large trading company with the bulk of its activities and thereby subsidiaries located in the Far East. Other well known large Danish TNCs are Novo Nordic, a pharmaceutical company which have specialized in the production of insulin, Carlsberg, the brewery, A.P. Møller, a shipping and oil company, F.L. Schmidt, a company specialized in building cement plants, Danfoss, a producer of pumps, Danisco, a producer of foodstuffs, or Rockwool, the producer of insulation materials.

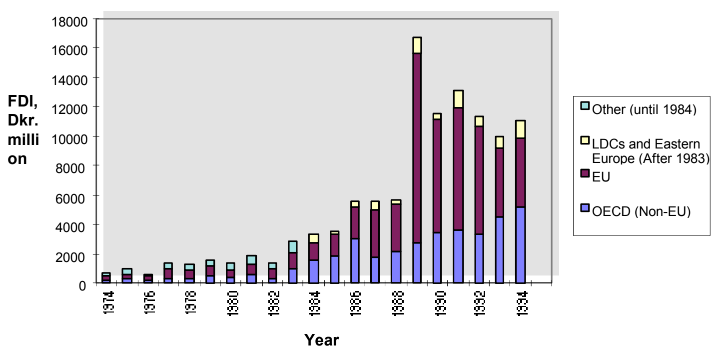
b. Where do Danish firms invest?

As argued above, the dominance of small and medium sized companies to a large extend explains the relatively low level of internationalization of Danish industry. The same line of argument would lead to the expectation that when Danish companies eventually engage in international production, they will concentrate on nearby markets, where cultural, regulatory and social barriers are relatively modest and thereby easiest to overcome for a small company.

1.The geographical dispersion of outward FDI

Looking at Figure 2 over the regional distribution of Danish FDI, it is evident that between 1974 and 1983, Danish FDI followed a relatively stable pattern, with EU countries dominating, receiving between 35 and 50% of total FDI. The remaining OECD countries received between 30 and 35% of FDI. For this period there is no data on FDI to LDCs and Eastern Europe, but countries in the category 'Other' received between 20 and 25 % of FDI. By 1984, this stable pattern changed dramatically. In particular, the EU share of total FDI grew from around 35% in 1984 to close to 80% in 1990. This growth took place mainly between 1986 and 1990, 1986 being the year where the EU member states agreed on implementing the Single European Market before 1992. After 1990-1991, the EU share of FDI has fallen back to its original level of around 40% of total FDI, whereas FDI to other OECD countries, mainly Sweden[8] and the US have grown steadily and now accounts for close to 50% of FDI.

FIG 2. Regional distribution of danish FDI, 1974-1994



Source: Nationalbanken

Data on the total FDI stock held by Danish companies in 1991 is available from the Danish National Bank[9]. By 1991 total

[8] Sweden, Finland and Austria joined the EU only in 1995 and will in this paper be treated as non-EU OECD countries.

[9] The data are based on 1991 survey of all Danish companies with foreign direct investments(National Banken, 1994;15ff). According to this survey, around 1100 companies had foreign activities in the form of FDI distributed among an

Table 3.
Main hosts for Danish FDI stock (1991)

	Dkr. Billion
1. UK	23.5
2. Sweden	7.3
3. USA	7.1
4. Germany	7.1
5. Switzerland	5.1
6. France	4.9
7. Holland	4.5
8. Norway	3.6
9. Canada	2.6
10. Central America	2.4
11. Spain	2.0
12. Ireland	1.9
13. Japan	1.4
14. Malaysia	1.1
15. Singapore	1.1

Source: Nationalbanken, 1994

Danish FDI stock was Dkr. 90.5 billion. More than half the FDI stock was placed in EU countries and 1/3 in non-EU OECD countries. Only around 10% was placed outside the OECD, in Eastern Europe and LDCs. The main location for Danish investments within the EU was by far the UK, which accounted for more than 25% of all Danish FDI stock in 1991. Also Sweden is an important destination. The United States is the fifth most important location for Danish FDI and the leading non-European country among recipients of Danish FDI. The interest of Danish firms outside the traditional investment areas in the EU, the US and Scandinavia is relatively modest, Malaysia and Singapore being the main locations here receiving around Dkr. 1 Billion in FDI stock each. These findings support the aforementioned hypothesis that Danish industry, due to the predominance of small and medium sized companies, concentrates its investments in countries like the Nordic countries or the UK, where the cultural, linguistic and regulatory barriers are relatively modest.

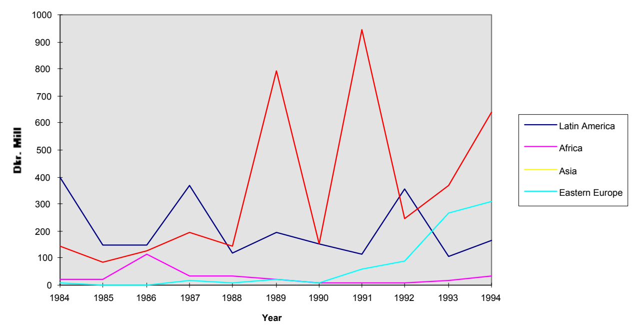
2. Danish FDI in LDCs and Eastern Europe

Looking at the distribution of Danish FDI to LDCs and Eastern Europe (Figure 3), it is evident that Danish FDI to these regions is on the rise: Between 1984 and 1994 Danish FDI to these regions more than doubled, from Dkr. 570 million to Dkr. 1145 million in 1994. To a large extend this growth is accounted for by investments to Eastern Europe, but also investments to LDCs have grown significantly throughout the period.

The impressive growth in absolute levels of Danish FDI to emerging economies should however not conceal two facts. First, as a percentage of total FDI, emerging economies played a diminishing role throughout this period. Thus, FDI to emerging economies have declined significantly as percentage of total Danish FDI; in 1984 emerging economies attracted 17% of total FDI, in 1994 this number had fallen to 10%. The other fact is that Danish FDI to emerging economies as proportion of total FDI is considerably smaller than the proportion of FDI to LDCs in other OECD countries. Thus, as seen in Figure 4, global FDI to emerging economies accounted for between 20 and 40% of total world FDI throughout the first half of the nineties and grew rapidly in this period. In contrast, Danish

estimated 3700 affiliates. The majority of the FDI was directed toward wholly owned affiliates but the survey also included affiliates with less than 50% Danish ownershare. This means that the results of this survey is not directly comparable to Pedersen et al, 1993 and the 1995 FAS, both of which focussed on affiliates with more than 50% ownershare.

FIG. 3. Danish FDI to LDCs and Eastern Europe, 1984 - 1994

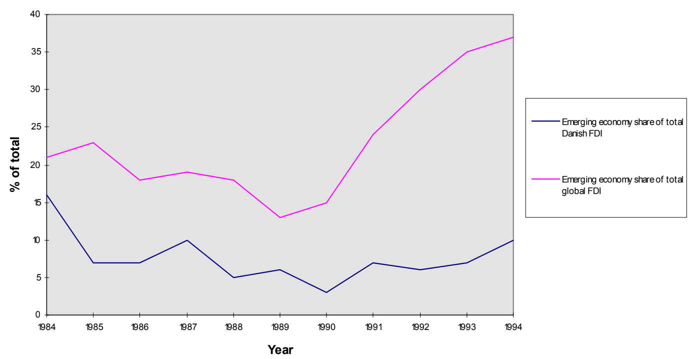


Source: Nationalbanken

FDI to emerging economies as proportion of total outward Danish FDI was between 5 and 10% throughout the 1990s. Even though the emerging economy share of total Danish FDI seemed on the rise from 1992 - 1994, this growth was extremely modest compared to global patterns.

Several explanations on the relatively low level of Danish investments in LDCs have been advanced by Rasmussen (1990): First, given SMEs less diversified character and their preference for nearby markets, countries with a high proportion of SMEs such as Denmark, will tend to have relatively little representation in LDCs. Second, apart from the possession of small areas in the Caribbean and West Africa for brief historical periods and the association with sparsely populated areas in the North Atlantic, Denmark has no colonial past. In other European countries, for instance Holland and the UK, many of the largest transnational corporations were built on colonial links and the commercial activities of these companies were often sustained after the colonies had been abandoned. Third, the Danish industrialization took place relatively late, and as a consequence, Danish trade relations with LDCs did not evolve before the early sixties. Finally, Rasmussen suggests that Danish industry is specialized in the production of intermediate goods, and therefor she is not excessively involved in the production of standardized products that historically have dominated LDC manufacture.

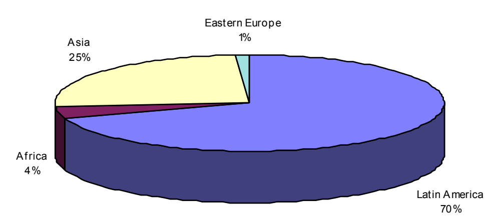
FIG. 4. Emerging Economies share of total Danish and global FDI



Source: UNCTAD and National Banken

Looking at the distribution among various regions in the emerging economies (Figure 5 and 6), the most significant trend is that Danish FDI has shifted away from Latin America toward Asia and Eastern Europe. Thus, while Latin America during the seventies and early eighties was the most popular destination for Danish FDI and Brazil the most important country in Latin America (Torp, 1986), Danish industry has largely abandoned this region. This change probably reflects the severe economic crises experienced in the debt burdened Latin American economies throughout the eighties. But it could also reflect the fact that most Latin American economies relinquished import substituting development strategies in the late eighties and early nineties thereby removing a strong investment incentive.

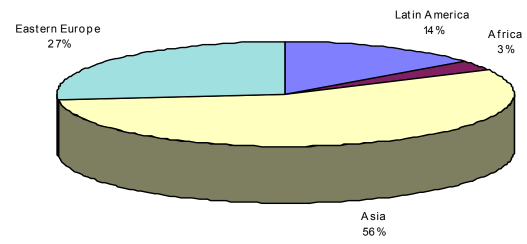
FIG. 5. Distribution of Danish FDI to LDCs and Eastern Europe, 1984



Source: National Banken

Replacing Latin America, Asia has become the single most important target for Danish FDI outside the OECD, receiving 25% (144 million Dkr.) of total FDI to the emerging economies in 1984 and 56% (638 million Dkr.) in 1994. This surge in Asian investments is of course related to the astonishing economic performance of the NIC countries during this period; obviously, Danish industry has, through FDI, sought to buy into this, the worlds most dynamic market. However, the surge in Asian investments should not conceal the fact that Danish (and in fact European) FDI to this region is relatively low; whereas 3.8% of Danish FDI [10] and 3% of total European FDI goes to this region, this number is 4 times higher in Japan and 2-3 times higher in the US (UNCTAD, 1995;XXII). The surge in investments to Asia was closely followed by a rapid growth in Eastern European investments which grew from virtually nothing in 1984 to 27% of FDI to emerging economies in 1994. The proximity of the Eastern European markets in combination with the low wage levels (Around 1/10th of the Danish level) and an emerging purchasing power in these markets make them very attractive to Danish investors. The rapid growth in FDI to Eastern Europe in the 1990s, a trend that seems to continue in 1995, could suggest support for the hypothesis that Danish industry is shifting focus away from the more remote LDC markets, to the closer markets of Eastern Europe. Alternatively, the surge in Eastern European investments could be explained by investments being

FIG. 6. Distribution of Danish FDI to LDCs and Eastern Europe, 1994



Source: Nationalbanken

10 Average 1990-1994

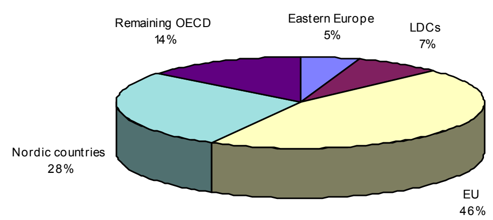
diverted away from OECD investments as the traditional locations for Danish FDI are becoming saturated. Later in Part I we will examine these hypotheses in more detail.

Throughout the 1980s and 1990s, FDI to the African continent has been negligible and falling reflecting the continuous economic and political turmoil in large parts of this region. Whereas this region received a mediocre 4% of all Danish FDI to LDCs in 1984, this share had fallen to 3% in 1994. Most of these investments were concentrated in the oil rich West African countries, in particular Nigeria. The low and declining Danish share of FDI to Africa reflects a global trend; Africa's share of the LDC total inward FDI has declined from 11% in 1986-1990 to 6% in 1991-1993 and 4% in 1994 (UNCTAD, 1995;84).

4. The geographical distribution of Danish subsidiaries

The 1995 FAS revealed, not unexpectedly, that the regional distribution of subsidiaries is fairly similar to the distribution of FDI stock. Thus, as seen in Figure 7, 46% of all subsidiaries were placed in the EU, 42% in non-EU OECD countries and only 12% were placed in LDCs or Eastern Europe with 5% in Eastern Europe and 7% in LDCs. Looking at individual countries it was found that Danish subsidiaries tend to be concentrated in the close vicinity of Denmark: In fact more than 50% of all subsidiaries were located in the 4 neighboring countries Germany, Sweden, Norway and UK (Table 4). Alone Germany, the main host for Danish subsidiaries, accounted for 15% of all subsidiaries, and 2/3 of all subsidiaries were located in the 7 most popular host countries. Interestingly, a non-OECD country, namely Poland, has found way to the Danish top ten of popular host countries.

FIG. 7. Regional distribution of Danish subsidiaries

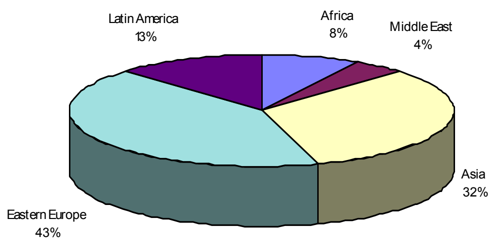


Source: The 1995 FAS

5. Danish subsidiaries in LDCs and Eastern Europe

The literature on the internationalization of Danish industry typically contents that few Danish companies have started up activities in LDCs, apart from a few large trading and shipping companies such as East Asian Company and A.P. Møller. However, the precise extend of Danish operations in emerging economies has not been systematically analyzed in recent years. Strandskov (1987) estimated that one in ten Danish subsidiaries were located in LDCs in the 1960s. By the 1970s and early eighties, he estimated this number to be one out of three. Later in the 1980s, he estimated that the LDC share of Danish subsidiaries to be 19%. According to Pedersen et al, this number had fallen to only 9% by 1991. The 1995 FAS identified 357 subsidiaries located in emerging economies, 207 in Eastern Europe and 157 in LDCs. All in all, emerging economies accounted for 12% of all subsidiaries, 5% in Eastern Europe and 7% in LDCs. This indicates that LDCs have fallen further in importance as a destination for Danish industry, however to some extend replaced by a rapid growth in Eastern European investments[11].

FIG. 8. Regional distribution of Danish subsidiaries in emerging economies



Source: The 1995 FAS

Table 4.
The main hosts to Danish subsidiaries

	# of subsidiaries
1. Germany	425
2. Sweden	369
3. UK	324
4. Norway	274
5. USA	195
6. France	141
7. Finland	125
8. Holland	98
9. Poland	76
10. Spain	73
11. Switzerland	67
12. Belgium	47
13. Italy	43
14. Ireland	41
15. Portugal	37

Source: The 1995 FAS

By 1995, it seems that Eastern Europe has become the most important emerging economy host to Danish subsidiaries, with 43% of all subsidiaries placed in emerging economies (Figure 8). Asia is host to 1/3 of the subsidiaries, and Latin America hosts 13% of the subsidiaries. In Eastern Europe, Danish companies concentrate their activities in the countries which most successfully have implemented comprehensive privatization and market reform programmes, that is Poland, the Czech Republic and Hungary. Looking exclusively at the 207 LDC subsidiaries, 56% were located in Asia, 22% in Latin America and only 14% in Africa. The remaining LDC subsidiaries were located in the Middle East. Singapore, Hong Kong, Malaysia and Brazil are the main LDC destinations for Danish companies. In Part II of this paper, Danish affiliates in LDCs and Eastern Europe will be examined in more detail.

[11] However, the large proportion of Eastern European affiliates in this group should not be overinterpreted; as we will see later a large proportion of Eastern European investments are made by very small trading and retail companies. Moreover, as Part II will demonstrate, a very large proportion of Danish industry's involvement in LDCs is in the form of minority shares which are not included in the 1995 FAS.

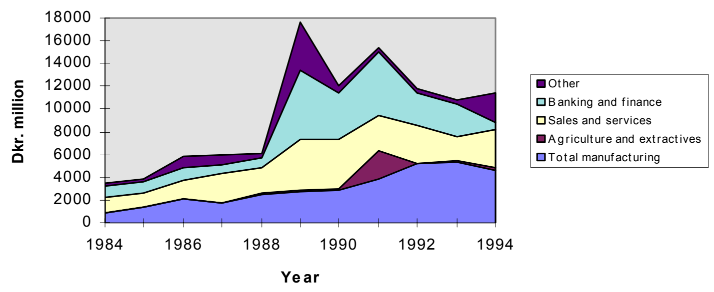
c. The sectoral distribution of Danish investments

Hitherto, we have examined the overall volume of Danish operations abroad and the main hosts of Danish subsidiaries and FDI stock. This section and the following section will look into the question of, what kind of companies are investing where. This current section will examine the relationship between the sector that the parent company operates in, and the extend and content of foreign operations. The following section will examine whether size of the parent company is a factor in explaining internationalization patterns.

1. Sectoral trends in outward FDI

The Danish National Bank has since 1984 registered FDI according to the activity of the affiliate. Taking the average investments in each sector between 1984 and 1994, it is found that, contrary to popular belief, manufacturing investments only account for a relatively small fraction of total FDI. Thus, less than 1/3 of all investments were made in manufacturing (31%) whereas 55% were made in sales and services or finances. 9% of all investments were made in the extractives industry. This pattern is consistent with international patterns where sales and services, including finance, account for around 50% of global FDI stock, compared to 39% in manufacturing and 11% in extractives (UNCTAD, 1995; 10ff).

FIG 9. **Sectoral distribution of FDI, 1984 - 1994**

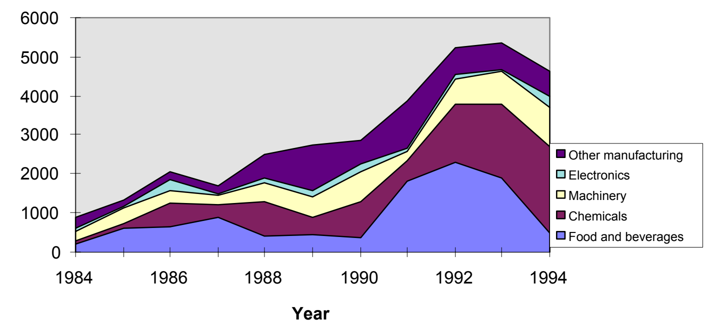


Source: National Banken

Looking at the historical developments in the sectoral distribution of Danish FDI between 1984 and 1994 some of the dramatic fluctuations in outward Danish FDI discussed in the previous section can be explained. Thus, looking at Figure 9, it seems that much of the late eighties surge in FDI can be explained by a rapid growth in banking and financial investments. Likewise the 1991 surge in FDI can be explained by investments in the agriculture and extractives sector, probably one or two major investments in the oil and gas industry.

Between 1984 and 1994, significant changes in the composition of sectors in Danish FDI took place. Sales and services as proportion of total FDI fell from 38% to 26%, and banking and finance increased from 6% to 29%[12]. The most interesting trend however, is the growth in manufacturing FDI from 26% of total FDI in 1984 to 41% in 1994. In contrast to FDI in other sectors, manufacturing FDI has grown at a steady pace. This indicates that investments in manufacturing are less sensitive to short term fluctuations in e.g. exchange rates, interest rates, etc., and are undertaken with a longer term perspective in mind.

FIG 10. **Danish manufacturing FDI, 1984 - 1994(Dkr. mill)**



Source: National Banken

Looking more closely at manufacturing FDI, Figure 10 indicates that FDI in food and beverages between 1984 and 1994 fell to less than half its initial share of total manufacturing FDI although it in absolute number remained the same. Between 1991 and 1993 however, FDI in this sector grew rapidly, probably due to a few very large investments by the large brewery Carlsberg or by the sugar giant Danisco. The downward pointing trend in manufacturing FDI after 1992 can largely be explained by the fall in food and beverages FDI.

Apart from the dramatic surge in food and beverages investment between 1991 and 1993, the most significant trend in manufacturing FDI is the steady growth in chemical investments. In 1984 chemical investments consisted of only 9% of total manufacturing FDI, by 1994 it had grown to 49%. As we will see later, the growth in this category is largely accounted for by huge investments in subsidiaries producing organic chemicals, that is investments made by pharmaceutical companies.

2. The sectoral distribution of parents to foreign subsidiaries

The 1995 FAS did not provide information on the activities of foreign subsidiaries[13]. However, information on the sector of the parent company was available. This information could give at least a clue of, what kind of activities the subsidiary is involved in[14]. The sectoral distribution of parents to foreign subsidiaries largely follows the pattern of the distribution of FDI. Non-manufacturing

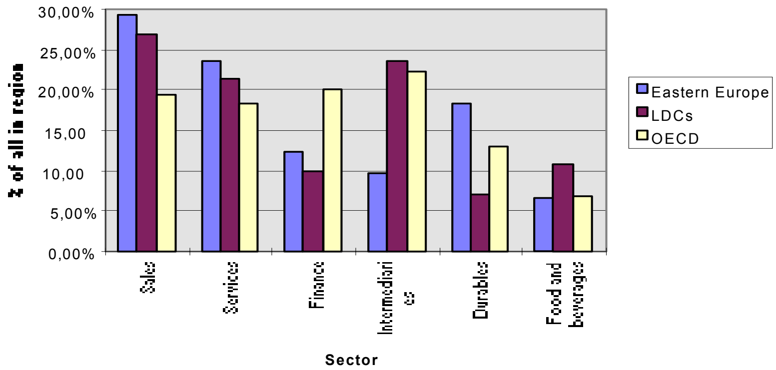
[12] The relative importance of different sectors should not be over-interpreted; in particular financial FDI tend to be over-estimated due to the National Bank's accounting methods.

[13] However, the 1995 EEAS on Danish affiliates in emerging economies did contain such information; see Part II for an account of the activities of Danish affiliates in emerging economies.

[14] It should be noted that it cannot be interferred from the data on the activity of the parent that the affiliate activity is in the same industry and sector. It is possible that the affiliates held by manufacturing companies are sales companies, and it is also conceiveble that sales and retail parent companies in fact have production abroad.

sectors such as services, sales and the financial sector dominates holding close to 60% of all subsidiaries. Manufacturing and extractives companies hold about 40% of the subsidiaries.

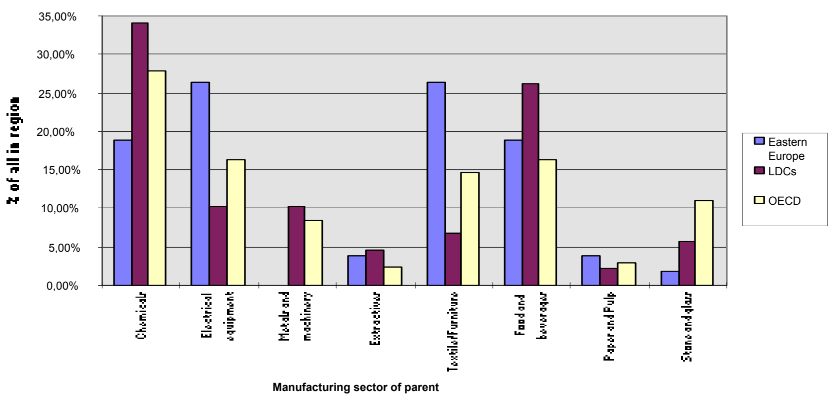
FIG.12. Regional and sectoral distribution of parents to subsidiaries



Source: The 1995 FAS

There are important regional variations in the sectoral composition of parents to foreign subsidiaries. As seen in Figure 12, an astonishing 30% of Eastern European subsidiaries were in the retail and sales sector. Thus, the penetration of the emerging markets of Eastern Europe is seemingly spearheaded by sales and retail companies. Moreover, almost one quarter of the parents to subsidiaries in Eastern Europe is in the service sector. This reflects, among other things, a relatively strong presence of the construction industry in Eastern Europe; clearly Danish construction companies are seeking to benefit from the enormous need for infrastructure and rebuilding in Eastern Europe. Another thing that is noticeable concerning Eastern Europe is that manufacturing parents are relatively absent here with 32% compared to 42% of all subsidiaries. An interesting difference between the companies investing in Eastern Europe and the companies investing in LDCs is that LDCs have a strong representation of companies producing intermediary products, that is inputs to the production process,

FIG. 13. Regional distribution of manufacturing and extractives parents to foreign subsidiaries



Source: The 1995 FAS

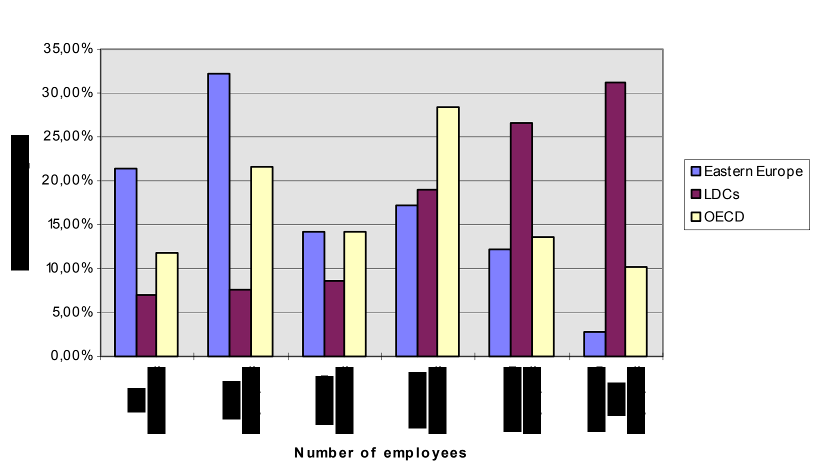
whereas Eastern Europe is strongly represented with companies producing durable products. In the case of food and beverages LDCs dominate (11% of all) compared to 6% in Eastern Europe.

Looking more closely at subsidiaries of companies in the manufacturing and extractives sectors (Figure 13), some additional regional variations can be observed. Overall, it is interesting to note that manufacturing firms investing in LDCs are remarkably different from firms investing in Eastern Europe. LDCs are relatively more frequently host to companies in the chemical industry, in food and beverages, in metal products and machinery, and in the extractives sector. The latter finding has to do with the fact that FDI to LDCs historically has been dominated by firms seeking access to raw materials. The relatively strong presence of metals and machinery in LDCs suggests that many Danish companies have specialized in delivering turnkey projects or equipment to such projects. Eastern Europe, in contrast to LDCs, has a relatively strong representation of companies producing electrical equipment, of the textile industry and of the furniture industry. The strong presence of these industries in Eastern Europe could reflect that Danish industry is seeking production conditions with low labor costs. In Part II the motivations behind investments in LDCs and Eastern Europe will be examined in detail.

d. The size of the companies investing abroad

Obviously, to undertake international operations is a major challenge to any company. The firm will have to survey local market and production conditions, overcome cultural and language barriers, communicate over long distances and deal with a workforce that has different qualifications. To overcome these barriers requires capital and organizational resources and therefore it can be expected that large companies are relatively more engaged in international operations than are small companies. The 1995 FAS provided an

FIG.14. The size of parents to foreign subsidiaries



Source: The 1995 FAS

opportunity to test this hypothesis by examining the correlation between the size of the companies and their degree of internationalization meassured in terms of number of subsidiaries.

915 companies with 2543 subsidiaries provided information on their number of employees. It was found that 1/3 of all subsidiaries were held by companies with less than 100 employees and almost half the subsidiaries were held by companies with less than 250 employees. This is a very clear indication that small and medium sized companies play a vital role in the internationalization of Danish industry[15].

Two interesting observations in relation to the size of the companies operating in emerging economies can be made (Figure 14). First, it is clear that operations in LDCs are significantly more correlated with the firm size, than are investments in other regions: Whereas 12% of all subsidiaries had parents with more than 5000 employees, 31% of the subsidiaries in LDCs were in this group. In employee groups with less than 1500 employees LDCs were significantly under-represented. This could indicate that LDC operations are comparatively risky and complex and that only very large companies have the resources required to undertake operations under these conditions.

Another interesting finding is that Eastern European subsidiaries were strongly over-represented among the companies with few employees (21% compared to 12% of all companies in the group with 10 and less employees and 32% compared to 14% for the group with 11-100 employees: Obviously, Danish activities in Eastern Europe is dominated by small and medium sized companies. Probably, the vicinity of Eastern European countries such as Poland and the Baltic countries makes it relatively achievable for very small companies and, as we saw in the previous section, companies in the sales and retail sector, to start up operations in these countries.

These findings seem to support the aforementioned hypothesis that large TNCs have a more global orientation, whereas small and medium sized companies concentrate on close markets. In the case of non-OECD countries this translates into large companies being over-represented in LDCs and small and medium sized companies over-represented in Eastern Europe.

e. Summary

Part I of this essay set out to make a portrait of the process of internationalization of value adding activities in the Danish industry, in particular as this process relates to the emerging economies of LDCs and Eastern Europe. It was demonstrated that Danish FDI, like that of other OECD countries, has grown rapidly since the mid eighties. However, this surge in FDI has not been

[15] This conclusion is supported by UN figures; it is estimated that small and medium sized companies account for close to 50% of FDI in most OECD countries; in some countries such as the UK and France it is somewhat higher.

directed toward LDCs to the same extend as that of other OECD countries: Whereas 25% of global FDI were placed in LDCs in 1993, only less than 10% of Danish FDI was placed in LDCs that year. Instead of increasing its activities in LDCs, Danish industry seems during the eighties to focus on Eastern Europe so that by 1995, the most popular emerging economy destination for Danish companies was Poland. This however, does not necessarily imply that Eastern European investments are diverting investments away from LDCs as sometimes suggested (See e.g. Dicken, 1992;57). A closer look at the investments and subsidiaries in emerging economies reviled that it is different kinds of firms that invest in LDCs and Eastern Europe respectively: Whereas LDC activities are dominated by very large companies, and companies in the chemical, food, beverages and extractives sectors, activities in Eastern Europe are dominated by very small companies and companies in the textile, furniture and retail sector. Whether this pattern will be sustained in the future however, is questionable; Danish investments to Eastern Europe is in an upstart phase, and it is likely that larger and more well consolidated Danish TNCs will enter these markets in the years to come.

While the analysis made in this part has given a general impression of the relative importance of activities in emerging economies vis-à-vis OECD countries, it only paints a highly incomplete picture of the value adding activities of Danish industry in emerging economies. The following part - Part II - will more closely examine the scope, content and motives of Danish investments in emerging economies.

Part II: Danish investment projects in less developed countries and Eastern Europe

The 1995 Foreign Affiliate Survey (FAS) only provided information on fully controlled foreign affiliates and provided no information on the nature of the activities of the foreign affiliates. In order to get a more comprehensive picture of the activities of Danish affiliates in emerging economies, the FAS data base was supplemented with more detailed information on the activities of affiliates of Danish companies in emerging economies. This information was gathered through official records[16] as well as through direct contact to the companies with affiliates in emerging economies. Moreover, the FAS data base was supplemented with information on investment projects in emerging economies with a less than 50% Danish ownershare. All this information was consolidated in the 1995 Emerging Economies Affiliate Survey (EEAS) data base. The EEAS data base contains data on 389 Danish companies with 858 investment projects in 98 LDCs and Eastern European countries. This EEAS database is estimated to be a fairly exhaustive list of Danish investment projects in emerging economies.

a. A profile of Danish investment projects in the emerging economies of Eastern Europe and LDCs

1. The role of state investment funds

As mentioned in Part I, Danish investments in emerging economies has been relatively modest compared to those of other OECD countries. It was suggested that the relatively small Danish involvement in emerging economies was related to the fact that the Danish industry is dominated by small and medium sized companies, to the fact that Denmark has little colonial past, and to the fact that extractives industries are virtually absent in Danish industry. Partly as a way to compensate for these historical and structural disadvantages of Danish industry, the Danish state has sought to facilitate private sector investments in LDCs and Eastern Europe through schemes such as the investment corporations IFU and IØ, the DANIDA Investment Guarantee, and recently, the DANIDA Private Sector Programme. These programmes are not insignificant in facilitating Danish investments; Thus, 37% of the investment projects in LDCs identified through the EEAS have the involvement of IFU (55% in Africa) and 27% of the projects in Eastern Europe have the involvement of IØ[17]. In other

[16] Such as those made available from the Danish Investment Fund for Developing Countries (IFU), the Danish Investment Fund for Eastern Europe (IØ), the DANIDA Investment Guarantee Fund, and lists of foreign affiliates of Danish companies made by Danish embassies.

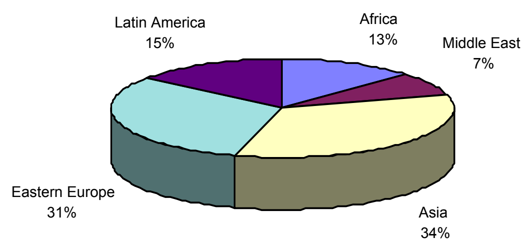
[17] In fact, the involvement of IØ was so great in Poland, that IØ were among to 10 biggest investors in Polen (Børsen, 28/4)

words, the Danish private sector involvement in emerging economies is closely tied to state funds. The involvement of investment promotion agencies is not only popular because of the financial support that this participation can provide, but also because these agencies can provide the investment project with an aura of credibility in the eyes of the host country and joint venture partner. Furthermore, the participation of the investment promotion agency may provide the company with guidance on how to undertake investments in LDCs and Eastern Europe as well as information about the markets they are investing in.

2. The most important hosts to Danish investment projects

The EEAS identified 182 companies with 264 investment projects in Eastern Europe (1,5 per company) and 247 companies with 594 investment projects in LDCs (2,4 per company). In other words, the companies operating in LDCs were significantly more involved in this region than companies in Eastern Europe were involved in Eastern Europe. As indicated in Figure 15, the main destination for Danish investments to emerging economies is Asia with 34% of all investment projects, closely followed by Eastern Europe with 31%. Latin America received 15% of the investment projects. Africa, except the Northern African countries, consisted of 13% of all investment projects. The African share is significantly higher than the share of fully owned subsidiaries described in Part I. As we will see later, this is because numerous investment projects in Africa are undertaken in partnership with various national and international donor agencies with the Danish company only contributing a symbolic investment.

FIG.15. Regional distribution of investment projects in emerging economies



Source: The 1995 EEAS

Looking at individual countries (Table 5), Poland with 128 investment projects, turns out to be the most important destination for Danish investment projects in emerging economies. The strong orientation toward Poland (and to some extend Estonia) distinguishes Danish industry from other OECD countries which have concentrated their Eastern European activities in countries like the Czech Republic and Hungary. Singapore, Brazil, Hong Kong and Malaysia are important destinations in LDCs. In particular, the East and South East Asian countries seems of interest to Danish companies. Thus, in recent years the Danish press has reported that Danish companies are scaling up their activities in the Far East with companies like Eccolet expanding significantly by building new factories

Table 5.

The 24 most important hosts in emerging economies

	# of projects		# of projects
Poland	128	China	19
Hong Kong	54	Russia	19
Singapore	46	Nigeria	16
Malaysia	45	Estonia	16
Brazil	41	Philippines	15
Czech Republic	38	Indonesia	13
Thailand	29	Korea	12
India	26	Lithuania	11
Hungary	25	Saudi Arabia	11
Turkey	21	Chile	11
Mexico	21	Latvia	10
Argentina	15	Venezuela	10

Source:EEAS, 1995

in Indonesia and Thailand. China with 19 investment projects[18], seems destined to become an important host to Danish industry in the future and companies like Danfoss, Silcon, Jacob Holm Industries, Codan Rubber, GN Danavox, I. Kruger and Kampsax International are reported to engage in joint ventures in China.. Notably, only one Latin American country were among the ten most important destinations in emerging economies, namely Brazil. In the early eighties, Brazil was host to the highest number of Danish affiliates (Torp, 1986), but has now been surpassed by Singapore, Malaysia and Hong Kong. This confirms the conclusion made in Part I, that Latin America no longer has the importance for Danish industry that it used to have.

3. The companies with significant interests in emerging economies

The companies with more than five investment projects in LDCs and Eastern Europe are displayed in Table 6. The company with the largest interests in emerging economies is the East Asian Company (ØK) with 43 investment projects, almost all of whom are located in South East Asia. However, this company is a trading company specialized in East Asia, and is for many reasons atypical.

Table 6.

The companies with significant interests in emerging economies

	# of projects		# of projects
ØK A/S	43	NKT A/S	8
J. C. Hempel's	18	A/S Marius Pedersen	7
A.P.Møller	17	Aalborg Industries A/S	7
Global Meat technology	16	Codan Gummi A/S	7
F.L. Smidth & Co. A/S	14	ISS-International Service	7
APV Pasilac A/S	13	J. Lauritzen Holding A/S	7
Danfoss A/S	13	Brdr. Hartmann A/S	6
Grundfos International A/S	13	Danisco	6
Niro A/S	13	GN Batteries A/S	6
Carlsberg A/S	12	I. Kryger Engineering A/S	6
Sabroe Refrigeration A/S	11	Kolos A/S	6

Source: The 1995 EEAS

Compared to the list of companies with significant activities abroad discussed in Part I, (Table 2) it is interesting to note that some companies seem to have specialized in operating in emerging economies. Especially companies involved in setting up and running production facilities and delivering machinery figures exclusively

[18] An interesting reliability check on the EEAS is that by June 1995 the Chinese Ministry of Foreign Trade and Economic Cooperation had registed 21 Danish investment projects of a total value of $510 million.

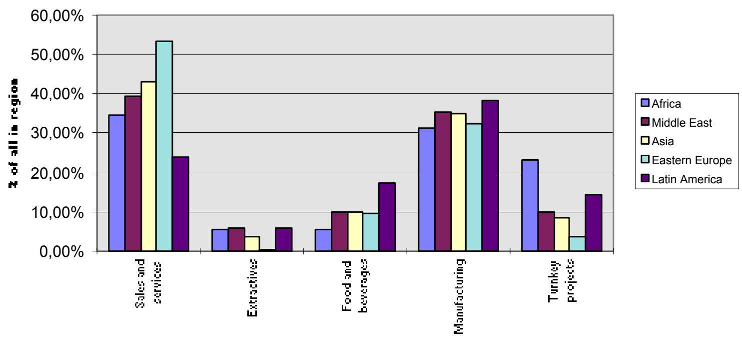
in the list of companies with many investment projects in emerging economies; companies such as Global Meat Technology, APV Pasilac, Kolos, and Sabroe.

4. The activities of affiliates located in LDCs and Eastern Europe

According to several surveys, manufacturing affiliates consist of around 25-30% of all foreign affiliates, a little higher in LDCs than in OECD countries (Strandskov, 1987. Nationalbanken, 1994, Pedersen et al, 1993). For instance, Pedersen et al's 1991 survey of around 200 firms with 700 affiliates estimated that 56% of the affiliates have sales, 24% production, 19% services and 1% research as the primary activity. Strandskov (1987) estimates that 31% of LDC affiliates and 24% of European affiliates are manufacturing operations.

The EEAS provided information on the activities of the foreign affiliates. This information was based on IFU and IØ annual reports, on the Embassy Survey of Danish affiliates and on personal contacts. All in all information on the activity of the affiliate was obtained in 630 cases. As shown in Figure 15, there are significant regional variations in the activities at Danish investment projects. Sales and service projects were relatively common in Eastern Europe and Asia, reflecting the strong standing of these markets. With 18% of all subsidiaries involved in food and beverages production, Latin America exceeds other developing regions significantly in this sector. 20% of the Latin American affiliates were involved in this activity. A large number of investment projects were labeled turnkey projects, that is investment projects where the main purpose for the Danish investor was to set up a production in an emerging economy. Whereas 10% of all investment projects in emerging economies were of this type, an astonishing 23% of the investment projects in Africa were of this type. Typically, such projects are undertaken in partnership with international donors with the donor agency providing the bulk of the finance capital. The reason that such projects are registered as investments and not exports is that the Danish company typically invest a small amount in order to give the project credibility in a transition phase until the project is finally handed over to the buyer.

FIG 15. The activities of Danish investment projects in different regions



Source: The 1995 EEAS

Among the Eastern European investment projects labor intensive productions - mainly textiles, furniture, and electronics - are relatively common (See Annex Table 7). Apparently, investments in Eastern Europe is more commonly undertaken in order to benefit from the low wages than are investment in other regions. Another notable characteristic of Eastern European affiliates is that sales and service companies are relatively strongly represented here. In Part I, it was observed that Danish investments in Eastern Europe were dominated by very small companies. This finding in combination with the observed strong presence of sales and service companies in Eastern Europe could indicate that it is relatively small sales and service companies with sales and service operations in Eastern Europe that to a large extend carries the Danish internationalization toward Eastern Europe.

5. The number of employees at Danish affiliates in emerging economies

Incidentally, information on the number of employees at the emerging economy affiliate was available in 292 cases. This information was mainly based on IFU and IØ annual reports but also on annual reports from companies and on information from newspapers. It was found that these 292 investment projects had a total of 45.265 employees. Based on this information and taking into account that more than 800 Danish investment projects exists in LDCs and Eastern Europe, it can cautiously be estimated that Danish investments in emerging economies generates or at least facilitates more than 100.000 jobs in these countries.

b. The motives behind investment projects in LDCs and Eastern Europe

The EEAS consolidated information on the motivations behind Danish investment projects in emerging economies. 167 companies *with manufacturing activities* in emerging economies were contacted and asked why they undertook investment projects in LDCs and Eastern Europe. The motives were consolidated into 5 categories: 1. Market access investments; 2. Production base investments; 3. Raw materials seeking investments; 4. Investments made as part of turnkey-projects; and finally, 5. Investments motivated by 'idiosyncratic' factors. Some companies cited a combination of motives, either because a combination of factors had been decisive in the investment decision or because the emerging economy operations of the company were highly diversified[19].

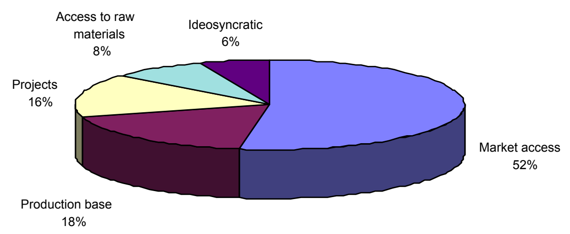
[19] Ofcourse, the answers received in connection with this inquery are highly stylilized. In the real world, the process of investing abroad will typically be gradual and incremental in character rather than a strategic decision toward some clearly defined objectives.

1. Market access investments

As seen in Figure 17, the most common motive for starting up operations in the emerging economies was to get market access. 52% of the companies surveyed cited this as the main factor motivating emerging economy investments. Especially, parents in the chemical industry and in the food and beverages industry frequently cited market access (Fig.18).

There are several reasons why the Danish companies want to be present in foreign markets as opposed to simply exporting. First, many companies reported that they need to be present in the very large and dynamic markets of the emerging economies, especially those of South East Asia, if they want to buy into the expected growth in these markets. Also Eastern Europe, and in particular the Polish market ("*the closest far market*") seemed to work as a magnet on Danish companies seeking new markets. As a large service company involved in industrial cleaning in Eastern Europe noted, "*the Danish and Western European markets are becoming saturated*" and therefor the company now looked to Eastern Europe for new and expanding markets. In some instances it was reported that the emerging economy activity had become a central part of the company's activity; in the case of a company producing and selling plastic pipes, these markets had become a "*highest order business objective*". In one case, a company reported that the markets of the emerging economies in South East Asia had proved so lucrative that the company had been virtually consumed by these activities and that activities in Denmark had more or less been terminated.

FIG 17. Motives behind investment projects in emerging economies



Source: The 1995 EEAS

A second market access factor frequently cited by the respondents was to get better knowledge of the foreign market and enhance the scanning capability of the company. Thus, some respondents explained that starting up the foreign operation with a local partner in a joint venture project enabled them to get knowledge of the local market. For instance, three Danish engineering consultant firms established a joint venture in China with a Chinese partner in order to have a place that could offer Danish engineers operating in China logistical support, translation services and access to Chinese authorities.

A third market access motive identified through the inquiry was related to transportation costs. For example, several cement producers investing in Eastern Europe explained their investment in this region with the fact that their product could not be transported because of its volume and/or weight. Although the inquiry focused on manufacturing companies, it is obvious that foreign affiliates established by service companies generally will be motivated by similar considerations, as services typically will be difficult to export.

A fourth motive related to market access was that many products require a service organization in the country where the product is sold. A large company involved in the production of paints thus reported that it was the service organization accompanying its production facilities in LDCs that to a large extend gave this company's products a competitive edge in LDCs.

Finally, it seemed that various investment and foreign exchange regulations in host countries had motivated a substantial number of the LDC investment projects. Thus, some companies, especially those with operations in Pakistan and India, explained that building a production facility in these countries was the only way to get market access, either because foreign exchange regulations made it very hard to get approval for imports, or because very high duties on imports made it unprofitable to export to these countries. For instance, a company in the food industry opened a joint venture factory in Asia for this reason. In the contract with the joint venture partner this company required that the products of the plant were not exported outside the host country; the company would not risk that its Danish production became threatened by exports from the Asian subsidiary. Exchange rates also facilitated Danish FDI in another way. Thus, one company in the electronics industry cited exchange rate uncertainty as the motive behind starting up an operation in Mexico. By moving production to Mexico, the company could mitigate the adverse effects of fluctuations in international currencies.

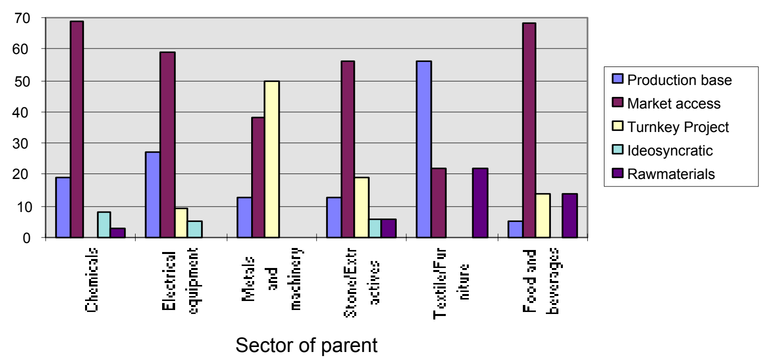
2. Production base investment

The movement of productive capacity to take advantage of cost factors in emerging economies is becoming an increasingly salient issue in political debates as trade and investment liberalizations, developments in information technology, and falling transport costs make it easier to move production. It is feared that Danish companies establish export platforms in emerging economies, replacing Danish production and jobs. However, the EEAS suggests that the risk of a wholesale exodus of Danish productive capacity to emerging economies probably is very small. Thus, only 18% of all respondents cited production cost factors - typically wage levels - as the main reason for establishing an affiliate in an emerging economy. This motive was more prevalent in the textile/furniture industry and in the electronics industry than in other industries. For instance, almost

60% of all parents in the textile/furniture industry cited this as the main motive behind investment in emerging economies (Fig. 18). Moreover, production base investment were more common among companies investing in Asia and Eastern Europe than it were among companies investing in other emerging economy regions (Fig.19).

The reason that production costs only motivated 18% of the investment projects, could be that it often will be difficult to get access to OECD markets from export platforms in emerging economies due to various market entry barriers in the OECD countries. Market barriers could be import quotas, such as those in the textile industry or they could be various non-trade barriers such as quality requirements. In fact, several of the companies contacted, especially those in the food and beverages industry, argued that it would be extremely difficult for the company to export its products to the EU simply because the stringent EU health and quality standards could not be met by the emerging economy production facility. Another reason why production base investments are relatively rare is that the comparative advantages of emerging economies in most cases are more modest than a focus on nominal wage will suggest; taking into account labour productivity, the cost advantages of emerging economies often evaporates. Even in cases where investments clearly are undertaken in order to take advantage of the lower labor costs in emerging economies and create export platforms, these investments may be accompanied by a significant export of machinery and production equipment, services and supplies, thus generating spin-off jobs in Denmark. Moreover, the production base motivated investments in the emerging economy may be used to create export platforms directed toward new markets rather than replacing the markets of the Danish production. In sum, production base investment are relatively insignificant, and when they do take place, it is not always the case that they will cause a loss of jobs and income in Denmark.

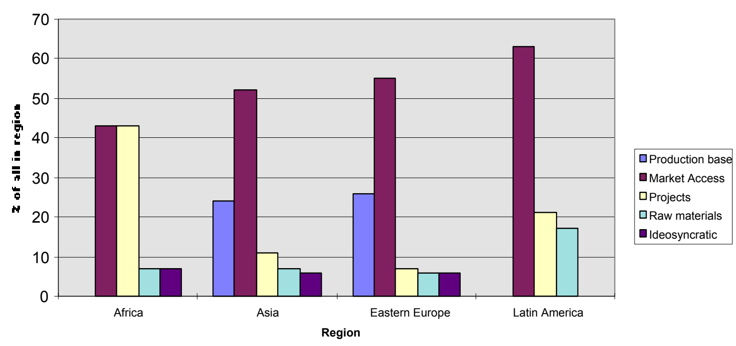
FIG.18. Motives behind investment of parents in different sectors



Source: The 1995 EEAS

Two qualifications of this conclusion should however be observed. First, in spite of the relatively insignificance of production base investments, it could be argued that such investments are becoming increasingly important. In fact there is some evidence in this direction. In 1987, Strandskov estimated that 11% of Danish productions in LDCs were production base companies but only 5% in OECD countries. And in 1991, Pedersen et al (1993) found that 10% of all investment projects were motivated with production base factors; 16% in East Asia and 11% in Eastern Europe. With 18% all LDC investments being motivated by factor costs in 1995, the 1995 EEAS indicate that this type of investment is becoming more common. However, it should be stressed that this conclusion is highly tentative because of the different methodologies employed by the various studies on this issue. The second qualification of the conclusion that production base investments are relatively insignificant to be observed, is that such investments may be a major problem in certain industries such as the textile and furniture industry where close to 60% of all investments are production base investments (Figure 18). These industries have probably experienced significant job loss due to production base investments.

FIG 19. Motives behind investment in different regions



Source: The 1995 EEAS

Most production base investments were companies investing in Eastern Europe, in particular in the textile and furniture industry, and to a lesser extend, companies investing in the textile and electronics industry of South East Asia. Eccolet with its large investments in Asian shoe manufacturing is an example of the latter. This company also illustrates a certain sequence in the dispersion of production base investments. Thus, it moved to Portugal in the mid eighties where wage levels were 1/10th of the Danish. Then, in 1991 the company decided to move production to Indonesia where wage levels are 1/50th of the Danish level. Recently the company announced that it was building a factory in China.

While wage levels often are deemed the central factor in the dispersion of production base investments, other factors also play a role. One company reported that exchange rates and frequent devaluations made Mexico an ideal export platform for the US market. Another company reported that its investment was motivated with the company's strive to buy into the relatively cheap but highly competent computer software knowledge pool of India. This computer company established a subsidiary in a Software Technology Park (STP) within a larger industrial development park in Bangalore, the Silicon Valley of India. While the operation initially had been envisioned to provide the

Indian market with computers, it is now planned that the Indian operation develop and export software. This case also illustrates how host country FDI regulations will sometimes force the companies to get export earnings even if the initial investment is motivated by market access. Thus, computer company reported that one of the motives behind its plans to export from its Indian affiliate was that under Indian trade regulations, only export generated by the Indian subsidiary would allow the company to import intermediate products from the Danish production facility. In a similar way, a firm producing light electronic equipment, was lured to China with a promise of getting access to the enormous Chinese market. However, when the factory was build, the firm realized that the Chinese partner, a stateowned development corporation, had no interest in producing to the Chinese market, but wanted to use the production as a vehicle for foreign exchange earnings.

In several cases, the savings and export gains from emerging economy productions proved illusionary for the companies. For instance, a company producing agricultural machinery initially moved to the Poland because labor costs were too high in Denmark. However, it was soon realized that it was difficult to compete on the Danish market through exports, and at the same time the Polish market turned out to be lucrative in and by it self. Now, the company concentrates its activities on the Polish market. Thus an investment initially undertaken in order to escape high labor costs in Denmark, became an investment to get market access.

3. Access to raw materials

8% of the companies cited access to raw materials as the main motivating factor behind investments in emerging economies. The most common natural resource motive cited was to get access to ingredients in foodstuffs. Thus, Danish producers of food ingredients such as Danisco, Copenhagen Pectin and Christian Hansen's Laboratories have invested extensively in LDCs in order to get access to various food ingredients[20]. Another important raw material spurring Danish investments in LDCs is wood, in particular tropical timber. One company trading in tropical timber reported that it had opened several affiliates West Africa in order to secure the quality of the wood products and to sophisticate the production of tropical wood to make it more aligned with consumers demands for sustainable harvested tropical wood. Moreover, this company reported that several LDCs impose a ban on the export of un-treated tropical timber and that this forced the company to undertake some level of refining in the country of origin.

Reflecting the fact that Denmark has virtually no mining industry, very few Danish companies cited access to minerals and metals as motives behind their investment. One example of Danish mining activities was a small company involved in coal mining in the southern part of Africa. This

[20] For instance, both Danisco and Copenhagen Pectin have invested in Chile in order to get access to a special breed of sea-wheat abundant in the waters of that country.

company mentioned that it, in order to secure stable and cheap transport of coal had integrated horizontally by starting up a company renovating railroads and wagons. Another example of a company involved in extractive activities is a company reporting that it had started up a pea-cutting operation in Estonia, as the reserves of pea in Denmark were becoming increasingly scarce due to among other things, conservation efforts.

Sometimes access to rawmaterials worked as an investment motive in combination with various production base factors. For instance, a furniture company investing in Estonia cited wage levels in combination with access to the abundant wood resources of that country as the main factors motivating investments here.

4. Project oriented investments

16% of the investment projects were motivated with participation in turnkey projects, in particular dairy productions, meat processing plants and mills. In most cases, these turnkey projects were implemented by small and highly specialized engineering companies such as Global Meat Technology or United Milling Company. But also very large companies such as F.L..Schmidt and Niro have specialized in such activities. Whereas 16% of all companies motivated emerging economy investments with the participation in turnkey projects, 43% of the companies with their main activity in Africa cited this as the main factor motivating investments (Fig. 19). Moreover, 50% of the companies in the metals and machinery industry cited this as the central motivating factor behind investment in an emerging economy (Fig.18).

In these projects, which are extremely difficult to delineate from export of production equipment and consultancy services[21], the Danish company typically designs and oversees the construction of a plant or a production line, and in some cases, operates the plant or production line in a transition period of typically 3-5 years. Often, this type of investment is undertaken in partnership with national and international donor agencies, in particular the Danish Investment Fund for Developing Countries (IFU). In fact, 20% of all IFU's projects were of this type. The partnership with a donor agency gives the project credibility and makes available the necessary financial backing for the project. However, some Danish firms, for instance Niro, have specialized in project delivery on a purely commercial basis, without the participation of donor agencies.

The survey of project oriented investments reviled a strong symbiosis between private investments and aid money. Thus, several companies had specialized in delivering projects adapted to the requirements in aid projects. In particular many of the African turnkey projects were designed

[21] In this connection it should be noted that according to estimates by the Danish Centre for Development Research from the mid eighties 25% and perhaps as much as 40% of Danish exports to LDCs consists of project exports.

with technologies that were adapted to local conditions, for instance mills using simple but durable technologies or dairy plants skipping many of the labor saving technologies typical of such plants in OECD countries. Another interesting symbiosis between aid and commercial investments was found in Botswana where a large producer of electrical motors and equipment started up a project financed by the Danish aid agency DANIDA. This project led to the establishment of contacts to the local government and subsequently the establishment of an affiliate to implement purely commercial contracts on powergrids and small water power stations.

5. Idiosyncratic motives

In 6% of all cases, the investment projects seemed to be spurred by 'accidental' factors; at least they did not seem to be led by strategic or economic reasoning in the initial phase. In these cases the motives behind the investment project were what could be labeled ‘idiosyncratic’. Typically, such investment projects were undertaken because the owner of a firm or a top executive happened to have a personal affiliation with the country where the investment was made. One company invested in South East Asia because the owner met a member of the royal family in the country in question. A large producer of ice creams in West Africa reported that the owner, on a stop-over in West Africa returning to Denmark from a visit in Brazil, found that there was a huge market for ice cream in this region. A small electronics company participated in a programme for Eastern European aimed at providing training at Danish companies for East European interns entrepreneurs and organized by the Danish Business Promotion Agency. Two of the interns of this company went back to their respective countries and started up joint ventures with the Danish company.

In most cases, idiosyncratic motives behind investment projects went hand in hand with other motives. For instance, a small company was involved in coal mining in the southern part of Africa because the owner had lived in South Africa for 25 years and therefor knew the market very well. Another firm had specialized in developing and implementing projects in China because its owner was Chinese. This firm was involved in an extremely diversified set of activities, spanning from a hearing aid factory to eel farms. Another firm’s owner was from Hungary and therefor this company had specialized in setting up meat processing factories in Hungary and in the Hungarian speaking part of Rumania.

c. Summary

Based on the EEAS data base of 389 companies holding 858 affiliates, this part examined the emerging economy activities of Danish companies in detail. The main destination for Danish investments is Eastern Europe, closely followed by South East Asia. For obvious reasons, Danish industry is focusing its activities in these some of the worlds most dynamic and promising markets. In contrast, Latin America, previously the main destination for Danish LDC investments, has ceased to be an important investment region for Danish companies.

It was found that the dominating manufacturing activity of Danish investment projects in the emerging economies is food and beverage production. However, also investment projects with substantial equipment delivery were common; it was noted that 1/4 of all investment projects in Africa were of this type. It was suggested that Danish investment projects may generate or at least facilitate more than 100.000 jobs in emerging economies. This is a significant positive spil-over from Danish commercial interests in emerging economies. It is often feared that the creation of jobs in emerging economies may be accompanied by loss of Danish jobs and income. It was suggested that this fear probably is exaggerated. First, as documented in Part I, more than 50% of all Danish FDI takes place in sales and services. In these sectors it is generally not feasible to replace Danish jobs with foreign jobs. Second, a survey of the investment motives of 167 companies with manufacturing activities in emerging economies revealed that most of the investments made by Danish companies are part of a strategy of market penetration rather than an attempt to replace Danish production. Thus, more than 50% of the manufacturing investments in emerging economies were made with the objective of selling goods on these markets, and only 18% were made with the objective of reaping the benefits of lower production costs in these regions.

Part III. Conclusion

The main reason for undertaking this survey of Danish investments in the emerging economies of Eastern Europe and less developed countries was that virtually no recent studies of this increasingly important aspect of the internationalization of Danish industry exists. It is hoped that the reader by now have a better understanding of the scope and content of Danish investments projects in emerging economies.

Part I focused on the comparative aspects of investments to emerging economies by comparing the profile of Eastern European and LDC investments with the profile of investments to OECD countries. This analysis was based on FDI data from the National Bank and the FAS data base's information on 1079 companies with 2792 affiliates. One notable finding was associated with SME TNCs. In the literature on TNCs, there is a strong bias toward describing the internationalization process as carried out mainly by very large companies with a more or less global presence. But the Danish case suggests that SMEs with a presence in only one or two foreign play a pivotal role in the internationalization process. In relation to emerging economies, it was found that very small companies and/or companies in sales and retail have a relatively strong presence among companies investing in Eastern Europe. From this it was suggested that the relative proximity of the Eastern European markets, in particular that of Poland, makes it manageable for small and medium sized companies to start up operations in these countries. It will be interesting to see whether Danish small and medium sized companies can sustain their exceptionally strong presence in Eastern Europe in the future. Probably, they can not; most of the SMEs investing in Eastern Europe have little or no previous experience in undertaking foreign operations, and many of them will probably perish as competition in this region intensifies. In all likelihood, Eastern European investments will eventually come to resemble investments of other regions.

Based on the EEAS data base's information on 389 companies with 858 emerging economy affiliates, Part II examined the activities of affiliates in emerging economies in detail. It was found that a very large proportion of Danish activities in LDCs and Eastern Europe was undertaken in partnership with investment promoting schemes, in particular IFU and IØ. Although it is difficult to know how many of these projects would have been implemented without the participation of these investment promotion agencies, it seems appropriate to conclude that the investment schemes have a very strong facilitating impact on Danish FDI. A closer examination of the activities of Danish affiliates in LDCs and Eastern Europe revealed that food and beverages is the most important activity of Danish affiliates in this region, however closely followed by investments in turnkey projects. Incidentally, most of these turnkey projects were also in the food and beverages industry. Finally, direct contact to 167 companies revealed that the popular fear of a rampant relocation of Danish productive capacity to low cost emerging economies largely builds on a misconception of the motives behind FDI. Thus, only 18% of the manufacturing companies surveyed cited production costs as the main motive for locating production in emerging economies.

In the years to come, Danish investments to emerging economies are likely to increase in importance. There are already signs that the emerging economies share of Danish investments and affiliates is on the rise. It will be interesting to follow this development in the future; are the extremely export-oriented but relatively small companies typical of Danish industry capable of meeting the challenges of international operations at a global scale? Or will investments in emerging economies remain a task confined to very large transnational corporations of which Denmark has very few? The very success of Danish industry in the future will, to a large extend, hinge on the answers to these questions.

References

Andersen, Bodil Nyboe, Udenrigsøkonomi, København:Akademisk Forlag, 1988.

Lindholm, Mikael (red), Danmark i Verdensøkonomien, Frederiksberg: Samfundslitteratur, 1994.

Marcussen, Henrik Secher, Industrialisering og arbejdsmarkedsforhold i Sydøstasien, København: Cebter for Udviklingsforskning, 1986

Nationalbanken, årsrapporter og kvartalsoversigter, 1974-1995.

National Banken, Kvartals oversigt, August 1994, København: Nationalbanken, 1994.

Pedersen, Torben, Dansk Virksomheders direkte investeringer i udlandet og udenlandske virksomheders direkte investeringer i Danmark, PhD serie 4. 94. København: Det Økonomiske Fakultet, 1994.

Pedersen, T., et al, Danske virksomheders etableringer i udlandet; Hovedresultater fra en empirisk undersøgelse. København: Handelshøjskolens Forlag, 1993.

Rasmussen, Roland, Denmarks Trade and Investment Realtions with Third World Countries, in Helleiner, The other side of international development policy, Toronto:University of Toronto Press, 1990.

Strandskov, J. Danske Virksomheders internationalisering og eksport. in Schultz et al, Hvor internationale er Danske virksomheder, København:Samfundslitteratur, 1987.

Torp, Jens Erik, Brasilien i 1980erne og Dansk industri, København:Center for Udviklingsforskning, 1986.

Udenrigsministeriet, Undersøgelser af Danske Investeringer I Polen, København: Udenrigsministeriet, 1994.

UNCTC, World Investment Report 1991: The triad in Foreign Direct Investment. New York: United Nations, 1991.

United Nations Conference on Trade and Development, World Investement Report 1993, New York: the United Nations, 1993.

United Nations Conference on Trade and Development, World Investement Report 1994, New York: the United Nations, 1994.

United Nations Conference on Trade and Development, World Investement Report 1995, New York: the United Nations, 1995.

ANNEX I: Methodology

Very few systematic studies of the international operations of Danish companies exist and recent comprehensive analyses focusing on Danish operations in LDCs are virtually non-existent. Strandskov (1987), and later Pedersen et al (1993) have provided comprehensive analyses of the international orientation of Danish industry, first in 1986-87 and again in 1990-91. In addition to profiles of foreign affiliates of Danish companies based on public records, Pedersen et al in 1991 made a survey of the content and motivations behind foreign establishments in 200 companies. An even more ambitious survey were conducted the same year by the Danish National Bank. This survey included a mailed questionnaire to 2700 companies and provided information on the nature of the foreign activities, of the size of investments, etc. However, none of these studies focused exclusively on Danish activities in Eastern Europe and LDCs. In the early eighties a study of foreign affiliates with the involvement of the Danish investment corporation IFU was undertaken, but it only included a handful of companies. In connection with this study, Torp (1986) made a study of IFU sponsored projects in Brazil and Marcussen (1986) made a study of Danish activities in Asia. Because of the state of research on this issue, this paper has relied mainly on primary data sources. The methodological section will describe the nature of these data sources and give a more detailed account of the methodology problems associated with these sources.

Mainly two types of data are employed in this paper. The first is data on FDI flows. FDI flows are registered by the National Bank and published in its quarterly reports. FDI is defined as investments of more than a 10% ownershare undertaken in order to gain influence/ a degree of control on an activity in a foreign country. FDI is often contrasted to foreign portfolio investment which is the purchase of foreign stock/shares for purely financial purposes. The validity of FDI as an indicator of international operations is highly disputed in the literature; to mention one problem, the TNC may exert considerably influence on the host economy through various non-equity arrangements. Moreover, FDI captures financial transactions between the parent company and the foreign affiliates, but says nothing about the transfer of intangible assets such as technology and know-how. Finally, it is possible that significant FDI takes place through holding companies located abroad or that the invested capital is raised in the host country. These kinds of transactions will not be registered by Danish FDI data. Apart from the problems associated with the validity of FDI data, there are major problems associated with the quality and accessibility of FDI data registered by the Danish National Bank. The published data are highly aggregated and offers little opportunity for statistical analysis. Moreover, the format in which the data are published offers no opportunity for cross tabulations, for instance cross tabulations between sectors and regions/countries. While the data exists, the National Bank is reluctant to give researchers access to these data. In these respects, Danish researchers working with FDI are at a great disadvantage compared to researchers in most other OECD countries.

The second major data source employed in this paper is information on affiliates of Danish companies. Two surveys of foreign affiliates of Danish companies were undertaken in the spring of

1995. The first survey, the 1995 Foreign Affiliate Survey (FAS), made available a data base of the total population of foreign affiliates of Danish companies. This data base was based on public records of majority owned affiliates of Danish companies; according to the Danish company law companies are required to provide information on key financial measures, including information on foreign affiliates with a more than 50% ownershare to the Danish company. The main purpose of this database was to make comparisons between foreign affiliates in emerging economies and foreign affiliates in OECD countries. This database contains information on 2792 foreign affiliates held by 1079 companies.

The second survey, the 1995 Emerging Economies Affiliate Survey (EEAS) focused exclusively on emerging economy investment projects of Danish companies. All in all the EEAS data base came to contain information on 858 affiliates held by 389 companies. The EEAS consists of information on affiliates identified through the 1995 Foreign Affiliate Survey (357 affiliates); data from the annual reports of IFU and IØ which lists the companies that have IFU or IØ as a partner (218 investment projects were identified through IFU's annual report and 71 through IØ's annual report); data from the annual report of the Danish aid agency DANIDA which lists companies that have received support from the Investment Guarantee Fund (15 records) and lists of foreign affiliates of Danish companies made by the Danish embassies around the world (55 affiliates in emerging economies). The remaining projects were identified by contacting companies directly or by examining annual reports from individual companies. The direct contact also led to the deletion of numerous records. Direct contact to companies were undertaken in order to get insight into the motivations behind manufacturing investment projects in LDCs. As most respondents requested anonymity none of the respondents have been cited in the paper.

Obviously, the different methodologies employed in the FAS and the EEAS causes that they cannot and should not be compared directly. For example, the Emerging Economy Affiliate Survey included information on a host of investment projects such as turnkey-projects, which only involves a marginal involvement from the parent company, in contrast to the FAS which only contained information on wholly owned subsidiaries.

The reliability and validity problems of the FAS and the EEAS are legion and any conclusions based on these data bases should therefor be drawn with some caution. There were several reliability problems associated with the two data bases. First, some affiliates were owned jointly by several Danish companies. This means that the number of affiliates is slightly over-estimated. Second, some of the companies identified were in fact affiliates of larger corporations and in many cases the financial information obtained through the data from Erhvervs og Selskabsstyrelsen were those of a holding company set up to implement the investment decision, not the actual mother company. Third, many of the companies listed in for instance the annual reports of IFU, in fact never came off the ground. This means that in particular the EEAS may slightly over-estimate the scope and content of Danish investment project in LDCs.

The main problem with the FAS and EEAS however, has to do with the affiliate data's validity. First, the 50% ownershare stipulated in the Danish company law is somewhat arbitrary; it is conceivable that Danish companies gain control of foreign affiliates while having a less than 50%

ownershare. This means that at least the FAS underestimates the scope and content of the scope of the internationalization of Danish industry. Another and much more serious critique of foreign affiliates as a proxy measure of the internationalization of Danish industry is that the mere presence of a foreign affiliate says little about the content of the foreign activities; a foreign affiliate will in many cases be a sales office abroad but it can also be a productive activity with several thousand employees. By using the number of foreign affiliates as a measure of the international orientation of Danish industry, this distinction is ignored.

ANNEX II: Tables

1. Regional distribution of outward FDI, 1974-94, Dkr. million

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
EU	244	332	229	684	564	676	510	708	646	1087	1180	1460
OECD	473	598	450	1022	897	1176	883	1269	988	2024	2770	3284
LDCs and Eastern Europe (After 1983)												
Other (until 1984)	165	380	165	342	422	344	447	631	355	767	570	255
TOTAL	638	978	615	1363	1319	1520	1330	1900	1342	2790	3456	3789

	1986	1987	1988	1989	1990	1991	1992	1993	1994
EU	2142	3232	3196	12987	7806	8295	7317	4728	4699
OECD	5219	4979	5358	15678	11196	11929	10625	9180	9892
LDCs and Eastern Europe (After 1983)	392	611	306	1028	327	1131	698	756	1145
Other (until 1984)									
Total	5865	5899	6022	17323	12014	15391	11740	10811	11480

Source: National Banken

2. FDI to emerging economies, 1984-1994, Dkr. million

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Eastern Europe	7		1	17	9	20	10	60	91	265	308
Mexico	7	18	6	54	13	105	85	45	0	16	21
Central America	347	123	63	254	100	77	60	9	15	10	82
South America	45	7	79	60	7	12	9	61	340	81	63
Africa	20	21	115	33	34	21	10	9	7	17	33
NIC countries	106	75	121	184	97	781	99	882	201	295	222
Remaining Asia	38	11	7	9	46	12	54	65	44	72	416
Total, emerging economies	570	255	392	611	306	1028	327	1131	698	756	1145

Source: Nationalbanken, 1994

3. Sectoral distribution of Danish FDI, 1984 1994

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Food and beverages	218	615	646	873	418	426	378	1796	2310	1912	467
Chemicals	81	125	583	355	883	474	907	537	1456	1858	2245
Machinery	216	407	348	238	472	528	766	239	651	875	992
Electronics	75	39	276	22	108	140	193	81	124	41	276
Other manufacturing	305	162	216	203	616	1189	608	1216	694	685	666
Manufacturing	895	1348	2066	1691	2496	2757	2852	3869	5234	5371	4646
Extractives		18	79	69	83	95	71	2507	40	50	161
Sales and services	429	820	933	830	958	1159	2444	1634	2031	1543	2434
Transport and communication	482	341	300	481	314	2033	595	245	151	296	347
Banking	569	753	881	395	478	2413	1335	867	747	569	5
Other financial activities	419	168	263	316	456	3617	2727	4702	2186	2307	673
Real eatate	423	136	373	1247	931	1287	1422	1211	1062	353	591
Other	239	205	969	869	306	4262	568	360	289	321	2623
Total	3456	3789	5865	5899	6022	17323	12014	15391	11740	10811	11480

Source: Nationalbanken

4. Sectoral distribution of parents to foreign affiliates, by region

	Eastern Europe	LDCs	OECD	**Grand Total**
Sales	29,41%	27,01%	19,48%	20,61%
Services	23,53%	21,33%	18,28%	18,80%
Finance	12,42%	9,95%	20,02%	18,84%
Intermediaries	9,80%	23,70%	22,23%	21,66%
Durables	18,30%	7,11%	13,11%	12,94%
Food and beverages	6,54%	10,90%	6,87%	7,16%
Grand Total	100,00%	100,00%	100,00%	100,00%
n	153	211	2402	2766

Source: FAS, 1995 (n=2766)

5. Sectoral distribution of parents to foreign manufacturing affiliates, by region

	Eastern Europe	LDCs	OECD	Grand Total
Chemicals	18,87%	34,09%	27,81%	27,88%
Electrical equipment	26,42%	10,23%	16,37%	16,36%
Metals and machinery	0,00%	10,23%	8,48%	8,23%
Extractives	3,77%	4,55%	2,37%	2,60%
Textile/Furniture	26,42%	6,82%	14,69%	14,63%
Food and beverages	18,87%	26,14%	16,27%	17,14%
Paper and Pulp	3,77%	2,27%	2,96%	2,94%
Stone and glass	1,89%	5,68%	11,05%	10,22%
Grand Total	100,00%	100,00%	100,00%	100,00%
n	53	88	1014	1155

Source: FAS, 1995 (n=1155)

6. The regional distribution of foreign affiliates of six employees groups

	Eastern Europe	LDCs	OECD	Grand Total
1-10 employees	21,43%	7,04%	11,89%	12,03%
11-100 employees	32,14%	7,54%	21,69%	21,16%
101-250 employees	14,29%	8,54%	14,20%	13,76%
251-1500 employees	17,14%	19,10%	28,31%	26,98%
1501-5000 employees	12,14%	26,63%	13,61%	14,55%
More than 5000 employees	2,86%	31,16%	10,30%	11,52%
Grand Total	100,00%	100,00%	100,00%	100,00%
n	140	199	2204	2543

Source: FAS, 1995 (n=2543)

7. The activity of the affiliate located in emerging economies (10 sectors)

	Africa	Middle East	Asia	Eastern Europe	Latin America	Grand Total
Services	10,00%	15,69%	17,00%	24,86%	9,62%	16,98%
Entrepreneurs and consultants	16,67%	17,65%	9,50%	5,41%	3,85%	9,05%
Food and beverages	5,56%	9,80%	10,00%	9,73%	17,31%	10,48%
Chemicals and plastics	10,00%	21,57%	11,50%	7,57%	11,54%	10,95%
Trading and sales	7,78%	5,88%	16,50%	20,00%	10,58%	14,44%
Wood and paper products	2,22%	0,00%	4,50%	7,03%	2,88%	4,29%
Electrical	5,56%	1,96%	8,00%	4,86%	2,88%	5,40%
Textiles	0,00%	3,92%	4,50%	7,03%	0,96%	3,97%
Machinery and refrigiation	10,00%	1,96%	2,50%	2,70%	14,42%	5,56%
Metals and machinery	3,33%	5,88%	4,00%	3,24%	5,77%	4,13%
Turnkey projects	23,33%	9,80%	8,50%	3,78%	14,42%	10,32%
Wastemanegement	0,00%	0,00%	0,00%	3,24%	0,00%	0,95%
Extractives	5,56%	5,88%	3,50%	0,54%	5,77%	3,49%
Grand Total	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%
n	90	51	200	185	104	630

Source: 1995 EEAS (n=630)

8. The activity of the affiliate located in emerging economies (5 sectors)

	Africa	Middle East	Asia	Eastern Europe	Latin America	Grand Total
Sales and services	34,44%	39,22%	43,00%	53,51%	24,04%	41,43%
Extractives	5,56%	5,88%	3,50%	0,54%	5,77%	3,49%
Food and beverages	5,56%	9,80%	10,00%	9,73%	17,31%	10,48%
Manufacturing	31,11%	35,29%	35,00%	32,43%	38,46%	34,29%
Turnkey projects	23,33%	9,80%	8,50%	3,78%	14,42%	10,32%
Grand Total	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%
n	90	51	200	185	104	630

Source: 1995 EEAS (n=630)