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Economic integration in a cross border perspective: An emerging new system of production?

Abstract:

The economic development of regions is today closely determined by the linkages and networks to external partners as well as their own hinterlands. Main focus in this paper is on issues related to changes in the system of production, regional as well as international, and a cross border perspective. Empirically, the analysis is based on results from a project analyzing regional development in the Baltic Sea Regions.

Issues addressed are spatial impacts of alterations in the economic linkages in the BSR since the transition process started in the aftermath of the break down of the iron curtain. Theoretically, the concepts applied are based on economic integration and location. An analytical framework is sketched in the first part of the paper.

The first section provides a brief introduction to the economic development in the regions considered, including an assessment of cross border flows, i.e. trade and FDI. Part 2 addresses concepts of regional development and change as a starting point for the empirical analysis.

Part 3 and 4 are devoted to an analysis of changes in the regional production system with regard to manufacture, and the implication for regional economic performance and employment in the out-sourcing regions as well as in insourcing regions. In addition, the issue of 're-outsourcing' is addressed. The latter deals with western companies that consider moving production facilities out of the BSR region into areas with lower production costs.

The final section summarizes the result with regard to relocation, i.e. in border-areas, within the BSR or in a global perspective. Impacts on employment is evaluated as well as the paper addresses which branches in particular are at risk to loose economic weight in the BSR as a consequence of changes in the international division of labor.

Key words: Regional specialization - international trade - FDI – relocation – value chain – production systems

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Introduction

Economic integration can become visible in many ways in a cross-border perspective. Tax and excise duty differences as well as the removal of economic barriers have significant impacts on economic activities with regard to location, trade flows and the international division of labor.

The most obvious examples can be found along borders with large wealth differences (i.e. the German-Polish border region), or where tax and excise duties or VAT-rates are significantly different, i.e. in the Danish-German border area. The purpose of this paper is not to examine these types of 'cross border impacts' as important as they may be for local business development or the tax-revenues of government. The topic of this paper is to analyze spatial impacts on business and industry from changes in the international division of labor, or more specifically the creation of new systems of production in many traditional manufacturing industries as a consequence of economic liberalization and cross border integration¹.

Regional and local impacts are a consequence of the process of integration and liberalization of economic activities, globally as well as in a European perspective. In particular the reintegration of East and Central Europe is important and will be addressed in the next section with regard to the Baltic Sea Region. Part two discusses conceptual approaches to regional change and development in a 'large regions' as well as a more local regional context. Based on this, sections 3 and 4 are dedicated to an analysis of local and regional consequences based on a recent Danish survey. Finally, section 5 highlights the most important results and sketches some general perspectives of the alterations in the cross border patterns of specialization in a regional and sectoral context.

Economic integration and economic linkages in the BSR²

Economic transition on the regional and local level depends to a large extent on the overall development in the national and international context. For the eastern part of the BSR the process of catching up on the income level requires not only political and economic reforms, but also excessive economic growth to reduce the gap. One source of growth is the strengthening of economic ties on the regional level, i.e. participating in the international division of production. A successful integration of the national economies is a necessary condition for regional and local development. The growth record for the new EU-members in the BSR is reported in Table 1 below. The comparison with the old EU-members shows a significant higher growth, but it is also evident that the catch-up process will take many years when the growth bonus of the first years of restructuring diminishes.

In the process of developing economic relations, trade is usually the first type of link between independent economic units, and therefore it is also often the most sensitive indicator of changes in the economic environment. The problem related to this project is that networks of trade can hardly be identified on the regional or local level, at least not in official statistics. Nevertheless, the local impacts can be considerable. The redirection of foreign trade was also a first and most significant

1 . The results presented in this paper are based on an INTERREG IIIB project 'Medium sized cities around the Baltic Sea in Dialogue, MECIBS, conducted in co-operation with cities, regions and universities. For details, see Niels B. Groth et al. (2005a forthcoming).

2. For a detailed discussion, see Cornett 2004, and Cornett 2002

change after the dissolution of the CMEA in 1991.

Table 1 Economic growth in the Baltic States and Poland

	1995	1996	1997	1998	1999	2000	2001	2002	2003E	2004P
Estonia	4,3	3,9	9,8	4,6	-0,6	7,3	6,5	6,0	4,7	5,5
Latvia	-0,9	3,7	8,4	4,8	2,8	6,8	7,9	6,1	7,5	6,0
Lithuania	3,3	4,7	7,0	7,3	-1,8	4,0	6,5	6,8	8,9	6,5
Poland	7,0	6,0	6,8	4,8	4,1	4,0	1,0	1,4	3,7	4,5
CEEC-9	5.4	4,7	4,9	3,6	2,8	4,0	2,5	2,5	3,7	4,3
EU-15	2,4	1,6	2,5	2,9	2,9	3,6	1,7	1,1	0,8	2,0

Note: E: estimates, P: projections
CEEC-9: Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia & Slovenia
EU-15: GDP at 1995 market prices.

Source: EBRD 2004, Table A 1, p.16, European Economy 2004, Table 10,p.138f.

Table 2 illuminates the process based on intra-regional trade-flows for the BSR. The most important trend is that the Baltic Rim region is the dominant foreign trade partner for the smaller economies only. Considering the nature and the size of the German economy, the importance of the Baltic Rim as a geographical region diminishes further. With regard to future trends of trade, the three Baltic States will probably move toward a trade pattern more similar to the Nordic countries and find their historical place in the regional trading system (Laaser & Schrader, 1992).

Table 2 Share of intra-regional trade as percentage of the total trade of Baltic Rim countries since 1992

	1988	1992	1996	2000	2003
Denmark	39.8	48.7	42.5	40.9	42.2
Estonia	...	92.0	68.8	55.1	63.8
Finland	51.3	41.7	35.2	49.3	34.2
Germany (FRG)	13.5	8.6	9.3	9.6	9.4
GDR	24.6
Latvia	...	61.8	48.8	45.9	37.5
Lithuania	...	57.8	46.1	33.3	51.4
Norway	35.2	35.9	36.9	65.6	36.8
Poland	46.7	47.4	48.2	29.7	47.4
Russia	34.1	18.9	21.5	75.2	20.9
Sweden	37.5	35.5	32.2	39.4	34.0
Baltic Rim	26.5	17.9	18.9	19.9	19.3

Note: Figures based on exports to Baltic Rim countries as pct. of total exports. All figures are based on reported imports from receiving countries. Danish exports to Sweden 1992 are based on Danish exports. For 1992 some figures are missing for former state trade countries. 1998 figures based on export to GDR and SU. Figures for GDR trade with Germany and SU 1988 are based on German sources and converted to US-\$ based on annual average exchange rate at Frankfurt (ultimo 1987 and 1988).

Source: IMF 1995, 1998, 2001 & 2004. Statistisches Bundesamt 1991.

One driver behind the increasing intensity of trade between the eastern and western part of the BSR is the development of strong linkages within the international system of production, both in an industrial and firm perspective. Foreign direct investment is a strong indicator for this tendency. FDI can be the result of barriers to trade (i.e. the case of the automobile industries investments in Brazil or Mexico in the sixties or many joint ventures with state trade countries before 1990), or they can be the result of an integrative process beginning with trade and ending up in the creation of an integrated system of production. Since the BSR is in a process of fast removal of trading barriers, foreign direct investment is used as an indicator of more formalized international integration of the

economic systems³. Table 3 summarizes the FDI inflow to the eastern BSR. Unfortunately, the data are not available on the regional level or the cities and regions participating in the MECIBS project⁴. In particular Estonia has received a considerable amount compared to the size of the population. But also Latvia, Lithuania and Poland received more than 1000 US-\$ per capita. Measured as percentage of GDP, Estonia still has the lead in 2003. The figures for Poland and Lithuania are significant lower per capita, but not measured by absolute figures. In particular net inflow to Lithuania has increased in the late 1990s. Poland and Russia, the two transition economies not fully being a part of the BSR, are of course the largest net receivers of FDI, with Poland as the largest target.

Table 3 Foreign direct investment (net inflow in millions of US-\$).

Year	Poland	Estonia	Latvia	Lithuania	Russia
1992	284	80	n.a.	n.a	n.a
1995	1.134	199	245	72	1.460
1996	2.741	111	379	152	1.656
1997	3.041	130	515	328	1.681
1998	4.966	574	303	921	1.492
1999	6.348	222	331	478	1.102
2000	9.299	324	398	375	-463
2001	7.000	350	300	439	216
2002	3.789	153	388	714	-48
2003E	3.675	688	289	467	-200
2004P	5.000	600	300	500	2.000
Cumulative inflow 1989-2003	42.316	3.192	3,328	4.008	7.304
Cumulative inflow 1989-2003 per capita US-\$	1.105	2362	1,435	1.163	50
In pct. of GDP 2003	1,8	8,3	2,8	2,6	0,0

Source: EBRD 2004, Table A.8 p. 24.

Regarding the flows of FDI, the pattern is similar to trade, but the figures must be used carefully due to methodological problems involved in the process of data collection, and the period of the flows. Nevertheless, the Nordic countries and Germany are important sources for FDI inflows to Poland and in the three Baltic States (see Cornett 2001, pp. 22 ff.). This can be considered to be at least a weak indication of increased participation in the regional system of divisions of production due to the fact that most trade barriers has been removed or are in the process of becoming obsolete. In particular with regard to the regional dimension FDI seems to reinforce spatial concentration at least in the Baltic States. Overall, it is only possible to evaluate FDI patterns in a regional context based on national statistics for the smaller states in the region. I.e. the strong position of the German economy, and in particular of the non Baltic Rim part, has to be taken into account. FDI and trade flows analysed on the macro-level are only rough indicators for processes on the regional or firm level. In particular, it seems difficult to estimate the intensity of the linkages between firms and regions across borders. Interviews with Danish textile representatives indicates that a considerable part of the integration of the production system takes place with independent suppliers (sometimes owned or managed by West Europeans) rather than subsidiary companies owned by the western

3. For an assessment of firm behavior concerning intra-regional FDI, see Snickars & Bourennane (2000).

4. Interviews within the MECIBS-project have indicated that all cities would like to receive a larger share of FDI. A study within the USUN-project (Snickars & Bourennane (2000) based on a survey of Nordic companies proved the strong concentration of FDI in the metropolitan areas of the eastern BSR.

mother companies. From an eastern BSR development perspective this can be taken as an indication of the strength of the integration of the production system, and indicate a risk of an only temporary engagement⁵.

Concepts of regional change and development

Globalization and regional integration has influenced the spatial dimensions of economies, and altered the regional distribution of firms and employment. One major consequence is that adjacency seems to be less important today with regard to location of firms belonging to the same system of production. The importance of international trade has increased tremendously during the last five decades and has, roughly speaking, grown twice as fast as the production since the 1950s. Apart from that, other types of international linkages has gained importance, i.e. direct foreign investments (FDI), and in the last decades also the trade with service across borders. This is probably the fastest growing segment of international commercial exchange, and of growing political importance due to the ongoing debate on the European Communities' proposal for a 'service directive' opening up for cross-border service provision according to homeland rather than target-land standards. The latter has been a major concern in Western Europe since the eastward enlargement in 2004, and is not delimited to traditional border regions anymore.

These trends obviously also affect the Baltic Sea region with regard to international as well as intra-national changes of the business environment. In particular the latter can have potential adverse effects on non-metropolitan small and medium-sized cities and their hinterlands.

A starting point of an analysis of these trends has to be found in approaches to international regional integration in order to form an explicit spatial perspective on economic, social and political integration and theories of regional development in a more narrow sense. The theories of economic integration provide an approach for a comprehensive analytical framework of understanding of change and development in regional systems. Usually, there is a strong correlation between geographic adjacency and strong economic ties. In economic theory this has not always been a part of mainstream economic thinking and analysis (Tichy, 1998). The aim of this section is to outline a framework to understand the impacts of economic integration on regional development. Regional integration is an ambivalent notion, varying from a very general concept that describes cooperation between nations or regions, to very specific social theories of human or organizational behavior, or if economic integration is addressed more specifically, just synonymous with liberalization (Rodnik 2002).

For the purpose of this analysis, the spatial dimension of this complex process has to be highlighted. Spatial integration is not a common used phrase, but rather a kind of summary of a comprehensive notion dealing with and overall assessment of regional changes. Among the features covered by the term 'Spatial integration' are:

- The development of specific geographical defined systems of production such as industrial district, cluster of industries, or systems of innovation,
- A system of urban networks defined according to specific functional linkages,

5. Within the textile industry the first move-outs from Poland and the Baltic States have been registered. See also WP-4 Case 2 in Groth et al. 2005a (forthcoming).

- The availability of a relevant regional infrastructure linking the analyzed area together, and
- Last, but not least, the intensity of intra regional flows relative to the outside flows can be considered to be the ‘*conditio sine non quo*’ whether we talk about a spatial integrated area or not.

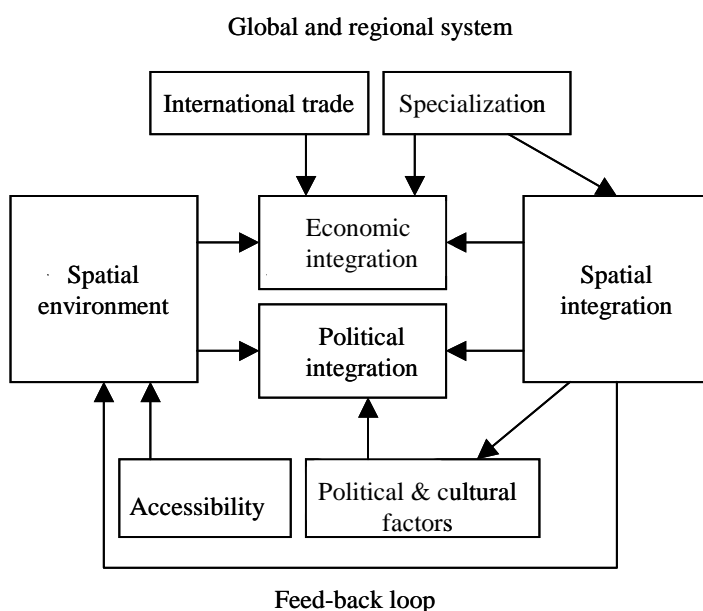
In particular the last condition is restrictive. In this notion, the concept of spatial integration has to be understood as the most far-reaching concept of integration. In this analysis, the spatial concept is not merely a consequence of the physical environment, but also the result of economic and political integration.

In a BSR or regional perspective we have strong evidence that political and economic integration is ‘powered’ by spatial proximity and adjacency, but at the same time, political and economic integration reinforce the other aspect of spatial integration, accessibility, i.e. through the Transeuropean Net proposals for the development of traffic infrastructure.

Figure 1 sketches the most important aspects of a comprehensive framework focusing on the main factors leading toward spatial integration, and the impact of this process on the future development through a feed-back mechanism reinforcing accessibility. The final result could be a kind of ‘network based’ (spatial) theory of integration (Gidlund 1990, p. 145 ff.).

The system outlined in Figure 1 describes a framework of analysis for a specific regional subsystem. The result of the process ‘spatial integration’ has to be seen in a dynamic perspective bound together by the indicated feed-back loops in the lower part of the figure.

Figure 1 Illustrating the concept of spatial integration.

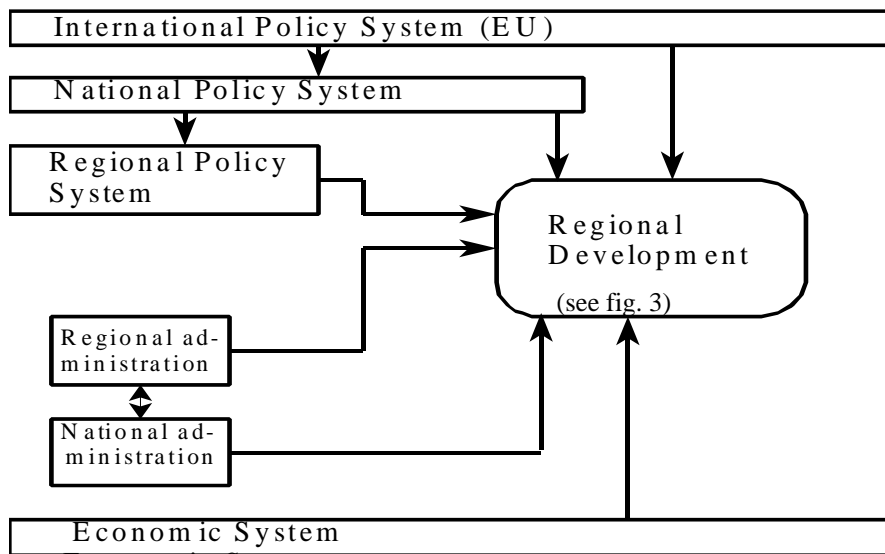


Source: Adopted from Cornett 2002.

The next step on the conceptual ladder is to step down to the regional level conceptualizing the driver of regional development and competitiveness. The regional development and the regional response to external challenges has to be seen in a systematic, but regionally specified context taking external as well as internal factors into consideration. Of particular importance are linkages

between cities and their immediate hinterland.

Figure 2 Regional Development Determinants in a Spatial System context.



Changes in the international economic system and processes of globalization and integration affect the regional systems of production. Some regions suffer from the changes, for others the reorientation opens new opportunities, at least in the short run. The analysis of regional and local impacts of the restructuring of the economic system in the BSR is focused on the impacts of organizational changes in the regional system of production driven by the development of economic networks and linkages, i.e. trade FDI and in particular in and outsourcing. In particular the latter has important consequences for local and regional development through employment and income effects. On the macro-level economic development is linked to the linkages and networks of the cities to external partners and in particular their hinterlands. Main focus is on development issues related to in and outsourcing of production and employment. The consequences of these new production systems have to be discussed from both a western and an eastern point of view.

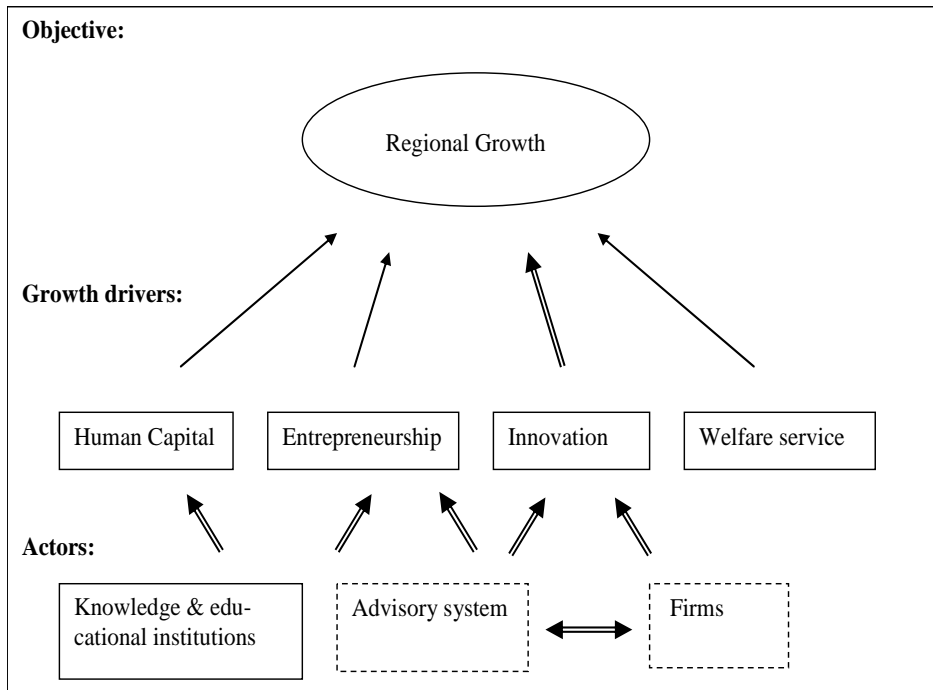
In addition, we have to take ‘re-outsourcing’ into consideration. The latter deals with the local and regional impacts of the first examples of western companies moving production facilities out of the BSR region into areas with lower production costs.

Regional and local implications of changes in the international system of production have huge impacts on the existing economic base of cities and regions, and new strategies for regional growth are required. Figure 3 summarizes growth-drivers and key actors in this process.

In particular the Herning area is of interest since the textile cluster in that area has been able to move on the value chain away from physical production toward marketing, design and the logistics of textile⁶, and to specialize in functions outside the traditional production of textiles.

⁶ Within the MECIBS-project, Kokkola in Finland is an interesting example of a total different path of development for a former textile area, nowadays a city with a total different industrial structure. The Borås region in Vester Götaland is an example of a textile cluster that has been able to transfer into its economic base in textile similar to the HBI-region.

Figure 3 A regional growth model



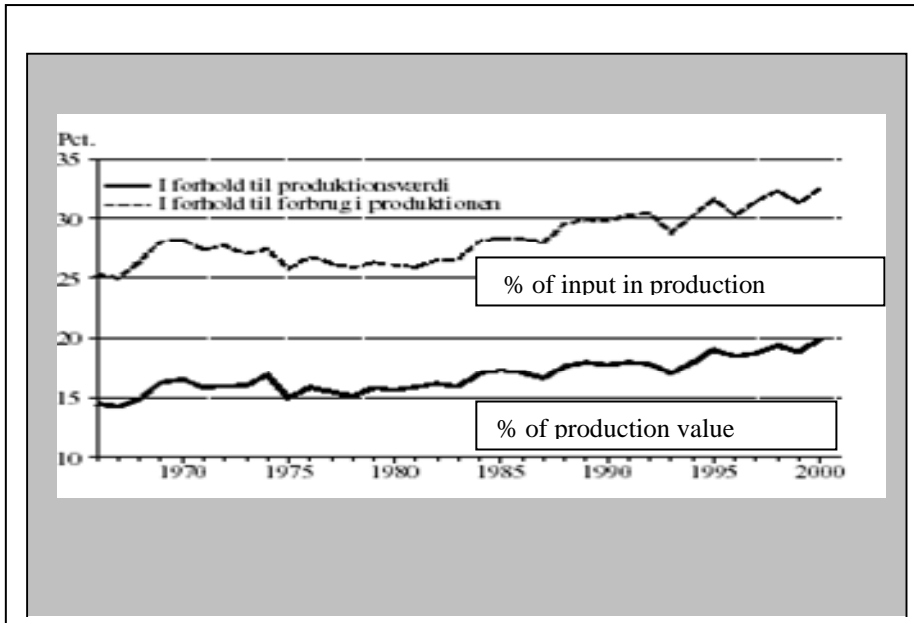
Source: Modified figure based on Copenhagen Economics – Inside Consulting (2004) p. 28.

Local impacts of outsourcing – preliminary results from a Danish Survey

In spite of the fact that changes in the production chain are not directly linked to regional forces, impacts of these changes often have huge regional impacts due to a specific sectoral structure. Often, outsourcing becomes the economical most salient indicator for changing relations between regions and industries in the commercial field. Increasing attention has been on the impacts of outsourcing on industrial production and employment in Western Europe. The Danish Economic Council has recently highlighted the issue in a national perspective, and despite the measurement problems the internationalization of manufactory is evident, see Figure 4 below.

Outsourcing can be defined in many ways, but the crucial element is the relocation of physical production or other functions previously located within a firm's facility in the location under consideration. This means that outsourcing is not necessarily an international phenomenon, but that it can also take place within a country (see Jürgensen & Banff 2004). Obviously, international outsourcing is the political most controversial part in the age of globalization.

Figure 4 Outsourcing as percentage of value of production and as percentage of use in production⁴



Source: Danish Economy, Fall 2004, p. 138.

Outsourcing is an ambiguous concept, and the only common denominator seems to be that it deals with changes in the economic (production) chain⁷.

According to the Danish Economic Council (Danish Economy, Fall 2004 p. 60), the total loss of jobs by outsourcing in the manufacturing industry was approx. 3800 in 2001 which has to be compared with the total job-turnover of 260,000 in Denmark. In this perspective, outsourcing is of rather limited importance⁸.

Nevertheless, the consequences can be very serious on the local and regional level⁹. Here, the most important consequences related to the process of outsourcing are the impacts on employment and income in cities and regions. In this perspective, an analysis of how vulnerable regions and municipalities are in this process is required. As a part of the MECIBS-project a statistical survey of Danish municipalities and labour market region was conducted to illuminate the local aspects of this process (Groth et al. 2005b forthcoming). The purpose of this study is to shed some light on the regional impacts based on a hypothesis that in particular jobs in manufacturing will be the target of

7. The following definitions are quoted in Economic Council (Danish Economy, Fall 2004, p. 124) to illuminate the variety of concepts used in recent Danish surveys of outsourcing.

(i) Strategic use of external resources to maintain activities, previously maintained internal.

(ii) When a company in a process of reorganization or rationalization transfers core competencies to co-operators. (Forum for outsourcing, 2004).

Purchase of intermediates abroad (Tænketanken Fremtidens Vækst).

A company transfers products produced within the firm to subcontractors or purchases new products/services from subcontractors (AErådet, 2004).

A company transfers a function or process to an external outside the company (Rambøll Management, 2004).

8. According to a recent study, Denmark as a whole is benefiting from outsourcing mainly due to cost saving and the alternative value produced by the workers laid off in the process. The reason is that the Danish labour market is relative flexible compared to other European countries (Politiken, April 27, 2005).

9. The results from a recent Danish survey of industrial as well as service firms make the interesting observation that the regional impacts of outsourcing are spread relatively even through out the country, at least with regard to the share of companies who have been involved in outsourcing within the last three years, measured on three different types of commuting areas. As far as the preliminary results reported in Maskell (2005) indicates, the results belongs to all commuting areas of the reported types.

outsourcing from small and medium sized cities in the immediate future¹⁰. Starting point for the analyses are the following hypotheses:

- Labor intensive industries will have the highest risk
- Unskilled labor will be the most exposed group on the labor market
- Industries not producing consumer durables or investment goods are more exposed to outsourcing.
- Locally based companies will be more reluctant to outsource all employment than subsidiaries.
- The concept of the analysis is based on the assumption that the regions with high scores on the above-mentioned variables will be the most vulnerability regions with regard to loose employment and income.

Table 4 Selected manufacturing industries' share of employment in Danish commuting areas in 2002.

	Food etc. 1509	Textile etc. 1709	Wood etc. 2009	Chemicals etc. 2309	Nonmetal - lic prod. 2600	Basic me- tals etc. 2709	Furniture etc. 3600	All industries
Employment according to industry, location in % of all employed 2002:								
Ringkøbing	2,0	1,2	4,2	0,6	0,1	20,8	0,8	26571
Holstebro	6,8	0,8	3,4	2,0	0,3	8,9	2,4	44887
<i>Herning</i>	4,6	5,8	4,7	0,4	1,0	9,4	2,7	65876
Skive	3,9	0,1	3,9	0,5	1,7	10,1	4,5	26442
Viborg	3,1	0,5	2,5	0,5	1,0	13,6	3,1	57340
<i>Randers</i>	3,0	0,5	3,7	2,1	0,6	9,7	1,3	49605
Vejle	5,7	0,4	3,3	2,3	0,9	9,0	3,7	132701
Kolding	3,7	0,3	2,9	2,4	1,5	10,3	0,9	99484
Århus	2,3	0,5	2,6	1,2	0,4	6,1	1,3	263817
<i>Nak-Nyk F</i>	6,5	0,2	3,7	1,7	0,4	17,2	1,5	46440
Denmark	2,9	0,4	2,4	1,9	0,6	6,7	1,1	2734390

Note: 1509 Mfr. of food, beverages & tobacco
1709 Mfr. of textiles, wearing apparel & leather
2009 Mfr. of wood products, printing & publ.
2309 Mfr. of chemicals, plastic products etc.
Italic: MECIBS-city
2600 Mfr. of other non-metallic products
2709 Mfr. of basic metals & fabr. metal prod.
3600 Mfr. of furniture; manufacturing n.e.c.
All industries: Includes all types of employees.

Source: Danmarks Statistik, Statistikbanken

More specifically, the areas are analyzed (municipalities and commuting area) with regard to:

- Industrial structure,

10. The reason for focusing on manufacture is among other that we expect that the outsourcing of service and back-office functions will probably be more important in center-regions than in MECIBS-type locations.

- Education,
- Size of companies.

Type of products (consumption vs. investment goods).

In a general development perspective, the results of the regional risk analysis of local impacts of outsourcing are:

- Industries with high labor/capital ratio are more sensitive to outsourcing.
- Low-skilled labor dominated industries are more vulnerable than high skill dominated.
- Local vulnerability is mainly determined by the industry mix in the particular area.
- Outsourcing can contribute to the maintenance of industries' (and regions') competitiveness through upwards movements of branches in the value chain, i.e. the textile industry in the Herning-Brande-Ikast area.

Finally it has to be stressed that in the future, the effects of outsourcing in these cities will probably be larger if other sectors than manufacturing are included in the analysis. According to Maskell 2005, medium-sized cities are also at risk to loose employment in service-industries (i.e. wholesale trade). In the abovementioned firm survey, 21 % of the service sector companies in medium sized cities have been involved in outsourcing activities, only slightly less than in manufacturing (27%)¹¹.

Globalization and local development: The case of Textile and the HBI-region

Traditionally, the textile industry has been protected against external competition in most industrial countries for many years, but as of January 1, 2005, the MFA is faded out, and trade restrictions are more or less removed. In spite of the exemptions for textile, trade with textile products played an important role in the Danish bilateral trade relations within the BSR, also before the Baltic States and Poland became formal members of the EU 2004. The reasons are many (see Illeriis 2000), but most significantly, low production costs were due to low wages, the availability of a skilled labor force, and probably most important, the closeness to the markets, and the outsourcing firms in Western Europe. The latter is the main competitive edge of the East European transition economies compared to low-cost producers in Southeast Asia. Due to fast changes in fashion, short delivery time is essential for competitiveness.

This unique combination of advantages is one reason for choosing the textile sector as an illuminative case for the analysis of the impacts of the reintegration of East and Central European countries into the traditional Western system of production. The second is the geographical concentration of the Danish textile industry. The case study of the structural changes in the Danish textile industry in the aftermath of the break down of the iron curtain illuminates how the adaptation process takes place not only in the transition economies, but also in Denmark. The particular structure of the Danish apparel and textile business and the geographic concentration¹² (almost 50% of the industry is located in few municipalities in Central Jutland, see next section) enables us to

11. A total 18 % of the companies in medium sized commuting areas had been involved in outsourcing to low wage countries. For the 4 largest Danish cities the figure was 15 % and 16 % for the rural area (Commuting areas with largest city with less than 2000 inhabitants), Maskell 2005, p. 24.

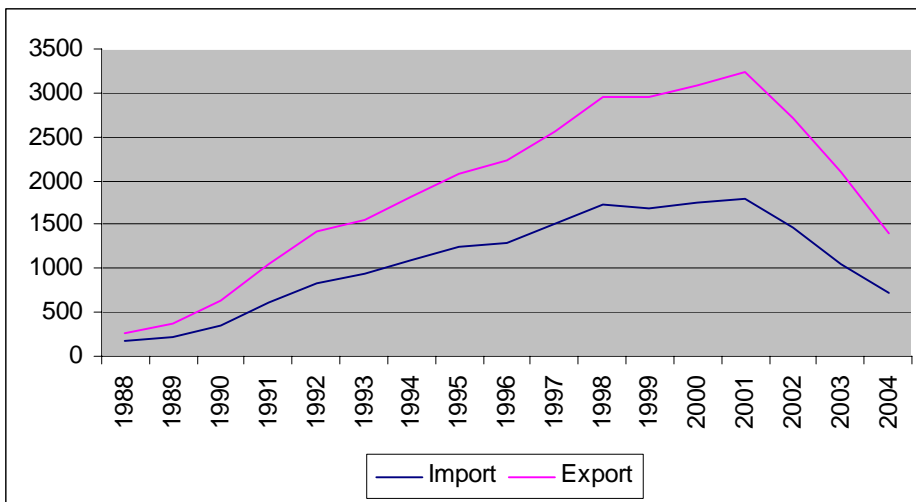
12. For an overview of the textile industry in Central Jutland before the major changes took place in the first half of the 1990s, see Hjalager (1990)

analyze not only overall changes, but also the regional impacts of changes in the competitive environment.

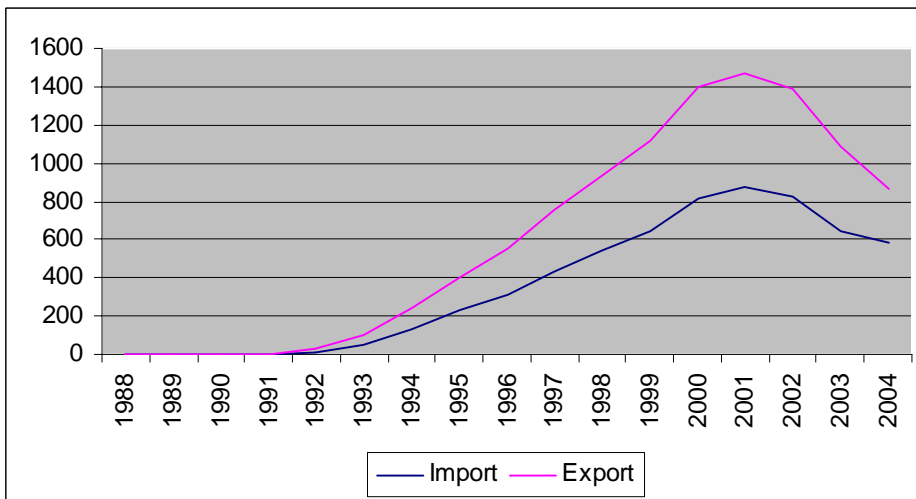
The outsourcing of production from the Danish core region of the textile industry accelerated from the beginning of the 1990s (Illeris 2000, p. 61). The impact on employment and structure of the textile industry in the Herning-Ikast area, the closest Denmark comes to an industrial district (see Hansen 1991) was tremendous as the figures at the end of this section will prove.

Figure 5 Trade in textile between Denmark and Poland and Lithuania (million DKK)

Poland:



Lithuania:



Source: Danmarks Statistik, Statistikbanken 2005

Figure 5 summarizes the development of textile trade between Denmark and the two most important target countries for the outsourcing of Danish textile industry, Poland and Lithuania.

The impressive growth in the textile trade reflects the outsourcing of production as well as the change in the international division of labor taking place in the North European textile business. A closer look on the composition of the trade flows can shed new light on the nature of the restructuring process.

The analysis of the textile trade between Denmark and Poland reported in Figure 5 proves an

extensive growth until the turn of the century. The decline since 2000 is probably related to re-outsourcing and changes in the logistics of the value chain, i.e. control and quality check is now conducted outside Denmark. Nevertheless, textile is still an important factor in the bilateral trade between Denmark and Poland. With regard to Lithuania, we have the same tendency, but on a much higher relative level. Textile is the single most important commodity in the bilateral trade between Denmark and Lithuania.

Comparing imports and exports between Denmark and Poland we found a slightly higher concentration of commodity groups in Danish exports than imports¹³. What is most interesting is that the latest figures for 1999 seem to reflect a change with respect to the dominating commodity groups. In many respects, the trade figures illuminate the point made by Illeriis (Illeriis 2000, p. 60):

“It is primarily the sewing work which has been outsourced: This means that the Danish firm typically still buys woven cloth or carries out the knitting work, organizes the dying and cutting operations in Denmark, ships the pieces to Poland or another transition country where they are sewn (but remain the property of the Danish firm), and has the clothes transported back to Denmark where they are quality controlled, finished and marketed.”

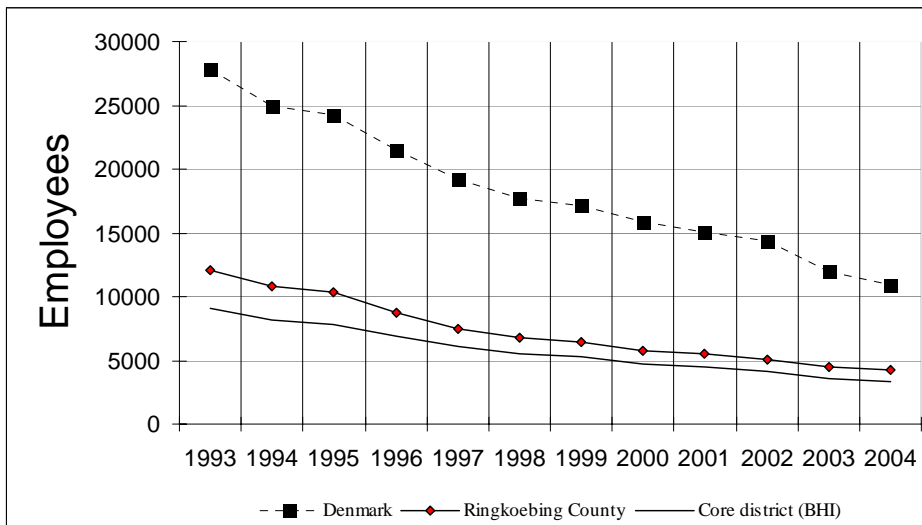
According to an interview with the Federation of Danish Textile and Clothing (April 2003), the overall pattern summarized in the quotation still holds, but even more physical production has been moved out of Denmark. Without overstating the statistics it seems as if the pattern has changed with regard to Poland toward a more balanced system of trade, measured by group of commodity (see Cornett 2002). This could be taken as an indication that Danish companies are still doing the marketing, design and control work, but that many of the raw materials no longer are shipped from Denmark.

The Danish-Lithuanian trade follows the same pattern. Overall, the analysis of the textile trade between Denmark and the two countries seems to support the tendency mentioned in the introduction that the Danish textile industry has undergone a significant structural change toward a more high value adding industry, and less labor intensive. In the next section, the impacts of this change on the regional production system of the core district of the Danish textile industry are analysed.

The increase in the textile trade between Denmark and in particular Poland and Lithuania has not been without consequences for the textile branch in Denmark and in particular in the core of the Danish textile area, the county of Ringkoebing in the center of Jutland. The centre of the textile industrial district is the municipalities of Brande and Ikast and the city of Herning. Figure 6 below summarizes the decrease in employment in Denmark and in the core area of the Danish textile industry. In Denmark, employment in textile was reduced by more than 50% from 1993 to 2004. In the core area of the textile industry the employment was reduced to 52% of the 1993 level.

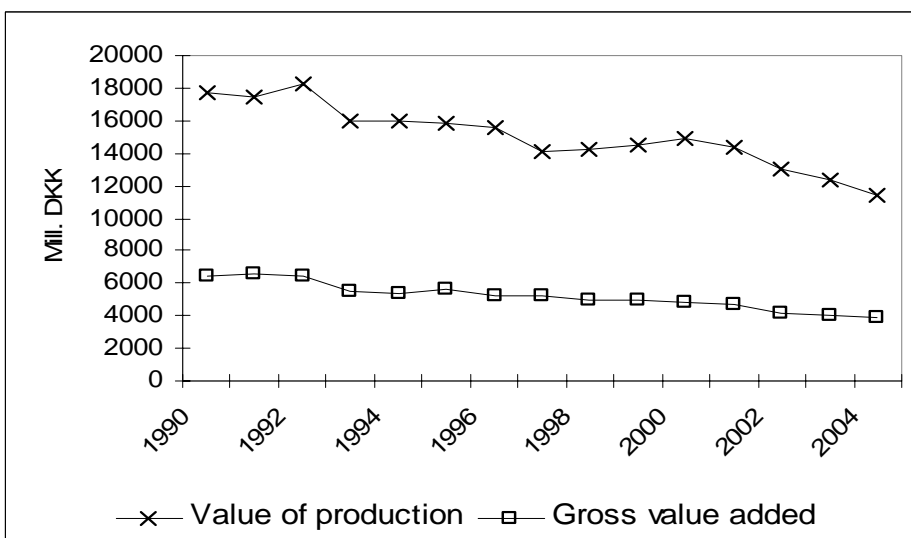
From a regional perspective point of view the change of job content and qualification of the remaining labour force and the increase in productivity is probably more important. This is primarily a consequence of the upward shift in the value chain of the textile sector in the area and a coordinated private-public sector effort to increase the level of qualifications within the branch. Figures 8 and 9 below illuminate the successful structural adaptation of the industry. Apart from the figures belonging to Denmark as a whole, the trends reported are also valid for the core area, probably to a higher extent, since many textile chains have their headquarters in the BHI-area.

13. For a detailed analysis of the fast growing period of the textile trade, see Cornett 2002.

Figure 6 Employment in the Danish Textile Industry.

Note: Core district: Brande, Herning, Ikast.

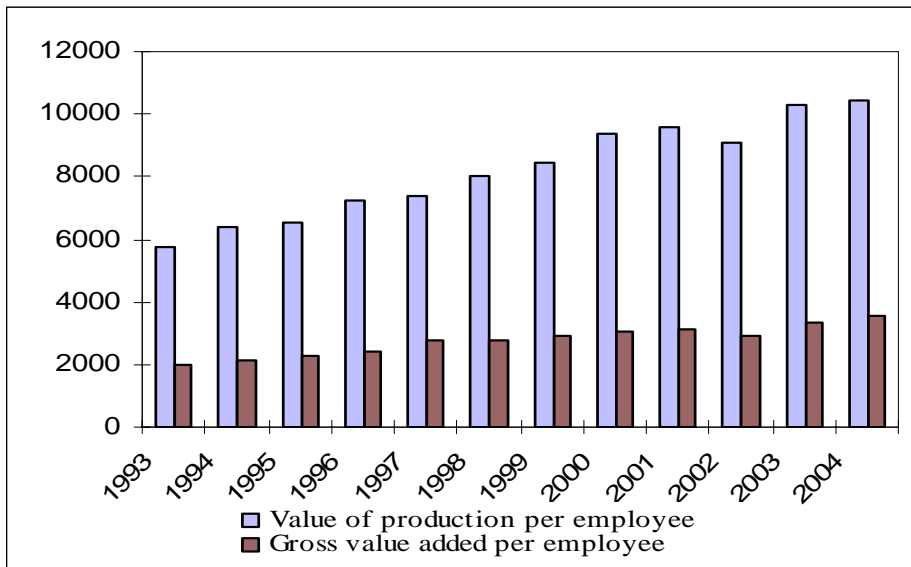
Source: Danmarks Statistik, Statistikbanken 2005.

Figure 7 Production value and gross value added for the Danish textile industry since 1990 (million DKK, 1995 prices).

Source: Danmarks Statistik, Statistikbanken 2005

According to figure 7, the value of production has only decreased modestly and gross value added in the textile business has remained almost stable in fixed prices despite the fact that employment has been reduced significantly. This was only possible by a significant increase of productivity and output per employee during the period, see Figure 8 below.

Figure 8 Gross value added and value of production per employee in the Danish Textile Industry (1995 prices).



Source: Danmarks Statistik, Statistikbanken 2005.

The reason for this successful process of restructuring has to be found on both the firm and industry level and in the cooperation of public authorities and educational institutions in the area. The textile design school is probably the single most important example, but proactive adaptations of regional development initiatives from abroad, like the business links system (Ministry of Industry, 1995) or the strong local involvement in the business community, are important features of the industrial district. This has contributed to an extension of the economic base of the region beyond textile and related services. The result is also an overall good employment record with low unemployment and in some areas shortage of skilled labor.

Within the textile branch significant changes in the value chain took place during the nineties, and the process has continued until now. In this system, the Baltic Rim transition economies got a significant role in the nineties, and became a part of the value chain of the textile industry in the centre of Jutland, and according to the interviews with outsourcing companies it seems that the insourcing locations will be able to maintain and develop there role in the new subsystem of production in most cases¹⁴.

Summary and Perspectives

With regard to the regional impacts of outsourcing, a distinction has to be made between insourcing and outsourcing regions. In particular, the former issue is highlighted in the West European discussion of impacts on the economy in general and employment in particular. Nevertheless, the change in the international division of labor will also affect the insourcing regions. In the short run positive effects will dominate. In a medium and long term perspective the East European countries will probably face similar problems than many countries and regions in the West.

Outsourcing regions:

14. For details, see Groth et al. 2005 forthcoming, WP-4 case 2.

With regard to existing industries, the most important recommendation drawn from this analysis is to support a process of extending the value chain of the firm, i.e. to support upstream and downstream functions rather than physical production. Key competencies to develop are: design, production logistics, and marketing and distribution management. To focus on labor extensive aspects of production could be an alternative, i.e. industrial textile rather than clothing and fashion product. Business development policy should give priority to companies based in the local community rather than subsidiaries and ‘screwdriver plans’, as well as the future potentials seems to be better for companies selling their products under their own brand rather than subcontractors. A general policy to improve the overall level of competence (education, research and development facilities) will strengthen a regions’ ability to restructure the economic base. As stated by Maskell (2005, p. 23) it worth to stress, that outsourcing itself can contribute to the creation of new knowledge and skills in the outsourcing company.

Finally, an appropriate strategy is the widening of the industrial base of a city or region, i.e. to diversify the business portfolio. In principle, strategies will depend upon the specific characteristics of the industrial base of a region, i.e. the mix of production and services, and the linkages of the local business to other sectors or production systems. Figure 9 sketches the possible risk profiles depending on cluster-linkages and participation in different production system.

Figur 9 Regional implications of outsourcing depending on firms’ affiliation to clusters or production systems.

Companies industrial affiliation	’cluster integration’	
	Threatened cluster	Stable cluster/low risk
Industry with high outsourcing risk	- -	+
Industry with low outsourcing risk	-	++

Note: – negative regional impact, + positive/neutral regional impact.

From a regional point of view, the perspective of Figure 9 is that an industry/firm cannot be evaluated without examining the specific networks or linkages of which the firm is a part. A firm belonging to a high-risk industry can have good perspectives if the firm is integrated in a growing and vital production chain.

In general it has to be concluded, that regional as well as sectoral factors can alter more general tendencies. A recent study from the Federation of Danish Industries (Dansk Industri, 2005) shows that not necessarily only centre regions are best prepared for the challenges from outsourcing, i.e. the most southern part of Denmark turned out to be the best prepared part of the country to meet the challenge of globalization¹⁵.

In sourcing regions:

For in-sourcing regions the results and the derived policy recommendations are very similar to outsourcing regions, but typically their resources are much weaker with regard to capital, human

15. The study is also a good illustration of the fact, this type of macro-analysis are extremely sensitive with regard to the selection and weight of indicators.

resources and often also local embeddedness of the companies¹⁶.

- In particular, it is important to avoid industrial mono-structure and enclave industries with few or no linkages in the local area.
- The regions should avoid dependency to one or few partners, if possible.
- Expand the level of competencies in the local area to enlarge the value added in the region. This can also become a shelter against the threat of (re-) outsourcing, and probably prepare the regions to take part in the second wave of outsourcing in service industries. For the BSR parts, language barriers can here become a major obstacle compared to India and other countries in the Third World.
- In a narrow border regional perspective, various kinds of services for residents from neighboring countries will obviously persist as long as wage and income differences exist.
- With regard to which types of companies insourcing regions should target, the above figure can be used as a first guideline to avoid the risk of re-outsourcing.

References:

- Copenhagen Economics – Inside Consulting (2004), Regionernes konkurrenceevne, Rapport udarbejdet for Indenrigs- og Sundhedsministeriet, Januar 2004, København.
- Cornett, Andreas P. (2004): "Regional Perspectives on Integration in the Baltic Sea Region", pp. 115-138 in Søren Dosenrode & Henrik Halkier, *The Nordic Regions and the European Union*, in *The International Political Economy of New Regionalisms Series*, Ashgate, Aldershot, UK & Burlington, VT, USA, 2004.
- Cornett, Andreas P. (2002): "Spatial Development: Regional and Global Specialization", pp. 51 - 73 in Christer Bengs (ed.), *Facing ESPON*, Nordregio R2002:1, Stockholm.
- Cornett, Andreas P. (2001) "Regional Economic Integration in the Baltic Rim: Towards a European Region after ten Years of Transition?" pp.13-27 in Johannes Bröcker & Hajo Herrmann (ed.) *Spatial Change and Interregional flows in the Integrating Europe - Essays in Honor of Karin Peschel*, Contributions to Economics, Physica Verlag, Heidelberg-New York, 2001.
- Danmarks Statistik (2005), Statistikbanken, Copenhagen.
- Danish Economy (2004), Det Økonomiske Råd, *Dansk Økonomi Efterår 2004*, København 2005.
- Dansk Industri* (2005): "Sådan ligger regionerne DI's globaliseringsbenchmark, regionernes samlede globaliseringsparathed", Copenhagen.
- Dumciuviene & Kvainauskaite (2004): "The Competitive Features of Lithuanian Furniture Industry" Paper presented at *International Workshop, Lithuania – Nordic Research Networking in Social Sciences 2003-2004*, University of Vilnius & EuroFaculty, Vilnius, May 14-15, 2004.
- EBRD (2004), International Bank for Reconstruction and Development, *Transition Report 2004*.
- European Economy (2004), European Commission Directorate-General for Economic Affairs, 2004, No. 4.
- Gidlund, Janerik (1990): "Den oförklarade integrationen - statsvetenskapen inför Europas omvandling" pp. 119-151 in Karlquist, Anders, red. (1990). *Nätverk Teorier och begrepp i samhällsvetenskapen*, Gidlunds Bokförlag, Värnamo.
- Groth, Niels Boje, Thilo Lang, Mats Johansson, Vesa Kanninen, Stefan Anderberg and Andreas P. Cornett (eds) (2005a): "Restructuring of Medium Sized Cities. Lessons from the Baltic Sea Region", *Danish Centre for Forest, Landscape and Planning, KVL*, Frederiksberg, 2005 (forthcoming).

16 . For a discussion of one of the industries facing the problems of in-sourcing as well as re-outsourcing, see Dumciuviene & Kvainauskaite (2004).

- Groth, Niels Boje, Bue Nielsen & Andreas P. Cornett (2005b): "Lokale incitamentter til outsourcing Herning, Randers & Nakskov." *Danish Centre for Forest, Landscape and Planning, KVL, Frederiksberg*, 2005 (forthcoming).
- Hansen, Niles (1991): "Factories in Danish Fields: How High-Wage, Flexible Production Has Succeeded in peripheral Jutland", pp. 109-132 in *International Regional Science Review*, Vol. 14, Number 2, 1991.
- Hjalager, Anne-Mette (1990): "Det tekstilindustrielle kompleks i Herning", pp. 191 - 205 in *nord-REFO 1990*, Number 2. University Press Copenhagen, 1990.
- IMF (1995 ff.), *Direction of Trade Statistics Yearbook*, Washington.
- Illeris, Svend (2000): "Outsourcing of Textile and Clothing industry from Denmark to Baltic Transition Countries", pp. 56-68 in Jan W. Owsinski and Mats Johansson (ed.), *Global-Local Interplay in the Baltic Sea Region*, The interface Institute, Warsaw.
- Jørgensen, G.E. & P.E. Banff, (2004): "Sourcing og omstilling inden for jern-og metalindustrien. Konsekvenserne for antallet af arbejdspladser og kravene til medarbejderkompetencer", Vejle Amt og Det regionale Arbejdsmarkedsråd i Vejle-regionen. Vejle, April, 2004.
- Laaser, C.-F. & K. Schrader (1992): "Zur Reintegration der baltischen Staaten in die Weltwirtschaft", pp.189-211 in *Die Weltwirtschaft*, Heft 2, 1992, Kiel.
- Maskell, Peter (2005): "Globalisering og erhvervsudviklingen", pp. 20-24 in *AKF-nyt*, May 2005, akf forlaget, Copenhagen.
- Ministry of Industry (Erhvervsministeriet) (1995), *Regionalpolitisk Redegørelse 1995*, Statens Informations-tjeneste 1995. København.
- Politiken*, Danish Newspaper, Copenhagen.
- Rodrik, D. (2000): "How Far Will International Economic Integration Go?", pp. 177-186 in *Journal of Economic Perspectives*, Volume 14, Number 1, Winter 2000.
- Snickars, Folke & Malika Bourennane (2000): "Industrial Networking in the Baltic Sea region", *A study carried out as a part of the Interreg IIC project Urban Systems and Urban Networking in the Baltic Sea region*, Danish Forest and Landscape Research Institute, Hørsholm, Denmark.
- Statistisches Bundesamt (1991), *Statistisches Jahrbuch 1991 für das vereinte Deutschland*, Metzler Poeschel Wiesbaden, 1991.
- Tichy, Gunther (1998): "Geography lost and found in economics (?)", key note presentation at the 38th European Congress-1998, Vienna, Austria, August 28-September 1, 1998, CD-Rom proceedings, Vienna, 1998.