

Offshoring of Jobs and Internationalisation of Production

Empirical Investigations of Labour Market and Welfare State Effects in Denmark and the Nordic countries

Refslund, Bjarke; Andersen, Jørgen Goul

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**Offshoring of Jobs and Internationalisation of Production:
Empirical Investigations of Labour Market and Welfare State
Effects in Denmark and the Nordic countries**

Bjarke Refslund and Jørgen Goul Andersen

Centre for Comparative Welfare Studies
Working Paper
Editor: Per H. Jensen
E-mail: perh@dps.aau.dk

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Working papers may be ordered from:
Inge Merete Ejsing-Duun
Fibigerstræde 1
9220 Aalborg Ø

E-mail: ime@dps.aau.dk

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Bjarke Refslund and Jørgen Goul Andersen

Aalborg University

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Research Report

Centre for Comparative Welfare Studies, Department of Political Science, Aalborg University

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1 Introduction

This research report seeks to assess the impact of globalization on the labour market and the welfare state in the Nordic countries, with a special emphasis on Denmark. Our key interest is the impact on employment and employment structures: How many jobs are lost because they are moved out of the country? To what extent are these jobs replaced by new jobs? How are the new job positions as compared to the old ones? Needless to say, the answers to these questions have important implications for the labour market, for industrial relations, and for the welfare state in general.

In the wake of the economic crisis, there has been increasing concern over the impact of globalization on European welfare states, not least the impact on employment. However, the entire discussion has suffered from conceptual confusion and from shortage of data. Accordingly, there have been few attempts to provide a solid empirical data foundation to this discussion (see Refslund, forthcoming). This report seeks to clarify the concepts of outsourcing, offshoring, foreign direct investments (FDI), portfolio investments, and multinational enterprises (MNE), as well as the connections between them. In addition, the report takes its departure in an updated picture of the international division of labour, based on the notion of global value chains, and it discusses the relationship between globalization and de-industrialization. Finally, but not least, it provides empirical evidence to the discussion, based in particular on Danish data which are among the most comprehensive in the field.

During the long economic crisis since 2008, a pessimistic picture of the challenge of globalization has gained ground in many countries. In Denmark, this is new, but a roughly similar picture has resurfaced in western policy debates from time to time since the early 1990s when the concept of “globalization” was coined. According to this view, globalization leads to de-industrialization and to a considerable numbers of jobs being lost to low-wage economies. This leaves Western Europe with an excessive supply of low-skilled labour– and with a welfare state under pressure.

Political motives of using “globalization” to legitimize neoliberal reforms are perhaps the most important explanation of the concern for this issue (Hay, 2006); however, with some important reservations and modifications, somewhat similar problem definitions can also be traced in the scholarly literature. Finding proper employment for these redundant labourers is considered difficult in European welfare states as high minimum wages constrain growth in low-productive service labour which could otherwise provide an alternative (Esping-Andersen et al., 2002). As a result, countries are faced with large skill differences in unemployment, and/or with a growth in atypical or precarious employment. In turn, this weakens trade union and power relations in the labour market. Altogether, this provides the structural bases of the theories of dualization of Western European societies (Emmenegger et al., 2012).

Until now, however, the Nordic countries have largely been exempted from such trends. Skill differences in unemployment have remained comparatively small, not only as compared to the Continental European welfare states, but also as compared to the Anglo Saxon countries (e.g. Goul Andersen, 2007, 2013). By the same token, these countries have not experienced a growth in precarious employment or in the number of “working poor” (Dølvik et al., 2014). Briefly, at least

until the crisis of 2008, the historical experience of the impact of globalization and de-industrialization in the Nordic countries has been quite positive. None the less, even in the Nordic countries, globalization has from time to time been presented in public discourse as a great challenge that calls for significant changes in the welfare states. Even though the Scandinavian record has until now been quite different, this report starts from the point of departure that the discussion should at least be taken seriously. After all, it is dangerous to extrapolate uncritically from past experience, and it does remain that except for Norway and Iceland, the Nordic countries have not been able to reintroduce full employment for the last 20 years or more.

Still, there is an alternative theoretical tradition – sometimes described as the “compensation hypothesis” – which is substantially more optimistic about the impact of globalization, at least for countries like the Nordic ones. As small open economies, the Nordic countries have always been exposed to international competition (Katzenstein, 1985). They have adapted their political institutions to deal with this situation, and by coordinated wage formation and more or less corporatist policy-making they have been able to maintain international competitiveness and generous welfare at the same time. The classical argument is that flexibility is enhanced by sharing social risk (Cameron, 1978; Katzenstein, 1985; Andersen et al., 2007; Andersen, 2012). The latter argument is equivalent to the more narrow arguments in favour of “flexicurity” (Madsen, 2006), combining liberal employment protection legislation with generous support for the unemployed.

From this perspective which has most frequently been shared by Nordic governments (including most Danish governments until 2010), the Nordic countries should only welcome globalization as the comparative advantages lead to a specialisation where low-skilled jobs are replaced by more productive high-skilled jobs. Moreover, potential losses from intensified competition may be more than outweighed by cheaper import of standard consumer goods where world prices are declining, as well as by higher global growth (Hirst, Thompson & Bromley, 2009: 154). Since around 2000, this has been the situation in the Danish economy where terms of trade have improved due to higher export prices combined with lower prices on imported commodities (Statistics Denmark, 2011: 24-27) – a fact that was often overlooked in government discussions about declining Danish productivity during the crisis, in particular from 2011 onwards.

Before addressing the issues more systematically, let’s just take two empirical illustrations (one of which is treated in more detail below) that de-industrialization and outsourcing of jobs does not necessarily constitute a challenge to the labour market, nor to the welfare state. First, until the Second World War, more than one-half of Danish industry was located in the Copenhagen area. Since the 1950s this region has experienced an enormous outsourcing of jobs in manufacture and almost total de-industrialization. First, industrial workplaces moved westwards within the Danish borders, and later, they moved to ever more remote destinations outside the country. But apparently, this has not by any means left Copenhagen in a state of decline or stagnation. It is tempting to extrapolate and to suggest that the mechanisms of survival of the country’s capital may apply to the entire country as well.

The other illustration is the outsourcing of the textile industry (Olsen, Ibsen, and Westergaard-Nielsen, 2004) which has often served as a reference point for Danish decision makers. The

outsourcing of the textile industry happened quite fast, and the outsourcing was complete – hardly a single production job was left. But this did not leave the Danish textile industry in a desperate situation. It did not leave the regions where the textile industry was formerly located in stagnation, either. And it did not even leave the textile workers jobless; as the industry was phased out over a couple of decades, employment decline could largely match retirement (Olsen et al., 2004). Instead of unemployment, the young generation faced a significant growth in other jobs, including better-skilled jobs in design, marketing, administration etc. within the textile industry.

Such case stories may be relevant illustrations, and certain aspects may even be generalized, but they do not help us very much answering the questions above. Unfortunately, the question of job losses and job gains due to globalisation is a field where detailed knowledge is very limited (Refslund, forthcoming). This is not because outsourcing, offshoring etc. are new phenomena, but there is a lack of valid and regular data (Sturgeon & Gereffi, 2009; OECD, 2007c: 11, Sturgeon, 2013), and not very much existing data have penetrated more broadly to the political sciences. However, the lack of empirical information also reflects conceptual problems as well as difficulties of operationalisation. In section 3, we try to trace out the various key concepts and their definition and measurement.

Finally, the data shortage also reflects the increasing complexity of modern production (Powers, 2012). Dramatically increased fragmentation of production and services leads to increased flows of services, goods and intermediates which traditional trade data and other official data cannot fully capture. Altogether, the fragmented and dispersed global value chains posit both new theoretical approaches as well as statistical challenges. Therefore we have to take our point of departure in the notion of changes in the international division of labour in section 2.

The empirical analysis is presented in sections 4-6, so readers with mainly an empirical interest may consider moving directly to those sections. Section 4 analyses outsourcing of jobs to other countries (described below as *offshoring*), mainly based on our own data from a recent Eurostat company survey, but also including an overview and discussion of other relevant research sources. Section 5 analyses foreign direct investments (FDI) and the expansion of foreign owned enterprises (FOE) or multinational enterprises (MNE). Finally, some policy implications are briefly addressed in section 6.

2 Internationalisation of production: Old and new perspectives

2.1. Globalisation and internationalisation – what's new?

Essentially, globalisation is not a new phenomenon, even though it often described as novel in the media as well as in scholarly discussions. The increasing international interdependence and connectedness has been a central feature of political and economic analysis since the writings of Smith and Marx. Rather, it is the term “globalisation” that is new.

The term “globalisation” has undoubtedly come to stay. But it remains a complex and disputed phenomenon. And it also remains that it provides an analytically rather weak, or at least very broad, framework. It may be described as; “... *a multicentric, multiscalar, multitemporal, multiform and multicausal process*” (Jessop, 2008: 178). The concept of globalisation sometimes tends in itself to bias the focus since the concept connotes inter-continental interactions and dependency. True, interactions and dependency have become more global. But before the concept of globalisation was launched in the early 1990s, the social sciences applied “internationalisation” as the umbrella concept. This concept connotes all sorts of transactions across borders, including transaction between European countries or what is sometimes called “regionalisation”. However, regionalisation indeed remains an aspect of globalisation which should not be neglected, and it might even be seen as the single-most important feature of globalisation (Held et al., 1999: 16; Hirst et al., 2009). Both concepts cover the same process of increasing international interaction and dependencies, but we will use “globalisation” as the general term whereas “regionalisation” specifically denotes internationalisation within a continent.

It should also be underlined that in this paper, we will focus exclusively on *economic* globalisation. There is well-known debates about globalisation in other spheres, in particular politics and culture, to mention a few (see e.g. Held et al., 1999; Hirst et al., 2009), but even though some political aspects (international regulation) might be relevant considering in relation to economic globalisation, this is outside the scope of this report.

Even though internationalisation is nothing new, there are indeed features of contemporary globalisation that are truly novel or at least gaining increasing significance. Like previously, globalisation is facilitated by the technological development in general and by developments in transportation in particular. But the most novel aspect is the revolution in information and communication technology (ICT), with new frontiers of the international division of labour being on-line, e.g. in crowdsourcing (Flecker, 2014).¹ One should also note the significant, politically determined, liberalisation of trade and investments since around 1980. A particular aspect of globalisation since the early 1980s is the liberalisation of capital movements.

However, perhaps the most distinctive feature (which is particularly important for our question) is the increasing prominence of *intra-group or company trade, outsourcing and FDI* (Sturgeon, 2013: 33). Together with increasing global competition, a new international division of labour, relocation

¹ It should be recalled, though, that one of the first texts seeking to summarize the impact of globalisation – The 1848 *Communist Manifesto* by Marx and Engels – also pointed at the revolution in communication (the telegraph) as a particularly important aspect in addition to transportation (railways) and industrialisation in general.

of jobs and changing industry structures this leads to an increasingly integrated and fragmented production structure (Baldwin 2006, 2014; Dicken 2011). This might perhaps even be seen as the defining feature that distinguishes contemporary globalisation from internationalisation in the past. With post-fordistic modes of production like Toyotism and Lean, the production can be fragmented and moved around the world in an unforeseen manner. Paul Krugman (1995) talks about “slicing up the value chain”, while Baldwin talks about the great “unbundlings of the economy”, the first being the unbundling of production and consumption with the rise of Fordism, and the second being the contemporary unbundling of production itself (Baldwin 2006, 2014). These changing patterns of production have often been analysed in a Global Value Chain (GVC) approach (see e.g. Gereffi, 2005, 2013; Gereffi & Korzeniewicz, 1994; Arndt & Kierzkowski, 2001; Sturgeon, 2014).

2.2 Global Value Chains (GVC) – International production

A central feature of the GVC-approach is the international interconnectedness of production, which has gained increasing attention from scholars as well as from international economic associations in recent years. This has also led to a more value-add oriented approach to trade statistics, which will be discussed below. For instance, the G20 countries and UNCTAD are emphasising GVC as a central feature of the international economy (Jara & Escaith, 2012:8; UNCTAD, 2013b). The GVC theoretical approach originated from World system theory (see e.g. Wallerstein & Hopkins, 1994:16; see Bair, 2009 for the historic overview), but has also been influenced by more classic economic approaches as trade theory and the theory on comparative advantages (Feenstra & Hanson, 1996; Feenstra, 1998; Krugman 1995) as well as economic geography (Dicken, 2011; Storper & Walker, 1989). Altogether, GVC should be seen more as a methodological approach to international production rather than a coherent theory on this as such (Gibbon et al., 2008: 334).

One of the analytical strengths of the GVC-framework is that the production process is seen as a chain of interconnected production processes, typically controlled or at least dominated by one company.² This allows for a value-added approach, where the value added in production can be analysed in each part of the chain. Thus GVC contributes to growing mobility of goods, intermediates, capital and services (labour mobility, both globally and within Europe, on the other hand, has traditionally been limited despite many policy efforts to increase mobility (Andersen, 2003: 27).

International trade is increasingly driven by GVC (UNCTAD, 2013a), because trade in intermediates tends to be growing, both internationally and nationally (Foster et al., 2012).³ Trade in intermediates constitutes more than one half of all trade of goods, and 70 per cent of the service trade (UNCTAD, 2013a: xxi; Johnson & Noguera, 2012; Backer & Miroudot, 2013). With some

² See Refslund 2012 for a discussion of power relations in GVC.

³ Some analyses have found that the share of intermediates has been quite stable in recent years (Milberg & Winkler 2013), but this is explained by Sturgeon & Memedovic (2010) by the statistical categories measuring intermediates being too broad.

reservations,⁴ trade in intermediaries may be seen as an (narrow) indicator of international outsourcing, and accordingly as an indicator of increasingly integrated global production.

This confirms the more complex and fragmented pattern of production. The increased use of internationally produced intermediates means that the domestic value added as a share of production value has been declining in almost all OECD countries since 1990, including Denmark, Norway and Finland (OECD, 2010: 209). The changes in value added will be further addressed below.

Multinational enterprises (MNE) have always played an important role in globalisation/internationalisation, but the role is perhaps even more significant in the GVC-production, since they can easily divide their supply and production chains and outsource each part to different sites all over the world, depending on wage and qualification structure as well as other advantages of specialisation. According to the 2013 World Investment report MNE are involved in 80 per cent of the global trade. This is not (only) a matter of division of labour between high- and low-wage countries,⁵ and there is no “standard template” for offshoring. The success of the offshoring process is dependent on the organizational and management abilities of the offshoring company (Pyndt & Pedersen, 2006).

While manufacture has been most affected by international relocation service, offshoring of services is rapidly increasing (Flecker, 2014; OECD, 2010: 220; Dossani & Kenney 2007; Gereffi & Fernandez-Stark, 2010; Jensen, 2011) and the same holds for the service industry’s share of FDI (UNCTAD, 2013a: 8-9). Service FDI flows are currently reaching equal or even higher levels than manufacture.

Several authors also suggest that future offshoring will be guided less by the division between high-skilled and low-skilled workers. Rather, the criteria will include the characteristics of the tasks performed, whether they can be standardized, and whether they require face-to-face contact. According to these criteria, several tasks can be performed from a distant location (Baldwin, 2006; Blinder, 2006; Blinder & Krueger, 2013). Not least, advances in information technology pave the way for a potential explosion of jobs being performed far away. This may also include offshoring of tasks of high-skilled groups such as engineers and accountants (Blinder, 2007: 5). In short, we should be careful not to extrapolate uncritically from the past. In the first place, what used to be a problem mainly for unskilled workers increasingly tends to affect much broader categories of workers.

Needless to say, small, open economies take more active part in the international division of labour (Katzenstein, 1985; OECD, 2010: 222). This also means that international activity like offshoring, FDI, foreign ownership of enterprises and changing international production patterns tend to have

⁴ It can be difficult to say whether an intermediate is a generic or a specialised input, but the share of specialised input is increasing (Sturgeon & Memedovic, 2010:18), and finally some intermediates can be consumed directly while others can only be used in further production.

⁵ For instance, Denmark has no automobile industry, but a large number of firms are involved in sub-contracting with the German automobile industry, specializing in innumerable niches. By the same token, aquaculture is expanding much more rapidly in Norway than in Denmark, but Denmark is among the largest suppliers of aquaculture equipment.

more direct impact on small countries. But again, this experience is not novel for the small, open economies in Western Europe such as the Nordic countries.

Effects of offshoring have been loosely connected to a notion of pressures on the welfare state; there has typically been a too narrow focus on job loss; there has been a too narrow focus on manufacture; and a tendency to focus too much on job losses to emerging economies, in particular to China. In this report we seek to broaden the focus on the impacts of these more intensified and fragmented international production patterns. Moreover, scholars sometimes tend to extrapolate from a decline in manufacture employment to a decline in overall employment due to offshoring (e.g. Sinn, 2011). However, offshoring is a two-way street which may preserve jobs and even firms that would otherwise have been knocked out by international competition. Foreign trade and investments usually lead to a specialisation which also implies job growth, but typically in different sectors.

2.2 Value Added instead of Value traded

In the modern international division of labour, dominated by GVC and flows of intermediates, few goods are produced exclusively in one single country (Kenney, 2004: 1; Sturgeon, 2013). Accordingly, the value can be added in many different countries, not only where the end product is registered in trade data (Sturgeon & Gereffi, 2009: 17). The production of Apple's products like iPhones and iPads is an almost iconic (although somewhat extreme) example (Xing & Detert, 2010; Kraemer, et al., 2011; Dedrick et al., 2010; Linden et al., 2011). Apple is an American high-tech company that produces globally. Many of their final products, like the iPhone, are assembled in China. In traditional trade statistics this is recorded as Chinese export to e.g. the US. This export contributes 0.8 per cent of the total US trade deficit with China, even though only 3.6 per cent of the value of the iPhone is added in China, the majority of the value being added in Japan, Germany, US, Korea and other countries (Xing & Detert, 2010).⁶

Thus traditional trade statistics has problems capturing contemporary modes of production in global value chains. Sturgeon & Gereffi (2009: 14) argues that '*...trade statistics can only hint at the changes occurring in the global economy*' and this adds somewhat significant uncertainty to some of the key economic measures that guide policies e.g. the competitiveness of the different sectors. In a more integrated international production many services are bundled together with actual production, which is also missed by traditional trade statistics (Sturgeon, 2013: 23; Zysman et al., 2013). The greater accessibility of trade data on goods has also led to an over-emphasis on production compared to service trade, that are more difficult to capture adequately in traditional trade statistics (Sturgeon & Gereffi, 2009: 17-18). Because of this data shortage and the lack of insight on value added rather than value traded, the picture of globalization underlying much research in sociology and political science has been rather general, abstract or even stereotypical. This holds for the political discourse as well.

⁶ For a Nordic example of value chains and globalisation see Ali-Yrkkö et al. (2010) on Nokia.

International trade statistics has been seen as a “mature” field providing a sufficient overview of international trade and economic transaction. But a paradigm change seems under way (Jara & Escaith 2012; Powers, 2012). In the last few years there has been a growing awareness of the insufficiency of current trade statistics due to the interconnectedness of production. An array of different projects have tried to sort out the value added in each country, as opposed to traditional trade statistics which only measure the value of the final goods. The most prominent among these projects are the World Input/Output Database (WIOD) funded by the European Commission (Timmer, 2012); a joint project with WTO/OECD (Trade in Value-Added)⁷; the Global Trade Analysis Project database (used by Koopmann et al., 2011 to measure value added in trade); an UNCTAD project based on a Australian Research Council project (Eora)⁸; and finally an on-going Eurostat project which emphasizes the job and policy impact of GVC (Sturgeon, 2013). Basically, these new databases seek to link traditional trade statistics and national input/output data. Even though they still suffer from some weaknesses and shortcomings (especially time lag and that data are reduced from goods to industry level), these data sets provide new insights into the complex nature of the global value chains and the internationally fragmented production.⁹

According to UNCTAD (2013b: 4), 28 per cent of total world trade is estimated to be value added in a country different from the final production country of the good or service. The estimate by Koopmann et al. (2011) is 22 per cent. However, both estimates indicate that the value added approach is needed, and that traditional statistics may increasingly provide a biased picture.

2.3 Comparative advantages and trade and production in a Post-Ricardian Economy

Traditionally there has been consensus among economists that increased international trade is positive for the world as a whole, since each country will focus production where it has comparative advantages. Globalization is thus claimed to promote specialization according to comparative advantages (but as pointed out by Schumpeter, comparative advantages are only temporary until the next competitor catches up, c.f. Streeck, 2009:205). This old Ricardian trade maxim is also echoed in many current analyses and extended to offshoring and FDI (Bhagwati et al., 2004; Blinder, 2007: 1; Coe, 2007: 15; Mankiw & Swagel, 2006).

But the contemporary economic development is much more complicated than assumed in the Ricardian axiom with increasingly complex production patterns in global value chains and highly integrated trade and production as discussed above. The value added approach shows that we need to sort out the value in each production chain, and the distribution does not only reflect input but also corporate power and other production advantages in the production chain. Several other factors than just price affects the decision of where to locate production. Innovative advantages (in a Neo-

⁷ See OECD & WTO (2012) Trade in Value-added: Concepts, Methodologies and Challenges (a Joint Note). OECD/WTO, MIWI e-document available from:

http://www.wto.org/english/res_e/statis_e/miwi_e/oecd_wto_mar2012_e.doc

⁸ See <http://www.worldmrio.com/>

⁹ The OECD/WTO-data are the most coherent since they only cover countries with well-established statistics. UNCTAD seeks to include more of the developing world (UNCTAD, 2013b), but with some reliability costs.

Schumpeterian understanding) and competitiveness is e.g. often associated with economic clusters. The classic Ricardian theory of comparative advantages only deals with two goods (with one good being produced in one country, the other good in another country). This is quite far away from the picture of fragmented, internationalised production. To paraphrase Grossmann & Rossi-Hansberg (2006), “*It is not wine for cloth anymore*”¹⁰. This could implicate that we need to adjust our understanding of trade and how it impacts social models. But equally important in regard to the theme of this report, it could indicate, that we need to consider if the outcome of offshoring might have negative implications for the home economy (Gomory & Baumol, 2013; Milberg & Winkler, 2010b, 2013; Levy, 2005). If offshoring is simply understood as an extension of the Ricardian theory of comparative advantages, it would be assumed that there could be no potential negative outcome of offshoring. But this might prove a problematic assumption.

Some of the most notable critic of the Ricardian theory of comparative advantages started with the New Trade Theory paradigm by Krugman and others (see e.g. Helpman & Krugman 1989). Widespread sceptical voices have even been launched among economists who have themselves contributed to the development of the theory (Deardorff, 2005; Samuelson, 2004 – but see also Schumacher, 2013; Sinn, 2011; Gomory & Baumol, 2013; Milberg & Winkler, 2013; Thurow, 2004). The old Ricardian wisdom, it is argued, is based on theoretical assumptions that are no longer fulfilled.

Because of the complexity of global economic integration, the key Humean/Ricardian exchange rate mechanism is not fully working (if it ever was). The theory predicted that currency fluctuations would alleviate different levels of productivity, so that the currency of the countries with low productivity would automatically drop. But since a country might have varying productivity rates across industries, this has become even more unsettled. This challenges the basic assumption that the advantages will be evened out through exchange rates (Jara & Escaith, 2012:14; Schumacher, 2013; Milberg & Winkler, 2013). This assumption does not apply within the Euro area, where the exchange rate mechanism has been abandoned entirely.¹¹ The assumption of barter trade and that trade thus is globally balanced, as well as the assumption that capital is not mobile have been criticised (Schumacher, 2013). Also the assumption of full employment in the model is problematic, since it is obviously not the case in basically all European countries. Part of the mechanisms is workers moving to other sectors, securing full employment, but this mechanism is not in place (Milberg & Winkler, 2013: 59-96).

Yet another theoretical implication of sticking with the Ricardian trade axiom in a world of globalised production has been that the role of capital, investment levels and profits as well as firms strategy has been left out of the discussion to a large extent, because trade politics came to be focussed on removing barriers and safeguarding free trade (Milberg & Winkler, 2013: 315). Finally the theory is also criticized for being too static and not taking power relations between firms, countries and workers into account (Winkler & Milberg, 2013), so that the outcome might not be

¹⁰ Although Grossmann and Rossi-Hansberg still defends the basic tenets of the theory.

¹¹ This problem applies within the Euro-area, since productivity differences cannot be levelled out by currency fluctuations (as assumed in the Ricardian theory). This explains some of the Greek problems.

Pareto efficient (Samuelson, 2004; Milberg & Winkler, 2013; Gomory & Baumol, 2013; Blinder, 2007).

So overall it may have become more questionable whether the theory of comparative advantages still is sufficient to analyse the increasingly complex international trade and production system. It might apply for intermediates, but the exchange rate mechanism is not levelling out differences in wages etc. Of course this does not imply that trade is *not* a good thing, but we might need to investigate more carefully under what circumstances and for whom trade is advantageous as well as revise policies that might be based on wrong assumptions.¹²

There is broad agreement that the gains from economic liberalisation of trade is not evenly distributed within the trading societies, so some sort of redistribution is required if trade are to be Pareto-efficient. Blinder provides a negative conclusion on this issue; “*But trade liberalization is not, repeat not, a Pareto improvement unless the losers are actually, not theoretically, compensated – which they never are*” (Blinder, 2007:24 emphasis in the original).

Finally, it has been questioned whether offshoring might have negative implications for the domestic economy (Milberg & Winkler, 2010b, 2013; Levy, 2005). This might reinforce the public concern about job loss etc. In further research we need to disentangle the impacts of offshoring especially on job creation, investments and also if offshoring could lead to financialization, with the economic gains from offshoring leading to high profit rates rather than investments that would create growth and jobs as questioned by Milberg & Winkler (2010b).

2.4 Deindustrialisation, globalization and offshoring

Globalisation is linked to deindustrialisation or post-industrialisation, but the connection is complex. If a national economy manages well in global competition, it will exploit the advantages of offshoring labour intensive production and specialise in areas where it has a strong position. As a consequence employment in manufacture will most likely decline (Kollmeyer, 2009:1652), but the country would most likely maintain a surplus in current accounts. If a country does not perform well in the global competition it will lose employment within the sectors exposed to global competition, especially within manufacture.

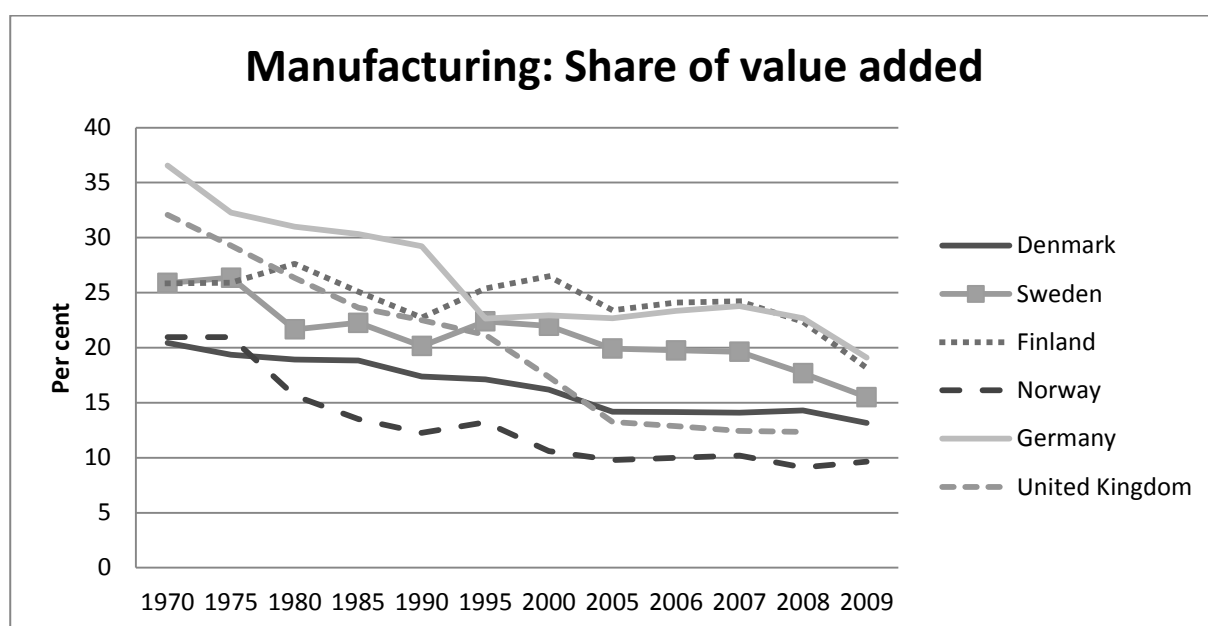
Manufacturing’s share of value added and employment has been declining in the advanced economies at least since the 1970’s (see figure 2.1), but also on a global scale, whereas the service sector’s share has been rising (Debande, 2006:68; OECD 2007a, 19; Rowthorn & Coutts, 2004). But this does not come as a surprise since this shift from manufacturing to service has been on-going for decades (Clark, 1957; Bell, 1973), but globalisation, and especially the international fragmentation of production, is often emphasized as a factor accelerating the shift.

Baumol (1967, 2012) predicted that due to different rates of productivity growth in services (or labour-intensive services) and manufacture, the overall share of manufacture in the economy would

¹² Several governments are being more prone to industrial policies and restrictions e.g. FDI-related restrictions. Regulations have increased compared to liberalisations in the last decade (UNCTAD, 2013a: xix).

decline. Services in general, including public services, would increase due to lower productivity growth, even if its share was kept constant in fixed prices. Another strand of literature (Clark, 1957) emphasised that Engel's law would be transferred to the service economy. Engel's law predicted for food and goods that once income raises people will demand relative more goods than food (also if the food share was kept constant in fixed prices). Clark then predicted the same would happen with services as compared to goods, where the demand for services would increase, even if the demand for goods were stable in absolute terms¹³ (Rowthorn & Ramaswamy, 1999). These two theoretical predictions have shown to be very accurate in foreseeing the development, leading to a growing service share of the economy (cf. Nordhaus, 2006; Flanagan, 2012).

Figure 2.1 Manufacturing Share of value added as percentage of total economy.



Source: OECD STAN database. (*Iceland 1970 is an estimate. Data for UK missing 2009)

Following the theoretical predictions, manufacture's share of employment is typically hump shaped as the country develops economically. The most developed among the newly industrialised countries in East Asia (Korea, Taiwan and Singapore) have all seen decreasing shares of employment in manufacture (Rowthorn & Coutts, 2004), and China is likely to be heading in the same direction.

The point is that deindustrialisation is driven by many other factors than globalisation (Kollmeyer, 2009). Internal factors such as productivity growth and affluence-driven changes in demand are usually found to account for most of the process of deindustrialisation (Rowthorn & Coutts, 2004). According to Rowthorn and Ramaswamy (1999), some 80 per cent is explained by internal factors. In addition to that, some of the apparent changes may be explained by changes in measurement.

¹³ Or simply just growing at a lower rate than service demand.

Surprisingly often, contemporary debates seem to assume a rather straightforward connection between de-industrialisation and offshoring of jobs (outsourcing to another country; see section 3). Needless to say, there is a connection, and even more obviously, increased global competition affects the numbers of jobs in manufacturing. But offshoring of jobs is only one among several sources of de-industrialisation, and the decline in manufacturing employment in the OECD countries has not lead to a corresponding increase in the non-OECD countries (van der Zee & Brandes, 2007: 9), nor in typical destinations within the OECD like Poland, Hungary or the Czech Republic. Some of these countries – Poland is the exception – have even faced declining shares of overall employment in manufacturing. From 2008 to 2013 manufacturing employment in EU15 declined by 11 per cent, far beyond the number of jobs that were offshored (Refslund, forthcoming).

In Denmark the crisis saw the loss of more than 80.000 manufacturing jobs. Probably most of these jobs will not be regained even if the economy recovers. One could argue that, apart from the speed of job losses, most of the lost jobs were probably among the least competitive and would have been lost in long run anyway. This is in accordance with the classical Rehn-Meidner paradigm of the Swedish trade union movement in the 1950s: A strategy of high minimum wages and compressed wage structures should be pursued as a strategy of industrial innovation and comparative advantage. The least productive firms succumb to the high minimum wages that serve as a productivity whip. And the most competitive companies and sectors are supported by relatively low wages for the most high-skilled labourers.

The question remains how far this strategy could go. What jobs will replace the lost jobs - if any? The obvious answer might be service occupations, but here some reservations are often pointed out. First and foremost, one should not underestimate the importance of manufacturing. Much service is linked with production as well as sales of goods (Cohen & Zysman, 1987). It is thus difficult to disentangle services and manufacture since they are often bundled together (Zysman et al. 2013; Eurostat, 2011: 124). Manufacturing is also a large consumer of services. Outsourcing of services that was previously conducted within the manufacturing companies (e.g. logistics, transport, cleaning, and maintenance) also tends to exaggerate the decline in manufacture employment, since this such service work was previously counted as employment in manufacture but changes to services when it is outsourced (Debande, 2006: 71; Rowthorn & Coutts, 2004: 3). This may explain some of the change.¹⁴

At any rate, manufacturing needs to be ascribed more prominence in statistical, political as well as scholarly analysis (Boulhol & Fontagné, 2006: 10; Cohen & Zysman, 1987; Rowthorn & Coutts 2004:17). Kaldor (1967) argued that the connection between economic growth and growth in manufacturing would remain strong and positively correlated, and to some extent this still needs to be proved wrong empirically.

¹⁴ Finally part of the growth in the service sector is accounted for by work that was formerly performed domestically like cleaning and nursing, but now are part of the service sector jobs.

And still, manufacture represents a substantial share of the economy. In 2007 it accounted for 29.5 per cent of the value added¹⁵ in EU-27, and 25.8 per cent of employment (Eurostat, 2011: 93). Manufacturing's share of export from the EU still significantly exceeds that of services (Eurostat, 2011: 122) as manufacture accounts for approximately 75 per cent of the total export value.¹⁶ Manufacturing also displays a higher share of import in production than service and construction and in 2011 the share of service import and export in EU actually reached the lowest level in a decade compared to goods (Eurostat, 2013: 56).

Table 2.1 Share of value added by manufacturing 2009 (Selected countries).

Switzerland	20.1*
Germany	19.1
Finland	18.2
Japan	17.6
Italy	16.1
Sweden	15.5
Iceland	15.3
Belgium	14.0
Denmark	13.2
Netherlands	12.6
United Kingdom	12.4*
United States	12.3
France	10.6
Norway	9.6

*2008 figures. Source OECD Database STAN.

The importance of the manufacturing sector differs significantly within the Nordic countries from 9.6 per cent of the total value added in Norway, which is partly explained by the large petroleum share in Norwegian GDP, up to 18.2 per cent in Finland. This means that Finland is among the EU-countries where manufacturing account for the highest share of value added. According to Eurostat data Finland is the most specialized¹⁷ country within the two categories pulp and paper products

¹⁵ In the non-financial business economy. OECD figures, which are applied below e.g. table 2.2 and figure 2.1, measures the value added compared to the total economy and thus shows lower figures.

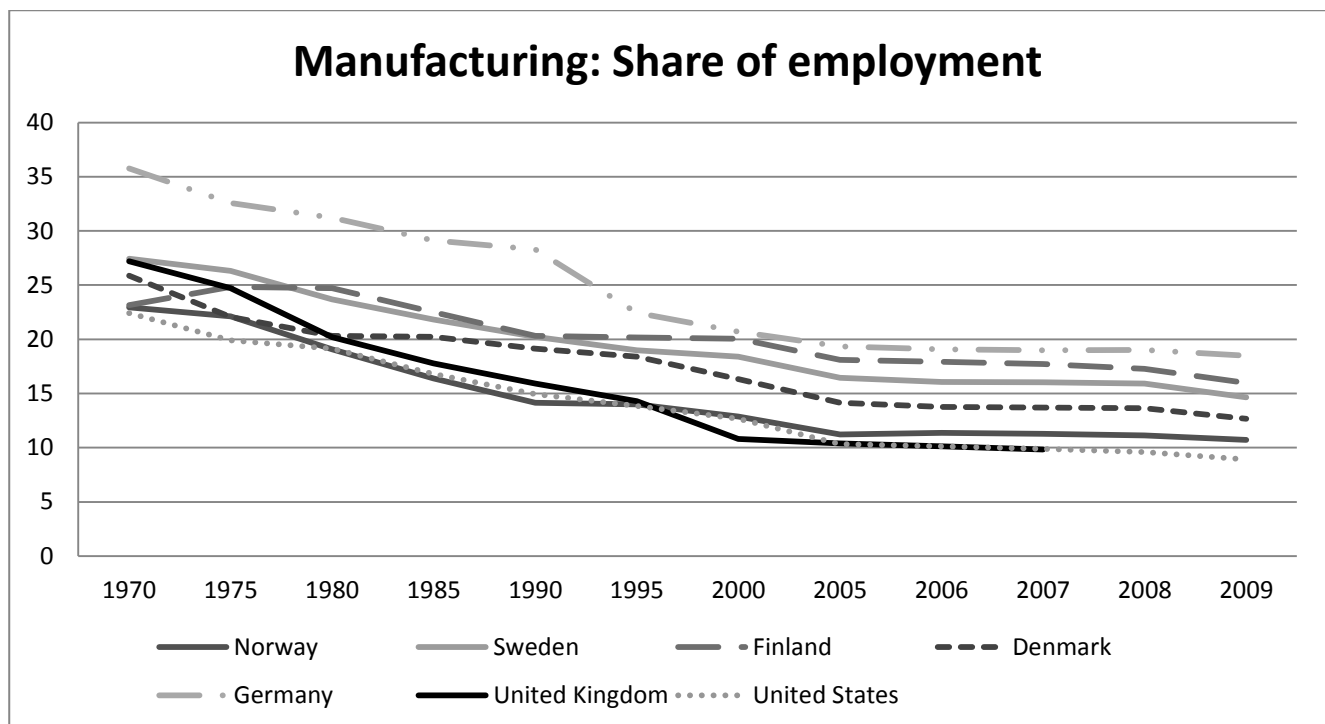
¹⁶ Source: OECD data base Balance of Payments (MEI). (Own calculations).

¹⁷ Displaying the highest share of total value added in the specified sub-sector.

(NACE DE) and electrical and optical equipment (NACE DL) where Nokia played a major role at least before the crisis (Sura, 2009: 2). Table 2.1 summarises the share of value added by the manufacturing sector in different European countries.

While manufacture is still important both as regards export and employment, the Nordic countries have experienced a decline in both employment and value added in manufacture, as shown in figure 2.1, 2.2, and table 2.3. The employment in manufacture have been declining since 1970 from around 25 per cent of total employment to around 15 per cent as shown in figure 2.2. Since 2005 the decline in employment has been highest in Denmark, Finland and Sweden, with a reduction of 20 per cent or more of the total employment in manufacturing. The decline have been especially dramatic during the global crisis where more than 70.000 manufacturing jobs have been lost in Denmark, Finland and Sweden and nothing so far points to a quick - if any- recovery of the lost jobs. So the expectations are that the manufacturing share of total employment will continue to drop. But as predicted by Baumol and shown in figure 2.2 this have been the tendency in all affluent countries, with United Kingdom and United States having the lowest manufacture share of employment (9.8 and 8.9 in 2008 and 2009 respectively). It does not come as a surprise to see Germany at the upper end of the list, but it is worth noticing that Switzerland, perhaps somewhat counter-intuitively, is topping the list. As Switzerland has the highest GDP per capita next to Norway, this warns against a too deterministic perspective on de-industrialisation.

Figure 2.2 Employment share in manufacturing



Source: OECD STAN-database

Table 2.3 Employment in manufacturing 2005-2013

	2005	2008	2009	2010	2013	Change 2000-2013	Change in per cent 2000-2013
Denmark	444 275	421 100	353 750	340 850	325.00	-119 725	-26,8 %
Finland	436 175	417 300	379 225	362 000	350 300	-85 875	-19,7 %
Iceland	20 775	18 650	18325	17700	19725	-1050	-5,5 %
Norway	264800	260 600	248 375	236 675	228775	-36 025	-13,6 %
Sweden	664 325	620 700	559 325	544 800	524 900	-139 425	-21,0 %

Source: OECD Labour force statistics (accessed 9-9-2014).

NB: Number of employees (not recalculations as full-time employees).

Deindustrialisation is claimed to raise inequality and labour market dualism since it lowers the amount of available low-skilled but often well-paid jobs in manufacturing (Martin & Swank, 2012: chp.7; Emmenegger et al., 2012) thereby generating a trade-off between low-skill job creation in the service sector and wage equality (Iversen & Wren, 1998). Martin and Swank (2012: 135-136) summarise the potential pressure on the welfare state like this: *“Expanding labor market dualism in workers’ pay and job security pressure solidaristic agreements, while service sector employment undercuts union recruitment and exacerbates divisions between white collar service sector and core manufacturing unions”*. So deindustrialisation can cause several pressures on the welfare state to adapt to the post-industrial production (Häusermann & Palier, 2008).

And the process might cause transitory economic and employment problems when labour has to be allocated from the declining manufacturing sectors to new service jobs (Debande, 2006: 66) and typically workers experience a wage decline when (if) re-employed. The question might even be if the service sector is able to obtain the labour surplus and at what cost (Iversen & Wren, 1998). Obvious there are differences between welfare regimes when it comes to adjusting to these pressures (Häusermann & Palier, 2008: 568), but so far the Nordic welfare states seems rather successful, as pointed out in the concluding section for this report. Despite manufacturing’s declining relative share of the economy in the Nordic countries it still constitutes a very central component of the economy and the role will despite a likely further reduction in employment and potential also relative value added still be important in years to come. The importance of manufacturing might be underestimated due to the high attention service production attain. Manufacturing for instance has an important role as consumer of services and many services are bundled together with goods and trade in goods e.g. transport which constitutes a high share of services.

3 A conceptual map

International outsourcing is not a new phenomenon (see e.g. Fröbel et al., 1977; Cohen & Zysman, 1987; Lauridsen, 1977). But as mentioned, the lack of adequate knowledge about the impact of globalisation may to a large extent be ascribed to conceptual confusion. Questions of definition remain unsettled even as regards the basic concepts of outsourcing and offshoring – and about competing or overlapping concepts like “delocalization or relocation”, “international fragmentation” and “vertical specialisation”. In general, however, they refer to the same social phenomena, so in this paper we stick to the meaning of the concepts of outsourcing and offshoring, on which some general consensus has emerged.

Offshoring of jobs, however, is only one mechanism that affects domestic employment. We also have to disentangle foreign direct investment (FDI) from portfolio investments. Like outsourcing and offshoring, furthermore, these are two-way streets: Jobs may be insourced as well, and Western European countries may attract foreign direct investments from abroad. Finally, we have to consider how the expansion of foreign owned enterprises (FOE's) affects employment and the measurement of it.

3.1 Outsourcing and offshoring: Definitions, measurement and impact

The definition of *outsourcing* is rather uncontroversial. Outsourcing means that a task is *contracted out of the company* – to a domestic or an international company. Outsourcing is a common phenomenon in everyday business life: Contracting out in order to specialize on the core competences is found everywhere. At the firm level, this is equivalent to the macro level notion of exploiting comparative advantages. It is also found in everyday life of the public sector: outsourcing is a standard instrument of New Public Management.

As regards *offshoring*, we follow the definition stemming at least back to Feenstra & Hanson (1996) and later applied by Blinder (2007: 1–2) and others. At least some consensus has emerged on this definition, according to which offshoring means “*moving jobs out of the country, whether or not they leave the company.*”

According to these definitions, offshoring can happen with or without outsourcing, and outsourcing of course does not always involve offshoring. There are four possible combinations, as sketched in figure 3.1. These should be seen as ideal types since they can be mixed in different ways. For instance, joint ventures and offshoring may include both internal and external partners.

Figure 3.1 Combinations of outsourcing and offshoring.

		Outsourcing: Who performs the task?	
		Internal: Within the firm	External: Outside the firm (=outsourcing)
Offshoring: Where is the task performed?	Domestic	Domestic in-house Production/service	Domestic production/service by external partners National outsourcing
	Abroad (=offshoring)	Production/service within the firm/corporation In-house offshoring	Production/service by external partners abroad Offshore outsourcing

Following the work of Feenstra & Hanson, 1996.

These definitions provide a feasible and unambiguous distinction between outsourcing and offshoring, and they capture the central issue of offshoring namely the *location* of the jobs, which has major impacts on the domestic economy and labour market.

The definitions also allow us to distinguish between two types of offshoring: in-house offshoring or offshore outsourcing. *In-house offshoring* denotes tasks being transferred within the same firm or conglomerate, e.g. to a subsidiary corporation situated in another country. The other typical situation is contracting out to some external partner in another country. This is referred to as *offshore outsourcing*.

Such external partners can be more or less independent, with some companies being completely dependent and thus indirectly controlled by large or powerful order givers (Gereffi et al., 2005). In another seminal work, Gereffi (1994) made a distinction between buyer-driven and producer-driven network. Buyer-driven networks denote large companies (like Nike, Carrefour or Wal-Mart) that typically buy their final goods from lower tier producers. In the producer-driven network the lead company is typically a large producer of a complex product like car companies that offshore minor parts of the production to smaller sub-contractors (Gereffi, 1994).

The incidence of one or another of these types differs between companies, which can be entangled in multinational operations in various ways ranging from foreign sourcing to fully integrated network multinationals (Gereffi et al., 2005; Dunning & Lundan, 2008:212–232). Offshore outsourcing is often preferred by smaller enterprises since they typically do not have the economic and organizational capacity to establish their own production units abroad. Large enterprises, in particular multinational enterprises (MNE) more often handle task of offshoring in-house, e.g. to affiliates or subsidiary corporations (Statistics Denmark, 2006).

As a point of departure, both types of offshoring have the same impact on domestic labour markets. The *job effect* of offshoring cannot be directly calculated or inferred from trade statistics, national accounts, input/output tables or from any other conventionally available data. Offshoring is often of a highly complex nature, and it basically refers to decisions made by management at the firm level (Blinder, 2007: 2; Lübker, 2006: 205). These difficulties of measurement contribute to the shortage of consistent data (Sturgeon and Gereffi 2009). It is difficult to come up with reliable quantitative estimates of job losses (and gains) due to offshoring (Blinder, 2007: 2; Kirkegaard, 2005: 5). And as argued by Davis-Blake & Broschak (2009:322) the main impact of offshoring may perhaps not be the numerical one but rather the effect “*on the nature of work and organizations*”. Within the last couple of decades, however, new measurement techniques and procedures have been developed to provide policy makers and researchers with better quantitative estimates of job effects.

Basically, there are two different approaches to measuring the impact of offshoring¹⁸: Econometric analysis based on already existing data sources (mainly trade statistics), and survey analysis based on questionnaires to enterprises¹⁹.

Traditionally, *econometric analysis* based on existing data sources like input/output tables and national accounts was the dominant approach, and there were few empirical studies in the social sciences outside economics (Refslund, forthcoming). Many economists have been working almost exclusively with trade data using e.g. import measures or the share of intermediate goods in the production to estimate the effects of offshoring (e.g. Ekholm & Hakkala, 2006; Feenstra & Hanson, 1996; Geishecker et al., 2008; Hijzen et al., 2005; Hummels et al., 2011; see Crinó, 2009 and Stehrer et al., 2012 for overviews). No matter how refined and sophisticated such econometric analyses are, however, they almost inevitably face measurement problems and difficulties in estimating the overall number of jobs affected (Refslund, forthcoming; Castellani et al., 2013). Typically, such analyses have focussed on the questions they could answer regarding the impact of particular (single) factors like wages, the composition of labour demand, etc.

Such econometric analyses have their strength in measuring international offshoring (in a narrow definition) in those situations where the commodity is produced or assembled in the domestic economy.²⁰ If a whole line of production moves abroad, the econometric models will miss the job effect as well as the true economic impact (even if the goods were sold on domestic markets afterwards) since the offshore production would simply figure as imports in the trade statistics. If the products are sold in the “offshore country”, national trade accounts would completely miss the transactions since the final products do not cross any border (Hijzen et al., 2005: 864). Finally, official data are typically aggregated on industry level or even national level, thus missing the great heterogeneity between industries as well as between companies in the same industry (cf. Melitz,

¹⁸ Other measures include data from public programs in the US and EU to support trade-displaced workers (see e.g. Margalit, 2011) and data based on news reports on offshoring and restructuring like the European Restructuring Monitoring (ERM). Data from ERM will be analysed in later in this section.

¹⁹ Some data can also be deducted from existing survey data, but there are traditionally no questions directly reflecting offshoring.

²⁰ Some econometric analysis, however, include imports that are not due to offshoring, but just reflects comparative advantages, which is more or less impossible to disentangle.

2003). The aggregated figures are therefore often highly misleading (Eriksson et al. 2006:21). Hence, the overall results from econometric analyses of offshoring have so far been ambiguous and unclear at best. The econometric analyses have even produced different results on the same data sets (Castellani et al., 2013; Refslund, forthcoming).

The survey approach, based on questionnaires to firms, attempts to overcome the shortcomings of econometric analysis (Refslund, forthcoming). Among the advantages, this approach is able to cover in-house offshoring and offshore outsourcing at the same time, *as well* as the job effect (including potential job creation) directly associated with offshoring (see e.g. Statistics Denmark, 2008; Nielsen, 2013; Sturgeon et al., 2013). Also, firms' motives of offshoring are measurable. To what extent the survey approach can establish reliable data depends on the design and methodological quality of the survey (response rate, accuracy of questions, etc.). Biases might appear if firms are reluctant to reveal their true motives, or the job losses due to offshoring. Such information may be sensitive as it may be received negatively in the general public. However, with anonymous questionnaires and data collectors with a good reputation, such problems are probably not too serious. Even in the best of circumstances, however, the survey approach will face problems regarding exact quantification. As compared to econometric analyses, validity is better, but there may be some drawbacks as regards reliability.

So far only few surveys have been conducted that have explicitly included offshoring. There is a general lack of in-depth data (Sturgeon, 2013; OECD, 2007d: 72; Statistics Denmark, 2008: 57). The potentials seem promising, however, and Eurostat cooperates with the national European statistical bureaus (and also American research milieus) to strengthen the survey approach (Sturgeon, 2013; Brown et al., 2014; Nielsen, 2013).

Two European wide company surveys on offshoring have been conducted within Eurostat (Statistics Denmark, 2008; Eurostat, 2014)²¹. So far, data are not perfect: Comparability between EU countries is somewhat restricted; there are differences in the scope of the data; and only few countries have reliable data on job losses. Moreover, some of the large countries like the U.K. and Germany did not participate.

However, the data from the Nordic countries are comparable, and the four main Nordic countries (Denmark, Sweden, Norway and Finland) were included in both surveys. Especially the Danish data are interesting: Firms were obliged to answer, and both waves contain information on job losses (Refslund, forthcoming). Unfortunately the Swedish results from the first survey most likely underestimated both the scale of offshoring and job loss from offshoring due to some methodological differences in determining the target population (Alajääskö, 2009: 2; Statistics Denmark, 2008: 73).

Overall these data provide a good point of departure for further research, and for comparing trends in the Nordic countries. We therefore mainly base the empirical analysis in section 4 on this data combined with more elaborated Danish data (to be analysed in more detail in Refslund,

²¹ Also a US survey (Brown et al., 2014) and a Canadian survey (Boileau & Sydor 2011) are available as well as a European Manufacturing survey (see Dachs et al., 2012). Since the emphasis here is on the Nordic countries, however, we will mainly focus on the Eurostat data that include the Nordic countries (Refslund, forthcoming).

forthcoming). Wherever possible, however, we combine and compare the survey data with results from the abundant econometric analyses based on trade and other register data. As a further supplement, we look at the weight of foreign direct investments (FDI) and foreign owned enterprises (FOE) in section 5.

Offshoring and FDI to low-wage countries may help firms gain access to new markets, and it may help them to remain competitive through lowering labour costs in the most labour-intensive and/or low-productive parts of the entire production process. In turn, this could contribute to safeguard some jobs in Western Europe that would otherwise be uncompetitive and likely to be lost in the long run, especially in sectors of the economy where domestic production becomes unproductive and jobs will be lost even if the firms do not engage in offshoring (Wagner, 2011b: 219).

Offshoring may also improve productivity since the tasks being offshored is normally the tasks where productivity is lowest. In other words, international competition and the option of offshoring force firms to reconsider their entire profile, to focus on core competences, and to consider different possibilities to improve productivity. For instance, automation is often mentioned by firms as an alternative means to maintain competitiveness (Luengo & Álvarez, 2009:58). Accordingly, domestic employment can focus on the areas where they are most competitive (Baldwin, 2006: 32-34). But the overall outcome of the offshoring decision depends on the dynamic interaction of several effects (See Milberg & Winkler, 2013 for a very detailed discussion). More critical voices have also been raised on offshoring (Levy 2005) and on the broader concept of “offshoring” profits, environmental problems, etc. (Urry 2014).

Offshoring does not only involve costs of transportation, but may also involve unexpected costs of communication, coordination, quality control, violation of intellectual property rights, and numerous other organisational challenges which requires a certain capacity (Baldwin, 2006: 28–31; OECD, 2007c: 38–39). In a recent study almost half of the firms that offshored had underestimated the costs (Larsen, Manning & Pedersen, 2013). This also explains why some companies have reversed offshoring due to organizational or quality problems. But the share that move previous offshore activities back is still very modest in the Danish survey (Refslund, forthcoming). UNCTAD are in their 2013 World Investment Report (2013a: 26-30) ascribing increasing importance to reinvesting and relocating previous moved production and investments back to the domestic economy, which could indicate that some mature level of offshoring have been reached. In the second Eurostat survey covering 2009 to 2011 two per cent of the 25.000 companies had moved previously relocated production back.

In public debates offshoring has been discussed in relation to decisions of big corporations to close production in one country and transfer this production to other countries. Needless to say, such decisions often have significant consequences for employment, at least in local communities. During crisis periods, offshoring has also gained attention as a source of unemployment at the national level²².

²² Danish examples include the closure of the electronic factory Flextronics and Coloplast offshoring of 400 jobs to China and Hungary. Source: European Restructuring Monitor.

More importantly, offshoring may also have very significant long-term effects. The composition of the workforce is changed, the wage structure may come under pressure, and the relative power of the social partners may change, thereby influencing the welfare state. Accordingly, offshoring is often referred to in analyses of challenges of globalization to the welfare state (e.g. Sinn, 2011), alongside discussions of constraints on taxes, equality/employment trade-offs, etc. However, whereas the challenges of globalisation to taxes has increasingly become specified with the aim of analysing exactly how and which taxes could come under pressure, discussions about offshoring as a challenge has tended to remain as under-specified as the tax/welfare discussion in the 1990s.

In the first place, we need to know more about the magnitude:

- How many jobs are lost due to offshoring?
- To which countries does offshoring take place?
- What is the motive? Clearly, production costs are one motive, but there may be several others – some of which do not point to offshoring as a problem.

These questions indicate that the challenges are of a very complex nature. Further, we turn to the long-term, cumulative implications:

- How does offshoring affect the Nordic labour markets, e.g. regarding aggregate employment, skill composition, wage structures, etc.
- Is offshoring just another aspect of the long-term development in international trade and specialisation – as claimed by Bhagwati et al. (2004)? Or do we face a new industrial revolution fundamentally changing the structures of the economy – as claimed by Blinder (2007: 3)?
- What are the consequences for the Nordic social models, in particular the Nordic welfare states? And which policy solutions do these new challenges call for?

These questions are addressed in section 4. First, we estimate the overall usage in the Nordic countries. Section 4.2 then explores the preferred destinations of offshoring from the Nordic countries before section 4.3 turns to the motives for offshoring. However, offshoring is a two-way street, and in section 4.4 we discuss the net effect of offshoring to and insourcing other countries, before we summarise the conclusions so far in 4.5. But first we turn to the conceptual discussion of foreign direct investment (FDI) and foreign owned enterprises.

3.2 Foreign Direct Investments and Foreign Owned Enterprises

Offshoring is by far the only way for enterprises to take part in the global division of labour and expand their activities abroad. For instance, they can expand existing facilities or production sites abroad, or they can expand through acquisitions of foreign enterprises. This would typically include FDI. Following OECD and IMF traditions, FDI is defined as “*international investment that indicates an intention to acquire a lasting interest in an enterprise operating in another economy*” (Eurostat, 2008:3). Operationally, FDI differs from portfolio investments by requiring that the investor gains control of at least 10 per cent of the voting power (see also figure 3.2 below). The 10

per cent is recommended by IMF and OECD in national accounting but some countries deviate from this recommendation by using e.g. 25 per cent (Dunning & Lundan, 2008:7).

Figure 3.2. Some definitions and distinctions in international production.

Definitions and Distinctions	
Multinational Enterprises (MNE)	<i>“An enterprise that engages in foreign direct investment (FDI) and owns or, in some way, controls value-added activities in more than one country”</i> (Dunning & Lundan 2008:3). Thereby separating it from the related trading company that doesn’t add any value.
Foreign Direct Investment (FDI)	International investment that indicates an intention to acquire a lasting interest in an enterprise operating in another economy. Following OECD and IMF standard this means at least 10 % of the controlling share.
Foreign owned Enterprises (FOE)	A domestic firm ultimately controlled, directly or indirectly, by a juridical unit located in a different country. Control defined by the ability to make binding decisions e.g. on the firms policy and the direction of the firm. This is typically obtained by more than half of the shareholders' voting power or more than half of the shares of the enterprise.
Portfolio Investments	Smaller investments below 10 % of the controlling asset. Typically equity investments and without any lasting impact.

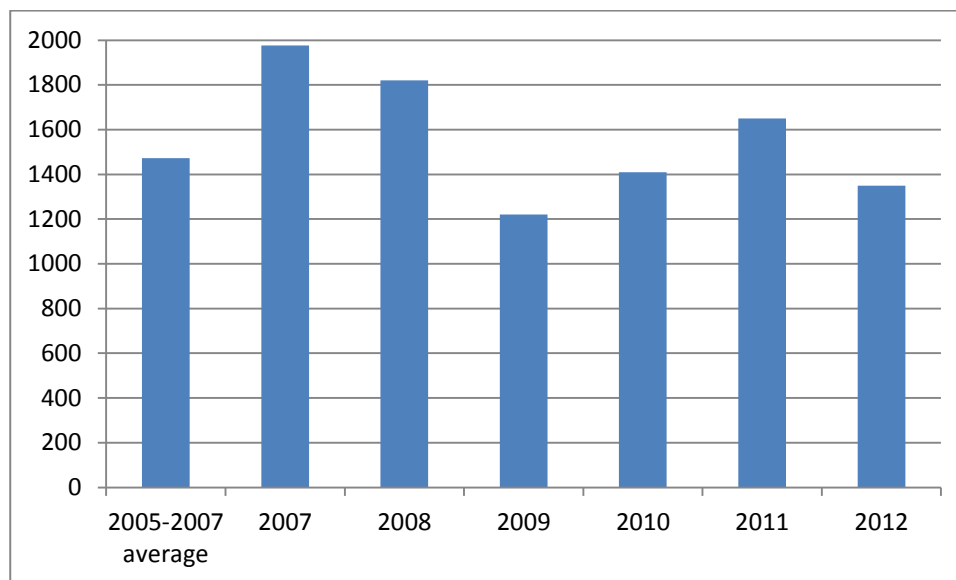
FDI is part and parcel of globalisation and creates deeper and more lasting interconnections than trade. For the receiving countries, FDI does not only contribute to employment and tax revenues (provided that taxes do not end up in tax heaven abroad), but also to increased investments and research and development as well as potential transfer of technological and managerial know-how, skills and institutions (Dunning & Lundan, 2008: 315). The outcome of FDI, especially for employment, will be discussed below.

The importance of FDI in international economy and production has been increasing rapidly since restrictions on foreign investments were reduced during the 1980’s and especially the 1990’s (Held et al., 1999: 257–58). As pointed out in section 5, the FDI stock in Denmark has shown a remarkable growth. The combined value of in- and outward world FDI stock increased from 7.8 per cent in 1967 to 46.6 per cent in 2005 (Dunning & Lundan, 2008: 35-36). FDI within the tertiary sector has become the most important, accounting for 68 per cent of world outward FDI stock in 2004, as compared to 27 and 4 per cent for secondary and primary sector, respectively (Dunning & Lundan, 2008: 36).

FDI flows are very volatile to e.g. business climate, large mergers and acquisitions, crisis etc. (Hirst, Thompson & Bromley, 2009: 72) and as revealed by figure 3.3, FDI was affected even

harder by the current economic crisis than international trade and GDP. From 2007 to 2009, global FDI flows declined by 40 per cent. 2010 and 2011 only brought moderate increases, before 2012 brought a new sharp decline of 18 per cent so that the 2012 figures remain still significantly below 2007-level (UNCTAD, 2013a).

Figure 3.3 Global inflows of FDI. Billions of dollars.



Source: *UNCTADstat data base and UNCTAD, 2013a.*

The demarcation line between FDI and offshoring is blurred, and it is difficult to isolate the labour market effects of each (Statistics Denmark, 2008: 10–12). There is some overlap between the concepts as offshoring (particularly in-house) often constitutes a part of the FDI flows, but, this is not always the case. However, FDI's like greenfield investments and cross-border acquisitions and mergers do not count as offshoring. And offshore outsourcing often happens without any FDI in the receiving country; for instance, this can happen by contracting with another company (Luengo & Álvarez, 2009, 55).

To take an example, if a Nordic company starts a new production site in China in order to produce for the Chinese market, this is recorded as FDI in China, but not as offshoring, since no domestic jobs are immediately affected. The same applies to mergers and acquisitions. It could be argued that there is an indirect employment effect since the increased production could alternatively have been placed in the Nordic country and then exported to the Chinese market, but in many, if not most, instances, transportation costs necessitate that production takes place as close to the market as possible. In some instances, on the other hand, the wage level may be the only decisive motive for investing abroad; in such cases, FDI could be seen as an alternative to domestic production, and it could be argued that FDI has a negative (indirect) effect on domestic employment. In short, the central question is whether such jobs would otherwise have been created in the home country. The answer will often be ambiguous (Blinder, 2007: 3), but it is an important issue to keep in mind. On the other hand, even in such instances the increased activity abroad may increase the company's

turnover and generate domestic employment (e.g. employment in R & D, design, management and marketing), leaving a net positive domestic employment effect of FDI.

To conclude, offshoring means immediate domestic jobs losses. The impact of FDI is indirect, and it is typically difficult to establish any straightforward connection between FDI and domestic employment.

Multinational enterprises (MNE) are more and more mobile and account for a large and increasing share of global FDI (Bonoli et al., 2000: 57; Held et al., 1999: 236; Scheve & Slaughter, 2004: 663). MNE also contribute to increasing trade and all other sorts of international transactions, as well as to diffusion of new products, technology and knowledge, thus reflecting the competitive advantages of firms and comparative advantages of nations (Dunning & Lundan, 2008:436). More specifically, intra-firm trade gain importance along with the international fragmentation of production (Lanz & Miroudot, 2011). As an illustration, intra-enterprise trade constituted 48 per cent of American exports and 30 per cent of imports in 2005 (Lanz & Miroudot, 2011:12).

MNE typically have a higher value added, have a higher productivity, and pay higher wages than purely domestic companies. This difference also holds when factors such as enterprise size are controlled for (Bernard & Jensen, 1999; Fortanier & Korvorst, 2009; Jaarsma, 2009; Görg, 2000; Caves, 1996; Grell, 2007; Wagner, 2011a: 153-54; Melitz, 2003; Slaughter, 2009). Still, there remains a question of causal order: are the MNE performing better because is it well performing firms that go abroad, or does involvement in international exchange increase performance (Bernard and Jensen 1999)? At least some evidence point to the first mentioned relation, i.e. that the most successful firms domestically also become first-movers in the international markets (Wagner, 2011b).

FDI is a too narrow measure for MNE international activities. MNE typically only finance parts of their foreign investments themselves. A large share of the investments is often raised via loans in the host countries; this latter part is not captured by statistics on FDI flows and stocks.²³ Further, MNE participate in production networks and through sub-contractors; this does not involve investments (Held et al., 1999: 237). Therefore we turn to yet another aspect of international production: Foreign owned enterprises.

To begin with conceptual clarification, foreign ownership of enterprises and FDI are related, but separate phenomena. FDI, as it is operationally defined (10 per cent ownership) does not necessarily involve controlling ownership, and as mentioned, foreign ownership is often financed by loans in the receiving country (Held et al., 1999: 237). Foreign ownership attracts particular attention, however, since the controlling company can easily move production sites and is in a good position to affect standards for industrial relations and wages (Scheve & Slaughter, 2004). They are also in a good position to influence the institutional settings in the host economy, especially in the developing economies (Collings, 2008: 174), but probably also in those Eastern and Central European countries where big manufacturing companies are most typically foreign owned. Still,

²³ There also are some measurement problems with FDI, reflected e.g. in the divergence between inward and outward figures of FDI (Hirst et al., 2009: 75).

MNE often tend to (or have to) adjust to the national settings in the countries where they operate (Dunning & Lundan, 2008: Chp.8; Kristensen & Zeitlin, 2005). Overall foreign ownership has, at least potentially, a more significant and direct impact on labour markets than FDI.

The proportion of foreign owned companies has increased over the last decades, thus reflecting the increasing internationalisation of production patterns. UNCTAD estimated in their World Investment report 2011 that foreign affiliates in 2010 accounted for more than one tenth of global GDP and for one-third of global exports (UNCTAD, 2011: 24).

But how big is the share of foreign owned enterprises in the Nordic countries, and how much of the employment do they control? This is the main empirical question in section 5.

FDI and international activity in general often gain attention from both policy makers and media. While the effects are usually regarded positive for both receiving and sending countries from an expert point of view, media often choose a critical angle. For instance, high levels of inward investments can be framed as “foreigners taken over our companies”, and outward investment can be framed as “investments and jobs flowing out of the country”. But what is the real impact of FDI? This is the question in the remaining part of this section.

John Dunning among others have suggested that investment flows are strongly linked to the developmental level. “Mature industrial countries” are typically net exporters of investment, whereas developing countries are net importers; their industries are not yet mature, and they don’t have sufficient capital to invest. This picture is reflected in the statistics (see section 5). The EU-27 countries have a higher outward stock than inward stock, and the rate of return on the outward investments is also higher than the return on the inward FDI. It is estimated that the 27 (at the time of writing) EU countries, taken together, gain an income of approximately 0.9 per cent of GDP from foreign direct investments (Eurostat, 2013: 60, 71). In 2012 for the first time ever inward FDI flows were higher in the developing than in the developed countries, but the affluent countries are still the main investors with the US being the by far largest followed by Japan and China (UNCTAD, 2013a).

The long-term consequences of running a larger outward than inward level of FDI are ambiguous, but not necessarily negative. It can indicate that national champions are expanding abroad and thus creating surplus in other markets. This does not necessarily imply that any domestic production or activity is crowded out (Kenney, 2004). For receiving countries foreign owned production may mean that some of the profit will end up outside the country. From a Nordic perspective, however, this is advantageous since all the Nordic countries have a higher stock of outward FDI than inward FDI²⁴ as shown in section 5. Other things being equal, outward FDI contributes positively to current accounts, and to a higher Gross National Income. Metaphorically, the FDI sending country might end up “buying the whole world”. The higher level of outward FDI in the Nordic countries also indicates, like in other high-wage countries, that the domestic industries has reached a mature level and there are no “easy gains” from investment, wherefore capital seeks elsewhere.

²⁴ Except Iceland in 2009 (Source OECD statistics).

Overall, international production and investment flows are usually assessed positively. It is associated with transfusion and spill-over of production technology, increased productivity, cost awareness and competitiveness, increased and renewed investment in production facilities, job creation and skill upgrading. MNE typically have a higher return rate and tend to enhance competitiveness of the companies being bought. This is the reasons why most governments around the globe try hard to attract FDI.

Even though inward investments are typically seen as positive, there may also be negative effects of foreign acquisitions. In the first place, the surplus may leave the country without being invested. Next, knowledge bases and production systems may be moved abroad and administrative jobs may be moved to the merged headquarter in the MNE home country. In the worst of cases, the foreign company may be creaming the knowledge and the well-functioning parts of the company and close the rest. Sometimes FDI is focussed on opportunistic and short-term gains (Whitley, 2012: 216). Not less importantly, foreign take-over can reduce domestic control over the strategic managers within the country (Whitley, 2012: 211) who could otherwise be influenced or constrained by government, interest groups, or domestic owners (pension funds, nationally rooted foundations, perhaps even ordinary private owners). Finally, Damgaard (2011) has even found, based on company data, that in the short run productivity of domestic firms is negatively affected by inward FDI, but most likely, this might typically be short-term consequences of mergers.

Downsides for sending countries may include crowding out of domestic investment, offshoring of activities that would otherwise have been undertaken, perhaps even reduced productivity growth if companies fail to invest in capital stock in the home country (Thompson & Kaspersen, 2008: 15-16; Jensen et al., 2009: 126).

As mentioned, low levels of inward FDI is not necessarily a problem. However, if it reflects too low returns on investments, as compared to other countries, this may constitute a serious constraint to wage equality and high minimum wages.

To sum up, FDI may have both negative and positive side effects, but these can be very difficult to trace in macro-data analysis since the level of aggregation is too high. In section 5 we will address the composition of FDI in Denmark and the Nordic countries empirically. As stated earlier the Nordic countries in general have higher levels of outward FDI than inward FDI. This is sometimes interpreted as an indicator of too low profitability, but high levels of outward SDI is not a negative situation unless domestic investments are crowding out. Instead, ownership abroad may lead to higher wealth.

3.3 Regionalisation: an important aspect of globalization

When we look at trade, the regional relations are by far the most important, and the same picture emerges when we look at FDI, foreign ownership and to some extent offshoring (see the next section). In 2007, more than two-thirds of all non-service trade in the EU was intra-EU trade (Sura, 2009: 6), and the same picture is confirmed within the OECD-countries. This is also the case for the

Nordic countries, with e.g. Sweden, Great Britain and Germany accounting for more than 40 per cent of the Danish foreign trade (Statistics Denmark, 2011: 6); overall three quarters of Danish import and export is intra-European²⁵ (Thompson & Kaspersen, 2012: 10).

Table 3.1 shows the share of export goods to EU-15 ranging from 78 per cent in Norway to 49 per cent in Finland. EU-15 is the most important market for all the Nordic countries especially Denmark and Norway. Sweden's export is more globally oriented as are Finland's with Russia accounting for almost 9 per cent of Finnish export in 2010 (Nordic Council of Ministers, 2011: 25).

Table 3.1 Exports of goods broken down by destination 2007

Share of total export of goods (Percentages)	Denmark	Finland	Norway	Sweden
Old EU member states	63	49	78	55
New EU member states	5	8	3	6
Asia	7	9	6	10
Other destinations	25	34	14	29

Source: Statistics Denmark (2008: 65).

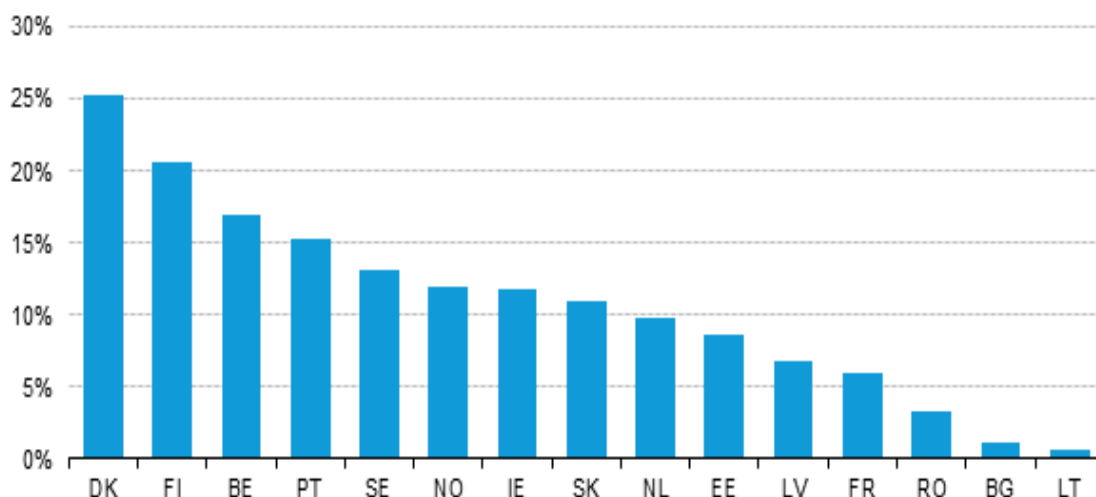
²⁵ Norway is included in other destinations in table 4.2, so the intra-European share is higher than just the EU-countries.

4 Offshoring in the Nordic countries

4.1 The extent of offshoring

Regardless of data sources and methods, Denmark is found to have the highest level of offshoring among the Nordic countries²⁶, but also among the highest ranks in Europe. In both Eurostat surveys Denmark exhibit the highest level of offshoring among the countries studied (Dachs et al., 2012; Statistics Denmark, 2008; Stehrer et al., 2012; Eurostat, 2014; Eurofond, 2014; OECD, 2010: 219). Figure 4.1 shows the results from the most recent European survey, according to which 25 per cent of all Danish companies had offshored production within a three-year period. Finland follows next to Denmark whereas offshoring in Norway and Sweden was only around half the Danish level. Still, in line with other small countries like Belgium, all the Nordic countries report higher levels of offshoring than the large economies in Europe (Dachs et al., 2012; Stehrer et al., 2012; Eurostat, 2014). Also the Eastern European economies show a different pattern which reflects their status as low-cost countries; they are more frequently destinations of offshoring. Figure 4.1 only contain information on companies with more than 100 employees (this was the threshold in the Eurostat survey). When the Danish data for companies with 20-99 employees is included, the proportion of firms with offshoring drops from 25 per cent to 17 per cent (Refslund, forthcoming). Inclusion of small and medium sized companies is becoming increasingly important since there are ever more opportunities for offshoring minor parts of production, or specific service functions like IT or accounting (Refslund, forthcoming).

Figure 4.1 Share of enterprises having offshored 2009-11



Source: Eurostat survey data. Only enterprises with more than 100 employees.

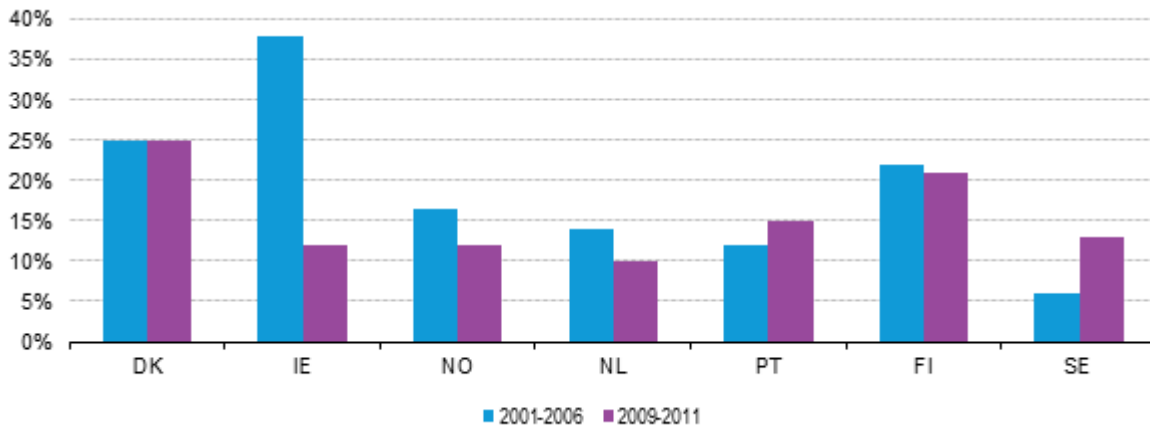
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/File:Enterprises_sourcing_internationally_2009-2011.png

When comparing the level of offshoring in the two surveys (see figure 4.2), it turns out that the level in Denmark and Finland has remained stable. However, as the first survey covered a much

²⁶ The Nordic countries analysed are Denmark, Sweden, Norway and Finland. Iceland is not included because of lack of data.

longer period (2001-2006), the data actually indicates that offshoring has increased. The Swedish data shows a large increase, but as mentioned previously, this is mainly explained by measurement problems in the first Swedish survey.

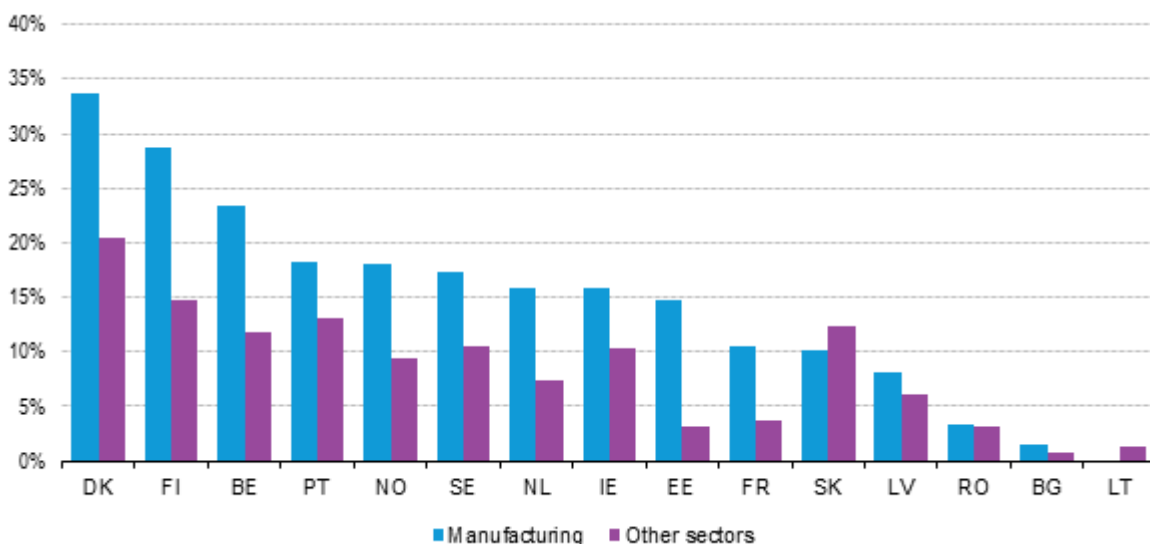
Figure 4.2 Offshoring 2001-2006 compared with 2009-2011



Source: Eurostat, 2014.

The data set allows us to test whether offshoring is mainly a phenomenon attached to manufacture. This is certainly not the case as service offshoring is strongly increasing. As shown in figure 4.3 it remains, though, that manufacturing companies display significantly higher proportions of offshoring than enterprises in other sectors (Alajääskö, 2009; Eurostat, 2014).

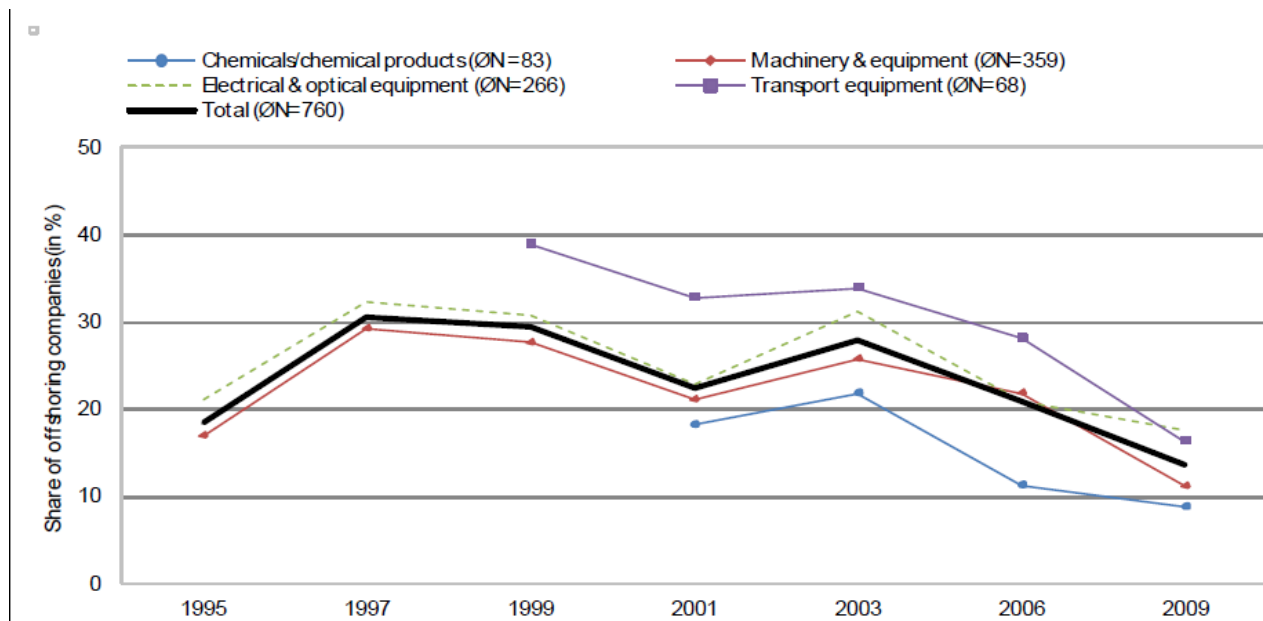
Figure 4.3 Offshoring manufacture and other sectors



Source: Eurostat, 2014.

Turning to another relevant data set, the European Manufacturing Survey (EMS) has interesting data on offshoring in the 2006 and 2009 surveys, although only for selected manufacturing industries; chemicals, machinery, electrical and optical equipment and transport equipment (see Dachs et al., 2012). The EMS-data set contains no information on job losses, but it has two advantages: First, the largest European economy Germany is included, and secondly it provides longitudinal data on German offshoring back to 1995, although only for the sectors mentioned. These German data shows an increase in the late 90's and again in the early 00's, but a declining tendency since 2003. In the German case offshoring tends to follow the contours of the German economy, but with offshoring accelerating during periods of sluggish growth and falling back when growth was stronger. Still offshoring also declined from 2008 to 2009 during the first years of the crisis (Dachs et al., 2012: 8-9).

Figure 4.4 German offshoring 1995-2009 selected industries



Source: Dachs et al., 2012: 8

Overall, offshoring has declined since the outbreak of the great recession, according to the EMS-data (Dachs et al., 2012; Stehrer et al., 2012:91). This is also confirmed by media data in the European Restructuring Monitor (ERM) which will be introduced in more details below. While 7 per cent of the job losses in 2003-2008 were explained by offshoring the figure was only 3 per cent 2008-13, according to the ERM-data (Eurofond, 2013:43).

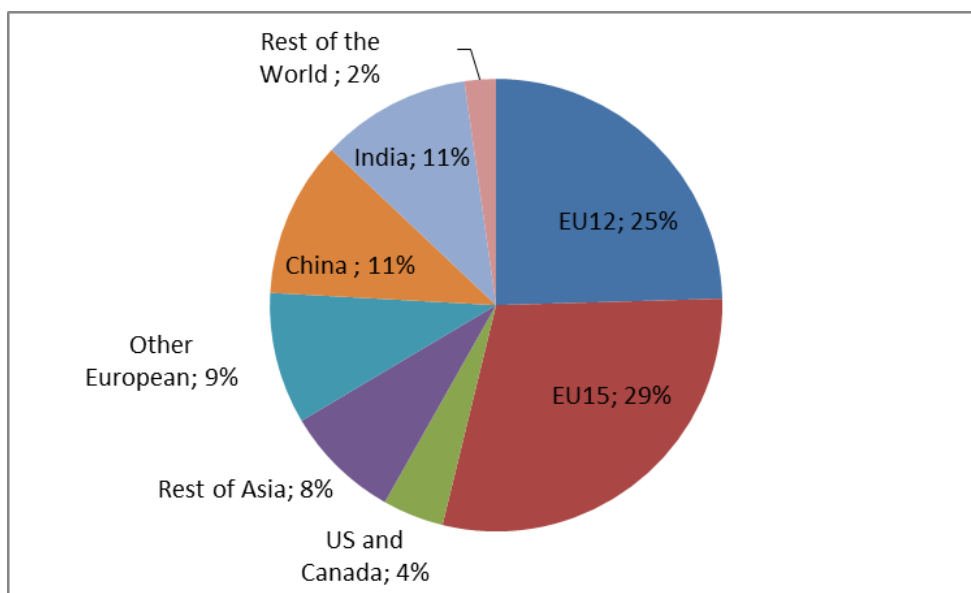
Somewhat surprisingly, the survey data indicates that the business functions most often moved abroad are the core functions of the enterprises, especially in manufacturing where the core function is the production itself. This trend is confirmed in the recent data from Statistics Denmark (2012), where there even has been a slight increase in the offshoring of core functions.

4.2 Destinations for offshoring

As mentioned, it is often implicitly assumed that offshoring takes place mainly between the affluent countries of the West and low-wage economies in East Asia or South Asia. Also a substantial part of the literature emphasises offshoring to e.g. India and China (see e.g. Coe, 2007). However, even though China and India are important destinations, empirical data tell a somewhat different story: Inter-regional offshoring still accounts for the majority, and EU15 remains the most sought destination for European firms (Eurostat, 2014).

Figure 4.5 shows the destinations for Danish offshoring 2009-2011. The EU-countries are target for more than one half of all offshoring, and the EU15 is the most important destination. China and India each account for 11 per cent. The same overall picture with the EU as the most important destinations was also found for the other Nordic countries in the 2001-2006 survey: More than one half of all offshoring from the Nordic countries had another EU country as destination (Statistics Denmark, 2008: 25).²⁷ It should be recalled, though, that these figures refer to *proportion of firms*. The picture might change a little if we could measure the proportion of *jobs* moved to different destinations.

Figure 4.5 Destinations for Danish offshoring 2009-2011



Source: Refslund, forthcoming. Based on offshored tasks as opposed to destinations/ firms can have multiple destinations.

When manufacturing enterprises in the participating countries moved core functions abroad the most frequent destinations were the new EU Member States and Asia, according to the 2006 Eurostat survey. Support functions were more often moved to neighbouring countries. Hence, EU-

²⁷ We don't have the new figures from the other Nordic countries.

15 was the preferred destination for support functions (Statistics Denmark, 2008: 8). Offshoring of core functions from manufacturing enterprises to low-wage countries is still significant (Stehrer et al., 2012:95–97). As most offshoring from the Nordic countries is aimed at reducing costs, especially labour costs (see below), South-East Asia and especially China have been attractive, but as Chinese wages increase offshoring may move towards new low-wage destinations like Vietnam and Bangladesh. However, according to figure 4.5, Eastern and Central Europe constituted a more important destination for low-wage offshoring, and even Germany has become more interesting because of reduction of real earnings by 4.5 per cent in the recent decade and very low wages in certain sectors, e.g. meat processing industry (Rattner, 2011: 8; Refslund, 2012; 2013). Enterprises moving tasks to Asia rate cost reductions highly as a motive (Statistics Denmark, 2008: 68; see also below). This is also confirmed by figures from the Confederation of Danish Industry's (DI) "*Corporate Survey*" (Virksomhedsundersøgelsen).

When it comes to offshoring of management or sales, on the other hand, locations closer to Nordic countries are preferred (Statistics Denmark, 2008: 26–27). This confirms that companies cannot fully escape the 'pull of geography', since knowledge and capacities often are embedded in certain regions or countries (Kogut, 2004).

4.3 Motives for offshoring

The standard list of factors that determine a relocation of production or other value-added activities to particular regions is long, and the motives can be very complex (Dunning & Lundan, 2008: 78; Feenstra, 2010; Jensen & Pedersen, 2011). But lower production costs, especially wages, are consistently found across all studies to be the predominant motive (Brown et al., 2014; Dachs et al., 2012; Statistics Denmark, 2008; Stehrer et al., 2012; Eurostat, 2014; Jensen et al., 2009: 132). Among other aspects affecting offshoring, one finds accesses to markets, but also transportation costs, availability of qualifications, administrative burdens, transparency in public administration, tax incentives, etc. Several of these factors may speak against offshoring even when labour costs provide an incentive.

Table 4.1 below shows the ranking of motives among Danish firms. The figures confirm that cost reductions – labour costs as well as other costs – are by far the most prominent motive. The third motive of "a strategic decision taken by the group head" is rather ambiguous, but could also very well include the motive of cost reduction. Nearly 4 out of 5 Danish firms engaged in offshoring stated that cost reductions were either important or very important. Focussing on core business is indicated by 42 per cent of the firms, followed by access to markets and reduced delivery time (each indicated by nearly on fourth). The two last mentioned categories indicate that location is still a constraint; being able to export often requires that the site of production is moved close to the markets. Perhaps this is really more about expansion than about job loss.

Table 4.1 Danish companies' motives for offshoring 2009-2011. Per cent.

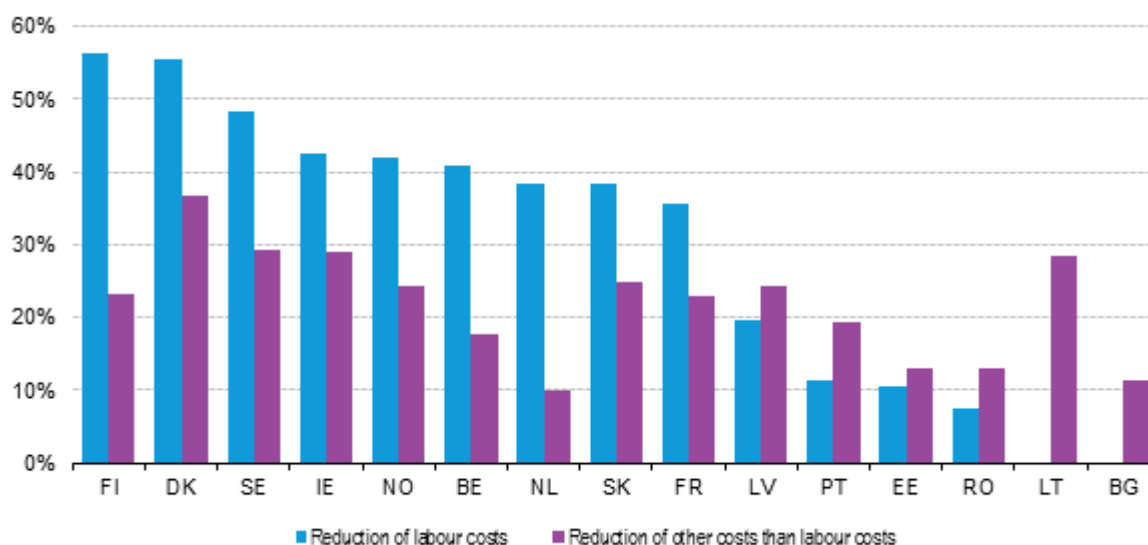
	Per cent
Reduction of labour cost	78,5
Motivation, Reduction of costs other than labour costs	71,1
Strategic decision take by group head	53,4
Focus on core business	42,0
Reduced delivery time	24,8
Access to new markets	23,0
Access to specialized knowledge/technologies	22,4
Lack of qualified labour	16,6
Improved quality or introduction of new products	15,6
Less regulation affecting the enterprise	6,6

Source: Own data based on the Eurostat survey. N=744 companies

Share of companies indicating the motive as important or very important. Multiple answers were possible.

As revealed in figure 4.6, lower costs is also the main motive among firms in the other Nordic countries, and it is more important in the Nordic region than in most other European countries. Most likely this reflects the relatively high labour costs in the Nordic countries. In Sweden and Norway labour cost reduction are second after “*Strategic decisions taken by the group head*” (Eurostat, 2014), but as mentioned, this category is rather vague, and cost reduction may be one of the motives underlying “*strategic decisions*” of management. In short, it seems safe to conclude that cost reduction is the most important motive in the Nordic countries. German studies show that this is also the case in Germany when it comes to *national* outsourcing (Doellgast & Greer, 2007:60; Flecker, 2009).

Figure 4.6 The most important motives for offshoring.



Source: Eurostat 2014.

One could expect that motives were different, depending on the choice of destination (Dunning & Lundan, 2008; Jensen & Pedersen, 2011). This is also confirmed in the survey data. If Eastern European or Asian countries were the destination, the main motive was cost reduction (Statistics Denmark, 2008: 66–68). But when firms are offshoring to other European (EU15) countries the cost motive are less important. The main motive then is “strategic decision by group head” which is somewhat ambiguous as discussed, although cost reductions still are important. In the Danish 2009–2011 survey, cost reductions was stated as very important by 38 per cent and 31 per cent of the firms that offshored to EU15 or USA, respectively. For firms offshoring to China and EU12, the equivalent figures were 76 and 72 per cent, respectively.

Another remarkable finding is that “*Tax or other financial incentives*” was hardly mentioned by the Nordic enterprises in the 2001–2006 survey (this question was not included in the new survey). This motive (tax or other financial incentives) appears unimportant for all the EU-countries included (average below 10 per cent), but Nordic figures were as low as 2–4 per cent (see also Statistics Denmark, 2008: 44). The finding that taxes do not have any significant impact on the international relocation of firms has also been confirmed in later studies (Stehrer et al., 2012:101). This is rather surprising in view of the political debates about the impact of corporate taxes (or taxes in general) on relocation of production.

The same argument has often appeared in the political economic literature where taxation allegedly is under pressure from globalisation.

Despite that the answer category included both tax motives and “*other financial incentives*” (which, on face value, would seem to cover access to investment capital and loans) these taken together only play a negligible role in the answers given by European and Nordic enterprises. This finding from survey data should not be generalized too far – after all, statement of motives is only one indicator. Still, it is the only direct micro-level indicator we have.

What companies obtain from offshoring is not always equivalent to their motives. For instance, as much as one half of the offshoring firms are reported to underestimate the costs associated with offshoring (Larsen et al., 2013).²⁸ On the other hand, we find no significant discrepancy as far as Nordic companies are concerned. The general experience of the majority of Nordic enterprises involved in offshoring really was that the overall competitiveness of the firm had improved (Statistics Denmark, 2008: 60). Especially Danish and Swedish firms report lower wage costs due to offshoring, but the share is high in all the Nordic countries, ranging from 73 per cent among Danish firms, to 52 per cent in Norway (Statistics Denmark, 2008: 64).

4.4 How many jobs are lost (and created)?

The production structures and the international division of labour in contemporary capitalism are highly complex, and offshoring is a two-way street. Jobs may also be in-sourced or “in-shored”; some previously offshored jobs are moved back; and some new firms are “born globals” with no domestic production. It is not unthinkable that long-term impact on employment is positive; this may depend on institutional factors like labour market or education policies (Milberg & Winkler, 2010a), and on the capacity to create new jobs to replacing the jobs that are lost.

Our data does not help us assess the long-term effects, however. But the Eurostat surveys show that short-term job effects are mostly negative and one should not ignore short term adjustment and transition costs (Blinder, 2007: 7–9). The majority of offshoring companies reported more job losses than job creation. For Danish companies this was particularly outspoken in the second survey 2009–2011 (Refslund, forthcoming). Since “in-shored” jobs or new service jobs created by offshoring will typically be rather high-skilled jobs, it is obviously a key challenge that skills of the work force are constantly upgraded, and that the educational level is steadily increasing (Jensen et al., 2009: 140).

Some of the jobs created in the receiving low-wage countries should be considered new jobs since labour costs would exceed the value added in the high-wage offshoring country (Bhagwati et al., 2004: 99). In other words, offshoring is not a zero-sum game, and jobs created in offshoring destinations does not equal jobs lost in the offshoring economy. While short term effects of offshoring are mostly negative, offshoring may in the longer run present an opportunity for European economies to enhance productivity growth (Kirkegaard, 2005: 2) in a Schumpeterian economic adjustment.

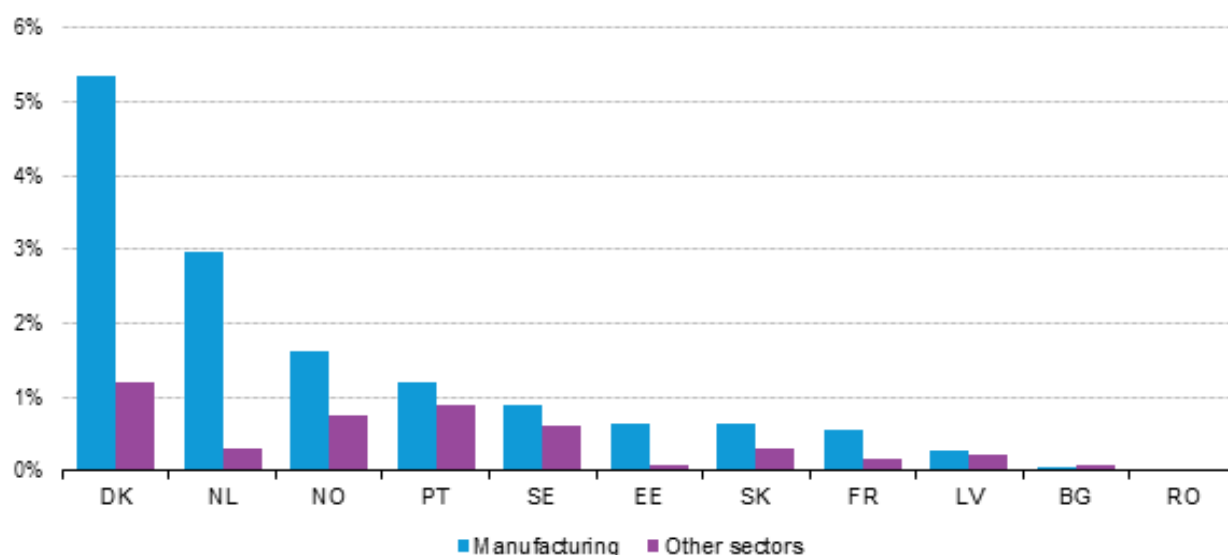
One issue is the question of job loss or job gain. Another is the question of size: How *large* is the impact of offshoring on employment? At this point, the general finding in the international literature is that the employment impacts have so far been quite modest (Crino, 2009; Molnar et al., 2008; Heyma & Theeuwes, 2008; Galgóczi et al., 2008; Eurofond, 2014; Schmidt, 2006; Eurostat, 2014; Brown et al., 2014; Stehrer et al., 2012). This is supported by several empirical investigations of which the most important will be discussed below. Earlier European estimates suggested that less

²⁸ Although with data from another survey.

than 1 per cent of the total workforce was affected by offshoring (Baldwin, 2006: 38–39). Other estimates show that offshoring by European enterprises account for less than 5 per cent of the jobs losses in Europe. Needless to say, this is much less than the impact of restructuring and shut-downs of businesses (OECD, 2007d: 117). The US survey estimated the share of the firms’ overall activity (measured by value) that was actually offshored (as a proxy for employment effects); these data also indicated only a minor effect (3-5 %) (Brown et al., 2014: 3).

The 2009-2011 Eurostat survey contains information on numbers of jobs lost for some of the participating countries. This provides us with the best estimate at hand. As seen in figure 4.7 Denmark is the only country in the survey where more than 5 per cent of manufacturing employment is affected by offshoring. As this figure only includes firms with more than 100 employees, it can be considered an upper ceiling; including smaller firms would lower the share significantly. Not surprisingly, figure 4.7 also confirms that manufacturing is more affected than other industries.

Figure 4.7 Share of employment offshored 2009-2011 Manufacturing and other sectors



Source: Eurostat, 2014.

The final report of the 2001-2006 survey only included Danish figures on job losses (Statistics Denmark, 2008). Recalling that job effects were higher in Denmark than in other countries, and that firms were obliged to answer, the Danish figures can be considered quite reliable upper ceilings for the impact on jobs in the Nordic region. Between 2001 and 2006 somewhere between 25.000 and 35.000 Danish jobs were lost due to offshoring (Statistics Denmark, 2008: 56), while 19.000 jobs were offshored in the later period (2009-2011) (Refslund, forthcoming). This means that there has been a job loss of around 5-6000 jobs annually due to offshoring during the last decade. More than half of the jobs lost were in manufacturing and almost two-thirds were low-skilled jobs (Statistics

Denmark, 2008: 58; Statistic Denmark, 2012; Refslund, forthcoming). These figures do not take job creation into account.

The number of jobs lost due to offshoring has to be compared with the total amount of job destruction. In 2004 this was calculated as more than 250.000 jobs (Det Økonomiske Råd, 2004: 161). For the period 2009-2011 the survey indicated a job loss of 10.300 in manufacturing. In the same period the total *net* job loss in manufacturing was more than 70.000.²⁹ In other words, the *gross* effect of offshoring was only some 17 per cent of the *net* job loss in manufacturing 2009-2011 (Refslund, forthcoming). This echoes the argument in section 2 that deindustrialization is mainly explained by other factors than offshoring. Offshoring does contribute, but not very much.

The Danish surveys also contained information on (short-term) job creation related to offshoring. In the first survey Danish enterprises reported offshoring-related job creation of some 7-10.000 jobs (Statistics Denmark, 2008: 58). In the second survey, this figure had declined significantly to only 1459 jobs over the three-year period (Refslund, forthcoming). But it remains that overall net job losses, even within manufacturing, is very modest.

According to a regional Danish study job loss due to offshoring amounted to 0.7 per cent of the regional employment in 2002-2005. 57 per cent of these jobs were in manufacturing, and the majority was low-skilled jobs (Jensen et al., 2009: 134). In this study it was actually calculated that “insourcing” created more jobs than was lost by offshoring (this seemingly atypical observation may depend on the delineation of the region, however)³⁰. None of the insourced jobs were low-skilled jobs and the majority was high-skilled (Jensen et al., 2009: 135). However, the most recent Statistics Denmark/Eurostat survey showed a substantial decline in the number of jobs created from in-sourcing³¹. Based on the Eurostat/Statistics Denmark survey Timmermans and Østergaard (2011:18) also showed that firms having offshored during the 2001-2006 period had less domestic employment growth than those firms that refrained from offshoring.

Yet another methodological approach to measuring jobs lost due to offshoring is analyzing public schemes for “trade displaced workers”. American figures based on workers participating in the public support scheme for “Trade displaced workers” showed that less than half a million workers were involved in the program due to offshoring over a four-year period. This should be compared to an annual job destruction of almost 25 million jobs in the same period (Margalit, 2011). Offshoring thus accounts for less than 2 % per cent of annual job destruction. Even though there may be workers who lost their job without being involved in the program, these data also confirm the relatively minor job impact of offshoring.

²⁹ Statistics Denmark data base RASA11.

³⁰ The results might be somewhat biased by the inclusion of the Greater Copenhagen area in the region studied. The ability to attract “in-shoring” is closely connected with metropolitan growth areas, so the net effect might be negative on rural areas and non-metropolitan areas (Jensen et al., 2009: 140).

³¹ These results are on the other hand contradicted by “*The Enterprise survey*” by DI (The Confederation of Danish Industry). The survey indicates that the creation of new jobs due to offshoring exceeded job losses even from 2009 to 2011. But these findings might be somewhat biased, however, because the Confederation of Danish Industry might be seeking as positive as possible public discourse on offshoring.

In Europe another methodology is provided by the European Restructuring Monitor (ERM), which covers firms restructuring in all EU countries and Norway, based on news reports on announcement of restructuring.³² These data also confirm that the impact of offshoring is modest. Of the reported 5.322.000 planned jobs reductions between 2002 and 2014 only 4.05 per cent could be ascribed to offshoring (Eurofond, 2014). Some of the lost jobs were within public employment where the overwhelming majority of jobs are not offshorable. But even when jobs lost in the public sector were removed, offshoring accounted for less than five per cent of all planned job reduction in the private sector.

Table 4.2 shows the reported job loss due to offshoring and delocalisation in ERM broken down on nations. The impact is modest ranging from below 5 per cent in Norway to 15 per cent, again with Denmark as the most affected country. It should be emphasised, though, that ERM is based on a somewhat inferior methodology (reports on restructuring). For instance the Danish ERM figures are significantly lower than in the Eurostat-survey, probably because of the less fine-grained measurement of ERM. Still, it serves as a reasonably good supplementary indicator of the impact of offshoring on overall job destruction. And again, our findings are in accordance with the main conclusion in the literature that the overall job impact of offshoring is modest at best.

Table 4.2 Reported job loss from offshoring and relocation from European Restructuring Monitor 2002-2014 (ERM)

	Overall	Denmark	Sweden	Norway	Finland
Job loss reported (offshoring and delocalisation)	215,592	10,132	10,406	1104	6,723
Per cent of all reported jobs lost due to restructuring	4,1	14,6	6,1	4,9	6,9

Source: Eurofond (2014). European Restructuring Monitor. Excl. jobs lost in public administration.

4.5 Firm characteristics and offshoring

One key issue in the offshoring literature is what types of firms choose to offshore. This debate also reflects the broader debate on the internationalisation of firms (Bernard and Jensen 1999; Wagner 2011b), where the key issue is whether internationalisation is a dependent or independent variable in relation to performance (cf. Wagner 2011b). Here we assume that the characteristics of the firm

³²Whether the media announced job losses are actually effectuated is rarely controlled afterwards. Furthermore ERM-data only covers losses over 100 jobs or 10 percent reduction in plants with more than 250 employees. So the ERM-data faces strong numerical limitations especially due to the omission of small firms and small-scale redundancies. For more information see: <http://www.eurofound.europa.eu/emcc/erm/index.htm>

(including previous experience with offshoring) influence decisions about internationalisation. In order to analyse which firm characteristics impacts the actual decision to offshore, we conducted a logistic regression analysis with decision to offshore as the (binary) dependent variable.³³

The offshoring data is from the Danish (Eurostat) survey on firms' offshoring, but these survey data are combined with register based data on firms and their employees. This provides us with a unique data set consisting of all Danish private companies with more than 50 employees as well as all companies with 20-49 employees in manufacturing and business services (see Refslund, forthcoming for further details). The large number of companies, and the fact that the entire population is included in the data set, makes the results very robust. In figure 4.8 we have modelled a logistic regression with a maximum likelihood estimation method. In the search for the final model we included a variety of variables that we from theoretical predictions or based on the findings in the literature would expect to have impact on the firms' likelihood for offshoring. The variables that turned out insignificant were exports, turn over and value added (all measured as the logarithm) as well as unionisation rate. Especially that unionisation rate turns out insignificant is a very interesting finding suggesting that offshoring as such is not triggered by the presence of unions and offshoring is not an exit strategy for firms that are opposed by unions in the Danish context.

Previous offshoring is expected to impact the likelihood for offshoring (Stehrer et al., 2012: 110), but the direction could be both positive and negative. The main reason for expecting a positive effect is that previous experience with offshoring would make further offshoring easier accessible. However, one could also expect a negative (or zero) effect since previous offshoring means that there are fewer relevant processes or tasks left that could potentially be offshored. Since our survey data did not contain information about previous offshoring, we included two variables as proxies for previous offshoring, which seems to capture previous offshoring rather good, but it can be discussed how well they capture previous offshoring: The first one is subsidiaries abroad (in-house offshoring) the other is international suppliers (offshore outsourcing). Since we expect these variables to be strongly influential, we included them only in the second model in figure 4.8 to see how it affected the significance of the other variables in the model.

In model 1 we present the findings, without the proxies for offshoring here size, outsourcing and being a manufacturing company all affects the odds ratio for offshoring as did being an enterprise group head. The most important variable was belonging to an enterprise group, which was also important in model 2. This again confirms many of the standard findings in the literature, especially that size and being a manufacturing company has significant impact on the likelihood for offshoring. When we included the offshoring proxies in model 2, some of the findings changed somewhat. The significance of belonging to an enterprise group dropped rather markedly.

Model 2 presents the overall finding, where many of the findings in the literature are confirmed on this very detailed Danish data set. As we would expect, several firm characteristics increase the likelihood of offshoring. The strongest effect is the impact of previous offshoring (as measured by the proxies of subsidiaries and international suppliers). Previous offshoring raises the odds ratio 4 to

³³ When testing the final model we did not have any indication of problems with multicollinearity.

5 times. But these two proxies might capture some of the same variance since the interaction variable between the two variables has a rather strong (negative) effect.

Belonging to or being head of an enterprise group also is positive correlated with the offshoring decision, and belonging to an enterprise group nearly doubles the odds ratio for making the offshoring decision. Size and being a manufacturing company also have positive impacts. This is of course very much to be expected from well-established findings in the literature (see Refslund, forthcoming).

Finally a somewhat new finding is that companies that use domestic outsourcing are also more prone to offshore. This may perhaps be explained by firms already engaged in defragmenting labour processes domestically are more likely to do the same internationally.

Figure 4.8 Binary logistic model – the likelihood for firms to offshore jobs.

	Model 1 (without proxies for previous offshoring)			Model 2 (Final with proxies for previous offshoring)		
	B	S.E.	Odds ratio Exp(B)	B	S.E.	Odds ratio Exp(B)
Size (log)	,591	,093	1,806***	,390		1,477***
Manufacturing ^a	,590	,085	1,805***	,238	,091	1,269**
Outsourcing ^a	,511	,090	1,667***	,425	,095	1,529***
Enterprise group ^a	1,153	,154	3,167***	,688	,167	1,989***
Enterprise group head ^a	,399	,123	1,491**	,465	,130	1,592***
Value added (log)	,016	,033	1,016	,031	,035	1,031
Turnover (log)	,039	,040	1,039	,027	,041	1,027
Export (log)	-,019	,024	,981	-,022	,025	,979
Unionisation	-,070	,512	,933	-,274	,546	,760
<i>Previous offshoring</i>						
Subsidiaries				1,430	,133	4,179***
International_suppliers				1,716	,112	5,564***
(Suppliers*Subsidiaries)				-1,145	,181	,318***
Constant	-4,610	,434	,010***	-4,555	,458	,011***

a=dichotomy variable. Source: DST VOUT (2011), n = 4461 significance levels: *(0.01 ≤ p ≤ 0.05), ** (0.001 ≤ p ≤ 0.01) *** (p ≤ 0.001).

4.6 Conclusions so far

Regardless of sources or data consulted the general finding in the literature is that the overall job impact of offshoring is modest, at least quantitatively. Basically all empirical studies have until now concluded that the employment impact of offshoring is not worrying in the Nordic countries. A lot of scenarios might be drawn for the future, and it is not always wise to extrapolate from past experience. But the employment impact of offshoring so far seems limited, and there has after all

been some insourcing to compensate for the job losses, even though this has declined during the crisis.

Perhaps equally importantly, our data reveal that offshoring to Asia constitute a minor part. As far as low-skilled employment is concerned, offshoring also takes place to Eastern Europe. Whereas this offshoring is motivated by cost reductions, there is also a lot of offshoring to neighbouring countries, motivated by other factors than just cost reduction (but it still has a significant role in this as well). One should not neglect, however, the opportunity to offshore to Asia and Eastern Europe if considerations of production costs, qualifications, and closeness to markets indicate this would be favourable. This puts quite strong constraints on wages if they are not justified by productivity, and these factors appear more important than tax motives. We return to the policy implications of these issues after a discussion and overview of two other important aspects of international production chains namely foreign owned enterprises and foreign direct investments.

5 Foreign direct investments (FDI) & Foreign owned enterprises (FOE)

5.1 Foreign Direct Investments (FDI)

As discussed in section 3, global FDI have been expanding markedly, and foreign affiliates and subsidiaries has become an essential component of the international division of labour. This section provides an empirical overview of the situation in Denmark and the Nordic countries.

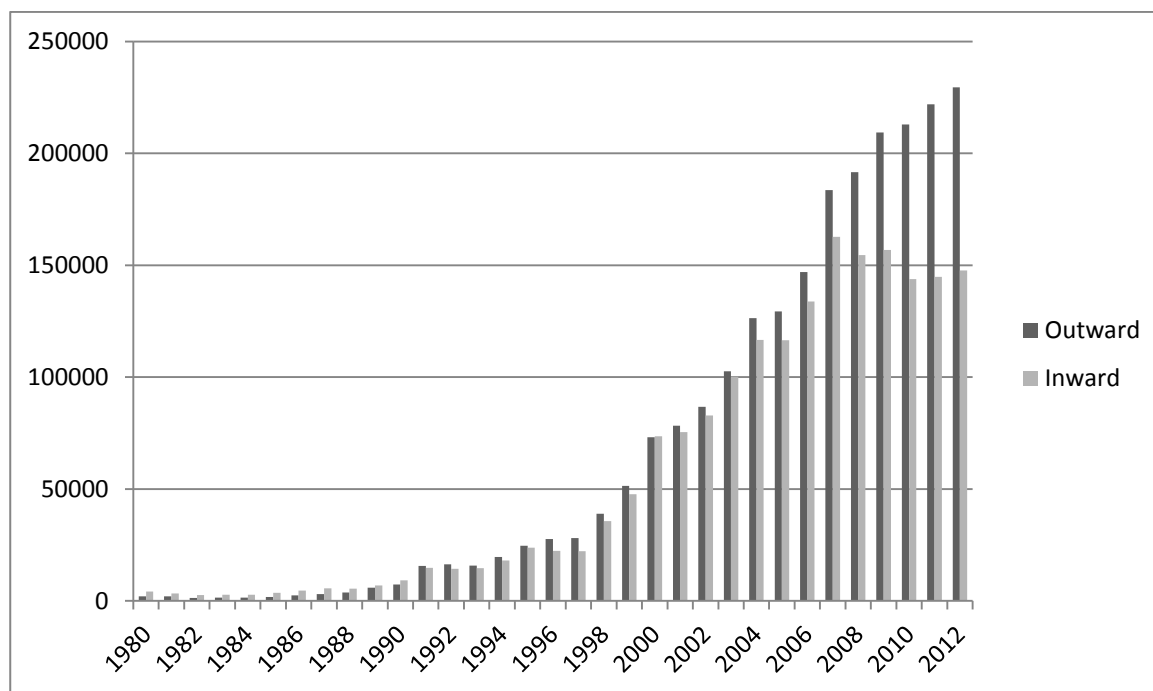
Figure 5.1 shows the development in Danish FDI stock, which is illustrative of the development (at least for the developed countries) with a rapid growth especially since the turn of the millennium. The general picture is that the developed countries have a surplus in FDI stock vis-à-vis the developing economies. In the Danish case, outward FDI has exceeded inward FDI more or less since the balance of payment switched from a permanent deficit to a permanent surplus in 1990.

How are FDI flows in the Nordic countries? As with trade and FOE's below we find that FDI mostly occur between neighbours or within the same region. FDI flows in the EU is predominantly intra-EU flows (Thompson & Kaspersen, 2008: 17–18), and most EU FDI flows are within the old member states. In 2004 the EU-15 even invested eleven times more in each other's economies than in the new Central- and Eastern European (CEEC) EU member states (Schmidt, 2006: 9)³⁴. This confirms that CEEC only holds a minor share of overall EU-15 outward FDI. At least when we look at FDI, CEEC does not seem to have a major impact on overall relocation of production from EU15 (Galgóczi, Keune, & Watt, 2008: 235–36). As an illustration the most important Danish destinations for FDI are shown in Table 5.1, with Sweden being the most important destination, holding 18.6 per cent of the Danish FDI stock. China only comes in the 14th position with 1.7 per cent. Altogether 83 per cent of Danish outward FDI stock was placed in the OECD and more than 70 % in Europe³⁵. The new member states (EU-12) accounted for 4.5 per cent of Danish FDI outward stock in 2010 as compared to 1.7 % for China.

³⁴ Hungary, Czech Republic and Poland accounted for around 75 per cent of all inward FDI in the new EU member states (Dunning & Lundan, 2008:34)

³⁵ Calculated from Statistics Denmark (Statistikbanken, DNDIRA2).

Figure 5.1 Danish Inward and Outward FDI Stock 1980-2012



Source: UNCTAD (<http://unctadstat.unctad.org>) Millions of USD in current prices.

Table 5.1 Danish outward FDI stocks by destination. 2010. Selected countries. Per cent of FDI.

rank	Country/region	Per cent of FDI
1	Sweden	18,6
2	US	9,8
3	UK	8,7
4	Germany	7,1
5	Norway	5,5
6	Switzerland	5,2
14	China	1,7
	OECD	83,0
	EU-27	57,8
	EU-12	4,5

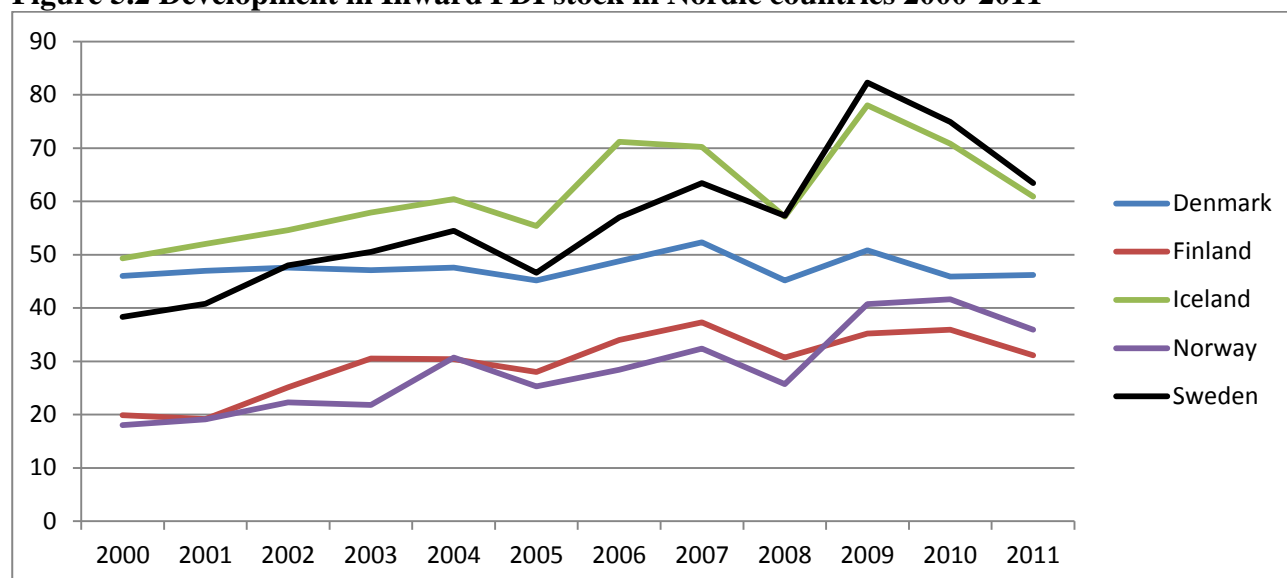
Source: Eurostat

Turning to inward FDI, The most important motive for foreign investors to invest in Denmark is access to markets – not only the Danish market, but also using Denmark as a gateway to the other Nordic markets (Statistics Denmark, 2009a: 24). Presumably, data for the other Nordic countries would reveal the same.

There are several ways for foreign investors to enter a market. In the Danish case the most used entry form is green field investments (51 per cent), followed by acquisition of an existing firm or shares of it (27 per cent). 22 per cent used alternative modes like e.g. joint ventures (Statistics Denmark, 2009a: 11). In line with the cost reduction approach 49 per cent of the investors located sales and marketing in Denmark, whereas only 19 per cent located manufacture production in Denmark. Green field operations were preferred as regards investment in sales and marketing while acquisitions were preferred in manufacturing (Statistics Denmark, 2009a: 13–14).

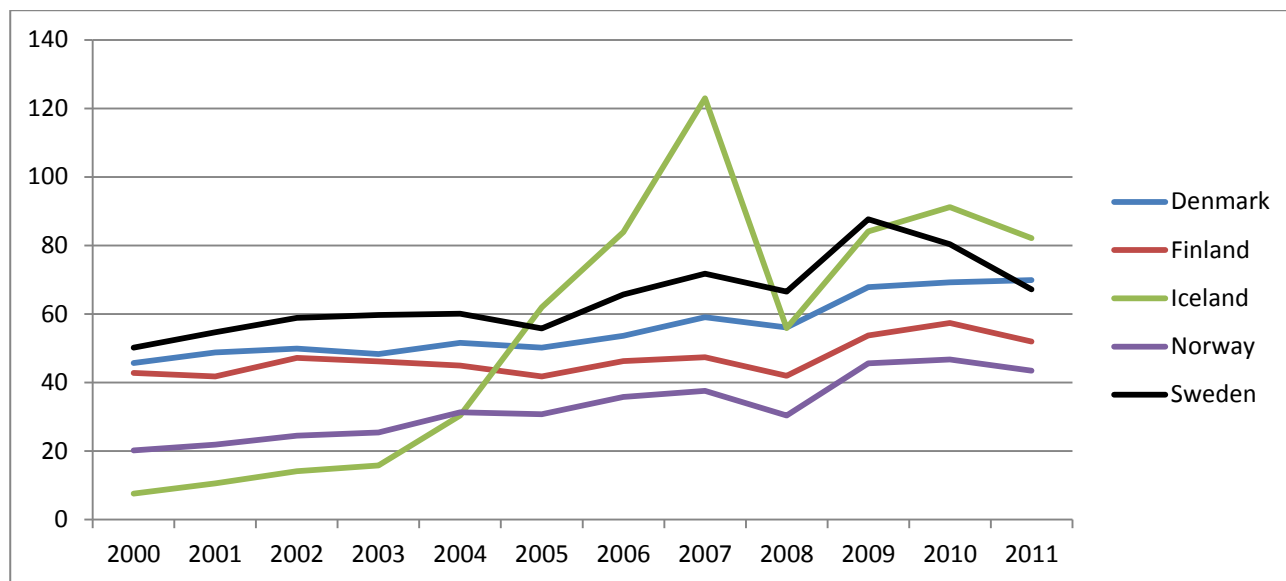
Figure 5.2 and 5.3 show the stock of inward and outward FDI since 2000 and until 2011. Towards the end of the period, figures were affected by the great recession, with the Icelandic stock showing especially high volatility. Outward stocks have increased in all countries over the period despite the crisis, and inward stock has also increased except in Denmark where some stagnation can be seen, although the Danish inward FDI stock has remained higher than in Finland and Norway.

Figure 5.2 Development in Inward FDI stock in Nordic countries 2000-2011



Source: *Statistics Denmark (based on UNCTAD)*

Figure 5.3 Development in Outward FDI stock Nordic countries 2000-2011



Source: *Statistics Denmark (based on UNCTAD)*

The overall conclusion is that FDI development in the Nordic countries does not constitute a significant problem – at least until now. Investments abroad contribute to future wealth of the Nordic countries. But the surplus on the outward FDI vs. the inward FDI can be problematic if it is associated with too low levels of domestic investments, perhaps even leading to worsened capital/labour ratios and slower productivity growth. For Germany, excessive outward FDI after the breakdown of Soviet power contributed to high unemployment and low growth in the short run, even though the German economy was otherwise very solid (Sinn, 2011). Recent Danish data point in a similar direction after the financial crisis of 2008/2009.

5.2 Foreign Owned Enterprises (FOE)

Foreign affiliates and subsidiaries constitute an essential component of the international division of labour, a key aspect of MNE and of offshoring since they host the in-house offshoring, so the pattern of foreign affiliates controlled by Nordic enterprises is expected to share many characteristics with offshoring from Nordic firms. In the Nordic countries FOE only account for a small proportion of the companies – around one per cent. However they are typically larger than average and contribute to a much larger share of employment.

At EU level FOE account for 18 per cent of the total value added in the non-financial business economy³⁶. In manufacturing the share is even higher, as 28.2 per cent of total value added was controlled by foreign owned companies in 2005 (Grell, 2008: 1–2). However, these average figures conceal big differences. Central and Eastern European countries have a much stronger density of

³⁶ Data for 17 EU-countries but not including among others DK, FI, NO, BRD, GB.

FOE's. For instance, FOE contributes with more than 40 per cent of value added in Slovakia and Estonia, and between 30 and 40 per cent in Hungary, the Czech Republic and Bulgaria. In Spain and Italy the corresponding figure was below 15 per cent (Grell, 2008: 2). Within manufacturing FOE's account for some 60 per cent of value added in Slovakia and more than 50 per cent in Hungary. These two countries are among the most often used destinations of offshoring from Western European manufacturing companies, and the data reveals to what extent the economy of these countries is controlled from abroad. However, Sweden and the Netherlands also have a rather high proportion of foreign owned enterprises in the manufacturing sector (Grell, 2008: 3).

Most of the FOE's in the EU are still owned by firms in the EU-25 countries, with an average of 63 per cent of the value added controlled from EU-25. The share is highest in the new EU-member states with above 75 per cent in Romania, Estonia, Bulgaria, Slovakia, the Czech Republic and Portugal, falling to 51 per cent in the Netherlands (Grell, 2008: 5). Typically FOE's in the new EU member states are owned by companies situated within the EU-15. Sweden is e.g. the leading foreign owner and Finland the third biggest in Latvia. In Estonia, Finland is leading, followed by Sweden. In Lithuania, Denmark is the third largest owner of companies.

Also the firms controlling enterprises in the EU-15 are also mostly from another EU15 country, but with US companies as the only significant exception. The US is for instance the biggest owner of foreign owned enterprises in France, Italy, Netherlands and Sweden³⁷. Germany holds the largest share of foreign owned enterprises in Czech Republic, Hungary, Austria and Slovakia. German companies employed more than four and half million workers outside Germany in 2008, according to Eurostat³⁸.

The finding that multinational enterprises have higher productivity and value added also applies to the Nordic countries (Wagner, 2011a: 151-52). In all the Nordic countries FOE's had a higher value added per employee than purely domestic enterprises (Statistics Denmark, 2009b: 38-39). This can partly be explained by size, but Danish FOE's also have higher value added even when controlling for size of the enterprise (Statistics Denmark, 2009b: 87). More specifically, however, it is mainly being a multinational corporation that matters in the Danish case. Also Danish firms with subsidiaries abroad are more productive than firms that only operate domestically (Økonomi- og Erhvervsministeriet, 2011).

The higher productivity is often explained by the competitive advantage which is needed to encounter the competition in a new market. Only the most competitive companies turn to international markets. In other words, self-selection into international competition is the main determinant. Less productive firms mainly compete in domestic markets, because of the entry cost at the international markets (Melitz, 2003). An alternative hypothesis (which does not rule out the first mentioned) is "learning by exporting", where exporters improve from international experience and competition (Wagner, 2011a: 144-45). However, the higher productivity of FOE's may also reflect that they are more frequently operating within manufacture (Statistics Denmark, 2009b: 19)

³⁷ Data for several European countries is missing including GB and DE.

³⁸ http://epp.eurostat.ec.europa.eu/portal/page/portal/european_business/special_sbs_topics/foreign_controlled_enterprises

where productivity growth is higher than in other branches. Finally, multinational companies may enjoy technological advantages as compared to domestic companies.

Even though labour productivity is higher, the profit rate appears to be approximately the same in domestic and multinational companies. This could partly be explained by the higher wages generally paid by foreign owned companies as compared to purely domestic firms (Huttunen, 2007: 497; See Dunning & Lundan, 2008: Ch. 13 for an overview). So the stereotype of ‘evil multinationals’ doesn’t hold, at least not for wage levels in the developed economies³⁹. But it might also indicate problems with transfer pricing in some multinational enterprises (Grell, 2008: 6; Urry, 2014). A recent Danish study (Madsen, 2011) revealed that only 26 per cent of the enterprises in Denmark paid any corporate tax (down from 60 per cent in 1998), and investments in tax havens and Special Purpose Entities (SPE) often used in tax transfers have been raising in the recent decade (UNCTAD, 2013a; see also Urry, 2014).

An often cited explanation for the higher wage in the MNE is that the MNE don’t want the diffusion of their often superior technological and human capital to domestic competitors, so they pay a higher wage to keep the workers within the firm. Also higher levels of education and on-job training in combination with more advanced tasks and greater internal job mobility translates into higher wage levels (Fortanier & Korvorst, 2009: 73-78).

A general international development appears to be that the increasing precarious employment and low wage employment is more often found in smaller companies that typically only operate in one country see e.g. (Bosch & Weinkopf, 2008; Doellgast & Greer, 2007; Flecker 2009). The smaller firms with lower average wages than the larger MNE are often sub-suppliers and sub-contracted companies that experience stronger price and cost pressure than FOE and MNE that often tends to be at the top of the production chain.

5.3 In- and outward Nordic ownership of enterprises

Nordic ownership abroad

According to Statistics Denmark Danish companies employed 1.28 million workers abroad in almost 12.000 subsidiaries in 2012. Total domestic employment in 2012 was 2.75 million. However, the 1.28 million employed in Danish companies abroad is a somewhat ambiguous figure, since some firms based in Denmark are themselves ultimately controlled from abroad. Because of comparability problems we present slightly older data from 2010 which was made comparable and summarised by Statistics Denmark (2010).

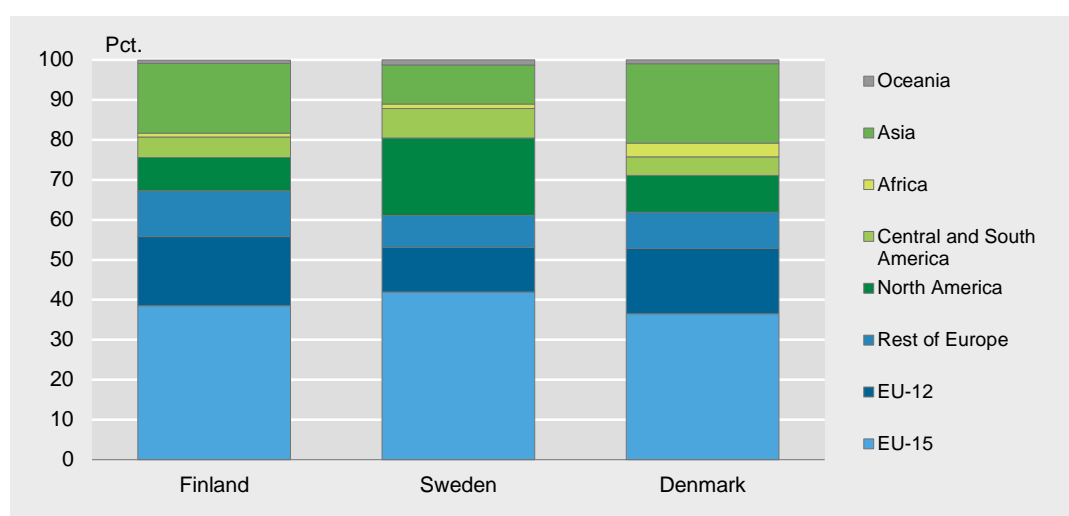
More than one-half of the Nordic owned firms abroad were located within the old EU states (EU-15); 12 per cent were in the new EU-countries; and another 10 per cent in European countries

³⁹ While there obviously still are rich examples of MNE misbehaving in labour, environmental and industrial issues in the developing economies.

outside the EU (Statistics Denmark, 2010: 7). This indicates that being close to markets is an important motive for Nordic companies to own foreign enterprises.

Turning to employment (shown in figure 5.4) the pattern looks a bit different. The share of employment in the new EU-12 member states is higher than the share of firms. This indicates that enterprises in the new EU member states are more important as production sites, with more employees. By 2007, more than 60 per cent of the employees in companies controlled from Denmark, Finland and Sweden were employed in subsidiaries and affiliates located within the EU (Statistics Denmark, 2010: 123). The share in EU-15 ranged from 37 per cent of those employed in Danish firms to 42 per cent in the Swedish case. The share of employment in the new EU-countries ranged from 11 per cent in Sweden to 17 per cent in Finland.

Figure 5.4 Regional distribution of employment in Nordic owned enterprises abroad. 2007.



Source: Statistics Denmark (2010: 120)

Danish and Finnish enterprises had the highest share of employment in Asia (20 and 17 per cent, respectively, versus only 10 per cent in Sweden). In return Swedish firms employed more people in North America (19 per cent) than Danish and Finnish firms did (9 and 8 per cent). The Nordic controlled employment only range between 10 and 20 per cent in Asia and between 11 and 17 per cent in Eastern Europe. This strongly underlines the claim here that the economic transactions and connections between the Nordic and e.g. EU-15 is at least as important as the relation to China, India and the low-wage countries in Eastern and Central Europe.

Sweden and Finland controlled a higher share of manufacturing companies abroad than Denmark (Statistics Denmark, 2010: 121). The manufacturing firms are relatively more present in low-wage countries like Eastern Europe or Asia, confirming the finding that manufacturing companies move abroad mainly in order to reduce labour costs (Statistics Denmark, 2010: 114).

Foreign ownership in the Nordic countries

In all the Nordic countries foreign owned enterprises play an important role. They are few in numbers (typically 1-2 per cent of all firms), but they are in general very large enterprises. The share of firms having more than 250 employees are between 62 and 68 per cent. In Sweden, FOE accounted for 26 per cent of all private sector employment; in Finland, the figure was 17 per cent (Statistics Denmark, 2009b: 35–36). The share of turnover is even higher, ranging from 20 per cent (Finland) to 37 per cent (Sweden). Both employment and turnover share was growing from 2002 to 2006 in all Nordic countries except Norway (Statistics Denmark, 2009b: 34–36).

Table 5.2 Foreign controlled enterprises in the Nordic countries. 2006 (Percentages)

Share of employment controlled from:	Denmark	Sweden	Norway	Finland
EU-15	68.9	58.0	71.1	65.0
Norway	8.7	7.3	-	4.1
EU-12	1.8	0.5	0.0	1.0
EFTA except Norway	4.6	4.4	5.6	6.9
United States	12.5	19.1	20.1	14.6
Remaining OCED	1.4	2.2	2.1	4.8
Rest of the World	1.9	8.3	1.1	2.8
Most important partner	Sweden (29.1)	US (19.1)	Sweden (26.7)	Sweden (22.3)
N of Employees in FOE 2006	268.000**	425.000*	234.000	234.000***

Source: Statistics Denmark (2009b: 39). Number of employees (not recalculations as full-time employees).
For Denmark 2008 figures of employees 293.000.

* Excl. NACE business services.

**2011 figures from Statistics Denmark.

***2012 figures from Statistics Finland.

As shown in Table 5.2, FOE's in the Nordic countries were mainly based in EU-15 and Norway. The rest were mainly based in the US. Only in Sweden a minor share (8.3 per cent) was owned by countries outside OECD (Statistics Denmark, 2009b: 39). As regards the new EU countries (EU-12), ownership is highly asymmetrical. There is a lot of Nordic FOE in these countries, but there is hardly any companies in the Nordic countries owned from EU-12 (Statistics Denmark, 2009b: 39). Sweden is the most important owner of FOE in Norway, Denmark and Finland.

Inward ownership of enterprises together with inward FDI plays an important role in creating jobs and expanding investment. So far intra-Nordic, Western European and Nordic-American relations have been completely dominant. But one should be careful when extrapolating into the future. A

recent example that also illustrates the increasingly complex structure of modern capitalism is Chinese car maker Geely's 2010 acquisition of the Volvo factories – one of Sweden's and Europe's most established car producers⁴⁰. The Chinese ownership of Volvo is safeguarding Swedish manufacturing jobs that would otherwise have been lost or maybe partly offshored to low-wage countries e.g. in Eastern Europe, where there is a large car and car components industry (much of which has been relocated from e.g. Germany and France). Also the other big Swedish car company SAAB has been taken over by a Chinese company after it went bankrupt.

⁴⁰ Reference: http://articles.nydailynews.com/2010-08-03/news/27071480_1_china-s-geely-swedish-car-tata-motors

6. Policy implications

What are the consequences of the tendencies and changes in the industrial and economic structures observed above? This section briefly addresses some of the implications for the Nordic welfare states in the broadest sense.

6.1 Best Case Learning: Experience from the Danish textile industry

”Just look at the textile industry. It is a success in this country. In spite of massive offshoring, this industry has managed to generate new types of jobs in this country”

Foreign Minister Per Stig Møller, 2006⁴¹

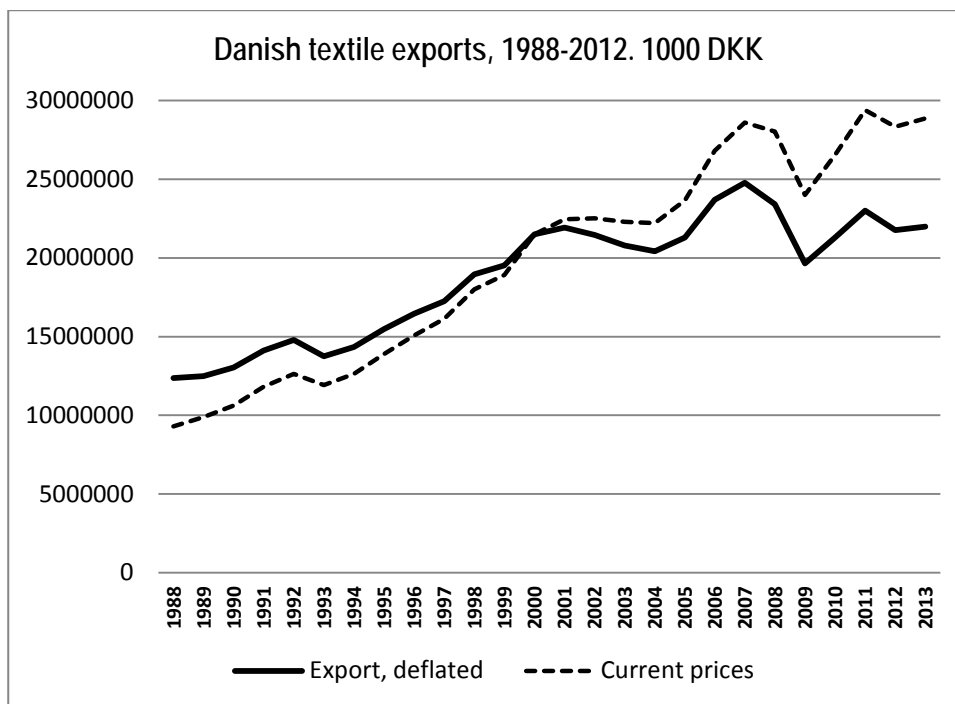
Some of the first and most politically frame-setting Danish experiences with offshoring and international division of labour come from the textile industry that was among the first industries to relocate production on a larger scale to low-wage countries (Fröbel et al, 1977). The overwhelmingly positive experience nourished a widely shared impression among political decision makers and policy experts that the Danish labour market was sufficiently flexible to adapt to the changes caused by offshoring (Det Økonomiske Råd, 2004: 133). From around 1970 and during the subsequent three decades more than 50.000 jobs were lost in the textile industry, equivalent to about 2 per cent of total employment in the country. Job losses mainly affected unskilled workers, and some 80 per cent of employment in the entire industry was lost. Moreover, the textile industry was mainly located in a relatively small area in Jutland. Most of these jobs were outsourced to low wage countries (Olsen et al., 2004: 5–6).

However, the experience was none the less positive since the jobs that remained generally were better jobs in design, marketing, customs relations, and logistics. From 1988 to 2007, the export value from the textile industry doubled in real terms, as shown in figure 6.1.⁴² Value added per employee increased also markedly (Olsen et al., 2004: 6). In a large study of the impact on unemployment Olsen et al. (2004) found that there were few employment problems: Older workers retired at almost the same speed as jobs disappeared, and recruitment of young workers was close to zero. The concentration of the industry made it easier for the remaining workers to find employment in other companies as firms closed down (Olsen et al., 2004: 23–24). Even though a few studies found lower rates of employment among those who were fired, and even though these problems were larger than among workers that were laid off in other industries (AE-rådet, 2004: 7–13; Høgelund et al., 2004: 57–58), the employment problems were generally considered quite small even during the most intense process of offshoring (Olsen et al., 2004; Økonomi- og Erhvervsministeriet, 2004: 32–33).

⁴¹ See <http://www.lo.dk/Nyheder/Nyhedsarkiv/2006/03/RostiLOsglobaliseringsoplaeg.aspx>

⁴² As the best possible approximation, we have deflated exports in current prices with the net price index.

Figure 6.1 Export value of Danish textiles and clothing, 1988-2013. 1000 DKK.



Source: Statistics Denmark (KONJ2Y). Current prices, and deflated by net price index (PRIS71).

In short, the experience was that even in the short run, the problems of offshoring were solved more or less automatically. And in the long run, the area got rid of low-paid jobs with a bad working environment, in favour of much more attractive employment opportunities. This really served as an ideal example of creative job destruction that was always referred to later on.

The case of the shipyards which were gradually closed down in the same period was perhaps somewhat less of a success story since this branch of industry was massively reduced (Poulsen & Sornn-Friese, 2011). But shipyard workers generally did not experience very long-term problems of finding alternative employment in other branches – branches that had a future, and there were a significant spin-off to new but related industries from old shipyards and former employees (Holm et al., 2012).

In short, these experiences have served as a frame of reference that did not only nourish a very optimistic approach to globalization in Denmark. This also contributed to de-politicize the entire issue of offshoring; there was no need to worry, and little need to take extraordinary political initiatives. Like in Sweden, subsidies or other protective measures were not on the agenda.

6.2 Changing social foundations of the welfare state?

Regardless of the political significance of such learning from “best cases” we need to assess more systematically the impact of offshoring, FDI and the increasing weight of multinational or transnational enterprises. How is domestic employment affected – in the short run and in the long term? Are the jobs that are offshored replaced with new jobs with a higher skill level? Will the Nordic countries face unemployment problems? And if not for overall employment, then perhaps

for particular groups of (less skilled) workers with (comparatively speaking) very high minimum wages?

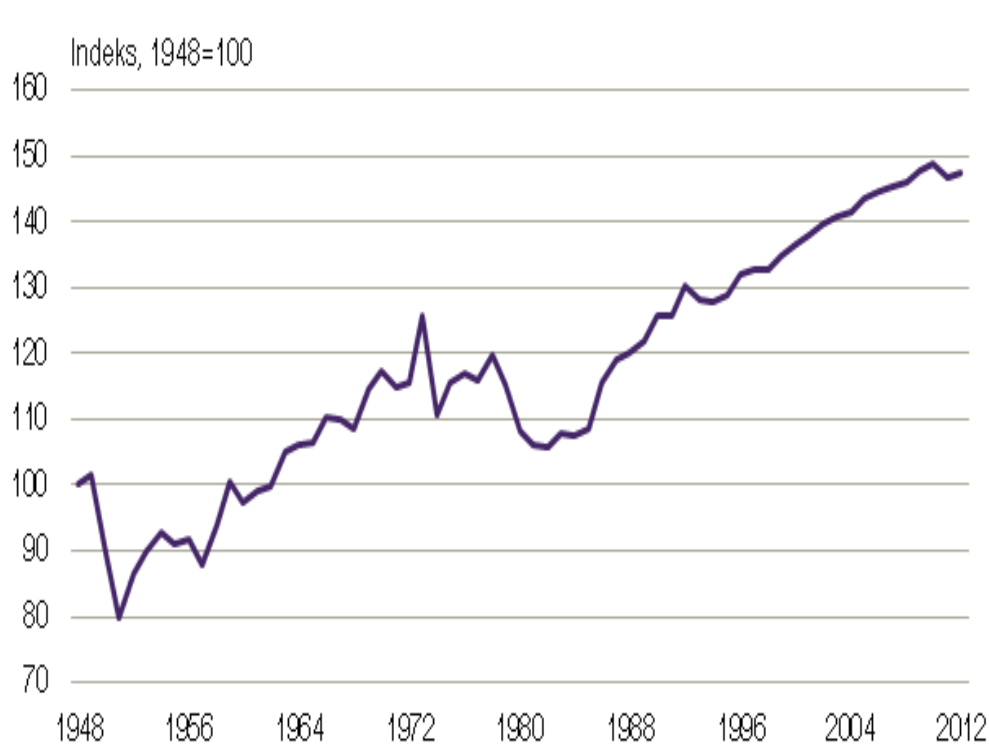
The general experience until now is that globalisation has no negative impact on aggregate employment. The risk enters political discussions from time to time, just to disappear a few years later. In a European context, it is a widely shared assumption that low skilled workers tend to be threatened by globalisation (Esping-Andersen et al., 2002; Blinder, 2007: 24; OECD, 2007a: 15). This will be addressed below. Offshoring or the mere threat of offshoring may also weaken the position of trade unions and their bargaining power (Marginson et al., 1995; Bonoli et al., 2000; Rodrik, 1997; Traca, 2005: 21) and thus affect the industrial relations system that constitute an essential part of the Nordic social models (Dølvik et al., 2015).

It is generally acknowledged that there can be important short term adjustment costs and that some groups in society, especially low-wage workers, have higher risks of being negatively affected (Blinder, 2007; Kirkegaard, 2005: 11–12; OECD, 2007a: 15, 2007b: 108). But in the Nordic case, overall job impacts are found to be modest (see section 4.4). Hence, the crucial question now is – as always – the capacity of the economy to generate new jobs especially for low-skilled workers (see section 6.3 below).

There are basically two impacts of jobs moving: The first one is the short-term and very visible effect of domestic lay-offs, which often attracts negative attention in the media. Secondly, there are the long-term and structural effects, where there might be huge impacts on wage distribution, employment composition, equality, power relations etc. thus changing the entire social foundation of the Nordic welfare state.

In the Nordic countries, the overall long term effects have so far been deemed positive: Enterprises involved in offshoring often lower their costs and thus improve competitiveness. In turn, this even serves to protect existing domestic jobs and may in the long run create new domestic jobs because of the increased competitiveness and increased turn-over (Jensen et al., 2009: 32). Also, prices are dropping because of the lower production costs to the benefit of the consumers (Baldwin, 2006: 32–34) as for instance the global experience in electronics shows, with cheap imports from East Asian countries. Even though there are also other factors contributing to this development, the development of the Danish terms of trade over the last 65 years show an impressive improvement, only significantly interrupted by two oil crises.

Figure 6.2. Terms of trade, Denmark, 1948-2012. Index 1948=100.



Source: Statistics Denmark (2014)

Still, there might also be long term negative implications. If not for aggregate employment than for particular groups, especially low-skilled workers. If this is the case, it may have a direct impact on equality in the Nordic welfare states. If there is a trade-off between equality and employment, larger wage inequality may in fact be considered part of the solution rather than a problem; this is a classical dilemma (Esping-Andersen, 1996). It is also argued that offshoring are correlated with increased financialization (Milberg & Winkler, 2010b; Refslund, forthcoming). Contrary to the main finding in the literature and the theoretical expectations, a study based on World Input/Output Database (WIOD) finds medium-skilled workers are more affected than low-skilled workers and high-skilled workers by offshoring (Foster et al., 2012: 18). This could to some degree question the general understanding that low-skilled workers face the biggest pressure from globalization⁴³, although the majority of studies still reach that conclusion.

The potential negative short term job effects can be divided into at least three sub-categories: (1) Larger frictional unemployment due to layoffs; (2) larger gaps in skill supply and demand (that might lead to higher structural unemployment if prolonged); (3) "Keynesian unemployment" because of lower aggregate demand due to higher unemployment (Blinder, 2007: 19–21). On the micro-level the laid-off workers of course face personal costs of losing the job: Frequently people have to accept at new job with a lower wage, and especially among older workers with low skills, some are unable to find a new job and are thus forced out of the labour market, e.g. on early

⁴³ This is in line with Blinder's (2007) argument that more technical and skill demanding tasks are increasingly offshored.

retirement (Høgelund et al., 2004). However, higher aggregated unemployment, or long-term unemployment in particular regions due to offshoring of jobs, however, has been unusual in the Nordic countries.

Still, offshoring may have indirect employment effects. If an enterprise moves production abroad this may sometimes also affect a large number of sub-contractors. If these firms have to reduce employment, this will not appear in any statistical accounts as an effect of offshoring. Rather, such job losses appear as an effect of on-going restructuring, even though they may be strongly related to offshoring within other enterprises (Luengo & Álvarez, 2009: 61). So this effect might lead to underestimation of the job impact of offshoring – in principle even serious underestimation.

Generally speaking, however, the employment effects of offshoring to a large degree depend on national labour markets and other institutions (Milberg & Winkler, 2010a; Bosch et al., 2009). Hence, one should expect differences across welfare states (Swank, 2002). This could be the reason why the Nordic countries have performed unusually well until now, with relatively low unemployment for the less skilled, and with no major unemployment problems even from massive lay-offs (Ali-Yrkkö et al., 2011). At least this is what emerges from available information, mainly at the aggregate level. However, the mechanisms in the black box need to be traced out.

We also need to know more at the micro level. As mentioned, workers who are displaced often experience a wage reduction when being reemployed, due to loss of company or industry specific knowledge and training (Høgelund et al., 2004: 76). This wage reduction actually seems to be larger for workers who lose their job because of offshoring than in other instances of job losses (Høgelund et al., 2004: 60–61; OECD, 2005: 25). One potential explanation might be that workers who are laid off due to offshoring more often have to change sector, because of the decline in employment in what is often a shrinking industry.

Hence, one could also expect that offshoring would widen the wage dispersion more generally. However, this is apparently *not* what we find in the Nordic countries until now. There must be some countervailing mechanisms – or it may simply reflect that the job losses due to offshoring are too small to affect the aggregates.

Still, it is imaginable that offshoring – or the very threat of offshoring – could create downward wage pressures, at least within particular sectors (Rodrik, 1997; ILO/WTO, 2007: 45; Slaughter, 2007: 334–35). In the Danish case the threat of offshoring has been used by employers in the agricultural industry to obtain concessions from workers as slaughtering and food processing could be moved to Germany where hiring of workers from Eastern Europe have broken the high unions-controlled wages in certain sectors. In Denmark the threat of offshoring seems to be the main explanation of a dramatic decline in wild cat strikes among slaughterhouse workers. Still, wage levels have not been affected due to the Danish Industrial relations system where large parts of the wage bargaining institutions remain centralised (Refslund, 2012, 2013). So far it seems that the Danish social model is better suited to handle the offshoring pressure than e.g. the German model. Germany has witnessed significant increases in precarious work, and a more dualised labour market (Lehndorff et al., 2009; Emmenegger et al., 2012; Eichhorst, 2014).

In all, we know too little about such impacts and about the mechanisms that have so far seemed to work against them. Until now impacts have been modest, but it does not automatically follow that one can extrapolate from past experience. Further, there may also be significant discursive impacts on social policies, labour markets and the welfare state (Hay, 2006; Schmidt, 2006). The absence of major change may rest on countervailing mechanisms that become weaker in the long run. At any rate, extrapolating from past experience has been typical among decision makers in Denmark, often referring to the textile industry.

6.3 Low-skilled workers; Worse off?

Most studies seem to agree that offshoring affects unskilled workers more, since it has mostly been low-skilled jobs that are offshored until now (OECD, 2007a: 15, 2007b: 108; Crinó, 2009: 234; Geishecker et al., 2008: 169; Blinder, 2007; Kirkegaard, 2005: 11–12; Timmer et al., 2011; Jensen et al., 2009). In this respect, offshoring reinforces the impact of technological change, which also reduces the demand for low-skilled workers (Crinó, 2009: 203). Again, this could also lead to increasing wage inequality (Blinder, 2007: 9) unless there are countervailing mechanisms e.g. ensuring significant declines in supply of unskilled labour or relocation and upgrading of the workforce. In Denmark, generational replacement has contributed significantly toward this (Andersen, 2006) as low-skilled generations were replaced by new, much better skilled generations. However, from around 2010 this mechanism comes to a halt due to insufficient improvement of skills of the youngest generation as compared to the generations of the “educational revolution” that are now approaching retirement. Accordingly, offshoring may raise inequality by increasing the skill gap, reducing demand for low-skilled workers and weaken the position of workers versus the owners of capital.

When new jobs were created in the offshoring country, it was more often high-skilled job than low-skilled jobs (Statistics Denmark, 2008; Refslund, forthcoming). These findings seem so far to be consistent across Nordic countries, although this might also be changing with increasing offshoring of more service- and high skilled jobs. At least in the US, trade- or offshoring-displaced workers in manufacture are less educated and on average older than workers displaced in the non-manufacturing sector (Margalit, 2011:168).

Recent research has claimed that it is differences in cognitive skills that explain cross-national variation in unemployment among low-skilled workers, rather than institutional factors like minimum wages. It seems that there are substantial cross-national differences in cognitive skills among low-skilled workers (Abrassart, 2013). In Denmark and the other Nordic countries, low-skilled workers have traditionally been seen as comparatively well-educated and competent, as compared to low-skilled workers in other OECD countries. This is attributed to the high efforts towards job training and upgrading of the workforce. For instance, the ALMP costs in Denmark are the highest in Europe (Andersen, 2006: 68; Økonomi- og Erhvervsministeriet, 2010: 134). And another previous study showed few long term effects of unemployment even for low skilled workers (Økonomi- og Erhvervsministeriet, 2008: 75–87). In short, there are plausible explanations of the labour market success of unskilled workers in the Nordic countries, but we have so far had too little empirical evidence to test these explanations.

6.4 Policy implications for the welfare state

Our purpose here is not to assess the global impact offshoring only for the Nordic countries. On the one hand, they might be considered particularly vulnerable due to relatively low wage inequality (high minimum wages, mostly through collective negotiations). On the other hand, the experience so far has rather been the opposite (Goul Andersen, 2007; Ali-Yrkkö et al., 2011), and there are a number of arguments that could explain the apparent absence of severe pressure (e.g. investments in education and life-long learning; a large public service sector; relatively flexible labour markets; activation efforts; generous welfare benefits etc. (Ali-Yrkkö et al., 2011). Still, what seems to be the conventional wisdom in this respect does not appear to rest on very detailed data, at least not as regards the impact of offshoring.

But it reflects the Danish, Swedish and Norwegian experience of having high employment rates and low unemployment among low-skilled workers, combined with high minimum wages (Kenworthy, 2003:1201; Goul Andersen, 2007). According to neo-classic economic theory high minimum wages should lead to high levels of unemployment, but the data speaks against such an equality-employment trade-off. Workers in Denmark and the other Nordic countries generally experience shorter spells of unemployment than other comparable countries. In the Danish case this is often attributed to the flexible Danish labour market, with low employment protection legislation combined with generous welfare schemes for the unemployed, and active labour market policies that provide for large-scale requalification, which altogether makes workers more adaptable and flexible (Høgelund et al., 2004:68). It should be added, though, that Norway and Sweden seem to obtain approximately the same, but with somewhat less flexible employment protection legislation. So far, few have exploited this unexpected similarity in outcomes to critically test possible explanations.

At any rate, even if there are overall long term gains from offshoring and FDI, there may also be losers, in particular low-skilled workers facing reduced demand for low-skilled labour and hence accelerated need for skill level upgrading which many low-skilled workers will not be able to meet. Insufficient skill upgrading of the labour force can create a large surplus of workers with low or only intermediate levels of training – which in turn raises the classic question if the service sector is able to provide the unskilled jobs needed (Iversen & Wren, 1998). These tendencies are reinforced by the process of deindustrialisation, and by immigration (as workers, or as refugees) of low-skilled foreigners. Other things being equal, this increases pressure on wages and the labour market in general. The task of government, so to speak, is to prevent other things from being equal, that is, to provide ever higher level of qualifications in the work force.

As mentioned, at the individual level, there may be several transition and short term adjustments costs of offshoring: Temporary unemployment, lower wages in a new job and for some workers already on the edge of the labour market even a risk of labour market marginalisation (. Finally, it should be recalled that employment effects of offshoring tend to be under-estimated as indirect employment effects among sub-contractors are virtually impossible to measure (Blinder, 2007; OECD, 2007d).

Perhaps most importantly, the very opportunity of offshoring may influence power relations between workers and employers (Rodrik, 1997). This threat against unions' power tends to become ever stronger as jobs previously believed to be sheltered are being increasingly exposed to offshoring. And as mentioned, offshoring is no longer only a matter of moving jobs and tasks to far-away low-wage areas in Southeast Asia, but also relocation of jobs to Central and Eastern European countries, and in some sectors even Germany. This also means that offshoring may have impact on the welfare state regardless of the amount of jobs directly affected by offshoring. As the pressures are complex one needs to apply a broader perspective on the connections between industrial relations, production and economic structures and the welfare state per se (Bosch, Lehndorff & Rubery, 2009:46–47).

To sum up, even though offshoring currently does not seem to constitute a major challenge to Nordic labour markets and welfare states (Ali-Yrkkö et al., 2011), it is premature to dismiss its importance. And there may be more to come as more and more jobs become “offshoreable”. Blinder (2006) compares the future impact of offshoring, in particular service offshoring, to a new industrial revolution. Although this is perhaps an example of exaggerated claims within globalization research, it remains that more and more jobs may indeed be “offshorable” due to technological change, improved infrastructure and improved qualifications all over the globe. In principle, there is a large future potential. On the other hand, what could happen in principle is not necessarily *likely* to happen.

To avoid such problems calls for skill-upgrading of the labour force in general, and upgrading of displaced labour (Lübker, 2006: 226). The effects on national labour markets and welfare systems can be mediated by policy responses and by different configurations of the welfare state (Swank, 2002). Basically nation-states can assume three different approaches to the job losses caused by globalisation; a laissez-faire approach; an attempt to slow down the development through protectionistic measures (state subsidies or guarantees etc.); or finally what is often referred as the Schumpeterian “creative destruction” approach (Gazier, 2006). The Nordic countries have in general embarked mostly on the latter (Kristensen & Lilja, 2011; Stephens et al., 2012; Ali-Yrkkö et al., 2011).

Blinder (2007:24–32) states three policy recommendations for meeting the challenges from offshoring: First, improve the safety net for displaced workers; second, prepare the work force through better education; and third, focus production in fields where the country has comparative advantages and may remain competitive (e.g. through innovative sun rise industries, first-mover advantages etc.). One can add what might perhaps be the most important policy measure; ensuring smooth transitions and reallocation between dying industries and sunrise industries. Countries with flexible labour markets, high basic skill levels and life-long learning are more prone to be successful in this respect (Andersen, 2006).

Generally speaking, the Nordic countries have appeared well prepared as regards the safety net, even though it has been weakened in recent reforms (in Denmark the reduction of duration of unemployment benefit to one-half and much stricter requalification criteria introduced in 2010 could undermine the security part of the flexicurity model).

The Nordic countries have also traditionally had a stronghold in education, but there does increasingly seem to be room for improvement as the challenges are growing. To illustrate, between 1993 and 2004 Denmark experienced a decrease in low-skilled jobs by more than 200.000 in spite of an overall employment growth of more than 100.000 jobs in the same period. At that time, generational replacement offered a strong “automatic” upgrading of qualifications and decline in the supply of unskilled labour. The share of the youth population with only compulsory education fell from 32.7 per cent in 1993 to 21.7 per cent in 2000 (Andersen, 2006: 70–72; Økonomisk Råd, 2004: 163). This development might prove difficult to sustain in the future.

The third recommendation is perhaps the most controversial. In 2006 the Danish government allocated a very large amount of money (three per cent of GDP) for a wide array of investments to strengthen research and infrastructure (as from 2006). This is largely in accordance with a social democratic version of the idea of “creative destruction” (even though it was carried through by a Liberal-Conservative government): The state should facilitate a smooth transfer of resources and labour from sunset to sunrise industries, e.g. through research priorities, education etc.

So far, few would disagree. But as soon as it becomes more specified, one will hear strong warnings against the idea that the state is able to “pick the winner”. It is indeed extremely difficult to pick the “winning industries” in industrial policies and is probably more profitable to refrain from trying (UNCTAD, 2011: 109). And the (unexpected) “winning industries” might show up everywhere. An analysis from the Danish Ministry of Economic and Business affairs (Økonomi- og Erhvervsministeriet) in 2007 showed that Denmark had comparative advantages across a wide selection of industries ranging from high-skill to low-skill industries, and covering both labour and capital intense industries (Økonomi- og Erhvervsministeriet, 2007: 37–43). The compromise between these considerations varies over time and between countries in the Nordic region, with Denmark traditionally adhering to a somewhat more liberal tradition than the other countries.

Some policy experts and interest groups would stick strictly to the dogma that the state should provide framework conditions that generally support competitiveness – and nothing else. Others would stress that industrial policy should not only actively secure the best possible conditions for innovation and progress where enterprises can improve the comparative advantages they have, but also seek to nourish potential “sunrise industries”, e.g. through research priorities, access to venture capital funds, etc. Somewhere in-between a compromise is likely to be found. At the same time the welfare state should help smooth out the transition of surplus labour from deteriorating industries.

The reason why the Nordic countries have so far experienced minor complications is probably to be found in relatively flexible labour markets, high levels of education, life-long learning, and an active labour market policy (ALMP) with emphasis of improving the qualifications of the unemployed as well as the employed. In particular, one would assume that workers with low formal educational levels are comparatively well-educated because of the high level of re-education and in-job-training (Andersen, 2006: 68). Denmark has the highest public expenditure on re-education in the EU (Økonomi- og Erhvervsministeriet, 2010: 134) and probably in the world. This ensures a highly flexible and adaptable work force. But the big question is whether this will hold through and be sufficient as regards further challenges from global pressures for the Nordic welfare states.

References:

- Abrassart, Aurélien. 2013. «Cognitive Skills Matter: The Employment Disadvantage of Low-Educated Workers in Comparative Perspective» *European sociological review* 29(4):707–19.
- AE-rådet. 2004. «Lønmodtagernes bevægelser på arbejdsmarkedet».
<http://www.ae.dk/files/arkiv/arbejdsmarked/2004/mobilitet.pdf> (Accessed Juli 11, 2011).
- Alajääskö, Pekka. 2009. «International Sourcing in Europe». Eurostat, Luxembourg.
- Ali-Yrkkö, Jyrki. 2010. «The Value Creation of Mobile Phones – The Case of Nokia N95». In Ali-Yrkkö (Ed.) *Nokia and Finland in a Sea of Change*, Helsinki: Taloustieto Oy.
- Ali-Yrkkö, Jyrki., Rouvinen, Petri., Seppälä, T. and Ylä-Anttila, Pekka. 2010. «Who Captures Value in Global Supply Chains? » Paper prepared as background material for the Competitiveness Report of the European Commission.
- Ali-Yrkkö, Jyrki, Petri Rouvinen, and Pekka Ylä-Anttila. 2011. «The Nordic Model and the Challenge from Global Value Chains. » in *Global Value Chains - Impacts and Implications*, (Sydor ed.). Ottawa: Foreign Affairs and International Trade Canada: 367–83
- Andersen, Lars. 2006. «Veje til flere i arbejde». In *13 løsninger for den danske velfærdsstat*, Odense: Syddansk Universitetsforlag, p. 65-76.
- Andersen, Torben M. 2003. «International integration and the welfare state». In *Alternatives for welfare policy*, Cambridge: Cambridge University Press, p. 23-48.
- Andersen, Torben M. 2012. Collective risk sharing: The social safety net and employment. Paper presented at the RC19 Conference, Oslo, Aug. 23-25, 2012. Department of Economics and Management, Aarhus University.
- Andersen, Torben M. et al. 2007. *The Nordic Model - Embracing Globalization and Sharing Risks*. Helsinki: ETLA.
- Arndt, Sven W. and Henryk Kierzkowski. 2001. *Fragmentation : New production patterns in the world economy*. Oxford: Oxford University Press.
- Backer, Koen, and Sebastien Miroudot. 2013. *Mapping Global Value Chains*. Paris: OECD Publishing.
- Bair, Jennifer. 2009 «Global Commodity Chains: Genealogy and Review» in (Bair ed.) *Frontiers of Commodity Chain Research*. Stanford: Stanford University Press: 1-34.
- Baldwin, Richard. 2006. *Globalisation: The Great Unbundling(s)*. Helsinki: Prime Ministers office/Economic Council of Finland.
- . 2014. «Trade and Industrialization after Globalization's Second Unbundling: How Building and Joining a Supply Chain Are Different and Why it Matters, » in Robert C. Feenstra and Alan M. Taylor (editors) *Globalization in an Age of Crisis: Multilateral Economic Cooperation in the Twenty-First Century*. Chicago: University of Chicago Press.
- Baumol, William J. 1967. «Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis.» *American Economic Review* 57(3): 415-426.
- . 2012. *The Cost Disease - Why Computers Get Cheaper and Health Care Doesn't*. New Haven: Yale University Press.
- Bell, Daniel. 1973. *The coming of post-industrial society : a venture in social forecasting*. New York: Basic Books.
- Bernard, Andrew B., and J. Bradford Jensen. 1999. «Exceptional Exporter Performance: Cause, Effect, or Both? » *Journal of international economics* 47(1):1–25.

- Bhagwati, Jagdish, Arvind Panagariya and T.N. Srinivasan. 2004. «The Muddles over Outsourcing.» *Journal of Economic Perspectives* 18(4): 93-114.
- Blinder, Allan S. 2006. «Offshoring: The Next Industrial Revolution?» *Foreign Affairs* 2006(2): 113-128.
- . 2007. «Offshoring: Big Deal, or Business as Usual?» Princeton University. CEPS Working Paper No. 149.
- Blinder, Alan S., and Alan B. Krueger. 2013. «Alternative Measures of Offshorability: A Survey Approach. » *Journal of Labor Economics* 31(2):S97–128.
- Boileau, David, and Aaron Sydor. 2011. «Global Value Chains in Canada. » in Sydor (ed.) *Global Value Chains - Impacts and Implications*. Ottawa: Foreign Affairs and International Trade Canada: 157–78.
- Bonoli, Giuliano, Vic George and Peter Taylor-Gooby. 2000. *European welfare futures : towards a theory of retrenchment*. Oxford: Polity Press.
- Bosch, Gerhard, Steffen Lehndorff, and Jill Rubery. 2009. «European Employment Models in Flux: Pressures for Change and Prospects for Survival and Revitalization» in Bosch et al. (eds.) *European employment models in flux*, Basingstoke: Palgrave Macmillan: 1–56.
- Bosch, Gerhard, and Claudia Weinkopf. 2008. *Low-Wage Work in Germany*. New York: Russell Sage Foundation.
- Boulhol, Hervé, and Lionel Fontagné. 2006. « Deindustrialisation and the fear of relocations in the industry.» CEPII Working Paper No 2006-07.CEPII: Paris. Available at: <http://www.cepii.fr/anglaisgraph/workpap/summaries/2006/wp06-07.htm>
- Böckerman, Petri and Elisa Riihimäki. 2009. « International outsourcing and labour demand: Evidence from Finnish firm-level data. » MPRA Paper No. 16903. Available at: <http://mpa.ub.uni-muenchen.de/16903/>
- Brown, Clair, Timothy Sturgeon, and Connor Cole. 2014. «The 2010 National Organizations Survey: Examining the Relationships Between Job Quality and the Domestic and International Sourcing of Business Functions by United States Organizations. » *IRLE Working Paper No. 156-13*. <http://irle.berkeley.edu/workingpapers/156-13.pdf>
- Cameron, David. 1978. «The Expansion of the Public Economy. » *American Political Science Review* 72(4):1243–61.
- Castellani, Davide, Luca De Benedictis, and Daniel Horgos. 2013. «Can We Really Trust Offshoring Indices? » *Structural Change and Economic Dynamics* 25(0):159–72.
- Caves, R. 1996. *Multinational Enterprise and Economic Analysis*. Cambridge: Cambridge University Press.
- Clark, Colin. 1957. *The Conditions of Economic Progress*. 3rd ed. London: Macmillan.
- Coe, David T. 2007. «Globalisation and Labour Markets: Policy Issues Arising From The Emergence Of China And India. » Paris: OECD. OECD Social, Employment and Migration Working Papers No. 63.
- Cohen, Stephen S. and John Zysman, 1987. *Manufacturing matters – The Myth of the Post-Industrial Economy*. New York: Basic Book.
- Collings, David G. 2008. «Multinational corporations and industrial relations research: A road less travelled. » *International Journal of Management Reviews* 10(2):173–193.

- Crinó, Rosario. 2009. «Offshoring, Multinationals and Labour Market: A Review of the Empirical Literature». *Journal of Economic Surveys* 23(2): 197-249.
- Dachs, Bernhard, Marcin Borowiecki, Steffen Kinkel, and Thomas Christian Schmall. 2012. «*The Offshoring of Production Activities in European Manufacturing*. » MPRA Paper No. 42973, Online at <http://mpra.ub.uni-muenchen.de/42973/>
- Damgaard, Jannick. 2011. *Productivity Spillovers from FDI: Ownership Structures, Domestic Firm Characteristics, and FDI Characteristics*. National Bank of Denmark Working Papers 72/2011. Copenhagen: National Bank of Denmark.
- Davis-Blake, Alison, and Joseph P. Broschak. 2009. « Outsourcing and the Changing Nature of Work. » *Annual Review of Sociology* 35:321–40.
- Deardorff, Alan V. 2005. «How Robust Is Comparative Advantage? » *Review of International Economics* 13(5):1004–16.
- Debande, Olivier. 2006. «De-industrialisation.» European Investment Bank, Economic and Financial Studies. http://ideas.repec.org/p/ris/eibpap/2006_003.html.
- Dedrick, Jason, Kenneth Kraemer and Greg Linden. 2010. «Who Profits From Innovation in Global Value Chains? A Study of the iPod And Notebook PCs», *Industrial and Corporate Change* 19(1): 81-116.
- Dicken, Peter. 2011. *Global Shift : Mapping the Changing Contours of the World Economy*. 6 edition. London: Sage.
- Doellgast, Virginia, and Ian Greer. 2007. «Vertical Disintegration and the Disorganization of German Industrial Relations». *British Journal of Industrial Relations* 45(1): 55–76.
- Dossani, Rafiq, and Martin Kenney. 2007. «The next Wave of Globalization: Relocating Service Provision to India. » *World Development* 35(5):772–91.
- Dunning, John H, and Sarianna M Lundan. 2008. *Multinational enterprises and the global economy*. 2. ed. Cheltenham, UK: Edward Elgar.
- Dølvik, Jon Erik, Jørgen Goul Andersen, Juhana Vartiainen. (2015). "The Nordic Social Models in Turbulent Times. Consolidation and Flexible Adaptation", pp. 246-286 in Jon Erik Dølvik & Andrew Martin (eds.), *European Social Models from Crisis to Crisis. Employment and Inequality in the Era of Monetary Integration*. Oxford: Oxford University Press.
- Edwards, Paul. 2005. «The challenging but promising future of industrial relations: developing theory and method in context-sensitive research.» *Industrial Relations Journal* 36(4): 264-282.
- Eichhorst, Werner. 2014. «The Unexpected Appearance of a New German Model. » *British Journal of Industrial Relations* doi: 10.1111/bjir.12055
- Ekholm, Karolina, and Katariina Hakkala. 2006. «The Effect of Offshoring on Labour Demand: Evidence from Sweden». London: Centre for Economic Policy Research. <http://www.cepr.org/pubs/dps/DP5648.asp>.
- Emmenegger, Patrick, Silja Häusermann, Bruno Palier and Martin Seeleib-Kaiser. 2012. *The Age of Dualization. The Changing Face of Inequality in Deindustrializing Societies*. Oxford: Oxford University Press.
- Eriksson, Tor, Rikke Ibsen, Jingkun Li, and Niels Westergård-Nielsen. 2006. *Globalisering og det danske arbejdsmarked*. København: Jurist- og Økonomforbundets Forlag.

- Esping-Andersen, Gösta (1996). "After the Golden Age? Welfare State Dilemmas in a Global Economy", pp. 1-31 in Gösta Esping-Andersen (ed.), *Welfare States in Transition. National Adaptations in Global Economies*. London: SAGE & UNRISD.
- Esping-Andersen, Gösta, with Duncan Gallie, Anton Hemerijck & John Myles (2002). *Why We Need a New Welfare State*. Oxford: Oxford University Press.
- Eurofond. 2014. «European Restructuring Monitor». Database accessed through: <http://www.eurofound.europa.eu/emcc/erm/index.htm> (Accessed May 21st 2014).
- Eurostat. 2008. *European Union foreign direct investment yearbook 2008 - Data 2001-2006*. Luxembourg: Eurostat.
- . 2011. *Key figures on Europe - 2011 edition*. Luxembourg: Eurostat.
- . 2013. *International Trade and Foreign Direct Investment*. Luxembourg: Eurostat.
- . 2014. «International sourcing of business functions - Statistics Explained» Database accessed through: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/International_sourcing_of_business_functions#Further_Eurostat_information (Accessed May 24th 2014).
- Feenstra, Robert C. 1998. "Integration of Trade and Disintegration of Production in the Global Economy." *The Journal of Economic Perspectives* 12(4):31–50.
- . 2010. *Offshoring in the Global Economy*. Cambridge, Massachusetts: The MIT Press.
- Feenstra, Robert C. and Gordon H. Hanson. 1996. «Globalization, Outsourcing, and Wage Inequality». *The American Economic Review* 86(2): 240-245.
- Flanagan, Robert J. 2012. *The Perilous Life of Symphony Orchestras: Artistic Triumphs and Economic Challenges*. Yale University Press.
- Flecker, Jörg. 2009. «Outsourcing, Spatial Relocation and the Fragmentation of Employment. », *Competition & Change* 13(3): 251–66.
- . 2014. «Dynamics of service value chains: Delocalization and relocation of digital work», paper presented at the COST Action "Dynamics of Virtual Work" Conference, University of Hatfield, September 2014.
- Fortanier, Fabienne and Marjolein Korvorst. 2009. «Effects of Globalisation: Wage differences between employees at Dutch and foreign controlled enterprises in the Netherlands». In (Statistics Netherlands) *Internationalisation Monitor 2009*, The Hague: Statistics Netherlands, p. 71-82.
- Foster, Neil, Robert Stehrer, Marcel Timmer and Gaaitzen de Vries. 2012. «Offshoring and the Skill Structure of Labour Demand» WIOD Working Papers Number 6.
- Fröbel, Folker, Jürgen Heinrichs, and Otto Kreye. 1977. *Die Neue Internationale Arbeitsteilung: Strukturelle Arbeitslosigkeit in Den Industrieländern Und Die Industrialisierung Der Entwicklungslander*. Reinbek bei Hamburg: Rowohlt.
- Galgóczi, Béla, Maarten Keune and Andrew Watt. 2008. *Jobs on the Move. An Analytical Approach to «Relocation» and Its Impact on Employment*. Bruxelles: P.I.E. Peter Lang.
- Gazier, Bernard. 2006. «Using Active and Passive Employment Policies to Accompany Globalization-Related Restructuring». In (Auer et.al ed.) *Offshoring and the Internationalization of Employment. A challenge for a fair globalization?* Geneva: International Labour Organisation p.89-112.

- Geishecker, Ingo, Holger Görg and Sara Maioli. 2008. «The Labour Market Impact of International Outsourcing». In (Greenaway, ed.) *Globalisation and Labour Market Adjustment*, Basingstoke: Palgrave Macmillan, p. 152-173.
- Gereffi, Gary. 1994. «The Organization of Buyer-Driven Global Commodity Chains: How U.S. Retailers Shape Overseas Production Networks. » in (Gereffi & Korzeniewicz ed.) *Commodity chains and global capitalism*. Westport, Conn.: Praeger: 95–122.
- . 2005. «The Global Economy: Organization, Governance, and Development. » In (Smelser & Swedberg, ed.) *The Handbook of Economic Sociology*, Princeton: Princeton University Press, p.160-182.
- . 2014. «Global Value Chains in a Post-Washington Consensus World.» *Review of International Political Economy* 21(1):9-37.
- Gereffi, Gary, and Miguel Korzeniewicz. 1994. *Commodity chains and global capitalism*. Westport, Conn.: Praeger.
- Gereffi, Gary, and Karina Fernandez-Stark. 2010. *The Offshore Services Global Value Chain*. Durham: Center on Globalization Governance and Competitiveness.
- Gereffi, Gary, John Humphrey, and Timothy Sturgeon. 2005. «The Governance of Global Value Chains. » *Review of International Political Economy* 12(1):78–104.
- Gibbon, Peter, Jennifer Bair and Stefano Ponte. 2008. «Governing global value chains: an introduction » *Economy and Society* 37(3): 315–338.
- Goul Andersen, Jørgen (2007). “The Danish Welfare State as ‘Politics for Markets’”, *New Political Economy*, vol. 12 (1), 71-78.
- . (2013). *Krisens navn. Bekæmper regeringen den forkerte økonomiske krise?* Copenhagen: Frydenlund Academic.
- Grell, Michaela. 2007. *The impact of foreign-controlled enterprises in the EU*. Luxemburg: Eurostat.
- . 2008. *Foreign-controlled enterprises in the EU*. Luxemburg: Eurostat.
- Grossman, Gene and Esteban Rossi-Hansberg. 2006. «*The Rise of Offshoring: It’s Not Wine for Cloth Anymore*», *The New Economic Geography: Effects and Policy Implications*, Federal Reserve Bank of Kansas City, Jackson Hole Symposium, 2006.
- Gomory, Ralph E., and William J. Baumol. 2013. «On Technical Progress and the Gains and Losses from Outsourcing.» in *The Oxford Handbook of Offshoring and Global Employment* (Bardhan, Kroll, and Jaffee, ed.). Oxford: Oxford University Press: 24–40
- Görg, Holger. 2000. «Multinational Companies and Indirect Employment: Measurement and Evidence». *Applied Economics*, 32(14): 1809–1818.
- Häusermann, Silja, and Bruno Palier. 2008. «The Politics of Employment-friendly Welfare Reforms in Post-industrial Economies. » *Socio-Economic Review* 6(3): 559 –586.
- Hay, Colin. 2006. «What’s Globalization Got to Do with It? Economic Interdependence and the Future of European Welfare States. » *Government and Opposition* 41:1–22.
- Held, David et al. 1999. *Global transformations : Politics, Economics and Culture*. Stanford, Calif.: Stanford University Press.
- Helpman, Elhanan, and Paul Krugman. 1989. *Trade Policy and Market Structure*. Cambridge Mass.: MIT Press.
- Heyma, Arjan, and Jules Theeuwes. 2008. *Offshoring and the worker*. Amsterdam: SEO, Economic research.

- Hijzen, Alexander, Holger Görg, og Robert C. Hine. 2005. «International outsourcing and the skill structure of labour demand in the United Kingdom». *Economic Journal* 115(October): 860–878.
- Hirst, Paul, Grahame Thompson and Simon Bromley. 2009. *Globalization in question*. 3rd ed. Cambridge: Polity Press.
- Holm, Jacob R., Christian R. Østergaard and Thomas R. Olesen. 2012. «The unleashing of Creative Potential from Exiting Firms? Not really?» Paper presented at the DRUID Society Conference 2012, Copenhagen Business School, June 19 - June 21 2012. Available at: http://druid8.sit.aau.dk/acc_papers/846bmbsfhdxlol9jhov70gh4243g.pdf
- Hummels, David, Rasmus Jørgensen, Jakob R. Munch, and Chong Xiang. 2011. *The Wage Effects of Offshoring: Evidence from Danish Matched Worker-Firm Data*. National Bureau of Economic Research
- Huttunen, Kristiina. 2007. «The Effect of Foreign Acquisition on Employment and Wages: Evidence from Finnish Establishments». *The Review of Economics and Statistics*, 89(3): 497–509.
- Høgelund, Jan, Peter P Geerdsen, and Mona Larsen. 2004. *Lukning og indskrænkning af virksomheder : konsekvenser af globalisering*. Copenhagen: Socialforskningsinstituttet.
- ILO/WTO. 2007. *Trade and Employment Challenges for Policy Research*. Switzerland: ILO and WTO.
- Iversen, Torben, and Anne Wren. 1998. «Equality, Employment, and Budgetary Restraint: The Trilemma of the Service Economy». *World Politics* 50(4): 507-546.
- Jaarsma, Marjolijn. 2009. «Measuring globalisation: factors influencing the commodities exports of SMEs and large enterprises». In (Statistics Netherlands) *Internationalisation Monitor 2009*, The Hague: Statistics Netherlands, p. 19-32
- Jara, Alejandro, and Hubert Escaith. 2012. “Global Value Chains, International Trade Statistics and Policymaking in a Flattening World.” *World Economics*, 13(4): 5–18.
- Jensen, J. Bradford. 2011. *Global Trade in Services: Fear, Facts, and Offshoring*. Peterson Institute for International Economics.
- Jensen, Peter D. Ørberg, Jacob Funk Kirkegaard and Nicolai Søndergaard Laugesen. 2009. «Beyond job losses. The net effects of offshoring and insourcing on employment in the Danish economy». *Strategic Outsourcing: An International Journal* 2(2): 123-144.
- Jensen, Peter D. Ørberg, and Torben Pedersen. 2011. «The Economic Geography of Offshoring: The Fit between Activities and Local Context». *Journal of Management Studies* 48(2): 352–372.
- Jessop, Bob. 2008. *State Power: A Strategic-Relational Approach*. Cambridge: Polity Press.
- Johnson, Robert and Guillermo Noguera. 2012. «Accounting for Intermediates: Production Sharing and Trade in Value Added», *Journal of International Economics* 86(2): 224-236.
- Kaldor, Nicholas. 1967. *Strategic Factors in Economic Development*. Ithaca: New York State School of Industrial and Labor Relations, Cornell University.
- Katzenstein, Peter. 1985. *Small States in World Markets*. Ithaca, NY: Cornell University Press.
- Kenney, Martin (with Richard Florida). 2004. *Locating global advantage: industry dynamics in the international economy*. Stanford, Calif.: Stanford University Press.
- Kenworthy, Lane. 2003. «Do Affluent Countries Face an Incomes-Jobs Trade-Off? » *Comparative Political Studies* 36(10):1180–1209.

- Kirkegaard, Jacob F. 2005. «Outsourcing and Offshoring: Pushing the European Model Over the Hill, Rather than Off the Cliff!» Institute for International Economics, IIE Working Paper. 2005, No. 05-1. Available at SSRN: <http://ssrn.com/abstract=688183> or DOI: 10.2139/ssrn.688183
- Kogut, Bruce. 2004. «From Regions and Firms to Multinational Highways: Knowledge and Its Diffusion as a Factor in the Globalization of Industries» in (M. Kenney ed.) *Locating global advantage : industry dynamics in a globalizing economy*: Stanford, Calif.: Stanford University Press: 261–284
- Kollmeyer, Cristopher. 2009. «Explaining Deindustrialization: «How Affluence, Productivity Growth, and Globalization Diminish Manufacturing Employment»». *American Journal of Sociology*, 114(6): 1644-74.
- Koopman, R., W. Powers, Z. Wang and S.-J. Wei. 2011. «Give credit to where credit is due: tracing value added in global production chains». NBER Working Papers Series 16426. September 2010, revised September 2011.
- Kraemer, Kenneth, Linden, Greg and Dedrick, Jason. 2011. Capturing value in global networks: Apple's iPad and iPhone. PCIC working paper. Available online at http://pcic.merage.uci.edu/papers/2011/Value_iPad_iPhone.pdf (accessed 6.9.2014).
- Kristensen, Peer Hull, and Jonathan Zeitlin. 2005. *Local Players in Global Games. The Strategic Constitution of a Multinational Corporation*. Oxford: Oxford University Press.
- Kristensen, Peer Hull, and Kari Lilja. 2011. *Nordic Capitalisms and Globalization: New Forms of Economic Organization and Welfare Institutions*. Oxford: Oxford University Press.
- Krugman, Paul. 1995. «Growing World Trade: Causes and Consequences.» *Brookings Papers on Economic Activity* 1995(1): 327–77.
- Lanz, Rainer, and Sébastien Miroudot. 2011. «*Intra-Firm Trade: Patterns, Determinants and Policy Implications*. » Paris: OECD Publishing. Available at: <http://ideas.repec.org/p/oec/traaab/114-en.html>
- Larsen, Marcus M., Stephan Manning, and Torben Pedersen. 2013. «Uncovering the Hidden Costs of Offshoring: The Interplay of Complexity, Organizational Design, and Experience. » *Strategic Management Journal* 34(5): 533–52.
- Lauridsen, Laurids S. 1978. «Fagbevægelsen og den globale arbejdspladskonkurrence. » *Politica* 10(3): 63–91.
- Lehndorff, Steffen, Gerhard Bosch, Thomas Haipeter, and Erich Latniak. 2009. «From the “Sick Man” to the “Overhauled Engine” of Europe? Upheaval in the German Model» in Bosch et al. (ed.) *European employment models in flux*, Basingstoke: Palgrave Macmillan: 105–130.
- Levy, David L. 2005. «Offshoring in the New Global Political Economy.» *Journal of Management Studies* 42(3):685–93.
- Linden, Greg, Kenneth Kraemer and Jason Dedrick. 2011. «Innovation and Job Creation in a Global Economy: The Case of Apple's iPod» *Journal of International Commerce and Economics* May: 223–240.
- Luengo, Fernando and Ignacio Álvarez. 2009. «Impact of International Offshoring on the Labour Market. A Reflection on the Conceptual and Methodological Aspects». *Papeles de Europa* 18: 50-67.

- Lübker, Malte. 2006. «International Outsourcing: Media Hype Or A Real Threat For Jobs In The North?» In (Auer et.al ed.) *Offshoring and the Internationalization of Employment A challenge for a fair globalization?*, Geneva: ILO: 203-226.
- Madsen, Per Kongshøj. 2006. «How Can It Possibly Fly? The Paradox of a Dynamic Labour Market in a Scandinavian Welfare State. » in (Campbell et al. ed.) *National Identity and a Variety of Capitalism: The Case of Denmark*. Montreal: McGill University Press: 321–55.
- Madsen, Martin. 2011. «Kun 26 procent af danske selskaber betaler selskabsskat». København: AE-rådet.
- Mankiw, N.G. & Swagel, P. 2006. «The politics and economics of offshore outsourcing». *Journal of Monetary Economics* 53(5): 1027–1056.
- Margalit, Yotam. 2011. «Costly Jobs: Trade-related Layoffs, Government Compensation, and Voting in U.S. Elections». *The American Political Science Review* 105(1): 166–188.
- Marginson, Paul, Peter Armstrong, P. K. Edwards, and John Purcell. 1995. «Extending beyond borders: Multinational companies and the international management of labour». *The International Journal of Human Resource Management* 6(3):702–719.
- Martin, Cathie Jo and Duane Swank. 2012. *The political construction of business interests : coordination, growth, and equality*. New York: Cambridge University Press.
- Melitz, Marc J. 2003. «The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity». *Econometrica* 71(6): pp. 1695-1725.
- Milberg, William, and Deborah Winkler. 2010a. «Economic Insecurity in the New Wave of Globalization: Offshoring and the Labor Share under Varieties of Capitalism. » *International Review of Applied Economics* 24(3):285–308.
- . 2010b. «Financialisation and the Dynamics of Offshoring in the USA.» *Cambridge Journal of Economics* 34(2):275–93.
- . 2013. *Outsourcing Economics - Global Value Chains in Capitalist Development*. Cambridge: Cambridge University Press.
- Molnar, Margit, Nigel Pain and Daria Taglioni. 2008. *Globalisation and Employment in the OECD*. Paris: OECD.
- Nielsen, Peter Bøegh. 2013. «Measuring International Organisation of Enterprises and Sourcing of Business Functions». International Statistical Institute: Proceedings of the 2013 World Statistics Congress.
- Nordhaus, William D. 2006. «Baumol's Diseases: A Macroeconomic Perspective. » *National Bureau of Economic Research Working Paper Series* No. 12218. Available at: <http://www.nber.org/papers/w12218>
- Nordic Council of Ministers. 2011. *Nordic countries in figures 2011*. Copenhagen: Nordic Council of Ministers.
- OECD. 2005. *OECD Employment Outlook 2005*. Paris: OECD.
- . 2007a. *Moving Up the Value Chain: Staying Competitive in the Global Economy - Main findings*. Paris: OECD.
- . 2007b. *OECD Economic Outlook 2007 - III Making the most of globalisation*. Paris: OECD.
- . 2007c. «OECD Workers in the Global Economy: Increasingly Vulnerable?» *OECD Employment Outlook*.
- . 2007d. *Offshoring and Employment - Trends and Impact*. Paris: OECD.

- . 2010. *Measuring Globalisation : OECD Economic Globalisation Indicators 2010*. Paris: OECD Publishing. Full text available from OECD
iLibrary: <http://ez.statsbiblioteket.dk:2048/login?url=http://dx.doi.org/10.1787/9789264084360-en>.
- Olsen, Karsten Bjerring, Rikke Ibsen and Niels Westergaard-Nielsen. 2004. *Does Outsourcing Create Unemployment? The case of the Danish Textile and Clothing Industry*. Aarhus: Center for Corporate Performance, Aarhus School of Business. Working paper. no.5.
- Poulsen, René T., and Henrik Sornn-Friese. 2011. «Downfall delayed: Danish shipbuilding and industrial dislocation». *Business History* 53(4):557–582.
- Powers, William. 2012. «The Value of Value Added, Measuring Global Engagement with Gross and Value-added Trade. » *World Economics*, 13(4): 19 – 38.
- Pyndt, Jacob, and Torben Pedersen. 2006. *Managing global offshoring strategies : a case approach*. Frederiksberg: Copenhagen Business School Press.
- Rattner, Steven. 2011. «The Secrets of Germany's Success». *Foreign Affairs*. 16 June 2011. Web. 7 Dec. 2011. <http://www.foreignaffairs.com/articles/67899/steven-rattner/the-secrets-of-germanys-success> .
- Refslund, Bjarke. 2012. «Offshoring Danish slaughterhouse jobs to Germany – regional effects and challenges to workers organisation». *Work Organisation, Labour and Globalisation*. 6(2): 113-129.
- . 2013. «Udflytning Af Danske Slagteriarbejdspladser ? Europæisk Pres På Det Danske Arbejdsmarked. » *Tidsskrift for Arbejdsliv* 15(1):52–71.
- . 2014. «Globalisering Og International Integration Af Produktion – Dansk Økonomi I En Værdikædeanalyse. » *Økonomi og Politik* 87(2):88–103.
- . (forthcoming article). Offshoring and the Domestic Economy – An overview of Survey Based Evidence.
- Rodrik, Dani. 1997. *Has Globalization Gone Too Far?* Washington D.C.: Institute for International Economics.
- Rowthorn, Robert, and Ken Coutts. 2004. *De-Industrialization and the Balance of Payments in Advanced Economies*. UNCTAD Discussion Papers, nr. 170. Geneva: UNCTAD.
- Rowthorn, Robert, and Ramana Ramaswamy. 1999. “De-industrialisation and Foreign Trade.” *IMF Staff Papers* 46(1): 18–41.
- Samuelson, Paul A. 2004. «Where Ricardo and Mills Rebut and Confirm Arguments of Mainstream Economists Supporting Globalization». *Journal of Economic Perspectives* 18 (3): 135-146.
- Scheve, Kenneth and Matthew J. Slaughter. 2004. «Economic Insecurity and the Globalization of Production». *American Journal of Political Science* 48(4): 662-674.
- Schmidt, Vivien. 2006. «Social Contracts Under Siege: National Responses To Globalized And Europeanized Production In Europe. » Paper prepared for presentation for the conference: “The New Global Division of Labor: Winners and Losers from Offshore Outsourcing.” Center for Global Initiatives, Mt Holyoke College, South Hadley MA (March 3-4, 2006). Boston University.
- Schumacher, Reinhard. 2013. «Deconstructing the Theory of Comparative Advantage. » *World Economic Review* 2013(2):83–105.

- Sinn, Hans-Werner. 2011. «The Welfare State and the Forces of Globalization». In *Perspectives on the Performance of the Continental Economies*, Cambridge Mass.: MIT Press, p. 413-428.
- Slaughter, Matthew. 2007. «Globalization and Declining Unionization in the United States». *Industrial Relations* 46(2): 329-346.
- . 2009. «Globalization and Productivity: Current Research Findings and Policy Implications». Paper prepared for the Federal Reserve Board Academic Consultants Meeting, Microeconomic Perspectives on Productivity, October 16th 2009.
- Statistics Denmark. 2006. *Dansk erhvervsliv i internationalt perspektiv. TemaPubl. 2006:1*. København: Danmarks Statistik.
- . 2008. *International Sourcing Moving Business Functions Abroad*. København: Danmarks Statistik.
- . 2009a. *Foreign Investors Survey*. København: Danmarks Statistik.
- . 2009b. *Udenlandske firmaer i Danmark*. København: Danmarks Statistik.
- . 2010. *Grænseoverskridende virksomheder. Danske datterselskaber i udlandet 2008*. København: Danmarks Statistik.
- . 2011. *Danmarks udenrigsøkonomi 2010*. København: Danmarks Statistik.
- . 2012. *Nyt fra Danmarks Statistik Nr. 644. Hver femte danske virksomhed outsourcer til udlandet*. København: Danmarks Statistik.
- . 2014. *65 år i tal - Danmark siden 2. verdenskrig*. København: Danmarks Statistik.
- Stehrer, Robert et al. 2012. *Global Value Chains and the EU Industry*. The Vienna Institute for International Economic Studies, Research report 383.
- Stephens, John D., Kees van Kersbergen, Anke Hassel, and Bruno Palier. 2012. “Review Symposium: Bruno Palier (ed.) A Long Goodbye to Bismarck? The Politics of Welfare Reform in Continental Europe.” *Journal of European Social Policy* 22(1): 90–101.
- Storper, Michael, and Richard Walker. 1989. *The Capitalist Imperative*. Oxford: Basil Blackwell.
- Streeck, Wolfgang. 2009. *Re-forming capitalism : institutional change in the German political economy*. New York, NY: Oxford University Press.
- Sturgeon, Timothy J. and Gary Gereffi. 2009. «Measuring success in the global economy: international trade, industrial upgrading, and business function outsourcing in global value chains». *Transnational Corporations* 18(2): 1–36.
- Sturgeon, Timothy, and Olga Memedovic. 2010. *Mapping Global Value Chains: Intermediate Goods Trade and Structural Change in the World Economy*. Vienna: UNIDO: United Nations Industrial Development Organization.
- Sturgeon, Timothy J. 2013. *Global Value Chains and Economic Globalization- Towards a New Measurement Framework*. Report prepared for Eurostat.
- Sturgeon, Timothy, Peter B. Nielsen, Greg Linden, Gary Gereffi, and Clair Brown. 2013. «Direct Measurement of Global Value Chains: Collecting Product- and Firm-Level Statistics on Value Added and Business Function Outsourcing and Offshoring. » in (Mattoo et al. ed.) *Trade in Value Added: Developing New Measures of Cross-Border Trade*, Washington D.C.: World Bank. Pp. 289–319
- Sura, Walter. 2009. *Specialisations within EU manufacturing*. Luxemburg: Eurostat.
- Swank, Duane. 2002. *Global Capital, Political Institutions, and Policy Change in Developed Welfare States*. Cambridge: Cambridge University Press.

- Thelle, Martin H., Svend T. Jespersen, and Eva R. Sunesen. 2011. *Danmark som produktionsland. Muligheder og udfordringer for danske fremstillingserhverv*. København: Copenhagen Economics for Danmarks Vækstråd.
- Thompson, Grahame, and Lars Bo Kaspersen. 2008. *The 'Globalization' or 'Internationalization' of Danish Large Companies?* International Center for Business and Politics: Copenhagen Business School.
- . 2012. «The globalization of the business sector in a small open economy: the case of Denmark and its wider implications». *Socio-Economic Review* 10 (4) : 627–653.
- Thurow, Lester C. 2004. «Do Only Economic Illiterates Argue That Trade Can Destroy Jobs and Lower America's National Income? » *Social Research* 71(2):265–78.
- Timmer, Marcel P. 2012. *The World Input-Output Database (WIOD): Contents, Sources and Methods*. WIOD Working Paper Number 10, available at <http://www.wiod.org/publications/papers/wiod10.pdf>
- Timmer, Marcel, R. Inklaar, M. O'Mahony and B. van Ark. 2011. «Productivity and economic growth in Europe: A comparative industry perspective». *International Productivity Monitor*, Centre for the Study of Living Standards 21: 3-23.
- Timmermans, Bram and Christian R. Østergaard. 2011. «Offshoring and Changes in Firms' Domestic Employment: Evidence from the Danish Offshoring Survey» Paper presented at the DRUID 2011 on INNOVATION, STRATEGY, and STRUCTURE - Organizations, Institutions, Systems and Regions at Copenhagen Business School, Denmark, June 15-17, 2011. Aalborg University. Department of Business and Management.
- Traca, Daniel. 2005. «Wage Restraint and Volatility». Bruxelles: Solvay Business School, Free University of Brussels and CEPR.
- UNCTAD. 2011. *World Investment Report 2011*. Geneva: United Nations Conference on Trade and Development.
- . 2013a. *World Investment Report 2013*. Geneva: United Nations Conference on Trade and Development.
- . 2013b. *Global Value Chains and Development - Investment and Value Added Trade in the Global Economy (Advance Unedited version)*. Geneva: United Nations Conference on Trade and Development
- Urry, John. 2014. *Offshoring*. Cambridge: Polity Press.
- van der Zee, Frans, and Felix Brandes. 2007. «Manufacturing Futures For Europe. A Survey of the Literature. » Report published at TNO: Delft, The Netherlands. Available at: http://ec.europa.eu/enterprise/policies/industrial-competitiveness/files/industry/doc/future_manufacturing_europe_literature_final_report_en.pdf
- Wagner, Joachim. 2011a. «Productivity and international firm activities: What do we know?» *Nordic Economic Policy Review*, 2011 (2). p.137-161.
- . 2011b. «Offshoring and firm performance: self-selection, effects on performance, or both?» *Review of World Economics* 147(2):217–247.
- Wallerstein, Immanuel, and Terrence Hopkins. 1994. «Commodity chains: Construct and research» in *Commodity chains and global capitalism*. (ed. Gereffi and Korzeniewicz), Westport, Conn.: Praeger: 95–122.

- Whitley, Richard. 2012. «Internationalization and the Institutional Structuring of Economic Organization. Changing Authority Relations in the Twenty-First Century» in *Capitalisms and Capitalism in the Twenty-First Century* (ed. Morgan and Whitley), Oxford: Oxford University Press: 211–36.
- Xing, Y., and N. Detert. 2010. «How the iPhone Widens the United States Trade Deficit with the People's Republic of China». ADBI Working Paper 257. Tokyo: Asian Development Bank Institute. Available: <http://www.adbi.org/working-paper/2010/12/14/4236.iphone.widens.us.trade.deficit.prc/>
- Zysman, John, Stuart Feldman, Kenji E. Kushida, Jonathan Murray and Niels Christian Nielsen. 2013. “Services with Everything. The ICT-enabled Digital Transformation of Services.” in (D. Breznitz and J. Zysman eds.). *The third globalization : can wealthy nations stay rich in the twenty-first century?*: New York: Oxford University Press: 99-129.
- Økonomi- og Erhvervsministeriet. 2004. *Fakta vedr. udflytning af danske arbejdspladser*. København: Tænk tanken Fremtidens Vækst.
- . 2007. *Danmark på de globale markeder. Økonomisk Tema nr. 5, juni 2007*. København.
- . 2008. *Danske virksomheders outsourcing. Økonomisk tema nr. 6, juni 2008*. København: Økonomi- og Erhvervsministeriet.
- . 2010. *Danmark i den globale økonomi - Konkurrenceevneredegørelse 2010*. København: Økonomi- og Erhvervsministeriet.
- . 2011. *Internationale virksomheder i Danmark*. København: Økonomi- og Erhvervsministeriet.
- Økonomisk Råd. 2004. *Dansk Økonomi - Efterår 2004*. København: Det økonomiske råd.