

1. The Social Impact of Relocation of Economic Activities: A Comparative Analysis

Over the last years Globalisation and its alleged negative effects for the distribution of income, unemployment, poverty and social cohesion has caused immense public anxiety in Europe, particularly against the backdrop of eastern enlargement of the European Union. Indeed, globalisation in the form of intensified international trade has a deep structural impact fostering the specialisation of open economies in industries where they possess a comparative advantage. Other, less competitive industries on the other hand shrink. One example in case is the clothing and footwear industry which since the 1970's has been facing increased competition from low wage countries. By now mass production of clothes and footwear has almost completely disappeared from Western Europe. Following standard trade theory, international specialisation is expected to yield significant efficiency gains improving the welfare of open economies. Slightly newer trade models, however, have shown that the paradigm of universal welfare gains through international trade is heavily based on the assumptions of perfect competition and flexible factor prices.

Krugman (1995) convincingly shows that with rigid relative factor prices imports from low wage countries cannot be met by a sufficient specialisation in export oriented activities. As a result, trade with low wage countries can dramatically lower aggregate domestic production and employment. This is of particular relevance in the European context and highlights the importance of institutional characteristics of the welfare state that affect the wage setting. Welfare states face the challenge of mitigating adverse effects of the Globalisation process while at the same time the institutional characteristics of the welfare system directly shape the potential welfare gains and losses from Globalisation. In the public but also academic debate one often refers the European Social Model or the European Welfare System partly to contrast the American Social Model. However, institutional characteristics of the welfare system starkly differ within Europe. Somewhat simplifying, we identify three types of social models within the European Union: the Anglo-Saxon, the Scandinavian and the Central European. All three substantially differ in terms of institutions and legislation particularly with respect to employment protection, unemployment benefits, active labour market policies, minimum wages or the role of unions. It is an open question that will be addressed in this project which social model is best suited to cope with the challenges of globalisation.

This is a particularly relevant question as the more recent development of globalisation is markedly different from that of past decades. A key feature of today's globalisation process is the ever increasing international fragmentation of production that manifests itself in a fast growing share of trade with intermediate goods. What we witness now is a dramatically intensified international division of labour which does not only take place between industries but is prevalent within each manufacturing industry and increasingly within business services. To stick with the example, it is now not only the clothing or footwear industry that faces increased international competition. It is rather, the low-skill or labour intensive segments within each industry that feel the pressure. Trade liberalisation and technological progress have substantially lowered transaction costs which increasingly enables firms to fragment and

relocate production to those locations where production costs are lowest. Analogue to conventional trade this fragmentation and relocation potentially yields large efficiency gains that materialise in the form of increased competitiveness and thus higher growth and employment. However, this process generates winners and losers. Particularly low skilled workers are at risk to suffer higher economic insecurity, income losses, unemployment and social exclusion.

In theory the consequences of the fragmentation and relocation process for low skilled workers are, however, not clear cut. Depending on the models and assumptions chosen, fragmentation of production can lead to decreases or increases in the demand for (unskilled) labour in the fragmenting economy (see, for example: Feenstra and Hanson (1996), Arndt (1997), Arndt (1999), Venables (1999); Jones and Kierzkowski (2001), Kohler (2004)). Whether workers in practice gain or lose from fragmentation and relocation is, therefore, largely an empirical question. Empirical evidence so far indeed suggest that low skilled workers are the losers from fragmentation (see for example Hijzen, Görg and Hine (2004) on the UK and Geishecker (2002) on Germany). However, existing empirical studies use fairly aggregated data which prevents a in depth analysis of the social impact of fragmentation. Namely, existing studies do not allow to decompose changes in the composite demand for various skill groups into wage and employment effects. Furthermore, using aggregated data does not allow to differentiate absolute gains and losses from relative ones. However, when designing policies it clearly matters whether the task is for instance to tackle increased income inequality that comes through absolute wage gains for highly educated workers or through absolute wage losses of low skilled workers.

The aim of this project is to provide a detailed disaggregated estimation of the social impact of international fragmentation and relocation for various population groups. We will identify winners and losers from the globalisation process and assess to what extent characteristics such as education and training determine the individually experienced impact of globalisation. Our approach also allows to simultaneously differentiate between the impact of fragmentation and relocation for labour or skill intensive industries. Although wages and employment at the aggregated level are central determinants of social cohesion our micro level approach allows us to also look at other important factors. It is now not only possible too look at aggregated wage and employment effects but also to assess the role of globalisation for individual economic security that manifests itself in yearly income fluctuations.

The analysis is carried out for three countries: the United Kingdom, Denmark and Germany, that exemplary stand for the three different social models in Europe and significantly differ in terms of the institutional setting. Comparing the social impact of relocation across these three countries can provide interesting new insights into the role of institutions and social policies for shaping and mitigating the impact of globalisation.

Task 1.1. Measuring Relocation

Clearly, access to and knowledge about relevant data for the three countries is imperative for such a comparative study. The first stage of the analysis involves generating comparable measures for international relocation and fragmentation. For this we will combine national input-output tables with disaggregated data on international trade to generate industry level measures of relocation and fragmentation activities. The fact that all three countries have implemented the common Statistical Classification of Economic Activities in the European Community clearly fosters cross national comparisons. This forms the basis for our empirical modeling and also enables us to give a comprehensive description of relocation activities at the industry level. We will identify the industries in which relocation and fragmentation activities are particularly important and assess the geographic distribution of relocation activities. The analysis is carried out for each of the aforementioned countries. Finally a comparison and synthesis of the analysis of relocation activities across countries is carried out.

Task 1.2. Compiling micro level data

The second step involves defining comparable variables and preparing the micro level data for Great Britain, Denmark and Germany. For Great Britain we utilise micro data from the British Household Panel Survey (BHPS). For Denmark we draw on census data (IDA) representing 10% of the total population. For Germany we use the German Socio Economic Panel (GSOEP). All three data set comprise a rich set of individual level information on demographic regional and workplace related characteristics, education, employment histories and income. The challenge is to compile a comparable data set with similar skill, industry, employment and income definitions. The individual level data then has to be merged with the previously generated industry level relocation measures.

Task 1.3. Relocation, income and the working poor

Industry level studies, including our own work in Hijzen, Görg and Hine (2003) and Geishecker (2002) have shown that international outsourcing significantly contributes to rising relative wages of skilled workers. The nature of this approach, however, makes it impossible to identify the absolute changes in wages for different skill groups that underlie this aggregate change in relative wages. The purpose of this part of the project is to extend the literature by using micro data to investigate how relocation and fragmentation affect individual level wages. The focus lies not on aggregate wage effects but rather on identifying sub groups of the population that are at particular risk of suffering significant income losses and increased poverty risk due to globalisation.

Our approach will take the form of estimating Mincerian type wage equations for workers in various skill groups, correcting for incidental truncation. These wage equations are augmented by the

international relocation propensity in an industry. Utilising the cross sectional and time dimension of the three data sets we will be able to control for individual time invariant effects as well as for common macro economic shocks and technological progress at the economy wide level. Further industry variables will also be included in order to control for the size of the industry and other time changing industry characteristics as well as technological progress (potentially leading to skill biased technological change) at the level of the industry.

Preliminary results for Germany based on the GSOEP sample for workers in the former West Germany show that wages of high skilled workers are positively affected by industries' outsourcing activity while wages of low skilled workers are significantly lowered. However, the effects are not homogenous across industries. Low skilled workers in low-skill intensive industries are more likely to suffer income losses. For low skilled workers in high-skill intensive industries the effects are much smaller. We will estimate comparable wage equations for British workers based on the BHPS, Danish workers based on census data and German workers based on the GSOEP. It is of particular interest whether and how income effects between the three aforementioned countries that represent three different social models vary.

1.4 Country comparisons and policy implications

This part of the project will draw together the results of the previous tasks and attempt to interpret potential differences and similarities. Differences in the results may be expected in particular due to different labour market institutions in the three economies. Frequently, Germany is seen as having a relatively „inflexible“ labour market, e.g., due to higher hiring and firing restrictions, as described in earlier work by Görg (2002). In contrast, the UK and Danish labour markets are more flexible, and for the Danish case the increased flexibility goes hand in hand with a generous system of unemployment benefits and active labour market measures. This is the so-called “flexicurity” approach, which have been praised by OECD (2004) for its effectiveness in generating dynamism in the labour market. In this part of the project we will discuss to what extent differences in institutional settings may be responsible for differences in results. Tying together the results of the previous tasks will also allow us to consider and discuss the possible policy implications and the potential policy advice that may be given.

2. Time plan and projected outcome

The scheduled duration of the project is one year starting January 1st 2006. During the first six months the required data sets will be collected, and the estimation work will be carried out. In the second half of the project results will be compared, and on the basis of this, it is the intention to write one article with the aim of submitting it for publication in an internationally recognised journal.

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