

WORKS Workshop ‘Catching the butterflies’

Expert workshop on innovative methodologies for measuring employment effects of value chain restructuring
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Summary

One of the major consequences of economic globalisation is the destruction and creation of jobs. These employment changes are the result of the increased pressure on firms to outsource or relocate activities or of other sorts of restructuring such as mergers, acquisitions and strategic alliances. Both researchers and policy makers stress the need and the importance of estimating the scale of these employment changes. While the downward pressure on employment of the international relocation of production activities in industry has been studied since the 1980s, recent research also focuses on the relocation of service activities, and on the effects of corporate restructuring in general. The methods applied to estimate the latter employment effects of globalisation differ widely, and are still in the process of development.

Notwithstanding the use of a wide variety of methods and data sources, authors undertaking research in this field are united in concluding that the measurement of globalisation's impact on employment is extremely difficult.

The aim of the WORKS Workshop was to bring together researchers from a range of different backgrounds who are developing new methodologies for measuring the employment effects of globalisation in general and of value chain restructuring in particular, or who are working with data sources which might shed light on these. The methodologies and results of different approaches have been presented in order to share ideas on methods, techniques, and data sources. The aim of the workshop was to allow participants to discover common ground in their approaches and methodological problems, and to make it possible for them to introduce innovations in their methods.

Workshop participants were invited from different institutional settings (university, policy institutes, national statistic offices), from different disciplines (economists, sociologists, statisticians), and from Europe and North America. Despite these different backgrounds, the methodological focus of the workshop was clear: participants were invited to present the sources and methodologies they use for measuring the employment effects of value chain restructuring; to present the possibilities and the limits of these; and to discuss problems and solutions common to different methods.

Day one

During the first day, two recently developed, important survey projects have been presented, one from the European Union and one from the United States, in which the business function is used a central concept for collecting information on the international outsourcing of activities and on the employment effects of business decisions.

The first three presentations covered the recently developed International Sourcing Survey from Eurostat. The first presentation was brought by **Pekka Alajääskö**, a European Commission official from Eurostat Luxembourg, who co-ordinates the development of general services sector statistics and particular projects like International sourcing, Business Services, Demand for Services and statistics on the Health Care sector. He presented the background, objective and scope of the International Sourcing Survey. The survey is held in 14 European countries with the objective to provide policy makers at national and European level with relevant statistical evidence and information about international sourcing. This includes the impact on competitiveness, the motivations behind and the perceived benefits of international sourcing, the barriers met, and the consequences for employment. The scope of the project is the total of international sourcing: outsourcing (outside the enterprise or group) as well as insourcing (within the group). The survey covers the so called non-financial business economy (NACE C to I and K), and the focus is on large enterprises (100 or more persons employed). An important feature of the survey is the breakdown of the enterprise activities into the core business function and a number of support business functions. Results for Europe are not yet available, but the methodological reports show that the survey has been quite successful, with high response rates and no big response problems.

The second presentation on the Eurostat International Sourcing Survey focused on the background, the measurement difficulties and the very first results of the national surveys of Denmark and Finland. **Peter Boegh Nielsen**, head of the division for structural business statistics in Statistics Denmark, and **Samuli Rikama**, from the Business Structures division at Statistics Finland, were present at the WORKS Workshop. They have developed and coordinated the International Sourcing Survey in Denmark and Finland.

The background, as explained by Peter Nielsen, is that international sourcing, which occurs for a long time in manufacturing industries, is recently also emerging in services. The topic is high on the political agenda, but the debate is mainly based on anecdotal evidence. In Denmark, the initial belief was that international sourcing is a threat. More and more, this approach is left behind and by now, the official policy of the government is to stimulate sourcing as much as possible. Labour force shortage is now considered to be the main threat for the Danish economy. The best way to utilise the Danish labour force is to focus on high value added areas such as research, development, sales, marketing and branding. To measure the extent of outsourcing, the enterprise as a unit of analysis is inadequate. Therefore, the black box of the enterprise has been opened up by defining business functions within enterprises. In the first results, a comparison has been made of Denmark and Finland. These results show that the majority of all firms have sourced, that core functions are mostly sourced international, and that also smaller enterprises do source. Now it is waiting for the research report with the detailed statistics.

The third presentation concerning the International Sourcing Survey dealt with the Dutch case. Two researchers from Statistics Netherlands (CBS), **Gusta van Gessel-Dabekaussen**, project manager responsible for the Dutch pilot project International Sourcing and **Mark Vancauteren**, researcher at the unit International Economic Relations, presented the first results of the survey in the Netherlands. Gusta van Gessel presented the population, sample, stratification and response, along with the very first results. These covered the overall employment effects, the skill effects, as well as the employment effects by sector and business function. Next, Mark Vancauteren, presented the results of the analysis of the motivation factors for international sourcing through the allocation of different factors (principal component analysis). Evidence has been found that the most important reasons for international outsourcing are cost related, of which the labour cost component is the most important one. The analysis also suggests that international outsourcing follows a strategic business process that gives a unique competitive position through reaping the cost advantages. Here also, we wait impatiently for the first research report with detailed statistics.

In the next presentation, **Sharon Brown**, Chief of the Division of Local Area Unemployment Statistics in the U.S. Bureau of Labor Statistics, presented a new method the Bureau of Labor Statistics is developing for identifying business functions in the Mass Layoff Statistics programme (MLS). The MLS programme identifies plant closings and mass layoffs in establishments with 50 or more employees where at least 50 initial claims for unemployment were filed. By means of employer interviews, information is collected which is not available from administrative data. Since 2007, information on business functions is gathered as well. They found that business decisions are often based on a consideration of the firm's business function and that these are reflected in employment actions such as layoffs. The 'business function' is defined as an activity that a firm performs in order to produce its product or to achieve its objective.

The survey question on which business function is involved in the layoff, is an open-ended question. Afterwards, these business functions are recoded into eight business processes. The 'business processes' describe the full range of activities a firm engages to conduct its business. The eight business processes, compiled from the hundreds of business functions, are five core processes (procurement, logistics, distribution; operations; product and/or service development; marketing, sales, customer accounts; customer and after sales services) and three support processes (general management and firm infrastructure; HRM; technology and process development). The assigning of functions into processes is still ongoing and appears to be a very heavily manual operation. For the first three quarters of 2007, employers in 3463 layoff events provided a total of 5769 business functions involved. By looking at the business function, one can detect the activity that is the focus of change. By looking at the business process, one distinguishes actions more from the perspective of the company and the decisions that are taken. Qualitative analysis of the business function collection and the coding into business process is ongoing and will lead to a publication.

Karen Geurts, from HIVA (Higher Institute of Labour Studies), presented a methodology to estimate employment in business functions based on existing survey data. The method has been developed in the framework of the WORKS research programme with the aim to try and estimate job growth and job decline which is caused by the global restructuring of value chains. Business functions are identified by using proxies, which are constructed on the basis of crossings of occupations and sectors (ISCO and NACE classification). The

analysis has been conducted for the old and the new European member states on the basis of the European Labour Force Survey. In some sectors, evidence has been found of a concentration on core activities, whereas other sectors show a decreasing importance of core activities and a growing importance of secondary activities. A second conclusion concerns the shift of business services (for ex. IT or Logistics) towards specialized sectors, which could be an indication of an increased outsourcing of these activities to specialised service companies. The outsourcing of these activities seems to happen to a major extent within the borders of the old European member states, since for these business services, total employment in the old member states is increasing and no major shift of employment has been found to the new member states.

Day one ended with a first presentation of methods which use existing databases for developing indicators for the employment effects of globalisation. **Yvonne Wolfmayr**, Economist at WIFO (Austrian Institute of Economic Research), builds on a long tradition of making use of macro-economic databases for measuring the impact of outsourcing on employment. In her presentation 'Services and materials outsourcing to low-wage countries and employment: Empirical evidence from EU countries', she presented a method based on input-output tables of 1995 and 2000 to investigate the impact of international outsourcing on domestic labour demand in five European countries. In the analysis, outsourcing is defined as the import of intermediate goods and services as percentage of gross output. The intermediate imports are broken down by country of origin, which makes it possible to make a distinction between outsourcing to low-wage and high-wage countries. Her results indicate that in the manufacturing sector, the outsourcing of intermediate materials to low-wage countries has a relatively small negative impact on the demand for labour. This effect is more pronounced for imported materials from China and the East Asian countries than for those from Central and East European countries. The outsourcing of services, on the other hand, has no effect on employment levels in manufacturing. In the service sector, the results indicate that while the total of internationally purchased services is not important, purchased services from low-wage countries have a statistically significant but rather small negative impact on employment.

Day two

Day two started with three presentations on methods and databases collecting firm level data to describe and analyse the impacts of economic globalisation.

Donald Storrie, Head of the Employment and Competitiveness Unit of the European Foundation for the Improvement of Working and Living Conditions in Dublin, presented three main ongoing projects at the European Foundation. The European Restructuring Monitor (ERM) is a database containing details of industrial restructuring cases as reported in the press. All announcements involving the reduction or creation of at least 100 jobs or affecting 10% of the workforce in sites employing 250 people or more are taken into account. The cases are identified through a review of daily papers and the financial press in the 27 Member States of the European Union and Norway. The database can be consulted on-line. Donald Storrie presented the pros and cons of this way of data collecting (questions of representativeness versus fast reporting of actual trends).

Second, the European Foundation has recently started with the development of a new method to capture the effects of globalisation, which will be based on national databases

on collective redundancies. The notification of collective redundancies is a EU requirement which is in some countries exploited for statistical reasons. The European member states will be invited to report the information on these collective redundancies to the European Foundation. Finally, Donald Storrie presented the methodology which will be used in the forthcoming ERM Report 2008 on 'More and better jobs' (June 2008). The main idea of this method is to study the net results of job creation and destruction in terms of job quality by using the salary as a proxy. The analysis will be carried out on the basis of already existing EU data sources (mainly the LFS). The method defines a 'job' as a crossing of occupations and sectors and calculates the median hourly wages of each of these jobs. The first results indicate that job creation (between 1995 and 2006) is mainly in the higher wage categories. In the report, the results will be differentiated by gender, sectoral composition of job creation in each of the job quality groups, etc.

Mauro Pisu, working as a research economist at the National Bank of Belgium, uses firm level data to investigate the effects of globalisation processes. His research builds on a long research tradition in which trade is considered as the motor of economic globalisation. Starting from recent international trade literature based on heterogeneous firms, he investigates how the involvement of firms in international trade affects their employment levels and leads to a process of job creation and destruction. The aim of his research has been to quantify job reallocation between firms within sectors as a consequence of firm level participation in international markets. Mauro Pisu quantifies the extent of this reallocation using a dataset of Belgian manufacturing firms from 1998 to 2004 providing information on their international trading activities (imports, exports and FDI). The results generally suggests that direct involvement in international markets contributes to within-sector job reallocation between firms, but that this contribution is rather small: the shifts in employment between firms having a different trading status account for 6 to 30 percent of total job reallocation. Thus, the results cast some doubt on the dramatic effects of international trade involvement on job reallocation, at least for developed countries such as Belgium, which have not witnessed a time of substantial trade liberalisation during the sample period.

Besides traditional forms of trade and investment, there are new patterns of globalisation which shape the internationalisation of the economy. One of the most eye-catching forms of corporate restructuring on a global basis are cross-border mergers and acquisitions (M&A), which have increased dramatically during the past two decades. **Christian Buelens**, working at the Directorate General for Economic and Financial Affairs of the European Commission, presented the M&A database developed by the European Commission. He illustrated how the database is a potentially rich and valuable tool for FDI analysis and research on domestic restructuring. The M&A database contains data gathered by Thomson Financial Services on the basis of a wide range of sources, and has the aim to have a worldwide coverage of M&A deals with at least 5% ownership change. Information is available on the target and bidding firms (country, sector), and on the value and date of the deal. Christian Buelens presented results published in the yearly M&A Note, with the emphasis on transactions involving EU firms. The analysis of geographical patterns of EU firms as targets and bidders of M&A shows an increasing number of acquisitions by EU firms in Asia and the rest of Europe, and a stronger M&A intensity between neighbouring countries. The analysis by sector shows that M&A deals predominantly occur between firms in the same sector. Buelens next went into the rationale behind mergers, and the risks associated with them. He also presented the conclusions of empirical work on the M&A data on the determinants of cross-border M&A. Finally,

Buelens illustrated possible extensions of this analysis: the sectoral variance in the determinants of cross-border M&A, and the different sectoral acquisition patterns at home and abroad.

Julia Lane is Program Director Science of Science and Innovation Policy at the National Science Foundation (NSF) in the United States. Together with Clair Brown and Tim Sturgeon, she has been developing an employee survey on globalisation, as a module to the General Social Survey (GSS). The GSS is a representative sample of US households, which is used in this module to get a representative frame of employers. The development of the face-to-face questionnaire, in which employees are questioned about their employer, has been an intensive programme, involving the expertise of several experts. Much attention has been spent as well to the training of the interviewers. The objective of the survey is to collect information on the amount of globalization, outsourcing and offshoring in the United States; on how globalization and technological change are related to the nature and type of firm business functions and personnel practices; and on the impact of globalization and technological change on job creation, destruction and worker turnover. The survey is in field now through October. Parallel to this employee survey, an employer survey will be developed, asking about three key issues: globalization, technological change, and entrepreneurship. The first meeting of the expert group of this survey will be on May 2, 2008. Julia Lane invited the participants of the WORKS Workshop to collaborate on the development of this survey. Finally, Julia Lane explained how the business function is a key feature in both surveys on globalisation. A generic framework of business functions has been developed, which is close to the business process classification of the Bureau of Labour Statistics as has been illustrated by Sharon Brown, and which must allow cross-industry comparisons, geographic comparisons, and aggregation.

The last presentation of the WORKS workshop was by **Stefan Bender**, head of the Research Data Centre of the German Federal Agency at the Institute for Employment Research in Nuremberg (IAB). He presented the COST Action 'Comparative analysis of enterprise data: industry dynamics, firm performance, and worker outcomes', which is a pan-European programme that has only recently started but has a promising potential for the future. The motivation for the Action is the awareness that there are several National agencies which have collected firm level data for years, but that the availability of these data for research has to be improved, as well as the concepts & measures that are used, the combination of different firm level sources within countries, and last but not least, the international comparability. Thus, the main objective of the COST Action is to develop a network of leading researchers to work with national statistical agencies on improving firm level databases, and to collaborate on new international comparative research. The focus of the Action is on improving the use of firm level data within four main areas of interest: industry dynamics, firm performance, worker outcomes, and data quality and access. For the time being, 10 old and new European member states have signed in to the COST Action, and three have the intention to do so. Since a COST Action is an open process, other COST member states can sign in. Both the WORKS Workshop participants of Belgium and Austria showed interest to do so. The COST Action will among others organise international conferences with open calls and workshops on focused topics. The first conference will be on May 22-24 in Budapest.

The WORKS Workshop ended with a discussion on **further international collaboration**. First of all, the participants expressed their appreciation for this informal workshop

which allowed them to get in contact with ongoing research and initiatives, and with the people behind it. They confirmed that the WORKS Workshop has been very useful to get informed about the work and the perspectives of other researchers and statisticians working on the same topic. The participants from the V.S. and Canada found it interesting to see the European perspective and vice versa. It was also repeated how important it is for the producers and the users of data to meet, and it was confirmed that this workshop offered an excellent opportunity for this. For statistical offices, it is difficult to find funding to engage in research. Since globalisation is high on the agenda of statistical offices, it is an excellent topic on which statisticians and researchers can meet. Thus, it was stressed that it would be a good idea to putting globalisation effects in the centre of future collaboration. Most of the participants expressed their interest in staying involved in initiatives of this kind, and want to be informed about future events. The COST Action, presented by Stefan Bender, is considered as a good opportunity for future international collaboration, and both Austria and Belgium consulted Stefan Bender on how to sign in.