European Foundation for the Improvement of Living and Working Conditions

Monitoring and managing restructuring in the 21st century

ERM ANNUAL REPORT 2013

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Note on country groups used in the report

EU27 EU28 countries listed below with the exception of Croatia (which became a Member State on 1 July 2013).

All ERM data in the report refer to the EU27. European Labour Force Survey (EU LFS) data refers either to EU28 or EU27 as indicated.

EU15 15 EU Member States prior to May 2004 (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom)

EU12 12 new Member States that joined the EU in May 2004 (Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia) and in January 2007 (Bulgaria and Romania)

CCE 10 central and eastern 'new' European Member States (EU12 above, minus Cyprus and Malta)

EU28 country codes

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania

LU Luxembourg

LV Latvia

MT Malta

NL Netherlands

PL Poland

PT Portugal

RO Romania

SE Sweden

SI Slovenia

SK Slovakia

UK United Kingdom

Main acronyms used in the report

EMCC European Monitoring Centre on Change

ERM European Restructuring Monitor

EU LFS European Labour Force Survey (Eurostat)

NACE European industrial activity classification (Nomenclature statistique des Activités économiques dans la Communauté Européenne)

NUTS Nomenclature of Territorial Units for Statistics (Nomenclature des unités territoriales statistiques)

Contents

Executive summary

Introduction

The 2013 annual report from the European Restructuring Monitor (ERM) presents a retrospective of over a decade of measuring the impact of large-scale restructuring activity in Europe. It summarises restructuring trends based on a restructuring database that includes details of over 16,000 large-scale restructuring events – each generally involving at least 100 job losses or gains. In particular, the report focuses on comparing activity in the pre-crisis period (2003–2008) with the post-crisis period (2008–2013) in order to identify changes in the prevalence of different restructuring practices, and to show which sectors have been disproportionately affected, in employment terms, by the global recession. The report also includes a critical assessment of all ERM activities including the two newer policy-oriented databases: public support instruments and restructuring legislation. Finally, the report places the spotlight on the phenomenon of offshoring, charting the decline in offshoring activity by European firms since the onset of the crisis.

Policy context

In January 2013, the European Parliament endorsed a report urging the European Commission to propose a law on the management of change and restructuring. The report, drawn up by Alejandro Cercas MEP, included recommendations on informing and consulting workers as well as on the anticipation and management of restructuring. The European Commission has since indicated its plans for a 'Quality framework for restructuring and anticipation of change', which would frame the current EU legislation and initiatives in this field, and present the best practices to be implemented by all stakeholders.

As part of the Europe 2020 strategy, the European Commission has renewed its commitment to work to

> *promote the restructuring of sectors in difficulty towards future oriented activities, including through quick redeployment of skills to emerging high growth sectors and markets.*

The Commission added that Member States will need to

> *work closely with stakeholders in different sectors to identify bottlenecks and develop a shared analysis on how to maintain a strong industrial and knowledge base.*

Key findings

- The extensive documented use of the restructuring events database by policymakers and researchers attests to its value as a unique source of cross-national data on the impact of large-scale restructuring on employment over the last decade.
- Currently there are six million fewer Europeans in employment than at the outset of the economic crisis. The crisis has resulted in an increasing polarisation of labour market performance across the EU, with unemployment rates ranging from below 5% (in Austria) to nearly 28% (in Greece).
- The crisis and post-crisis periods have seen a notable increase in the share of restructuring job loss attributable to bankruptcy or closure, and a decrease in the share attributable to offshoring or relocation as well as mergers and acquisitions.
- In sectoral terms, the destruction of employment has been felt most acutely in manufacturing and construction. Together, these two sectors account for well over 100% of the net employment losses experienced since 2008.

- Employment has held up relatively well – and indeed has even grown – in some knowledge-intensive service sectors (health, education, IT and information services, and professional, scientific and technical activities) before, during and after the crisis.
- Austerity policies have meant that employment resilience has shifted from predominantly publicly funded sectors in 2008–2010 to private service sectors from 2010 onwards. Many of the largest ERM restructuring cases since 2008 have been implemented in public administration, which has accounted for a much higher share of overall announced job loss since 2008.
- The auto/transport sector is one of the few major manufacturing sectors in which employment levels have grown over the past decade. Nearly all of the net gains have come in eastern European countries, confirming an eastward shift in production.
- The crisis has significantly lowered the rate of offshoring in Europe. The offshoring share of ERM restructuring job loss peaked before the 2008–2009 crisis (quarterly range: 6%–12%) and has been lower since (quarterly range: 2.5%–6%).
- Half of offshored jobs remain in Europe. The main destination country grouping is the 2004–2007 enlargement countries, which account for one-third of relocated jobs. Another third of jobs offshored from Europe go to Asia.
- At least one in every six jobs (17%–18%) lost through restructuring in Denmark, Ireland and Portugal was offshored, much higher than the EU average of 6%.
- Manufacturing accounts for the majority of offshored jobs in all Member States except the UK, where services offshoring predominates.
- Over a quarter (28%) of offshoring job losses in non-domestic, EU-owned firms were a consequence of either full reshoring or partial reshoring to the country of ownership. German and Italian firms were those most likely to reshore.

Policy pointers

In the wake of budgetary consolidation and austerity, restructuring activity is equally, if not more, prevalent in the public sector than in the private sector. Given the features of public sector employment – such as higher levels of collective representation and greater employment protection – the nature of adjustments that are negotiated there can be instructive in identifying forms of restructuring that do not necessarily involve large-scale redundancies.

The plight of the construction sector, where employment has been cut by more than half in some of the Member States acutely affected by the financial crisis, underlines the importance of anticipating and discouraging unsustainable growth patterns in sectors strongly affected by credit-cycle conditions.

Offshoring activity appears to be relatively pro-cyclical. While restructuring job losses attributable to offshoring declined since 2008, a resumption of growth at customary levels could signal an upturn in offshoring, especially services offshoring, which to date has been comparatively marginal.

Good-quality data are important for policymaking, and the ERM plays an important role in sharing information and data on restructuring trends and policy developments among policymakers at European and national level. However, developing common European policies to deal with increasingly divergent national labour markets is a challenge for the future.

Introduction and summary

The European Monitoring Centre for Change (EMCC) was founded on the basis of the Presidency conclusions of the Nice European Council Meeting of 7–9 December 2000. The European Commission had called for the establishment of the EMCC in its *Managing Change* report – to monitor, above all, the anticipation and management of structural change in Europe (European Commission, 1998). Hence a core part of the EMCC is the European Restructuring Monitor (ERM) which, since its inception, has provided information on the impact of restructuring on employment. Over the last ten years, continuous efforts have been made to improve the ERM's quantitative data coverage and it has recently added two new databases (on the legal aspects of restructuring and support instruments). It is, therefore, appropriate that this year's ERM report gives a comprehensive presentation of the current state of the ERM, in its goal to become a one-stop shop for policy-makers and other actors involved in restructuring in Europe. In addition, the report looks back on a decade of restructuring in Europe. The ERM restructuring events database now contains over 16,000 cases of large-scale restructuring in Member States, including 14,776 in the period analysed in this report (2003 to the second quarter of 2013). The pooling of these cases into two periods – pre and post crisis – provides valuable data for the examination of shifting restructuring trends in Europe. Particular focus is placed on the type of restructuring where the ERM has the greatest comparative advantage – offshoring – of which there are now almost 800 cases.

Chapter 1 presents the quantitative restructuring events database of the ERM, describing its content, methodology and workflow. The assessment of its quality starts with an analysis of how to measure the employment impact of restructuring, outlining the strengths and weaknesses of various possible alternative approaches. The conclusion is that the most useful and feasible complement to the ERM is a relatively minor adjustment to the European Labour Force Survey (EU LFS). The ERM itself is unique in that it is the only data source in Europe that attempts to capture the employment impact of restructuring. Its strengths are that it contains up to date information and can provide data on identifiable individual firms, including useful details on the type of restructuring carried out. Its two weaknesses are its coverage and representativeness (not least as regards the omission of small firms) and the lack of information on the employees affected. Nevertheless, despite less than full coverage, the evidence presented indicates that the ERM is, to some degree, representative over time and by economic sector. There are reasons to suspect, however, that country comparisons may be less reliable. Good coverage and representativeness are the two features that a minor adjustment of the EU LFS could best provide. This combination of the adjusted EU LFS and a continual improvement of the ERM data has the potential to provide adequate monitoring of the employment impact of restructuring in Europe.

Chapter 2 presents the two recently launched ERM qualitative databases on legal aspects and public support instruments. These, while not yet fully comprehensive, will continue to be updated and validated every two years for the foreseeable future. The ERM databases on restructuring support instruments (since 2011) and restructuring-related legislation (since 2013) provide illustrative examples of what is done in the Member States of the European Union and Norway to create favourable frameworks for companies and their employees affected by restructuring. The information is collected systematically by compiling data from European databases, research and policy documents as well as papers from conferences and similar events, regularly validated by national experts and presented in a standardised and user-friendly way. In 2014 a further database – on restructuring case studies – will provide searchable (by key word) access to the numerous case studies that have been conducted by the EMCC over the last 10 years.

Chapter 3 outlines some ideas on how the ERM may be developed in the future. The development of digital monitoring of information in the public domain will continue, and is likely to lead to more

cost-effective and better coverage of restructuring events in Europe. It is planned to carry on using national input from correspondents to the European Foundation for the Improvement of Living and Working Conditions (Eurofound) in order to track and, above all, to validate restructuring.

The discussion of the ERM itself concludes in Chapter 4 with an overview of how it and other EMCC research on restructuring have been used by policymakers and researchers. The ERM restructuring events database is regularly used by the European Commission's Directorate-General for Employment, Social Affairs and Equal Opportunities (DG Employment) for labour market monitoring and for policy design. The ERM has been extensively cited in the two most important recent policy developments on the employment impact of restructuring. Since the inception of the European Globalisation Fund, ERM quantitative data and other regular contributions from the ERM project team have been used by DG Employment and the European Parliament at every revision of the Regulation governing the operation of the Fund. Possibly the most extensive use of all the ERM material was in the preparation of the report by MEP Alejandro Cercas on *Information and consultation of workers, anticipation and management of restructuring* (European Parliament, 2012). This material was particularly prominent in the European Added Value assessment conducted by the European Parliament in 2013, which is almost exclusively based on data from the ERM.

The analytical parts of this year's report starts in Chapter 5 with an analysis of the entire ERM events database which, by the end of the second quarter of 2013, now comprises 14,776 restructuring cases. The decade of available ERM data can be divided into two distinct periods: pre- and post-crisis. Looking at European labour market performance over the last decade, employment expansion in the pre-crisis period to 2008 has been followed by sharp losses during the initial period of the 2008–2009 crisis and continuing weakness at aggregate level. There are six million fewer Europeans in employment now than at the outset of the crisis. There has been an increasing variation/divergence since the crisis, as the initial shock manifested itself in different ways across Member States. Still unresolved sovereign debt issues in the common currency zone have further polarised labour market performance. Unemployment rates range from below 5% (in Austria) to nearly 28% (in Greece).

Large-scale restructuring activity, as captured by the ERM restructuring events database, has recorded net employment losses (announced job losses minus announced job gains) in the EU27 for every quarter since 2008. The crisis and post-crisis period have seen a notable increase in the share of restructuring job-loss attributable to bankruptcy or closure, and a decrease in the share attributable to offshoring/relocation or merger/acquisition.

In sectoral terms, the destruction of employment has been felt most acutely in manufacturing and construction. Together they account for well over 100% of the net employment losses experienced since 2008, according to EU LFS data. On the other hand, employment has held up well and, indeed, grown in knowledge-intensive service sectors (health, education, IT and information services, professional/technical and scientific services) both before, during and after the crisis. Austerity policies have meant that the locus of employment resilience has shifted from predominantly publicly funded sectors in 2008–2010 to private service sectors since 2010. Many of the largest ERM restructuring cases since 2008 have been recorded in public administration, which has accounted for a sharply higher share of overall announced job loss since 2008.

Another significant trend observable from the ERM restructuring events database is the shift in manufacturing production, especially in the automotive sector, from western Europe to eastern Europe over the last decade. This is one of the few major manufacturing sectors in which employment

levels have grown over the decade and nearly all of the net gains have come in the central and eastern European (CEE) EU Member States that joined in 2004 and 2007.

This year's report concludes in Chapter 6 with a detailed analysis of offshoring in Europe. In the last decade, significant offshoring has occurred in the wake of the dramatic change in the international division of labour, and has been high on the agenda of Eurofound's stakeholders. It is also the type of restructuring in which the ERM has the greatest comparative advantage: since its inception, the ERM contains data on almost 800 cases of offshoring in Europe. The review of the research literature on offshoring shows that it is principally motivated by labour cost differentials and involves direct job loss in the sending country; but these losses are, in many cases, counterbalanced by indirect, employment-positive consequences. Offshoring has tended to affect blue-collar and lower-skilled workers more severely than high-skilled ones in sending countries, in terms of both wages and the likelihood of job loss, and is one factor contributing to greater wage inequality. Offshoring accounts for a low share of large-scale restructuring job loss, less than 12% in every quarter since the ERM restructuring events database has been operational.

The crisis has significantly lowered the rate of offshoring in Europe. The offshoring share of ERM restructuring job loss peaked before the 2008–2009 crisis (range: 6%–12%) and has been lower since (range: 2.5%–6%). In the post-crisis period (2008 onwards), the offshoring share of restructuring job loss has converged in the CEE countries and in EU15. Previously, the share was six times higher in the EU15.

While large Member States record higher numbers of offshored jobs, the share of offshoring in overall restructuring job loss is much higher (over 15%) in some smaller, EU15 Member States, such as Denmark, Ireland and Portugal. Most offshored jobs in Europe remain in Europe. The main destination for offshored jobs are the CEE countries. China, India and other Asian countries account together for around a third of offshored jobs. Manufacturing accounts for the majority of offshored jobs in all Member States except the UK, where it is the services sector that is predominately offshored. ERM gives no evidence of a shift in the period 2003–2013 from manufacturing to services offshoring. The main broad sectoral trend is for a decline in the services share and an increase in the share of high-and-medium technology manufacturing in the post-crisis period. By firm nationality, foreign-owned firms accounted for a higher share of offshoring job loss post 2008 compared to 2003–2008 (from 46% to 66%). The share of domestically owned firms declined. More than a quarter (28%) of offshoring job losses in non-domestic, EU-owned firms were the consequence of cases of either full reshoring or partial reshoring to the country of ownership. German and Italian firms were those most likely to reshore.

The ERM, especially in the current macroeconomic context, will continue to be prominent in the public debate on company restructuring at the EU level, and will ultimately inform European policy-making on restructuring related issues. As part of the Europe 2020 strategy, the European Commission has renewed its commitment to:

> *work to promote the restructuring of sectors in difficulty towards future oriented activities, including through quick redeployment of skills to emerging high growth sectors and markets and Member States will need to work closely with stakeholders in different sectors […] to identify bottlenecks and develop a shared analysis on how to maintain a strong industrial and knowledge base.*

From this policy perspective, the expectation is that the ERM will develop further and that the analytical capabilities of the data and its policy relevance will be enhanced.

ERM: Restructuring events database

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Launched in 2002, the restructuring events database was the first of the three ERM databases. It records restructurings which involve the creation or destruction of at least 100 jobs, or affect 10% of the workforce at sites employing more than 250 people. Restructuring-related job losses and gains are reported in a standard template by a network of correspondents, one for each of the 28 EU countries, as well as Norway. Cross-national cases of restructuring are reported by an EU-level correspondent. Each correspondent is required to report cases of restructuring by regularly screening a broad selection of national media sources.

Although the underlying methodology for the collection of restructuring data has remained unchanged since 2002, the ERM has taken advantage of the many possibilities offered by the internet to improve the coverage and accuracy of the data collection.

Nonetheless, the restructuring events database continues to rely on media coverage of restructuring activity in each Member State. The information collected is indicative, rather than representative, of the extent and employment effects of restructuring, although broad trends in labour market restructuring are likely to be well captured (particularly in relation to sectoral restructuring activity). These are complemented by summary case information, for example on social partner reactions, what form collective redundancies may take (voluntary, compulsory) and what motivates the restructuring. These details can allow for subsequent qualitative analysis and can help identify specific restructurings for more in-depth case studies. The picture of restructuring that emerges from the dataset is largely consistent with data coming from more representative sources such as the European Labour Force Survey.

With over 16,000 cases, the restructuring events database is, to date, the only EU-wide source of information on restructuring providing data overviews and individual restructuring case narratives of named companies and organisations. The added value of the ERM has been especially apparent in the context of the recent global economic recession. Thus far, the ERM has established itself as a valuable and authoritative information source for European policymakers on large-scale company restructuring across Europe.

Policy relevance

The specific focus on large-scale restructuring processes reflects a major concern for policymakers for the potential spill-over effects and important challenges they pose for social cohesion. As information on company restructuring is reported long before the actual workforce reduction, the restructuring events database also serves as an early warning system which allows all actors involved in the process of anticipating and managing change to identify sectors and countries that are likely to undergo a phase of severe restructuring in the short to medium term.

There are numerous reasons why the employment impact of restructuring is of policy relevance. The flow data of hiring and dismissing staff is the earliest indicator of changes in the labour market available. Indeed, as the ERM focuses on the announcement of intentions to hire or dismiss, this occurs even earlier than the actual hiring or dismissal. As both the hiring and dismissal processes can take time, they precede even other flow data such as the inflow data to unemployment or employment. Thus, when the labour market is changing very rapidly the ERM is an excellent leading labour market indicator. This was why the ERM was extensively used by the European Commission during the recent recession in their monthly updates of the state of the European labour market. These Monthly Labour Market Factsheets were discontinued in December 2012 when employment became less volatile, but the ERM still reports to DG Employment's quarterly

publication *Employment and social situation quarterly review*. Most of the relevance of the ERM generally (not just the restructuring events database) is more closely policy-related and the use of the ERM in policy and research is developed further in Chapter 4.

Content of the database

The restructuring events database records instances of company or organisation restructuring, reported in the national media, affecting at least one Member State of the EU28. The initial focus on job-loss restructuring cases in 2002 was extended to a broader treatment of all restructurings with a significant employment impact, positive as well as negative, in 2004–2005 (see Annex 3 for an outline of when coverage commenced in different Member States).

To warrant inclusion in the database, a restructuring case should either entail an announced reduction or creation of at least 100 jobs, or involve sites employing more than 250 people and affecting at least 10% of the workforce. Primarily, cases of current or impending restructuring (announced job loss or creation) are captured in the database.

Instances of restructuring that are systematically excluded from the reporting are:

- those below the set thresholds;
- cases of normal recruitment to replace departing staff;
- restructuring plans at a tentative stage or where the employment impact is not imminent (does not commence within nine months);
- restructuring involving temporary lay-offs or seasonal jobs.

Each restructuring case factsheet provides information on:

- named companies and groups;
- size, location and sector of activity of the affected unit;
- the type of restructuring;
- the number of announced jobs created or lost, and their envisaged timeline.

It also contains a brief narrative of the restructuring case, summarising, for example, the reasons for the restructuring (see Annex 1 for a sample of a recent restructuring factsheet, Avia Ashok Leyland Motors).

Individual instances of restructuring refer to the unit or establishment affected by the restructuring, and therefore the employment impact of the restructuring is captured at the establishment level. To reflect this, the value reported in the 'number employed' gives an indication of the size of the establishment(s) prior to the restructuring and not the entire company workforce.

Similarly, both the NUTS[1] classification (NUTS level I, II, and III)[2] used to reference the geographic location, and the NACE code (classification rev 1.1 and rev 2.0, see Annex 2) describing the sector of activity, refer to the establishment(s) undergoing restructuring, which is not necessarily that of the company or main group.

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[1] Nomenclature of Territorial Units for Statistics

[2] The minimum information required is the country (NUTS level I)

Crucial information that is used for statistical purposes in Eurofound publications is the employment effect (number of announced job lost or created). Information on whether the job cuts are implemented in the form of direct dismissals or other job reductions measures (such as early retirement or voluntary redundancies) is also provided, when such details are available in the announcement.

Types of restructuring

One of the variables that has been extensively used in the data analysis – carried out by Eurofound, the European Commission and other third party organisations – refers to the type of restructuring undertaken in the affected unit. When significant or interesting trends are identified these are often driven by the type of organisational restructuring. Box 1 summarises the types of restructuring identified in the restructuring events database.

Box 1: Types of restructuring in the restructuring events database

Internal restructuring: When the company undertakes a job-cutting plan, which is not linked to another type of restructuring defined below.

Closure: When a company or an industrial site is closed for economic reasons not directly connected to relocation or outsourcing.

Bankruptcy: When a company goes bankrupt for economic reasons not directly connected to relocation or outsourcing.

Relocation: When the activity stays within the same company, but is relocated within the same country.

Offshoring/delocalisation: When the activity is relocated or outsourced outside the country's borders.

Outsourcing: When the activity is subcontracted to another company in the same country.

Merger/acquisition: When two companies merge or when an acquisition involves an internal restructuring programme aimed at rationalising an organisation by reducing personnel.

Business expansion: Where a company extends its business activities, and hires new workers. This type of restructuring has been introduced to the ERM database in order to report the positive impact of certain restructuring processes on employment, thus conveying that restructuring is not only, or not necessarily, about job cuts.

In addition to the announcement date, which is used as reference date for all analysis, the start date and timeline of the job reduction or creation is also flagged, provided that this information is available in the company announcement reported in the media.

From a qualitative perspective, the database can be regarded as a 'collection of mini case studies' providing useful information, which forms the basis for more in-depth qualitative research on company restructuring, or contributes to develop new concepts and research hypotheses. The descriptive information provides supplementary details that are relevant to the case, such as:

- the reasons behind the restructuring;
- the involvement of trade unions or public authorities in the restructuring;
- types of job lost or created (whether permanent or temporary, full-time or part-time jobs, blue-collar or white-collar jobs);
- the types of planned reduction measures (early retirements, dismissals, voluntary departures).

As the restructuring events reported in the database rely on information reported in the media, generally at the time of a company announcement, the details and link to the original source are of utmost importance. Over time, the list of media sources has become more comprehensive with the inclusion of a great number of digital sources, including local and regional ones. However, a crucial criterion for the inclusion of a case has always been that the information comes from a reliable and credible media source. For this reason, the media source list undergoes a thorough review and validation on a regular basis (see list of principal media sources in Annex 4).

Data collection, methodology and quality control

Restructuring-related job losses and gains are reported to the restructuring events database by a network of correspondents, in the EU28, as well as Norway. Cross-national cases of restructuring are reported by an EU-level correspondent. The reporting of restructuring cases is done at least weekly by screening a selection of national media sources. The ERM data collection method, based on media tracking and screening, is by no means novel in social science research. Other research on the impact of restructuring (especially offshoring) on employment has relied heavily on newspapers as the main sources of data in the absence of robust, representative alternative data sources (Farber and Hallock 2009; Bronfenbrenner et al, 2001; Bronfenbrenner and Luce, 2004; Coris et al, 2010; Lamertz and Baum, 1998; Vaara and Tienari, 2002).

Each case is recorded in the restructuring events database in a standardised format, which allows for the compilation of indicative statistics comparing countries, sectors or types of restructuring. National correspondents are also required to track the developments of previously reported restructuring cases and revise them where new information is reported in the media.

Eurofound staff members monitor the quality of the data supplied by correspondents in a continual cycle of feedback and evaluation. Quality control activities include checks for consistency and accuracy, and editing of the qualitative information. Information is verified and may be supplemented by using other media sources. More than one source is generally included for each case and and double-sourcing is mandatory in the case of very large restructurings (> 1000 job losses or gains) Selected sources have to be relevant and source validation is a crucial aspect of the ERM quality control process. Another measure to improve the quality of database entries is the systematic re-checking of key variables and post-validation of all data entries, which takes place every quarter prior to data extraction for the regular ERM quarterly summary.

Thorough guidelines for an accurate reporting of restructuring events have been developed from the outset and they are reviewed on a regular basis. Particular effort has been devoted to refine the eligibility criteria for the inclusion of restructuring cases in the database. Periodic reviews are also necessary to bring the eligibility criteria in line with broad changes observed in the labour market. Cases in point are the inclusion of restructuring involving temporary agency workers and apprenticeship positions.

As temporary agency work contracts have become an integral part of the labour market, cases of restructuring affecting such workers are now included in the database, provided that they are not employed on very short-term contracts (contracts should be at least 12 months) or in seasonal jobs. This information is not always available in media reports; in the absence of such information, cases involving temporary agency workers are considered on a case-by-case basis and further research is often required to establish eligibility.

Cases involving the creation of trainee positions are also considered on a case-by-case basis, depending on the national system of apprenticeship. Cases that concern the creation of jobs under specific apprenticeship schemes (for example, German *Berufsausbildung* or French *contrat d'alternance*) may warrant inclusion.

Additionally, as the focus of the ERM has always been on the short-term employment impact of company restructuring, cases where announced job losses or gains begin to take place more than nine months after the announcement are not included. This is the case where a company announces the construction of a new production facility which will eventually employ 100 people or more, two or three years from the initial announcement.

Since its inception, the restructuring events database has undergone some changes with a view to improve the quality of the data entries and expand the analytical capabilities of the entire dataset. For example, destination countries for offshoring cases are now indicated and closure and bankruptcy have been separated as distinct types of restructuring; originally, there was a combined 'bankruptcy/closure' category. Also, the sector data fields have been revised to reflect the change in the international classification from NACE rev 1.1 to NACE rev. 2.[3]

From a more qualitative perspective, the content of the unstructured and descriptive information in each data entry has improved over the years to the point that each entry does not merely summarise data provided in other fields, but provides supplementary information related to the restructuring and the company involved. Types of jobs, nationality of company, company ownership, and other relevant information is often available for each case, thus providing opportunities for follow-up research.

The ERM events database is updated daily and is accessible online at http://www.eurofound.europa.eu/emcc/erm/index.php?template=searchfactsheets

Recent developments are summarised in the ERM Quarterly which is available online at http://www.eurofound.europa.eu/emcc/erm/index.php?template=quarterly, within three weeks of the end of each quarter, with publication in April, July, October and January.

Measuring the employment impact of restructuring

Ideally, the ERM events database should capture both the flows of newly created jobs and jobs lost at restructuring. There is no other such data dedicated to this end at European level. In practice, the best method of capturing the employment impact of restructuring is the establishment-level data used in the job creation and job destruction literature.[4] This data is, in principle, available in only a

[3] All cases are now coded in NACE rev 2 at two-digit level (and around half of the cases at three or four-digit level). Older data, pre-2011, is also available in NACE rev 1.1.

[4] Davis and Haltiwanger, 1992

few Member States and in the US. Figures 1 and 2 show the most recently available data from the US and illustrate some of the relevant issues in measuring job flows in Europe.

Figure 1: Job creation rates by firm age and firm size

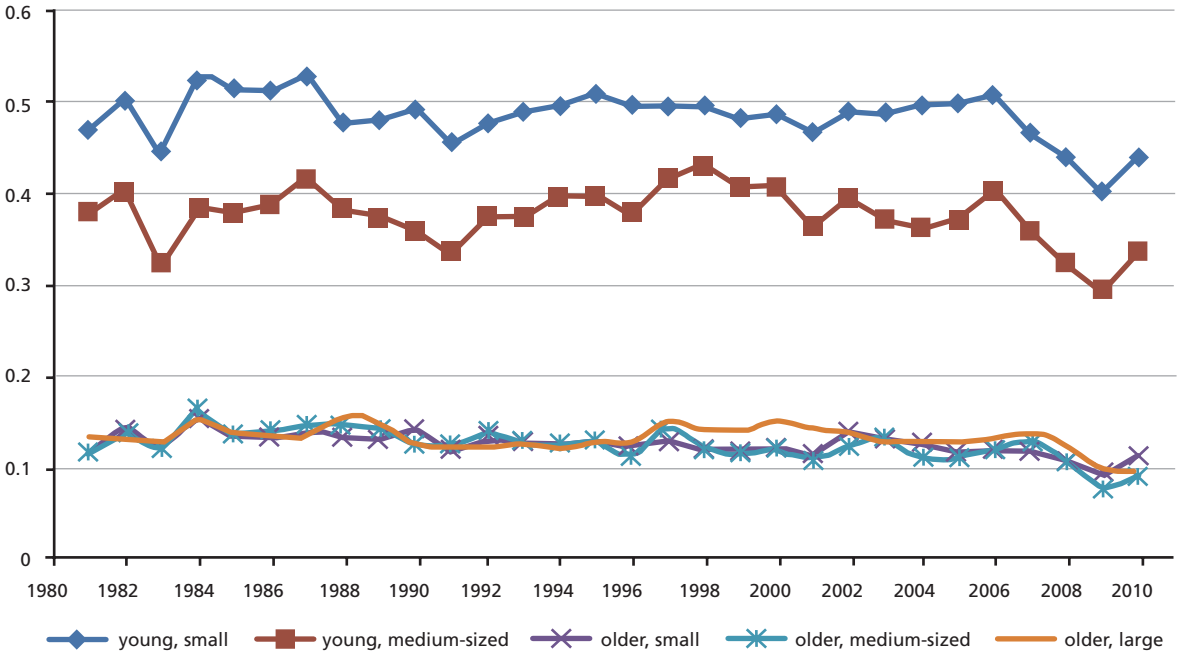
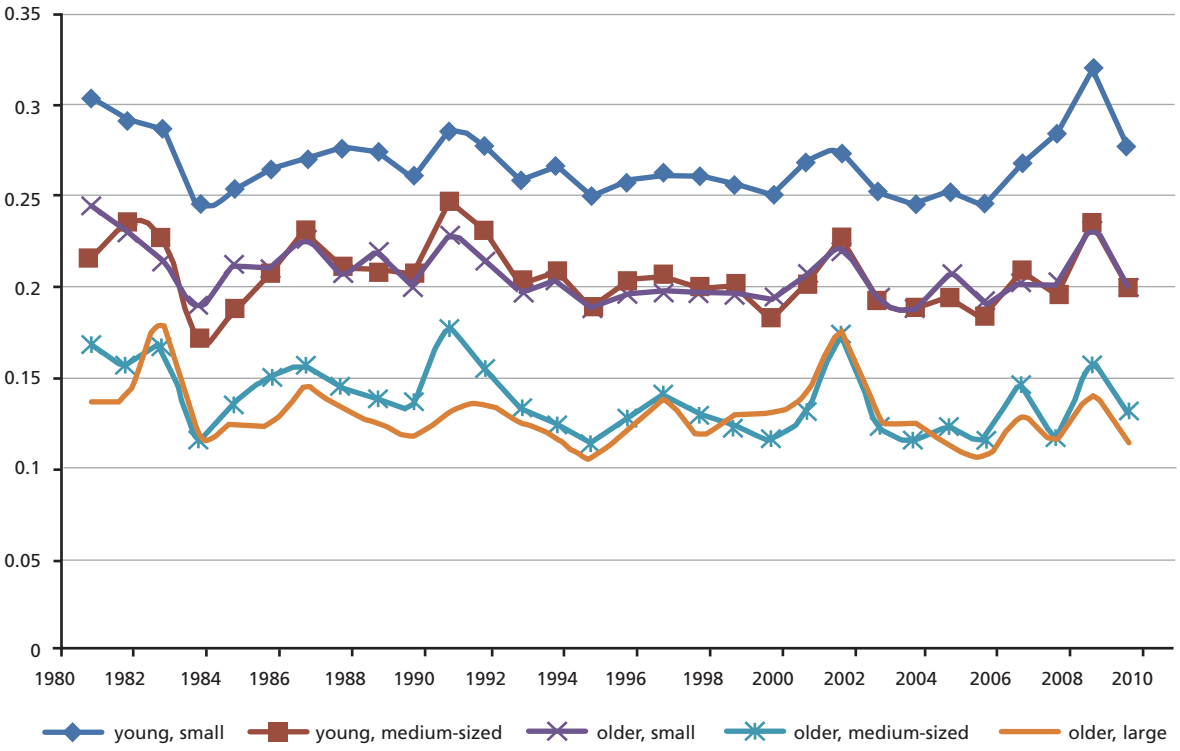


Figure 2: Job destruction rates by firm age and firm size



Source: Fort et al., 2013
Note: Young firms are up to four years old, old firms are five years or older.
Small firms have fewer than 20 employees, medium-size ones between 20 and 499 and large 500 or more.

The two relevant facts from this data are, firstly, that for most firm sizes and age, the cyclical variation of job destruction is much more prominent than for job creation, and secondly, both job creation and job destruction is much lower for large, and medium-size firms compared with small firms. This has two important consequences for employment data collection. As job loss is a more prominent event it will be better captured in most data sources (not just the ERM) than job creation. Also, job creation and job destruction is much higher in small firms, and no method, not just the ERM (even register data of establishments captures small firms badly), can capture employment dynamics in small firms.

The sections below critically evaluate ERM data on job destruction, and much of the judgements passed there also apply to job creation. However, as job creation is much more of an incremental process it is less prominent an event and is less likely to be reported in the media. This is not to say that the ERM data is without value, for example, in identifying sectors where recent job creation has occurred. See Table 4 on page 46 for a current example of its use.

There are other sources of data relevant for the measurement of job creation flows at European level. Most of these are regularly reported in the quarterly publication, the *European Vacancy Monitor* (EVM), published by DG Employment. While they all have value in some context they are not related to specific firms or restructuring. The EVM uses the European Labour Force Survey (EU LFS) to calculate hiring statistics, by presenting data on employed persons who have been in their job for less than three months. The EVM also presents data (from up to 17 Member States) on newly reported vacancies at the Public Employment Service (PES). In both cases the data over-represents the jobs of short duration and rapid turnover, compared with the net growth of employment from the EU LFS. In addition the PES reports vacancies, not jobs, and the PES market share of all vacancies in a Member State is often only a small proportion of all vacancies. Similar limitations apply to the data presented in the EVM from temporary work agencies and other private labour market intermediaries.

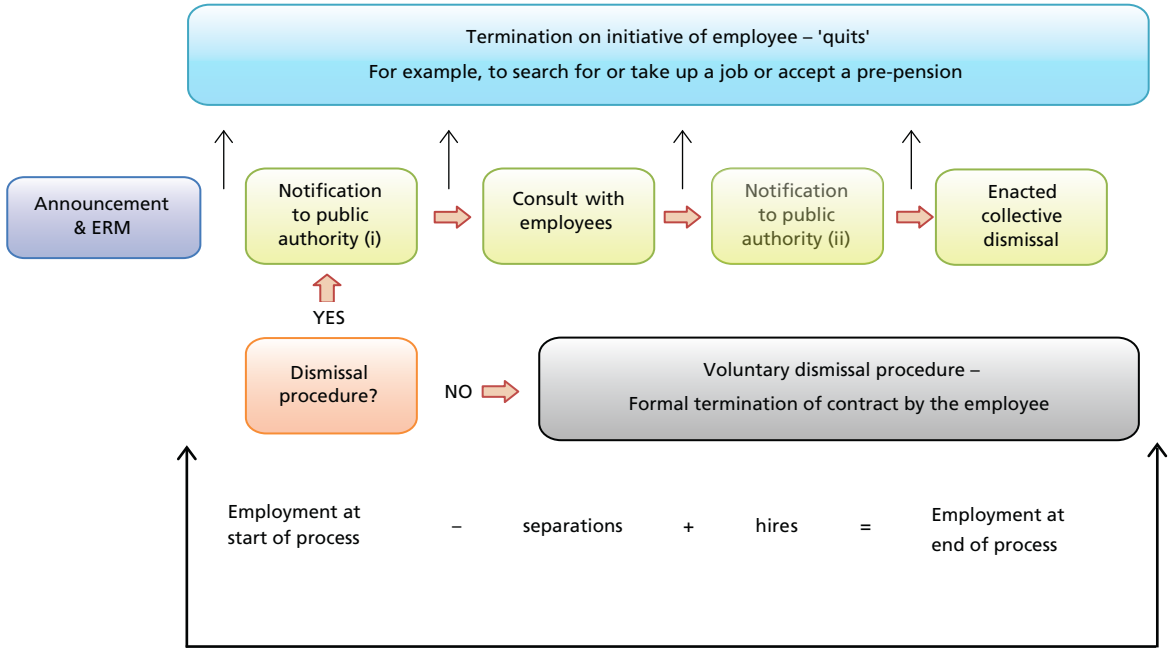
Job loss and the restructuring process

There is little doubt that most policy interest and concern is expended on the job loss data in the ERM database. Before evaluating the ERM and considering other alternatives, it is useful to look at the phenomenon of job loss from both an institutional and data collection point of view.

In principle (and typically as reflected in labour law) there are two means by which an employee on an open-ended contract could lose their job. Dismissals could be due to the behaviour of the individual worker, and most labour law allows a number of grounds for dismissal on such personal grounds. This often includes gross incompetence and some forms of anti-social behaviour. Labour law also typically specifies circumstances that may not be the basis for dismissal, such as trade union membership or activity. While this is far from a trivial issue it is, quantitatively, not a significant phenomenon and is dwarfed by dismissals due to economic reasons.

Dismissals due to economic reasons is a generic term capturing whatever reason that an employer has to dismiss workers, other than that related to individual behaviour. Legal terms such as 'collective dismissal' (in EU law) and 'redundancy' (in UK law) are specific sub-categories of this wider concept. While, according to law in most Member States, this is primarily the prerogative of the employer, there are procedures that have to be observed before they can be enacted. A typical process in many Member States, and the one envisaged in the Collective Dismissals Directive, is presented in a stylised manner in Figure 3.

Figure 3: Dismissal for economic reasons – a stylised presentation



To the outside observer, the first indication that the firm is going to reduce its workforce may be through some public announcement. If this occurs, it will emanate from the company itself (and might often coincide with the formal information given to labour market authorities, as required by law, in most countries) and this is what is picked up, in principle, in the European Restructuring Monitor. If the legally defined path of collective dismissal is to be followed as stipulated in the European Directive, the next step is *notification to public authority (i)*, then some form of negotiation or consultation with employee representatives. Finally, there may be another notification to public authority and enactment whereby the employer serves individual notice of the termination of the employment contract. The process, even before the serving of individual notice to the employee, may be quite long. In large plant closures durations of well over a year are not uncommon. In principle one would wish to capture the phenomenon of dismissal for economic reasons by subtracting the number employed at the start of the process from the number at the end. This is the idea behind the data presented for the US in Figures 1 and 2. Strictly speaking, however, one would also require the subtraction of any voluntary quits totally unrelated to the economic situation of the establishment.

This leads to the question: Which of the events (in green) on the time lines of announcement, notification (at some stage) or enacted collective dismissal is the best occasion to measure job loss following restructuring? While this may vary from case to case, one can make some general observations.

One might think that the number of enacted collective dismissals (the far right box in Figure 3) could be the best measure of the number of jobs lost due to restructuring. This is almost certainly not the case. In many cases the major discrepancy between the dismissals enacted by the employer and those initially included in some tally of projected dismissals is due formally to quits, in other words, the *employee* serves notice of termination of employment contract. Employees who know of the impending dismissals may search for and find jobs elsewhere. Moreover, older workers, for example, may be able to access some publicly and/or enterprise financed pension scheme and so will not be

dismissed formally. These employee exits from the process are indicated by the arrows at the top of the figure. It is, of course, important to emphasise that, even if these individuals are not formally dismissed, their pre-emptive quit behaviour is still a consequence of the restructuring and should be counted as such. This highlights the inadequacy of legal terms such as collective dismissals, when the aim is to count the number of employees who lose their jobs at the initiative of the employer due to economic reasons. Thus, it should be obvious that measuring job loss due to restructuring by 'enacted collective dismissals' is totally inappropriate.

What then about the number notified to the public authorities? As this occurs quite early on in the process, it is likely that appreciably fewer employees have left the work place by that time in expectation of dismissal.[5] However, the notification data may exaggerate actual job loss. The employer may withdraw some of the intended dismissals due to an unexpected upturn in the business cycle. The lengthier the dismissal process the more likely this is to occur. However, the most obvious shortcoming of the number notified is that, as this precedes the negotiation or consultation stage, these negotiations may lead to a reduction in the number of intended dismissals. Indeed, in the light of the forthcoming consultations with the employee representatives, the employer may have tactical reasons to notify more employees than it is, in fact, intended to dismiss. Nevertheless, in most cases, one has reason to believe that the notification data will be more accurate than the number of legally enacted collective dismissals. Also, in practical terms, the notification is more interesting than enacted dismissals, as the European Directive requires that notification be reported to the appropriate public authorities and thus may provide the basis for statistics.

The mention of pre-emptive voluntary quits during the collective dismissal process underlines the main statistical problem with collective dismissals as a measure of job loss for economic reasons. The employer may circumvent the formal dismissal process entirely as indicated by the lower half of the figure. (It should be said that there is nothing necessarily improper about such behaviour. Indeed, as the employer may provide economic compensation to train for a new job or grant lump-sum payments in order to induce quits, or funds to complement an early pension, this may be an attractive option for many employees.)

The possible avoidance of the collective dismissal route to shedding labour underlines a major advantage of the ERM approach. The ERM notification occurs very early in the dismissal process and it will capture both those who leave very early in the dismissal process and voluntary redundancies. It will, however, almost certainly overestimate the actual number affected by the restructuring. The early warning feature of the ERM is also one of its major strengths and may serve to draw policy attention to the cases in a timely manner.

However, just as measurement at the first notification occasion will tend to inflate the actual figure of people losing their job due to economic problems in the firm, so the ERM will also tend to also do this. While the ERM does require their national correspondents to update any subsequent revisions of announcements, these revisions are generally less likely to be covered in the media.

Measuring job loss in practice

The chief source of employment data in the European Union – being both reliable and timely – is the EU LFS, which provides data on the net change in employment. It cannot provide any information

[5] The selection of employees to be dismissed is generally not known at the time of notification and, indeed, this is often an important issue in the negotiations with employee representatives. Obviously the larger the share of employees notified, the more likely they are to believe that they will lose their jobs.

on job loss at restructuring, as a net decline in employment may also be due to voluntary quits, retirement or a decline in hiring. Apart from media monitoring, as in the ERM, there are essentially four means by which job loss can be measured:

- interviewing people about possible recent experiences of dismissal;
- examining administration data pertaining to the dismissal process as outlined in Figure 3;
- interviewing firms about their recent dismissals;
- an analysis of register data on the changing employment levels at company or establishment level.

While none of the above is currently operational at EU level as a substitute for the ERM, in some cases, with relatively limited efforts, the first two in this list could be developed to provide useful information in this context. Before looking in detail at this, the practical problems with the last two in the list will be outlined.

Data based on regular interviews of firms or establishments about recent, or impending, dismissals is simply not available at European level. The US provides a model for how such a method could be applied with its *Job Openings and Labor Turnover Survey* (JOLTS). This produces data on job openings (similar to vacancies), hires, and separations (voluntary and involuntary). The main advantage of such a method is that it could provide very timely information on the restructuring process (although, unlike the ERM, the cases would be almost certainly be anonymised) and with rich information on the firm (or establishment). Eurofound's European Company Survey asks about recent restructuring activities but does not inquire about the employment effects and, as it is conducted every 4–5 years, it is not a monitoring tool. The Directorate General for Economic and Financial Affairs (DG ECFIN) does monthly surveys in manufacturing, some services, the retail trade and construction sectors. The interest in the state of the business cycle in Member States prompts questions on capital expenditure intentions and current output capacity level but not on hiring or firing intentions

Most research in the job displacement literature is now based on register data at establishment or firm level. This is strongly associated with the job creation and job destruction literature in economics. Job creation is defined as the employment growth contributed by establishments that expand or start up, and job destruction is defined as the employment decline resulting from establishments that contract or shut down. The sum of job creation and job destruction is the net change in employment. See, for example, the OECD's *Employment Outlook* (OECD, 2013). The main disadvantages are that, typically, register data cover small establishments quite poorly. Moreover, while it is probably the best source of data for scientific research it generally has very long publication lags and is not suitable for monitoring.

The only data available at EU level goes some way towards collecting this information is the business demography data in the Structural Business Statistics.[6] However, the only employment data available is that pertaining to the birth of a firm and its closure. Partial cutbacks, or increases, in staffing in existing firms, which constitute the major changes in employment, are not available.

[6] Business demography data has been collected on a voluntary basis since 2002. Currently, 25 countries participate in this data collection exercise

Interviewing people about their recent experiences of dismissal

The big advantage of this method is that it can, potentially, cover all dismissed employees in all sectors and regardless of establishment size – the latter point is a weakness of many other methods. The other advantage is that if this were to be asked in a large survey, such as the EU LFS, it would be possible to break down the details of those who had been dismissed into job types and individual characteristics also collected in such surveys. In addition, the EU LFS is quite timely. There are two major disadvantages. Firstly individual responses may be incorrectly reported. They may be subject to recall biases, for example, the US *Displaced Worker Survey* which is a regular module in the *Current Population Survey* asks about job loss in the previous three years. Other inaccuracies may reflect a misunderstanding of the legal reasons for dismissal and the possibility of employees rationalising the unpleasant outcome of dismissal by stating that they left the firm voluntarily. The second main weakness is that very limited information can be elicited on the establishment itself or the dismissal process. Responses on firm size, and possibly sector, are not very accurate. Above all, the individual employee will not be able to provide much information on the closure process, such as the type of restructuring, other employees affected and the name of the establishment will certainly not be made public.

Available data in the EU

The EU LFS does ask a question about recent experience of job loss but only asks it of the currently non-employed. Given that, in many cases, well over 50% of dismissed workers obtain a job without an intervening period of non-employment, the EU LFS cannot put a number on dismissals in Europe. The European Social Survey recently introduced a question on the incidence of job loss but unfortunately it has no reference period during which the loss was to have occurred. This makes this question operationally useless. Eurobarometer has included a question on job loss for economic reasons. This was utilised extensively in Eurofound's 2012 ERM Report (Eurofound, 2012). However, the small sample size (1000 per Member State) yielded a very limited sample of job losers and limited the feasibility of comparative analysis of Member States. Finally, it should be noted that EU SILC has no information at all on job loss for economic reasons.

In several Member States there are surveys that can be used for research at national level, for example the *British Household Panel Survey* (ISER, annually since 1991) and *the German Socioeconomic Panel* (DIW, annually since 1984). Both these sources provide not only a measure of the incidence of job loss, but also a follow up of the impact of the job loss for workers

Examining administration data pertaining to the dismissal process

As mentioned in the discussion of the restructuring process in Figure 3, the Directive on Collective Dismissals obliges the employer to notify the relevant authorities when dismissals are going to occur. While the point of this directive was to prepare labour market authorities for an appropriate labour market policy response, it could also be used as a source of useful data on collective dismissals. This method shares the limitation of the ERM in that, as it occurs very early in the process, it may tend to overestimate job loss due to economic reasons. Eurofound has previously explored the possibility of using the notification requirement as a data source. Investigations have shown that, generally, the employers did notify impending dismissals to a significant extent but that in many Member States the administrative procedures were not in place to enable this to be a source of useful information throughout Europe.

Some Member States, such as Sweden, have for decades had useful information. Partly as a result of Eurofound's efforts, Belgium collects and regularly publishes summary data based on the collective

redundancy notifications as well as making the establishment-level data available on request. It serves as an example of best practice in this area. ERM data is regularly compared with the Belgian administrative data to ensure that case details correspond.

The main problem with this method is that, as was shown in some detail in Figure 3, far from all dismissals for economic reasons are collective dismissals. This is not an issue with the ERM data. Moreover, it is generally not the case that such data is made available at the establishment level (Belgium is the exception). Again this is not the case with the ERM data.

The value of this method can be questioned as, in many respects, an excellent example of its application are the Mass Layoff Statistics in the US. These were described in some detail in the 2006 ERM Report. However, in 2013, the Bureau of Labor decided to discontinue producing these statistics because of public budget cut-backs.

Proposals to improve European data sources to measure job loss

The single most significant feasible improvement of data on job loss in Europe is a simple change of a filter in the EU LFS questionnaire, so that all respondents (not just the currently non-employed) are asked about the reasons for leaving their previous job. This will provide timely, high-quality data on displacement rates, and reasonably good estimates of re-employment rates. Information on the sector, and occupation of the job losers, would also be immediately available. It will also allow for a very detailed breakdown of employee characteristics, and is the only feasible source of information of the significant phenomenon of job loss in small firms. A more partial solution is the adoption of an ad hoc module to the EU LFS on job loss. This was proposed to Eurostat by Eurofound in 2012 but without success.

The lack of other reliable firm level data could, to some extent, be addressed by adding one question on recent or impending job loss to ECFIN's Business Survey.

It is more difficult to propose feasible means of capturing the employment effects of restructuring processes. The avenue, of a more systematic use of the notification data, has been explored by Eurofound with the backing of the European Commission but has not received the necessary support from Member States. The development of register data at establishment level at European level is at this stage and state of public budgets not a realistic option. Moreover, due to the long production lags, it will never be an appropriate monitoring tool.

Improvement of the ERM itself is feasible and future possibilities are outlined in Chapter 3 below. In the context of the other data sources outlined above the big advantages of the ERM are:

- It is currently the only EU-wide source of statistical information on the numbers affected by restructuring
- It has an extremely fast production time. Eurofound has committed data to be entered into the ERM database within a week of being announced in a Member State. This speed of production is reflected also in the *ERM Quarterly*, which publishes an analysis of the data within one month after the quarter in question.
- Datasets based on identifiable individual cases are rare and provide useful opportunities for research. They allow in-depth research of individual cases, which can be placed against the

statistical background of data with a greater degree of representativeness – see below. As the ERM cases are in the public domain there are no issues of confidentiality.

- Compared with the best feasible alternative – a question to all respondents in the EU LFS on recent job loss – the ERM can provide what the EU LFS cannot, namely individual and identifiable cases, with some information on both the workplaces involved and the restructuring process.

Quality of the ERM events database

Coverage of the ERM

The ERM is intended to capture all cases that comply with the employment thresholds. The major weakness is the omission of small firms or small redundancy events. As outlined above, the difficulty with small firms is a general statistical phenomenon and certainly not confined to the ERM. It is difficult to imagine how, within the methodology of the ERM, this can be improved. While a lowering of the thresholds may be a possible suggestion for improvement, it is far from certain that news media record these events, and it would greatly increase work load among NEO correspondents and those involved in Eurofound quality control and editing, and have significant resource implications. It is highly questionable whether the (probably small) increase in reporting would warrant the cost. Eurofound's approach has been to cover aspects of restructuring in SMEs with other methodologies (Eurofound, 2013). In addition, when a small firm issue appears particularly pressing in quantitative terms, Eurofound may address this more specifically using the national correspondents in its Network of European Observatories. For example, in 2009, Eurofound conducted a special study on restructuring in the construction sector, which is dominated by small firms, where the crisis-related job losses were proportionately the heaviest (Eurofound, 2009c).

There is no question that the need to apply thresholds is a weakness of the ERM. The case is less clear on the issue of representativeness. It is obviously the case that the ERM does not (cannot) capture all job loss. The question is, then, whether the data could be viewed to be representative of all restructuring. Representativeness is not a one-dimensional concept. ERM could be representative in some respects but not in others.

For example, if one asks the following questions one may well get different answers.

- If the ERM shows 5% more restructuring in France than Germany is there in fact 5% more restructuring in France than in Germany?
- If the ERM shows 5% more restructuring in textiles than in telecom is there in fact 5% more restructuring in textiles than in telecoms?
- If the ERM shows 5% more restructuring in 2009 compared with 2008 was there in fact 5% more restructuring in 2009 compared with 2008?
- If the ERM shows 5% more cases of offshoring than bankruptcies than are there in fact 5% more cases of offshoring?

Empirically, these questions cannot be answered. If there was a means of checking this there would be no need for the ERM in the first place. However, it is reasonable to suppose that the ERM has the following types of representativeness bias.

Firm size bias occurs of course by definition, due to the ERM thresholds. Moreover, even within the accepted thresholds there will almost certainly be an over-representation of big firms and large work

force reductions, as these are more likely to be reported in the media. As firm size is correlated with a number of important factors such as economic sector, size bias will lead to many types of bias. For example, the big firm bias probably leads to a higher reporting rate in the ERM for manufacturing relative to services. The manufacturing bias may in turn lead to bias as regards certain regions and the under reporting of job loss among women.

The fact that the error is correlated with firm size may lead to inconsistencies over time (if firm size varies over time) and between countries with differing firm size distributions.[7] The most obvious impact of big firm bias affects small Member States, such as Malta and Cyprus, as they have very few firms of the size that fall under the ERM thresholds. Indeed the ERM database provides very limited information on restructuring in these countries.

Regional bias, apart from the regional implications of the big firm bias already mentioned, is likely to occur when media coverage is not evenly spread throughout a country. While most of the designated newspapers are formally national, there may well be some national or regional capital city bias.

Country size bias is also likely. In absolute numbers there is obviously much more job loss in big countries. In terms of national media impact, restructuring involving, for example, 100 employees will be a less frequently occurring and more media prominent an event in Portugal or Greece than in Germany or the UK. This suggests that the reporting frequency will be higher in small countries than in big ones. This could seriously compromise comparisons between countries. Note that, because there are more big firms in big countries, this leads to better coverage in the ERM. Thus there are likely to be conflicting tendencies to bias as regards country size, leaving us with little indication on the size and direction of the bias.

Another source of country bias relates to media coverage of restructuring events. This can differ from country to country, based on the relative richness of regional media networks in certain countries. The strong regional presence of the state broadcaster, the BBC, in the UK, for example, contributes to the UK consistently being the Member State with the highest volume of restructuring cases recorded in the ERM. Also, the political sensitivity or perceived newsworthiness of restructuring activity may vary across countries; some combination of these two factors may explain the low levels of reporting in some Baltic Member States as well as in Bulgaria and Greece.

Another potential source of error is gender bias. As women are generally under-represented in the manufacturing sector there is reason to suppose that female job loss is under-represented in the ERM. Furthermore, the ERM does not present data on the gender profile of jobs lost as this is seldom reported in the sources.

Representativeness of the ERM

Some indication of the representativeness of the ERM, as regards regions and sectors, is regularly checked in the standard part of the ERM annual report which examines the correspondence of the ERM data with net employment change in the EU LFS.

A glance at ERM historical data strongly indicates that the ERM does pick up major bouts of job loss. These peaked in the ERM at the start of the 2008–2009 recession, then declined before rising again to reflect the double dip recession in 2011–12. Figures 4, 5 and 6 chart ERM reported job loss with

[7] In the European context, one may have reason to believe that the main small firm bias, currently and in the years to come, will be seen in the restructuring of agriculture in the new Member States. In terms of employment consequences, this is an extremely important issue and one that is typically not dealt with when the general public, academics and policymakers consider restructuring.

EU LFS data on the number of people who have been unemployed for less than six months. One would expect these two series to be correlated. Very short unemployment spells are characterised by much churn or turnover, while very long spells are strongly determined by outflows. Examples are provided from three Member States that report large-scale restructuring job loss quite well in the ERM.

Figure 4: ERM job loss and unemployment shorter than 6 months 2005Q1 –2013Q1 (UK)

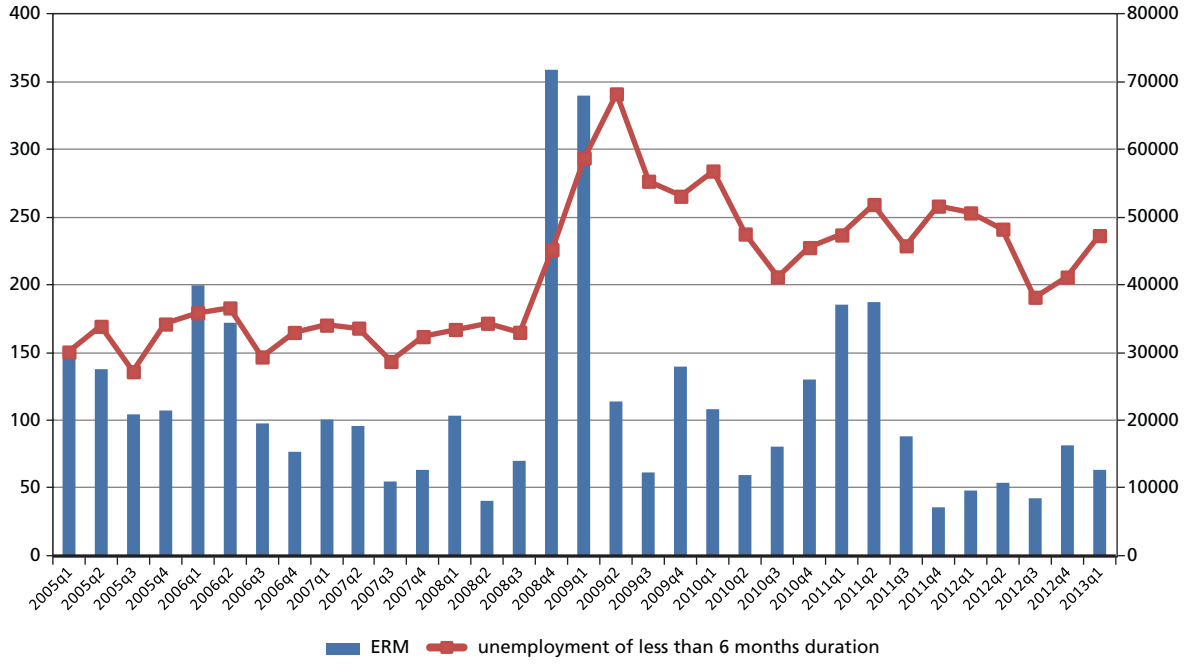


Figure 5: ERM job loss and unemployment shorter than 6 months 2005Q1 –2013Q1 (Belgium)

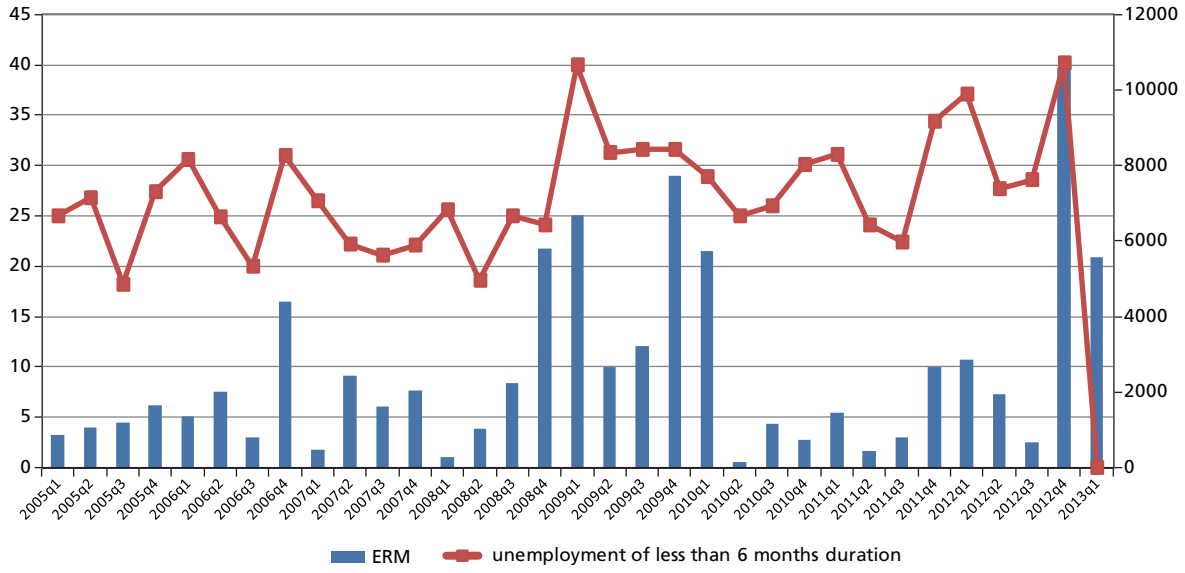
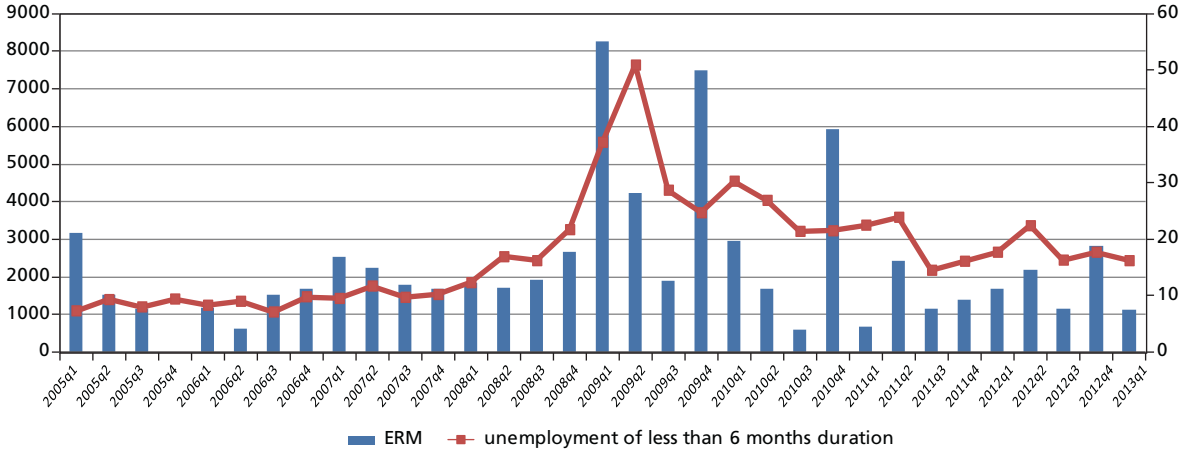


Figure 6: ERM job loss and unemployment spells shorter than 6 months 2005Q1–2013Q1 (Ireland)



2 ERM: Public support instruments and legislation databases

Background and objectives of the databases

Following a decade of successful experience with the ERM restructuring events database, Eurofound has decided to supplement it with additional, more qualitative, information that could be relevant for the European institutions, governments and social partners involved in discussions, policymaking and practical implementation of restructuring. The aim is to gradually transform the ERM into a European one-stop shop for restructuring, collecting and compiling relevant national information related to restructuring in a systematic and comparable way, and making it accessible through a user-friendly online platform. It will also provide extensive links to other on-line sources of information on the employment impact of restructuring.

In November 2011 the ERM database on restructuring support instruments[8] was launched (Eurofound, 2011), and in January 2013 the ERM database on restructuring related legislation[9] was published. Both databases provide information at national level (EU Member States and Norway). Due to the broad spectrum and heterogeneity of relevant support instruments and regulations no full picture of each and every element available at national level can be given. Rather, an overview of illustrative examples of 'what is done' and 'what could be done' is provided.

The information is systematically collected and validated and compiled in a standardised way to permit a quick overview of approaches and concepts implemented at national level (for example, all collected instruments or regulations per country). Furthermore, the databases allow for cross-country comparisons (for example, similar types of instruments/regulations in different Member States) with the intention to encourage exchange across Europe by providing a pool of ideas that could act as a starting point for further developing the national frameworks of restructuring.

In order to guarantee the usability and relevance of the databases, continuous validation and updating is required, as changes occur in the support instruments/regulations as a result of political decisions, as well as economic and social/societal developments. Consequently, the databases are dynamic products that undergo continuous updating and revision. The general approach is to prioritise the quality of the provided information rather than the quantity. Rather than collecting additional instruments/regulations the aim is to improve the content of existing entries.

Methodology used

The information contained in the ERM databases on restructuring support instruments and legal regulations has been identified and compiled by Eurofound, partly supported by its Network of European Observatories (NEO). Overall, a wide range of sources was approached in order to compile, as well as validate and cross-check, the identified information, with the intention to ensure as far as possible that the presented information is correct. The main sources used for this purpose are:

- International databases, such as the TRAVAIL legal database of the ILO[10], the Small Business Act Database of good practices of the European Commission, DG Enterprise and Industry[11] or

[8] http://www.eurofound.europa.eu/emcc/erm/supportinstruments/
[9] http://www.eurofound.europa.eu/emcc/erm/rll/
[10] http://www.ilo.org/dyn/travail/travmain.home
[11] http://ec.europa.eu/enterprise/policies/sme/best-practices/database/SBA/index.cfm?fuseaction=welcome.detail

the Labour Market Reforms Database of the European Commission, DG Economic and Financial Affairs.[12]

- European wide seminars and conferences on restructuring and their related publications, such as the national seminars 'Anticipating restructuring in enterprises' of the European Commission, DG Employment, Social Affairs and Equal Opportunities and the ITC/ILO or the joint European social partners' seminars and studies on 'Restructuring in the EU'.[13]
- Various publications of the European Commission, the OECD, the ILO, Cedefop as well as Eurofound research.

Instruments/regulations for which insufficient or contradictory information was found have not been published. These will undergo further investigation. Similarly, already published instruments/regulations are cross-checked regularly to make sure that:

- they are still in place;
- the information presented is correct;
- all relevant data are presented.

As both databases have been launched recently, this updating and validation exercise has not taken place so far (except for some piloting activities for selected countries). It is planned to start the systematic and comprehensive validation/updating activities in autumn 2013 for the legislation database and in 2014 for the support instruments, to be repeated every two years. The task will be conducted by Eurofound using centralised sources such as international databases or European research and seminars) in cooperation with national experts (Eurofound's NEO network) to secure access to national information. It will mainly rely on desk research (internet and literature review, including evaluation reports if available), supplemented by telephone interviews with relevant stakeholders where needed.

Any information Eurofound gains access to, for example in the framework of its other research activities, is continuously assessed regarding its usefulness for the ERM databases and, if deemed relevant, incorporated in the databases by Eurofound. Furthermore, the databases offer users the possibility to provide feedback on individual instruments/regulations, for example pointing Eurofound towards the latest developments or discussions in the field. Such information can also be immediately incorporated in the databases.

Content and structure

The ERM database on restructuring support instruments contains illustrative examples of measures offered by public authorities or social partners at national or regional level in all Member States of the European Union and Norway to support companies, or their employees, affected by restructuring. As of August 2013, descriptions of 421 measures are included in the database. The instruments do not have to be labelled 'restructuring support', but can be more general instruments that are also beneficial in a restructuring context. General instruments of passive labour market policy (such as unemployment benefits or standard services of the public employment services for unemployed) are not, however, included.

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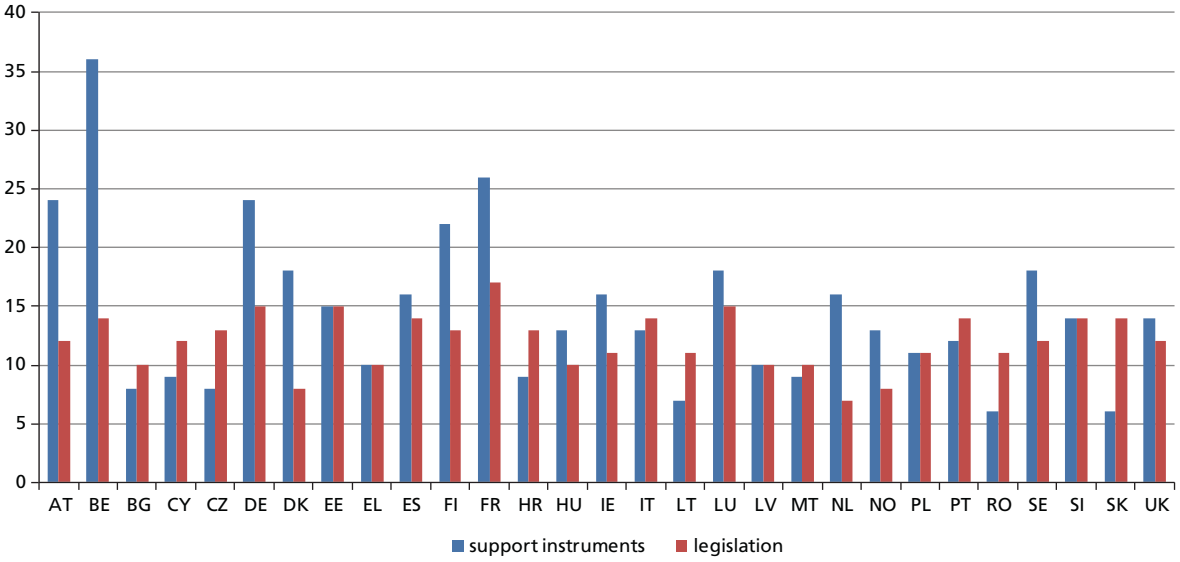
[12] http://ec.europa.eu/economy_finance/indicators/economic_reforms/labref/

[13] http://www.erc-online.eu/Content/Default.asp?PageID=513

The ERM database on restructuring related legislation presents selected types of national (Member States and Norway) statutory regulations related to restructuring, with a current focus on individual and collective labour law. Depending on resource availability and access to reliable information sources, this may be expanded to more business-related legislation (such as insolvency legislation) in future. As of August 2013, 350 regulations are described in the database. As with the support instruments, the regulations do not have to refer explicitly to restructuring to be included in the database, but are considered if they are relevant 'also' in the context of restructuring. Collective agreements, soft law or company practices are not included, as these would extend the scope of the database beyond what it is feasible to cover.

Both databases cover the Member States and Norway. The legal database mainly refers to the national level, while the support instruments database also provides examples implemented at regional level. As can be seen in Figure 7, for most of the countries between 10 and 15 legal regulations are presented, while there is a much higher heterogeneity among countries in the support instruments database (from six instruments in Romania and Slovakia to 36 in Belgium). This is attributable to the applied methodology: sources used for the legal database, in most cases, provide comparable information for all countries, while sources feeding the support instruments database mainly capture selected examples, often focusing on English-speaking or large EU countries, due to the wider spectrum of potential measures implemented to tackle a specific issue. As a result, it should not be assumed that countries for which fewer instruments were identified provide less support to companies and employees in restructuring. Rather, these countries and their instruments tend to be less covered in research or other publications, often also for language reasons.

Figure 7: Number of restructuring support instruments and legal regulations covered in the ERM databases



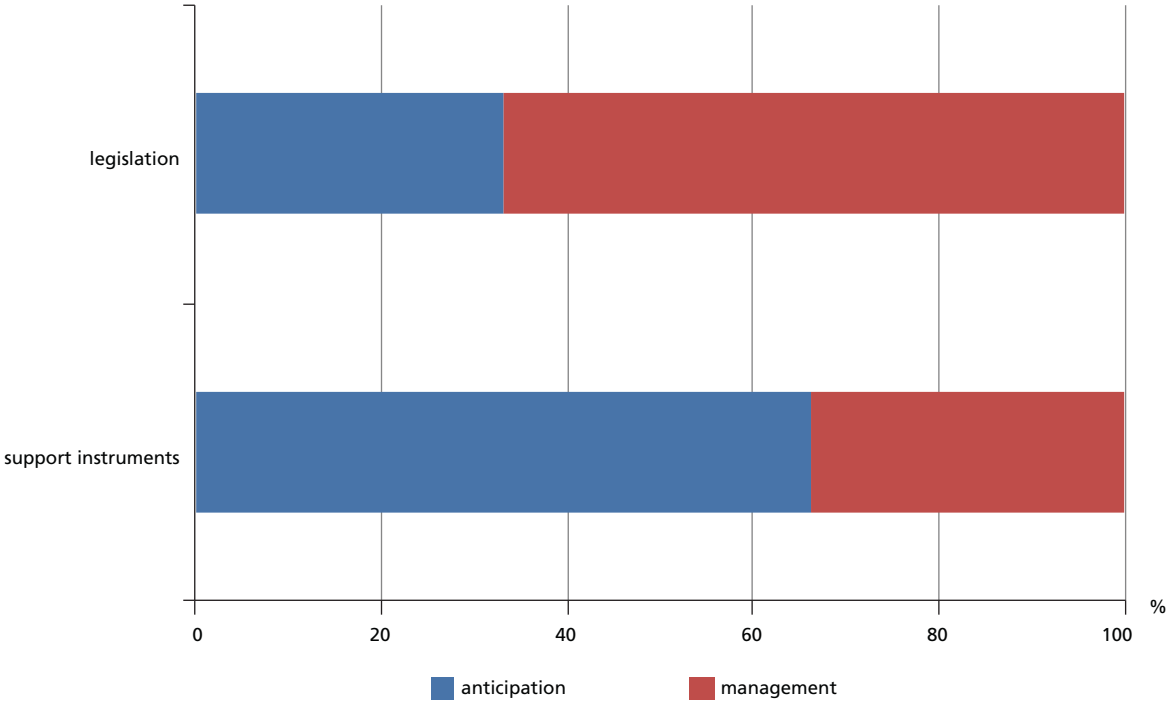
Source: European Restructuring Monitor

Both the presented support instruments and legal regulations are differentiated by the phase of restructuring they are most relevant for. The following definitions are applied:

- **Anticipation of restructuring** refers to activities that help to prepare workers, companies or regions for change.[14] It has a proactive character in terms of generating awareness of potential future changes and identifying as well as implementing means for adaptation before the actual change occurs (TRACE, 2006).
- **Management of restructuring** comprises activities to handle operationally a current restructuring event, including solutions to minimise social costs.[15] It deals with shaping a specific organisational change process, hence the individual steps involved in the realisation of the company restructuring (Bechert and Schytke, 2008).

Among the collected support instruments, about two thirds are related to anticipating change. In contrast, two thirds of the presented legal regulations deal with the management of change. This is an interesting distribution as it might imply a certain division of tasks between legal regulations (which might be seen as more relevant in an operational context, when the restructuring is already happening) and support instruments (which might have more scope for proactive intervention).

Figure 8: Share of restructuring support instruments and legal regulations covered in the ERM databases, August 2013



Source: European Restructuring Monitor

Each instrument/regulation is also categorised according to the type of support/legal framework provided, whereby multiple categories are possible for the support instruments. As of August 2013, examples of support instruments and legal regulations of the following types can be found in the ERM databases:

[14] http://ec.europa.eu/social/main.jsp?catId=782&langId=en
[15] http://ec.europa.eu/social/main.jsp?catId=782&langId=en

Table 1: Types of support instruments and legal regulation by phase of restructuring

Anticipation of restructuring	Management of change
Support instruments	
• Access to finance • Advice • Attracting investors • Employment incentive (e.g. wage subsidies) • Fostering innovation • Income support for workers (e.g. short-time work, training subsidies, wage guarantees in insolvency) • Matching • Provision of labour market information • Recognition of informal/non-formal training • Recognition of vocational education and training (VET) • Social dialogue • Start-up support (only support to become self-employed for those who were made redundant during restructuring) • Support of companies' growth • Support of business transfers • Support of internationalisation • Support of SMEs • Territorial coordination (e.g. regional approaches to anticipate or manage restructuring, joint policy development) • Training • Wage flexibility (e.g. possibility to adjust wage levels or timing of payments according to order levels, often combined with working time flexibility)	• Access to finance • Advice • Employment incentive (e.g. wage subsidies) • Income support for workers (e.g. short-time work, training subsidies, wage guarantees in insolvency) • Matching • Monitoring of redundancies • Provision of labour market information • Social dialogue • Start-up support (only support to become self-employed for those who were made redundant during restructuring) • Support of business transfers • Support of companies' growth • Support of internationalisation • Support of SMEs • Territorial coordination (e.g. regional approaches to anticipate or manage restructuring, joint policy development) • Training • Working time flexibility
Legal regulations	
• Employees' obligation to undertake training • Employers' obligation to provide skill development plans or training • Public authorities' information and consultation on dismissals • Staff information and consultation on collective dismissals • Staff information and consultation on restructuring plans • Staff information and consultation on business transfers	• Definition of collective dismissal • Effects of non-compliance with dismissal regulations • Health monitoring of workers affected by restructuring • Notice period to employees • Obligation to consider alternatives to collective dismissals • Reemployment obligation after restructuring • Selection of employees for (collective) dismissals • Severance pay/redundancy compensation • Support for redundant employees • Time off for job search (during notice period) • Wage guarantee in case of insolvency • Working time flexibility

Source: European Restructuring Monitor

For each support instrument and legal regulation compiled in the databases, standardised information is provided to facilitate usability of the databases and to allow for quick comparisons between different instruments/regulations. Table 2 provides an overview of the information presented.

Table 2: Information provided for support instruments and legal regulations in the ERM databases

Information	Support instruments	Legal regulations
Country	X	X
Name in national language and English	X	X
Phase of restructuring	X	X
Type of instrument/regulation	X	X
Coverage	Target group, beneficiaries	Indication whether a regulation is applicable for all enterprises, regardless of size or only for specific size classes of firms or restructuring events
Description of the instrument/regulation	X	X
Financial aspects	Source of funding	Costs covered by
Involved actors	X	X
Assessment	Information about effectiveness, strengths and weaknesses (not much information available)	Comments on practical application (not much information available)
Examples	Companies that benefited from the instrument	-
Website of the instrument/regulation	X	X
Source of information (additional sources used to generate the entry)	X	X

Source: European Restructuring Monitor

Web application and functionality

The ERM databases on restructuring support instruments[16] and restructuring related legislation[17] are freely accessible on Eurofound's website, in the ERM section of the European Monitoring Centre on Change (EMCC) subsite.

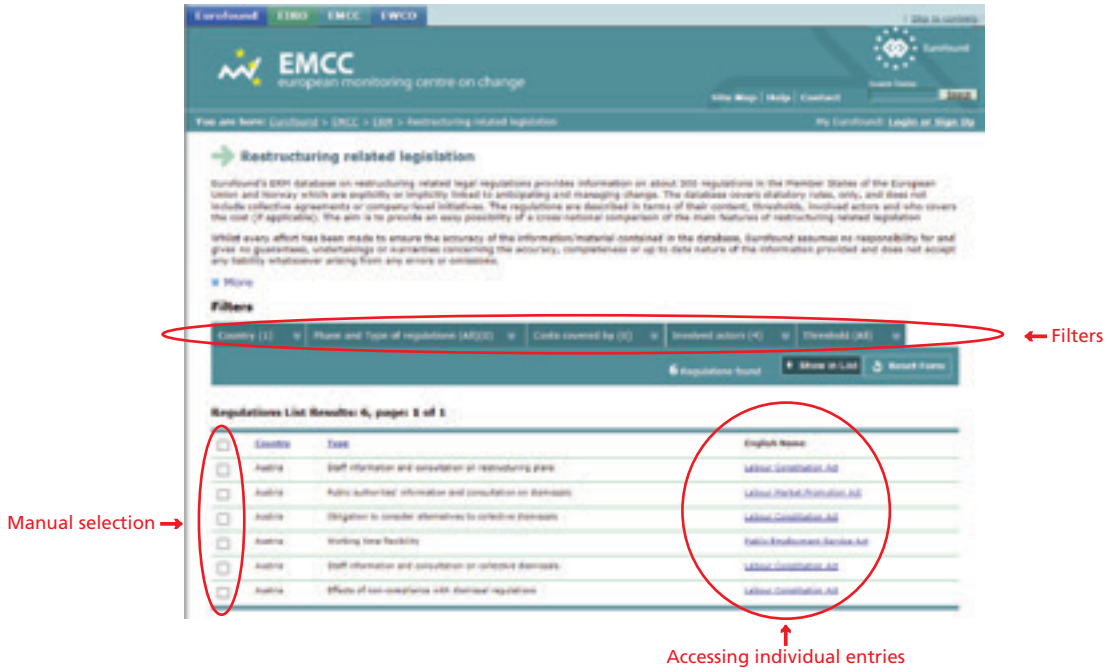
The homepage of the databases provides an opportunity to browse through all collected support instruments/regulations (with the list of all instruments/regulations to be directly accessed at the bottom of the page), manually selecting several of them by ticking them in the full list, or applying one or several filters such as:

- country;
- phase of restructuring;
- type of instrument/regulation;
- involved actors;
- funding.

In addition, for the legal database, it is also possible to select whether the regulation covers all enterprises and restructuring events or only specific size classes. Within each filter an 'OR-logic' is applied if several items are selected, while an 'AND-logic' is used if different filters are combined.

[16] http://www.eurofound.europa.eu/emcc/erm/supportinstruments/
[17] http://www.eurofound.europa.eu/emcc/erm/rll/

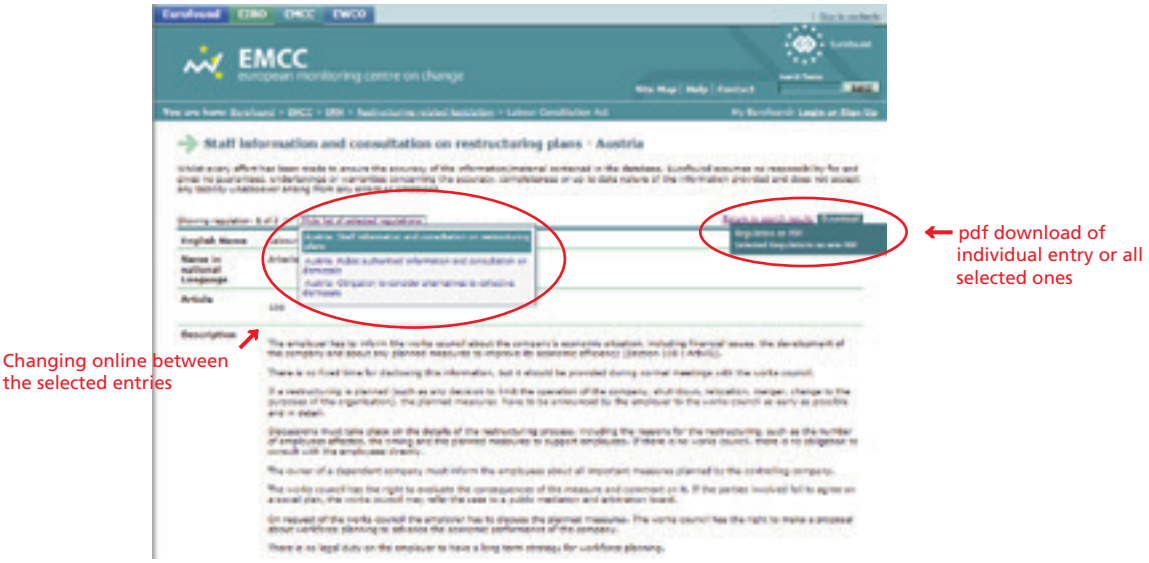
Figure 9: Selection possibilities in the ERM databases on restructuring support instruments and restructuring related legislation



Source: European Restructuring Monitor

The standardised information provided for each support instrument and legal regulation can either be viewed online or opened and saved in pdf format. If more than one instrument/regulation is selected, the functionality of the database allows for quick changes between the individual instrument/regulation presentation in the online format, and a choice between the pdf download of the individual instrument/regulation or a document combining all selected ones.

Figure 10: User options in case of several selected instruments/regulations



Source: European Restructuring Monitor

At the end of the presentation of each support instrument and legal regulation, the user is invited to provide feedback and comments, which helps to improve the quality of the entries. The footer shows when the page was last validated and modified.

Future development of the ERM

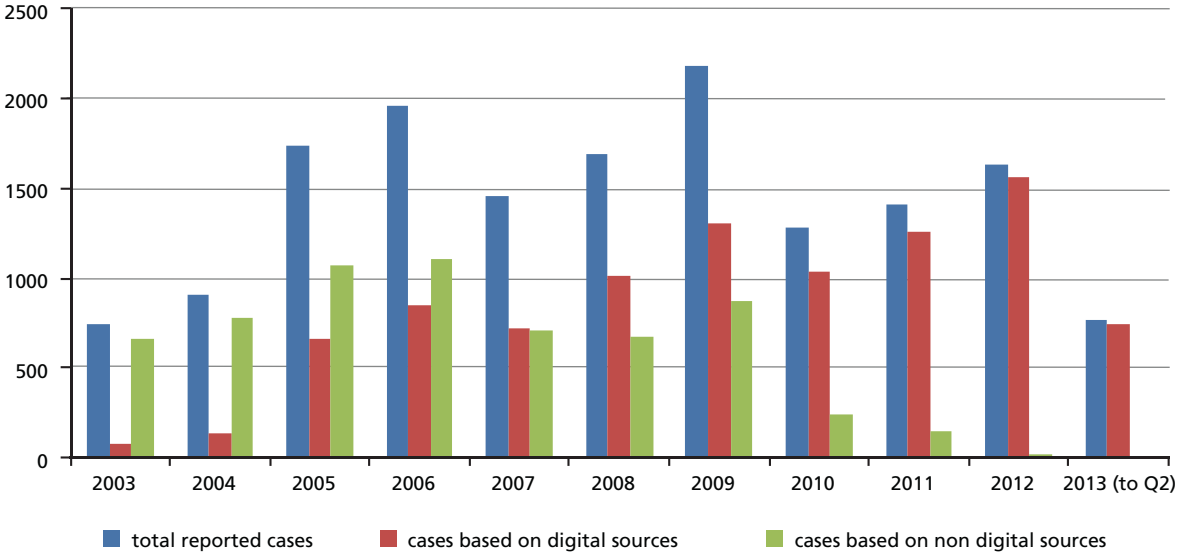
3

ERM events database

The restructuring events database is an example of research relying on media monitoring and, at least partly, on digital monitoring.[18] Regular manual media tracking is a labour-intensive task which can be facilitated through digital monitoring. When the ERM began in 2002, nearly all source content was print-based and correspondents relied largely, if not exclusively, on printed newspapers for the identification and reporting of cases. This approach has become outdated as most newspaper content is now available on the web. The expansion of the ERM reference media sources is viable today, in a way that it was not ten years ago, because digital monitoring tools are better and more automated.

Over time, digital sources have supplemented or replaced more traditional media sources in many countries. The increased use of digital sources for the reporting of restructuring cases is apparent when looking at the share of cases based on digital and non-digital sources since 2003 (see figure 11). From 2007 onwards, compiling restructuring fact sheets by national correspondents has relied increasingly on digital monitoring. Over 95% of cases reported to the ERM in 2012 were based on digital sources.

Figure 11: Share of cases reported to the restructuring events database based on digital sources and non-digital sources



Source: ERM, 2003–2013 (Q2)

The current ERM media monitoring strategy includes the extensive testing or use of databases and commercial and non-commercial news aggregators (such as Factiva, M-Brain / Esmerk, the European Media Monitor) in order to assist correspondents in identifying eligible restructuring cases. An eye is also kept to the future. The continuous identification and testing of media tracking systems and technologies is crucial in a context where the environment for media monitoring and business news evolves very rapidly. Media tracking services invest continuously in the improvement of their tools, and roll out product innovations all the time.

[18] The term 'digital monitoring' is defined as the range of practices to collect and analyse information gathered through digital sources (including online media, web applications and databases).

The long-term plan is to automate or semi-automate some of the processes of identifiying restructuring cases. While the actual reporting continues to be done by correspondents, if efficiency dictates, a single provider model may also be considered. A more systematic identification of cases through digital sources requires a federated search approach whereby multiple content providers for the access of a broad range of sources are used. Future digital monitoring may also include custom-built solutions via XML or a broader range of sources including publishers of regional or industry-specific information.

The ERM is progressively moving in this direction by identifying and testing relevant monitoring software for collecting and extracting large amounts of information through automated keyword-based web searches. This could pave the way for an expansion of media sources far beyond the current focus on newspapers. It could address one of the drawbacks of using newspapers as the main source of information for the reporting of cases – a great deal of factual information never makes it into newspapers, and what is thought newsworthy may not necessarily align with the needs of the ERM. In fact, as the newspaper business model is under increasing pressure, newspapers themselves tend to have less original content, and may be relying more on syndicated, generic or non-staff contributions. While it is unlikely that all major newspapers will become extinct, they are becoming only one reliable source in a sea of reliable sources.

However, more sources do not necessarily lead to better quality data. The ERM media monitoring strategy already encompasses a structure for continuing evaluation and improvement and this activity will be further strengthened with a full move to digital monitoring. In addition, reliability, accuracy and authority will continue to be key criteria for the selection of web sources prior to data collection.

In spite of this move to digital sources, national correspondents continue to be central to the workflow of news monitoring, as they are the best sources for 'soft' information (that cannot be captured by automated systems) such as:

- the tenor or reliability of different types of news sources;
- on-the-ground understanding of business norms;
- how restructuring is likely to be covered in different news sources.

As part of the media monitoring strategy, opportunities for crowdsourcing information, social network components and other mechanisms could also be further explored for their potential in providing leads on eligible cases. In France, Mediapart provided an example of what could be done in their *Carte de la crise sociale* (available on Google maps) which crowdsourced details of redundancies, lay-offs and other employment effects of the global crisis from 2008–2011. Although the social media environment is not at a level that will support factual observation and gathering of case material, it is likely that developments in social media, allied to technical developments in data-mining of 'big data' sources could open this up further, particularly as a means of identifying restructuring cases.

New databases

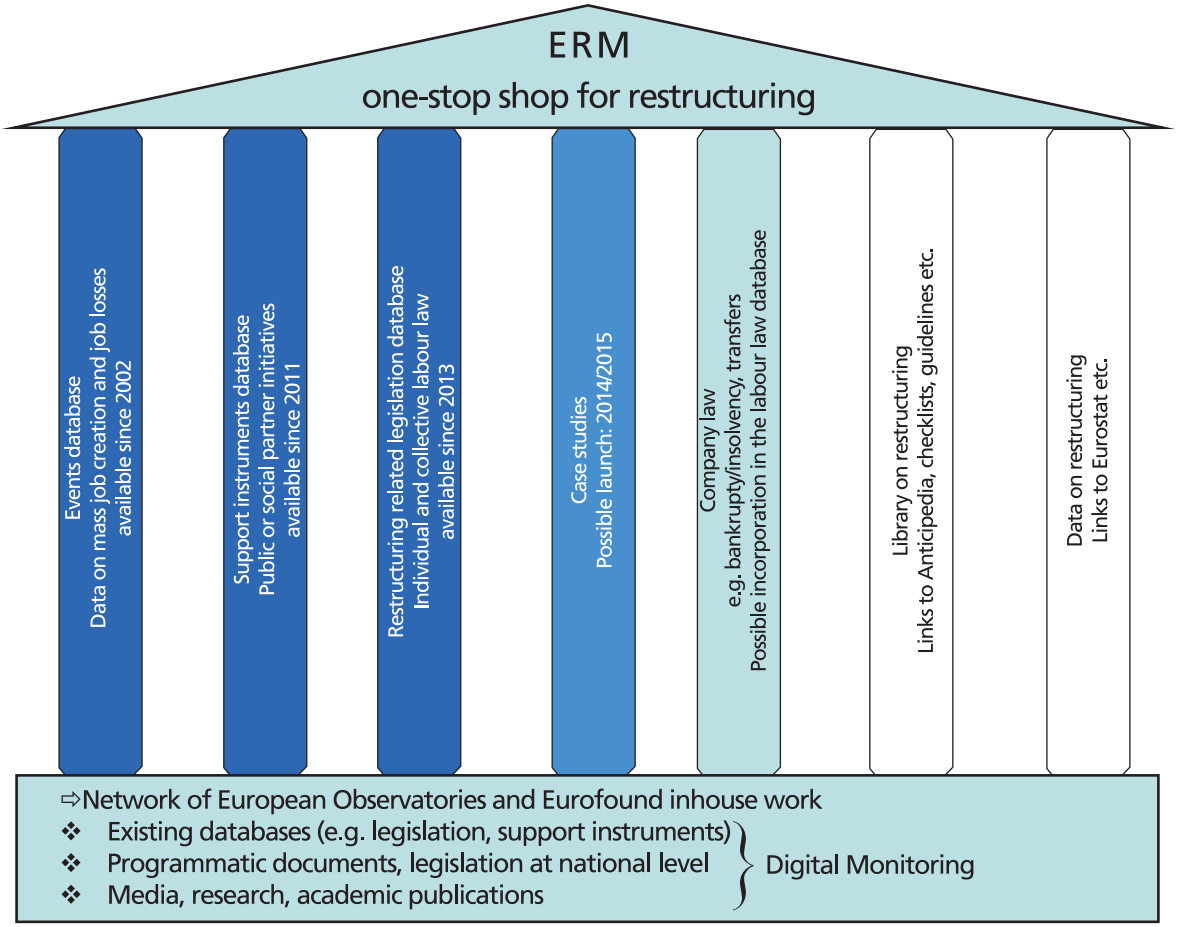
Alongside the continuous work on the further improvement of existing ERM databases and products, Eurofound has some ideas for additional databases to make the ERM a genuine one-stop shop for restructuring in Europe.

The next step is to compile already existing case studies on restructuring into a database in order to present them in a more systematic way, and make them more easily accessible and searchable. In preparation for this, the recently launched ERM database on case studies on SMEs' restructuring[19] was developed with the same design, structure and logic as the ERM databases on restructuring support instruments and restructuring related legislation, and has the option to be further expanded, to accommodate other restructuring case studies Eurofound has produced previously.

Furthermore, the feasibility of expanding the current ERM database on labour laws related to restructuring to cover aspects of commercial law (such as insolvency regulations) will be considered, mainly as regards the access to good centralised information sources in this field.

Finally, the provision of a library of publications and data on restructuring could be incorporated (that is, links to European and national research and data providers). However, as this is partly covered by other platforms, further consideration is needed regarding implementation possibilities within the ERM.

Figure 12: The European Restructuring Monitor as a one-stop shop for restructuring



Source: European Restructuring Monitor

[19] http://www.eurofound.europa.eu/emcc/erm/smes/

Role of the ERM in policy and research

4

This chapter explores the use of ERM and other EMCC research on restructuring by policy makers and researchers. It must first be emphasised that much work on restructuring is formally carried out outside of the ERM. Recent or forthcoming studies include.

- restructuring and the greening of the economy (2012);
- restructuring in SMEs (2013);
- restructuring in the public sector (forthcoming 2014);
- the regional dimension of restructuring (forthcoming 2014);
- the future of manufacturing in Europe (forthcoming 2015).

All these publications are, or will be, available on the EMCC website.[20]

Role of the ERM in policymaking

It is important to introduce a note of caution when measuring the impact of Eurofound's work on policymaking.[21] This kind of calculation is exceptionally complicated. Nonetheless, as evidenced in Annex 4, there is an encouraging level of awareness of the ERM in a wide range of publications and policy documents at EU level.

As indicated by the collected sample of references, the European Commission is the main user of the ERM data. The Commission's Communication of 31 March 2005, *Restructuring and employment: The role of the European Union in anticipating and accompanying restructuring* makes explicit reference to the EMCC in Chapter 2 'Responses at Community level – The role of the European Union'. Under the subheading 'Improved ways and means of measuring restructuring', the EMCC is asked 'to develop quantitative and qualitative analysis resources […] for monitoring restructuring'. The aim of this is to build a 'firmer foundation for the public debate on restructuring and relocation'.

The potential informative role of the ERM was already evident from the European Commission's *Employment in Europe* report in 2004, with an extensive reference to the data in terms of planned job reductions by type of restructuring. Despite the methodological limitations and the relatively short timeline (the ERM has been operational since 2002), it concluded that, although the data cannot provide 'conclusive evidence about restructuring trends', 'it helps to identify sectors that are under restructuring pressure'.

From February 2009 to December 2012, Eurofound provided extractions of ERM data on job losses, job creation by Member State and by sector for the Commission's monthly Labour Market Factsheets *EU employment situation and social outlook*. Similar information is still provided in all editions of the *EU Employment and Social Situation Quarterly Review*.

In 2009 and 2010 the European Commission also used the ERM data in the *Employment in Europe* reports. A summary analysis of all the reported restructuring developments in Europe (more than 3,000 ERM cases) was provided for an 18-month period (March 2008 to August 2009) in the 2009

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[20] The European Jobs Monitor (EJM) provides regular reports with a macro oriented approach to monitoring and understanding structural change in the European (and with some work in progress the world) economy and how this impacts on the structure of employment and job quality. This is not included in this section.

[21] The analysis in this section is based on EU impact tracking data collected by Eurofound Performance Monitoring System (EPMS) from 2004 to September 2013.

Employment in Europe report. The following year's report refers to job losses and gains as captured in the ERM for the initial two years of the crisis (2008Q2–2010Q2).

The Commission's report: *Monitoring of sectoral employment*, (Stehrer and Ward, 2012) provided a comprehensive collection of long-term analyses of key sectoral data across countries, and in the EU as a whole, focusing on the sectoral developments and inter-dependencies between sectors, as well as the strategies implemented by the sectors, aiming at reinforcing the employment dimension of the crisis exit and of the EU2020 strategy. In addition to numerous references to the ERM throughout the report, the section on changes in employment due to restructuring (pp.155–168) is entirely based on ERM data.

More general considerations about the ERM are made in the 2006 Commission staff working document *European Globalisation Adjustment Fund Regulation (EGF): Rationale for the intervention criteria*, where ERM data is used as the basis for the establishment of the EGF intervention criteria. The report noted:

> *there is no real precedent upon which to base the establishment of the EGF intervention criteria. In the EU, the closest available data are those of the European Restructuring Monitor (ERM) of the European Monitoring Centre on Change.*

Additionally, in 2008, the ERM was also used for the impact assessment of the EGF, carried out in connection with the proposed revision of the EGF regulation. The ERM was able to provide, for example, data on the share of large-scale redundancies involving 500–1,000 job losses compared with those involving over 1,000 job losses, in many cases with additional information on the time frame for the redundancies.

The Employment and Social Affairs committee at the European Parliament adopted, on 6 November 2012, the draft report of MEP Marian Harkin on the proposal for a regulation of the European Parliament and of the Council on the European Globalisation Adjustment Fund (2014–2020) (European Parliament, 2013). Following Eurofound's proactive contribution to the report, the adopted report includes the following provision:

> *The European Monitoring Centre on Change (EMCC), based in EU Agency Eurofound in Dublin, assists the European Commission and the Member States concerned with qualitative and quantitative analyses in order to help in the evaluation of trends of globalisation and utilisation of the EGF, and the Centre is also well placed to conduct impact evaluations of active labour market policy measures*

Negotiations between the European Parliament and the Council are continuing. The final text of the proposal was not available at the time of writing.

In the European Commission working document, *Restructuring in Europe 2008 – A review of EU action to anticipate and manage employment change,* the ERM data is used extensively to illustrate the employment impact of restructuring in Europe, while a follow-up report, *Restructuring in Europe 2011*, uses the data to illustrate the severity of the crisis. Using new powers of initiative included in the Lisbon Treaty (Article 225), the European Parliament adopted, by a large majority, an own-initiative legislative report by MEP Alejandro Cercas, *Information and consultation of workers, anticipation and management of restructuring* (European Parliament, 2012) on 15 January 2013. This report demands that the Commission bring out a law on the anticipation of restructurings. The report also recommends promoting the socially responsible management of restructuring, including recognition of employees'

rights to 'appropriate training' and counselling for employees affected by restructuring. The adopted report includes references to Eurofound and, more specifically, Recommendation 14 is that Member States cooperate with the Eurofound in providing statistical information on restructuring operations.

The European Parliament's European Added Value Assessment Unit prepared a report on the Cercas report, entitled *Information and Consultation of Workers, Anticipation and Management of Restructuring Processes: European Added Value Assessment (+Annexes I–IV)*. This report has an extensive presentation of ERM restructuring events data, as well as data from the other ERM restructuring databases.

Also, a number of citations for the ERM are found in opinions and reports issued by the European Economic and Social Committee (EESC), including, for example:

- the EESC 'opinion (2005/C 294/09) on the scope and effects of company relocations', where EMCC/ERM sources are cited with reference to sectors most affected by offshoring/relocations;
- EESC SOC/470: Employees involvement and participation as a pillar of sound business management and balanced approaches to overcome the crisis;
- EESC SOC/469: Job creation through apprenticeships and lifelong vocational training: the role of business in education in the EU, both adopted in March 2013.

Interest in the ERM is also expressed by the European social partners – BusinessEurope, EuroCommerce, Uni-Europa Commerce, ETUI and ETUC – and these bodies have given some prominence to the ERM in their respective reports and newsletters.

In the recent report by CEEP (European Centre of Employers and Enterprises providing Public services), *Mapping evolutions in Public Services in Europe: towards increased knowledge of industrial relations* (CEEP, 2013), 2012 ERM data are presented on recent trends in employment in public services in the wider context of employment across all sectors, and ERM figures are taken 'as a reliable indicator of trends in employment'.

Data on part-time work and seniority in the retail sector from a 2010 ERM report are used in the 2012 report: *Impact of change and new technologies on skills and occupations in the commerce sector* (European Skills Council and consultingeuropa, 2012). Issued within the framework of the UNI Europa and Eurocommerce project 'Setting up a European Skills Council for employment and skills in Commerce', the report looked at the impact of change on future skills demands.

In a recent paper, *How private employment services facilitate adaptation to change, better labour markets and decent work* (Wiederin, 2012), written in response to the EC Green paper, *Restructuring and anticipation of change: What lessons from recent experience?* (European Commission, 2012b) data on short-time working schemes from ERM report on flexicurity are highlighted.

The January 2009 issue of the newsletter from the European Trade Union Confederation (ETUC) gives a balanced overview of the ERM restructuring events data, highlighting both its weaknesses and strengths. The importance of the ERM for data on restructuring is flagged on the ETUC website on the page 'Economic and social crisis: ETUC positions and actions'.

Due to their more recent introduction, the impact of the ERM databases on restructuring support instruments and legal regulations is naturally more limited compared with the ERM events database. Nevertheless, there are some indications that the two newer resources are well appreciated, particularly by European-level stakeholders.

The European Commission/ILO invited Eurofound to launch the ERM support instruments database at its high-level Restructuring Forum on socially responsible restructuring worldwide[22] in December 2011, addressing about 200 experts and policymakers in the field of restructuring across the world, demonstrating their interest in the compiled information and their appreciation of making such information available in a systematic and structured form. The feedback received from European and national stakeholders was positive and also led to further invitations to present the contents of the database.

As for references to the ERM databases on restructuring support instruments and legal regulations in EU level documents, the European Commission's Green Paper on restructuring, for example, uses some of the restructuring support instrument types classified in the ERM database to summarise governments' and social partners' activities to cope with the global recession (European Commission, 2012). The most recent example of the impact of Eurofound's databases on restructuring support instruments and legal regulations is probably the European Commission's staff working document *'Fitness check' on EU law in the area of information and consultation of workers,* referring to information on public employment authorities' role in redundancy procedures in several EU Member States (European Commission, 2013).

At national level, Eurofound staff were offered the opportunity to draft articles in academic journals of employers' or employees' organisations, presenting the database structure and their contents, as well as deriving policy pointers for national governments and social partners aiming to improve the support and legal framework of restructuring (Mandl, 2012).

Role of the ERM in research

In a review of academic work using ERM restructuring events data (2002–2013), a number of different themes emerge. There is a strong focus on offshoring/outsourcing as well as the impact of the crisis on restructuring. The coverage highlights both the strengths and weaknesses of the ERM as a data source on the employment consequences of large-scale restructuring of organisations.

From a preliminary review of the academic papers citing or using the ERM data, it transpires that the ERM is often used to feed the debate around the employment consequences of offshoring/outsourcing, notwithstanding cited limitations of the data (Pujals, 2005; Kirkegaard, 2005; De Santis, 2008). For instance, Pujals presents the ERM data on job losses associated with large-scale European firm restructuring, and indicates that offshoring has a relatively small effect on European labour markets, relative to other sources of job losses. Kirkegaard's analysis of the labour market impacts of offshoring in the OECD and developing Asian countries includes an assessment of various empirical sources of offshoring data, including the ERM. It describes 'press monitoring estimates' such as the ERM, as the 'middle rung in the validity hierarchy of empirical data' on offshoring while noting that there was no source which would have constituted the top rung. In the absence of a systematic collection of official data specifically targeting the employment impact of offshoring, Kirkegaard's analysis said the ERM represented the best available data on European offshoring.

The research paper 'Job polarisation in Europe' (Goos et al, 2009) uses ERM data about the offshoring of European jobs in an attempt to capture to what extent the tasks done in different occupations can be offshored.

[22] http://ec.europa.eu/social/main.jsp?langId=en&catId=88&eventsId=378&furtherEvents=yes

Most studies concur that empirically quantifying the 'restructuring phenomenon' is challenging. The main difficulty in determining what and how many jobs are being lost due to offshoring is the lack of reliable data on offshoring-related job loss in the US and Europe. In such a case, and despite limitations, the ERM data provide relevant information on an EU-wide basis (Werner, 2009; OECD, 2007; Forde et al, 2007; Görg, 2011); especially when combined with other key indicators such as the OECD Structural Analysis (STAN) Database, Eurostat and the World Economic Outlook Database IMF (Capelle-Blancard and Tatu, 2012).

More recently, research on the impact of the global financial crisis on restructuring also refers to the ERM. Gunnigle et al (2013), use the ERM data to picture the types of restructuring in Ireland in multinational companies one year after the crisis (2008–2009), referring to 166 restructuring cases involving 14,546 new jobs and 27,317 job losses. Pavlínek (2012) derived relevant information from the ERM database to track the largest bankruptcies, plant closures and foreign relocations in the Czech automotive industry during the economic crisis. Combined with other sources of information, the author suggests that the extent of foreign relocations, as a consequence of the crisis, is relatively low in the Czech automobile industry for both foreign and domestic firms.

The ERM restructuring events database proved also to be informative in terms of capturing the restructuring events with a geographical variation in specific sectors such as the automobile industry. Frigant and Layan (2009) refer to 24,000 jobs losses throughout the French automobile sector from 2002 until July 2007 as monitored in the ERM. Based on the 2009 ERM annual report (Eurofound, 2009a), Delteil and Dieuaide (2012), in a study on French multinational corporations in the automobile industry, report that production sites in the central and eastern European countries (except for the Czech Republic) recorded a positive net job gain during 2008–2009.

In a more qualitative case-study approach on restructuring events, other research publications cite data on company restructuring derived from the ERM quarterly and annual reports while focusing on a specific event/sector: for example the restructuring of Dell's manufacturing facility in Ireland involving 1,900 job losses and the offshored production to Poland (Collins and Grimes, 2011).

It is also interesting to note the inclusion of the ERM in research focusing on the impact of restructuring processes on workers. ERM data on the total job losses during the last quarter of 2010 due to restructuring in the recession opens the debate on the possible health and psychological effects of restructuring (Siegrist and Dragano, 2012; Otto et al, 2013). In both cases, the authors use the ERM data to justify the high prevalence of the restructuring phenomenon in a globalised economy, suggesting that research should focus on possible ways to mitigate its consequences on employee health and well-being and on relevant policy implications. The authors highlight the need for addressing the issue, not only for redundant employees but also for those who preserve their jobs after restructuring.

In conclusion, the impact on scientific research outputs suggests that the restructuring events database is a useful and informative tool for researchers. It features an innovative data collection method to provide a unique database of publicly available information on specific restructuring announcements. The rapid migration of news sources online over the last 15 years has improved coverage and technical developments in online search and online information collation hold the promise of further improvements.

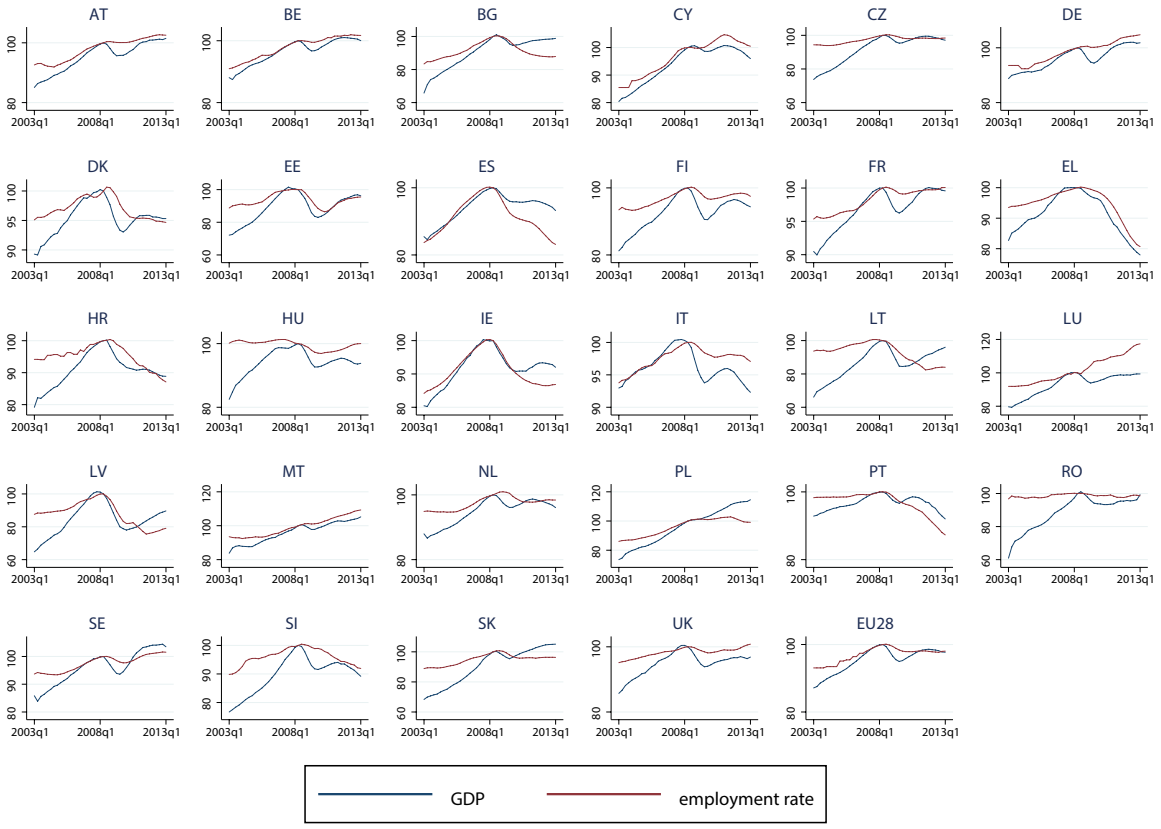
5 Restructuring in Europe pre- and post-crisis

Background

The last decade is characterised by two clearly diverging periods in terms of labour market performance. Against a background of economic prosperity, almost 16 million net new jobs were created in the EU27 in the first period, between the second quarters of 2003 and 2008. Thereafter, the global financial crisis, which began in autumn 2008, led directly to a deep economic recession and indirectly to a sovereign debt crisis that has continued to bedevil European economic and labour market performance to date. Though with large variations from country to country, aggregate employment has suffered, notably with six million fewer people in employment now than at the outset of the crisis.

Unemployment rates have risen from below 7% pre-crisis to 11% in mid-2013 (over 12% in the Eurozone countries). Current economic activity levels are above those before the crisis only in seven European countries (Belgium, Germany, Malta, Austria, Poland, Slovakia and Sweden).[23] For the EU27 as a whole, output is still 3% lower now than before the crisis. Moreover, recent forecasts raise concerns on the extent of the economic recovery and its effects on labour markets. The European Commission predicts another small contraction of economic activity in 2013 and a modest growth just above 1% in 2014. As a consequence, aggregate unemployment rates are forecast to deteriorate further; rising above 11% in 2013 and 2014.[24]

Figure 13: Employment and output change, EU28, 2003–2013



Source: Eurostat EU LFS and national accounts (online data, author's calculations). Notes: Both series are four-quarter moving averages with 2008q2 (smoothed) rebased to 100. NB: y-axis scales differ across countries.

[23] When comparing the first quarter of the years 2008 and 2013.

[24] European Economic Forecast, Spring 2013, European Economy 2/2013. European Commission, Directorate-General for Economic and Financial Affairs. http://ec.europa.eu/economy_finance/publications/european_economy/2013/pdf/ee2_en.pdf

Five years after the global financial crisis, the European employment outlook remains uncertain. Large disparities between countries persist and relate primarily to contrasting trajectories before, during and after the crisis. Figure 13 above shows the change in output (real GDP) and employment both before and after the crisis. All countries except Hungary experienced expansion in employment levels in the period of economic growth before the crisis, although to varying degrees. All countries also experienced even stronger output growth than employment growth corresponding to increased productivity per worker. However, once the crisis struck clear cross-country divergences in labour market performance and output emerged.

The overall dramatic impact of the crisis in labour markets is reflected by the fact that there are only seven countries where employment levels in the first quarter of 2013 were above those registered in the same period of 2008: Germany, UK, Austria, Sweden, France, Luxembourg, Belgium and Malta.

Many countries have already experienced a 'lost decade' in employment terms; in Hungary, Spain, Denmark, Greece, Croatia, Lithuania, Latvia, Romania and Portugal, current employment levels are at or below those recorded ten years ago, five years before the onset of the crisis. For two troika 'programme' countries, Greece and Portugal, the decline in employment has been unabated since the crisis and has come in conjunction with a ten-year contraction of output. Italy too has experienced a contraction of output, but employment consequences have been relatively muted to date.

For certain countries, a link can be assumed between the extent of the employment expansion in the pre-crisis period and the magnitude of the employment destruction that followed once the economic crisis hit labour markets from 2008. For instance, Spain, Bulgaria, Ireland and Latvia registered large employment expansions before the crisis, but suffered strong employment losses once the crisis hit. It is no coincidence that each of these countries experienced a boom and bust in house prices and construction over the period. A significant share of the employment losses in each country has come in the construction sector.

By contrast, a number of developed west European economies show a similar trajectory to the EU's largest economy, Germany, with more modest employment expansions pre-crisis, a slowing of employment growth or modest declines during the crisis, followed by a resumption of growth since 2011. Austria, Belgium, Sweden, Finland, France and Luxembourg all fall into this category. A notable feature of the charts for each of these countries is that sharp output declines during the initial crisis period were not accompanied by sharp employment declines. Labour hoarding – in some cases with institutional incentives such as subsidised short-time working schemes – helped to moderate the employment consequences of the first impacts of the crisis.

ERM data

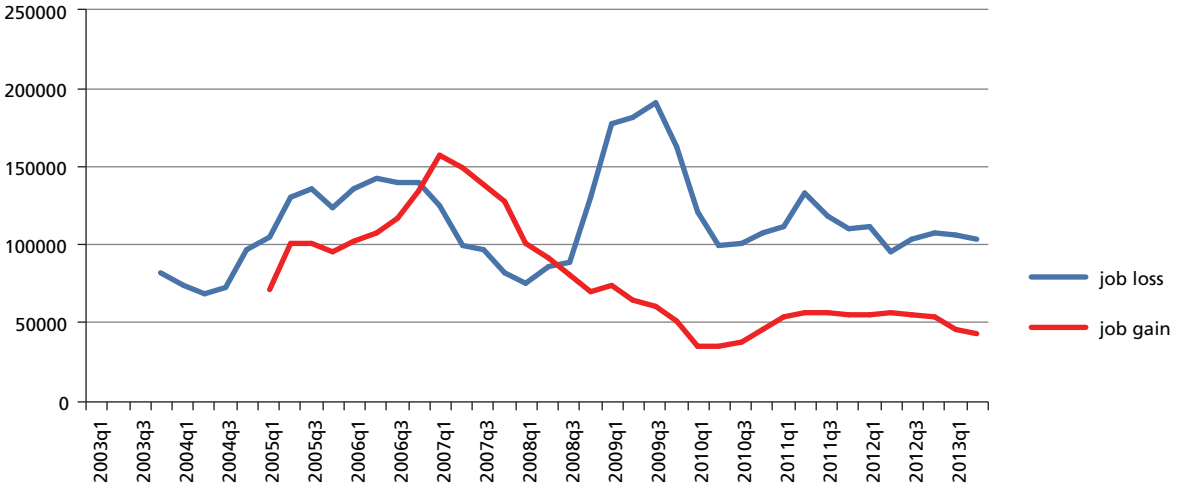
While Eurostat's European Labour Force Survey (EU LFS) is the most reliable source of reference for information on employment levels in Europe, the main objective of the ERM is to monitor the employment impact of large-scale restructuring events in European countries, covering both job creation and destruction. Based on media reports across all EU27 countries, it is the single best publicly available source of EU data on the employment impacts of large-scale organisational restructuring.

Between 2003 and 2013Q2, the ERM recorded 14,776 cases of large-scale restructuring in Member States. The number of cases of announced job loss was almost double that of announced job creation (9,503 compared with 5,363 cases).[25] Total announced job destruction associated with these cases

[25] Reflecting in part at least the fact that the database began capturing 'business expansion' cases only during 2004/5. See Annex 3.

was almost double that of total announced job creation (4.75 million as compared with around 2.72 million). Figure 14 below shows the evolution in the magnitudes of both announced job losses and gains.

Figure 14: Announced restructuring job loss and job gain



Source: ERM.
Note: Includes job creation data from 2005 only. 4-quarter moving averages.

The data clearly reflect the impact of the crisis. From 2008Q2, the number of announced job losses surpassed that of job creation and experienced very large increases until 2009Q1. Despite the fall in the quarterly levels of announced job losses ever since, total job loss has continued to outnumber job creation in each quarter up to now. Announced job creation, in particular, has fallen sharply from its pre-crisis levels and only marginally improved from its 2009 trough.

Table 3: Type of restructuring – descriptive statistics

	% of job loss		cases		median employment unit(s) affected		median job loss / gain	
	2003-8	2008-13	2003-8	2008-13	2003-8	2008-13	2003-8	2008-13
Bankruptcy/closure	15	20	999	1348	229	240	190.5	200
Internal restructuring	71	72	2228	3617	1470	1400	211	200
Merger/acquisition	4	3	178	145	1575	1100	245	220
Offshoring	7	3	409	257	400	365	194	200
Relocation/outsourcing	2	1	177	95	385	331	187	169.5
Other	0	1	22	28	826	730	288.5	200
Total job loss cases	100	100	4013	5490	620	750	200	200
Business expansion			2631	2468	140 (700)*	500 (1000)*	230	200

Source: ERM, 2003-13q2.
* figure in brackets excludes new establishments (number employed=0) which account for 34% of job creation cases where data on employment in affected units has been recorded

With regard to the form of restructuring, one residual category 'internal restructuring' accounts for a majority of cases in the ERM dataset before and after the crisis. Just over 70% of job losses are attributable to internal restructuring. In part, this is because of the way internal restructuring is defined for ERM purposes: where a company undertakes a job-cutting plan, which is not linked to the other forms of job-loss restructuring listed in Table 3. Correspondents also tend to classify, as internal restructuring, cases where there may be a mix of restructuring types – for example, a combination of closing some units while offshoring of certain functions – including larger restructuring cases affecting multiple sites or establishments. The median employment level at establishments in ERM cases of internal restructuring was 1,400–1,470, comparable to those resulting from mergers/acquisitions, and significantly larger than for other forms of restructuring. Job losses in such cases, however, represented a relatively low share of overall employment in the affected units (median job loss size: 200–211).

Restructuring due to bankruptcy or closure accounted for an increased share of job loss post-crisis compared to pre-crisis (20% compared with 15%) as organisations succumbed in the face of unsustainable commercial pressures arising from the crisis. The largest bankruptcy/closure, by some margin, was that of UK retail chain Woolworths in December 2008 which resulted in the loss of 27,000 jobs. But the majority of bankruptcy/closure cases were in the SME category (establishments employing up to 250 people). By their nature, job losses in such cases accounted for a very high share of establishment employment.

Cases of offshoring, outsourcing and/or relocation represented a modest 4% of job loss post-crisis compared to 9% before. As already indicated in the thematic section on offshoring, these forms of restructuring – which can involve significant fixed investment in cases of greenfield relocation or offshoring, as well as high-risk strategic commitments in cases of outsourcing/offshoring – are less likely to have been undertaken in a context of post-crisis economic uncertainty. Paradoxically, job loss through these forms of restructuring is pro-cyclical, increasing relatively and in absolute terms when the macroeconomic context is positive and decreasing during recession or periods of declining growth. The modest decline in job-loss share attributable to mergers/acquisitions may reflect a similar logic.

Nearly all announced job gains in the ERM dataset come in cases of business expansion. These account for just over a third of all ERM cases. After 2008, there has been a decline in job gain cases both in absolute terms and as a share of all cases. Additionally, job creation cases have tended to be smaller (median job creation of 200 compared with 230 during 2003–2008) and the establishments reporting job creation have tended to be larger (median employment of 1,000 compared with 700 in the earlier period for existing, non-start up, establishments). Also the share of job creation cases involving start-up or new establishments has declined from 41% to 27%.

Restructuring by economic sector

This section uses ERM and EU LFS data to describe the sector-level consequences of restructuring over the last ten years. Given the major revision of the NACE sector classification in 2008, it is not easy to compare sector categories before and after the break. Even sector aggregates with the same, or very similar, titles in NACE rev 1.1. and NACE rev 2.0 only rarely correspond exactly so this should be borne in mind when reading the EU LFS-based table (Table 5); the ERM restructuring events data uses the latest NACE rev 2.0 classification for all cases. An intermediate sector aggregation is used (see Annex 2).

Before the economic crisis, between 2003Q1 and 2008Q2, the broad sector that most contributed to announced job losses and gains was manufacturing (just over 40% for each category – see Table 4 below). Manufacturing job losses increased modestly in absolute terms from the pre-crisis to post-crisis period. As regards job creation cases, there was a sharper fall post-crisis in manufacturing; total job creation in the most recent period was little over half of that reported in 2003–2008. The net outcome for the manufacturing sector was a sharp rise from just over 200,000 net job losses in the pre-crisis to over 600,000 net job losses in the post-crisis period. This is consistent with the representative data from the EU LFS which demonstrates the disproportionate impact the recession had on employment in manufacturing (see Table 5). Over 4.5 million jobs, representing 12% of manufacturing employment, were lost between 2008q1 and 2013q1.

The (sub)sectors with the most job losses caused by restructuring were the same before and after the crisis – auto/transport equipment manufacturing, transportation/storage, financial services and public administration. This is, in large part, explained by the methodology used by the ERM which tends to favour the inclusion of larger establishments due to the job loss/gain thresholds; and each of the four sectors have a large-establishment skew.

Comparing pre- and post-crisis, the biggest increases in announced job loss have been in public administration and financial services. Restructuring cases in public administration tend to be very large, in some cases involving large swathes of national civil service employment. The biggest single case in the ERM dataset was the announcement of 54,000 job military and civilian defence jobs in June 2008 by the French government. This is part of a long-run trend of declining employment in the armed forces, but also reflects a more general contraction of spending on public services under the guise of austerity in the post-crisis period. According to EU LFS data, public administration employment has contracted by 3% between 2008 and 2013.

The increasing share of financial services in overall restructuring job loss is also not unexpected given that the sector was where the 2008–2009 global crisis originated. Some 33 cases of restructuring by financial services enterprises, involving at least 2000 job losses, were recorded by the ERM since 2008. Much of this restructuring activity had, as its basis, agreements to reduce assets and employment where banks had required state aid to survive in the immediate aftermath of the September 2008 financial crisis. One banking group, Lloyds TSB, accounts for 18 separate ERM restructuring cases of job loss after April 2009. The largest job losses announced by Lloyds were of 5,000 (in November 2009) and 15,000 (in June 2011). Since 2008, the UK bank, which embarked on an ill-fated merger with HBOS at the height of the crisis in October 2008, has shed some 35,000 jobs, and the UK government now owns 33% of it. Employment has contracted some 2.4% in the EU27 in the financial services and insurance sector since 2008 (see Table 5).

Table 4: Announced job loss and gain by sector in large-scale restructurings

	job loss (,000s)		% job loss		job gain (,000s)		% job gain		net		total
	2003-8	2008-13	2003-8	2008-13	2003-8	2008-13	2003-8	2008-13	2003-8	2008-13	
A - Agriculture, forestry and fishing	15	8	0.7	0.3	4	1	0.2	0.1	-11	-7	27
B - Mining and quarrying	74	29	3.4	1.1	19	32	1.2	3.0	-55	3	155
Manufacturing - of which	893	946	41.1	36.7	662	342	40.8	31.2	-231	-604	2,843
CA - Food, beverages and tobacco	89	66	4.1	2.6	26	23	1.6	2.1	-63	-43	204
CB - Textiles, clothing, leather	63	52	2.9	2.0	15	8	0.9	0.7	-48	-45	138
CC - Wood, paper and printing	37	42	1.7	1.6	26	6	1.6	0.6	-11	-35	111
CD - Coke, petroleum products	4	9	0.2	0.4	7	1	0.4	0.0	2	-9	21
CE - Chemicals	35	25	1.6	1.0	19	4	1.2	0.3	-16	-21	82
CF - Pharmaceutical products	31	37	1.4	1.4	12	7	0.7	0.6	-19	-30	87
CG - Rubber, plastic, etc	47	58	2.2	2.3	37	16	2.3	1.5	-10	-42	159
CH - Basic metals	93	113	4.3	4.4	34	18	2.1	1.7	-59	-95	258
CI - Computers, etc	118	91	5.4	3.5	158	31	9.8	2.8	40	-60	398
CJ - Electrical equipment	68	83	3.1	3.2	66	28	4.1	2.6	-2	-55	244
CK - Machinery, etc	24	79	1.1	3.1	25	27	1.5	2.5	1	-52	156
CL - Transport	243	258	11.2	10.0	211	165	13.0	15.1	-31	-93	877
CM - Other and repair	41	33	1.9	1.3	27	8	1.6	0.7	-14	-25	108
D - Electricity, gas, steam and air conditioning	41	47	1.9	1.8	78	26	4.8	2.3	37	-21	192
E - Water supply; sewerage, waste management	5	5	0.2	0.2	3	6	0.2	0.6	-2	1	19
F - Construction	20	69	0.9	2.7	63	12	3.9	1.1	43	-56	163
G - Wholesale and retail trade; repair of motor vehicles	91	197	4.2	7.7	272	224	16.8	20.4	181	26	784
H - Transportation and storage	227	236	10.4	9.2	119	92	7.3	8.3	-108	-145	674
I - Accommodation and food service activities	6	8	0.3	0.3	31	62	1.9	5.7	25	54	108
JA - Publishing, broadcasting	41	42	1.9	1.6	11	6	0.7	0.6	-30	-36	101
JB - Telecomms	189	93	8.7	3.6	35	17	2.2	1.6	-154	-76	335
JC - IT and info services	29	37	1.3	1.4	54	70	3.3	6.3	26	33	189
K - Financial and insurance activities	218	314	10.0	12.2	61	59	3.8	5.4	-157	-255	652
L - Real estate activities	1	3	0.0	0.1	12	5	0.8	0.5	11	2	21
MA - Legal, accounting, architecture, engineering	3	9	0.1	0.3	28	36	1.7	3.3	25	28	75
MB - Scientific research / development	1	7	0.0	0.3	7	11	0.4	1.0	6	4	25
MC - Other prof scientific, technical	1	0	0.1	0.0	2	1	0.1	0.1	1	0	4
N - Administrative and support service activities	21	40	1.0	1.5	52	36	3.2	3.3	31	-4	149
O - Public administration and defence; compulsory social security	240	411	11.0	15.9	53	36	3.3	3.3	-187	-375	739
P - Education	11	39	0.5	1.5	6	6	0.4	0.5	-4	-33	61
QA - Human health services	43	30	2.0	1.2	35	9	2.2	0.8	-8	-21	117
QB - Residential care and social work activities	1	2	0.0	0.1	0	4	0.0	0.3	0	2	7
R - Arts, entertainment and recreation	2	4	0.1	0.2	10	4	0.6	0.3	8	-1	20
S - Other service activities	2	1	0.1	0.1	3	1	0.2	0.1	1	0	7
Total	2,173	2,577	100.0	100.0	1,621	1,097	100.0	100.0	-552	-1,480	7,468

Source: ERM 2003-2013Q2

The sector with the greatest relative loss in employment during and after the crisis – construction – is under-represented in the restructuring events database due to small average firm size, because of the case size eligibility criteria. Nonetheless, ERM job loss rose from 20,000 pre-crisis to 69,000 in the post-crisis period, or just less than 3% of total announced job loss. According to EU LFS data (see Table 5), one in five construction jobs disappeared between 2008q1 and 2013q1. Worth noting, however, is the relative buoyancy of construction sector employment pre-crisis. Sector employment rose 15% across the EU between 2003 and 2007, with gains concentrated in those countries such as Spain, Ireland, Bulgaria and the Baltic Member States, where losses tended to be concentrated post-crisis.

Though announced ERM job losses outnumbered job gains 3:2 in 2008–2013, there were some sectors, generally in private service sectors, recording net job gains from restructuring. These include the accommodation and food service, professional services (such as legal, accounting, engineering), IT and info services – all sectors in which employment has also increased significantly, according to EU LFS data.

The retail sector accounted for around 20% of announced new jobs in the post-crisis period and accounts for nearly half-a-million new jobs over the course of the last decade on the restructuring events database. It also, however, accounted for an increased share of job loss after 2008 with some 200,000 job losses in the post-crisis period. High levels of churn in this highly competitive, low-margin sector reflect the demise of some major traditional retailers (such as the previously mentioned Woolworths in the UK, and Schlecher in Germany) as well as national and international expansion by retail groups such as Edeka, Lidl, Tesco and IKEA, generally in the low-cost or discount tier of retailing. The creation by Amazon of 2,500 new jobs at Bad Hersfeld (Germany) in 2009 illustrates the growth of online retailing, but many other cases of job creation by the American firm are assigned to the transport/logistics sector, indicative of the extent to which retail and distribution have converged in recent years with the development of online shopping. According to EU LFS data, employment in the retail sector has shrunk by nearly 3% post-2008 after growing by nearly 7% in 2003–2007.

Table 5: Employment (,000s, EU-28), by sector, pre- and post-crisis

2003-2007 (NACE rev.1.1)				2008-2013 (NACE rev.2)			
	2003	2007	2003-2007		2008Q1	2013Q1	08Q1-13Q1
A+B. Agriculture, hunting and forestry+Fishing	14,186.9	12,410.9	-12.5	A. Agriculture, forestry and fishing	11,318.6	10,212.4	-9.8
C. Mining and quarrying	988.5	954.1	-3.5	B. Mining and quarrying	888.8	857.0	-3.6
D. Manufacturing, of which:	39,815.3	39,848.2	0.1	C. Manufacturing, of which:	38,051.6	33,274.6	-12.6
DA. Food, beverages and tobacco	4,987.0	5,208.8	4.4	CA. food, beverages, tobacco	5,093.0	4,828.0	-5.2
DB+DC. Textiles, clothing, leather	4,255.2	3,420.9	-19.6	CB. Textiles, clothing, leather	3,336.3	2,395.2	-28.2
DD+DE. Wood, paper and printing	4,472.2	4,456.0	-0.4	CC. Wood, paper and printing	3,328.8	2,568.8	-22.8
DF. Coke, petroleum products and nuclear fuel	249.0	272.3	9.4	CD. Coke, petroleum products.	247.0	208.5	-15.6
DG. Chemicals	2,403.1	2,296.2	-4.4	CE+CF. Chemicals and Pharmaceuticals	2,267.7	2,079.1	-8.3
				CE. Chemicals	1,470.7	1,278.8	-13.1
				CF. Pharmaceutical products	797.0	800.4	0.4
DH+DI. Rubber, plastics, etc.	3,475.6	3,419.9	-1.6	CG. Rubber, plastics, etc.	3,363.9	2,875.6	-14.5
DJ. Basic metals	5,737.5	5,862.3	2.2	CH. Basic metals	5,722.1	4,736.7	-17.2
DL. Computers	2,381.6	2,455.6	3.1	CI. Computers, etc.	1,708.5	1,597.9	-6.5
DL. Electrical equipment	1,528.0	1,645.2	7.7	CJ. Electrical equipment	1,601.9	1,348.8	-15.8
DK. Machinery etc	4,082.3	4,057.3	-0.6	CK. Machinery, etc	3,341.2	3,129.2	-6.3

2003-2007 (NACE rev.1.1)				2008-2013 (NACE rev.2)			
	2003	2007	2003-2007		2008Q1	2013Q1	08Q1-13Q1
DM. Transport vehicles and equipment	3,652.6	4,211.5	15.3	CL. Transport vehicles and equipment	4,218.0	3,957.7	-6.2
DN. Other manufacturing	2,435.0	2,341.9	-3.8	CM. Other and repair	3,823.4	3,549.1	-7.2
DN. Recycling	156.2	200.3	28.2				
E. Electricity, gas, steam and air conditioning supply	1,520.5	1,514.2	-0.4	D. Electricity, gas, steam and air conditioning supply	1,501.2	1,659.6	10.5
E. Collection, purification and distribution of water	452.3	467.2	3.3	E. Water supply; sewerage, waste management and remediation activities	1,584.6	1,627.6	2.7
F. Construction	15,699.5	18,051.0	15.0	F. Construction	18,520.7	14,699.8	-20.6
G. Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	29,717.5	31,728.0	6.8	G. Wholesale and retail	31,420.2	30,397.1	-3.3
I. Transport, storage	12,778.1	13,451.7	5.3	H. Transportation and storage	11,502.5	10,993.5	-4.4
H. Hotels and restaurants	7,928.8	9,298.3	17.3	I. Accommodation and food service activities	9,182.7	9,345.0	1.8
I. Post and telecommunications	3,457.0	3,452.8	-0.1	J. Information and communication	6,184.3	6,204.8	0.3
				JA. Publishing, broadcasting	1,998.7	1,911.7	-4.4
				JB. Telecomms	1,453.6	1,131.8	-22.1
				JC. IT and info services	2,732.0	3,161.3	15.7
J. Financial intermediation	6,210.3	6,558.4	5.6	K. Financial and insurance	6,581.3	6,463.5	-1.8
K. Real estate, renting and business activities	17,478.4	21,169.7	21.1	No direct correspondence			
				L. Real estate activities	1,689.1	1,723.6	2.0
				MA. Legal, accounting, architecture, engineering, etc	7,469.9	7,883.5	5.5
				MB. Scientific research/ development	829.5	858.0	3.4
				MC. Other prof. scientific, technical	2,151.4	2,501.1	16.3
				N. Administrative and support service activities	7,934.8	8,600.3	8.4
L. Public administration and defence; compulsory social security	15,232.4	15,556.1	2.1	O. Public administration	15,539.0	14,929.5	-3.9
M. Education	14,400.9	15,114.3	5.0	P. Education	15,611.9	16,253.5	4.1
N. Health and social work	18,934.6	20,872.9	10.2	Human health and social work activities	20,898.3	22,727.8	8.8
				QA. Human health services	12,536.9	13,161.6	5.0
				QB. Residential care and social work	8,361.4	9,566.2	14.4
O. Other community, social and personal service activities	8,318.9	9,119.8	9.6				
				R. Arts, entertainment	3,365.1	3,470.2	3.1
				S. Other service activities	5,371.4	5,439.0	1.3
P. Activities of households as employers of domestic staff	2,013.5	2,459.2	22.1	T. Activities of households	2,494.2	2,641.2	5.9
Q. Extra-territorial organizations and bodies	124.4	157.3	26.4	U. Activities of extraterritorial organisations	187.3	185.7	-0.9

Source: Eurostat EU LFS.

Note: Data refers to EU-28 aggregate employment levels. The sectors in the period 2003-2007 and 2008-2013 are not fully comparable due to a change in the NACE classification in 2008. For info on the changes involved from NACE rev.1.1 to Rev.2: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-07-015/EN/KS-RA-07-015-EN.PDF). Data for the first period is based on annual employment levels. For the second period (2008 q1-2013q1) data is based on quarterly employment levels in order to present the most up-to-date information. For the first period, mining and quarrying excludes uranium. The category of other manufacturing includes repair only for the 2008-2013 period.

The EU LFS data confirm many of the differential outcomes by sector observed in the ERM restructuring data, and help to fill in the picture, especially in sectors with a large share of small establishments where restructuring activity falls below the ERM radar.

The economic sectors that most contributed to the gains in employment levels before the crisis were private services, health and the construction sector. The largest increases took place in:

- the real estate, renting and business activities category (more than 3.5 million);
- construction (almost 2.5 million);
- retail and health and social work sectors (almost 2 million in each).

The hotels and restaurants sector also accounted for one million new jobs net in 2003–2007 (see Table 5). Even before the crisis, employment in the manufacturing sector remained stagnant and almost half of its sub-sectors recorded significant declines in employment, notably textiles and clothing where more than 800,000 net job losses were recorded. The agricultural sector also continued its longstanding employment decline, shedding around 1.7 million jobs, mainly in central and east European countries such as Romania and Poland. The immediate pre- and post-accession years have seen a rapid rationalisation of the large agricultural sectors in both countries.

Since the onset of the crisis in 2008, the largest declines in employment have taken place in:

- manufacturing (4.5 million);
- construction (almost 3.7 million);
- agriculture (more than one million);
- retail (almost 900,000);
- public administration (around 500,000).

Within the manufacturing sector, employment losses have been greatest in basic, low-tech subsectors such as:

- basic metals;
- textiles;
- clothing and leather;
- wood, paper and printing.

The crisis accelerated the net destruction of jobs in some sub-sectors which were already losing employment (such as textiles/clothing) or, alternatively, undid the modest net job creation in the earlier period (in sectors such as food, beverages and tobacco; basic metals; computers, electrical equipment). The only manufacturing sub-sector which has created net gains in employment over the last decade, despite the negative impact of the crisis, is the auto/transport equipment sector.

Some predominantly state-funded service sectors have created net gains in employment during the crisis: more than a million jobs in the residential care and social work sector – a largely predictable development given demographic trends – and more than half a million in the health and education sectors. More recent data from 2011–2013 point to net job losses in both health and public administration as retrenchment in public spending has become more widespread. They also point to a more sustained increase in employment in private, knowledge-intensive, service sectors such as law, accounting, and engineering (NACE rev 2. intermediate code MA), IT and information services (JC) and other professional, scientific and technical services (MC).

West-east shift in manufacturing

Manufacturing sector employment has been in decline in the EU27 since the 1970s, with periods of modest or no employment growth during business up-cycles, punctuated by severe job loss during business down-cycles. At the same time, output has increased. Rapid increases in productivity have arisen as a result of automation, while some more labour-intensive production jobs – such as those in textiles – have been largely displaced to low labour-cost production locations abroad. In the section on offshoring, it was observed that over half of the employment losses from offshoring arose from the transfer of production and employment to other locations within the EU, primarily to the 2004–2007 accession Member States (EU12). A counterpart phenomenon has been the growing share of overall EU employment in the EU12 countries in certain manufacturing subsectors. In some cases this may have arisen as a result of offshoring (with identifiable corresponding job losses in other, mainly older Member States). But in the main, this probably reflects differential patterns of independent investment and disinvestment decisions by the main manufacturing companies. The EU12 have been favoured over older Member States when it comes to new investment, while facilities in EU15 with more mature economies and higher wage costs have been more likely to suffer contraction or closure (in the auto sector, the SAAB bankruptcy in 2011, as well as the announced closures of Peugeot PSA's Aulnay-sous-Bois factory and Ford's Genk factory in Belgium during 2012 involved over 10,000 job losses).

As Table 6 below confirms, however, the shift eastwards of manufacturing was mainly a phenomenon of the pre-crisis period (2003–2007) when manufacturing employment grew by nearly 9% in the EU12, while contracting by 2% in the older Member States. The manufacturing share of total employment grew in the EU12 during the pre-accession employment expansion. Since 2008, the rate of destruction of manufacturing employment has been very similar in newer and older Member States (-11%). The change over the whole decade is one of different rates of contraction of the manufacturing share of employment; in the EU15 it is faster and from a lower base share and in the EU12, somewhat slower and from a higher base share.

Table 6: Manufacturing sector employment change (2003-12) and announced job loss/gain in large scale restructurings (2003-13)

Manufacturing, employment change						
	2003-7			2008-12		
	,000s chg	% chg	manufacturing as a % of total employment in 2003 (2007)	,000s chg	% chg	manufacturing as a % of total employment in 2008 (2012)
EU27, of which	189	0.5	19.1 (18.1)	-4192	-11.1	17.1 (15.6)
EU15	-580	-1.9	18.5 (17.1)	-3100	-11.0	16.0 (14.5)
EU12	768	8.6	21.8 (22.1)	-1093	-11.3	21.6 (19.8)

Source: ELFS

Manufacturing, total announced job gain/loss (,000s) in large-scale restructurings						
	2003-8			2008-13		
	Job loss	Job gain	Loss/gain	Job loss	Job gain	Loss/gain
EU27, of which	893	662	1.3	946	342	2.8
EU15	730	126	5.8	651	141	4.6
EU12	163	536	0.3	295	201	1.5

Source: ERM
Note: EU LFS data relies on different NACE classifications for the two periods and manufacturing category is not strictly comparable through the transition. The periods covered are not the same due to data availability reasons as well as classification changes.

Manufacturing is the single broad sector with the highest number of restructuring cases in the ERM dataset, unsurprisingly so, given the composition of employment by establishment size and high levels of media coverage of restructuring in the sector. These factors should contribute to ERM data offering a reasonably faithful reflection of general employment developments in the sector. As Table 6 illustrates, the ERM data is largely consistent with what is observable in the more representative Labour Force Survey data. Net outcome of large-scale restructurings was very significantly positive in the EU12 in 2003–2012; there were more than three times as many announced jobs created in manufacturing as lost. During the same period, EU15 Member States experienced a net loss in manufacturing jobs. Post 2008, both areas have experienced net losses and there has been a convergence in the ratios of restructuring job loss/gain.

Within manufacturing, the sector with most resilient employment levels has been cars/transport equipment (NACE CL, 29–30). It recorded employment increases in the pre-crisis period in both older and newer Member States; in the EU12, the cars/transport sector workforce grew by 65% from 2003-2012. In the post-crisis period, employment losses in cars/transport equipment production have been muted by comparison with manufacturing overall, and levels have actually managed to continue growing, albeit marginally, in the EU12. The sector employs over 375,000 more workers here than a decade ago.

As Table 7 illustrates, the ERM reflects very well, for the main part, the East–West divergence of employment performance in the sector over the last decade. For those countries with significant sectoral employment levels and restructuring activity, net job losses were concentrated in the older Member States, with net job gains in the newer Member States.

Table 7: Announced job loss and creation in car/transport equipment sector

Country	ERM		EU LFS	
	Announced job gain	Announced job loss	% employment change	Net
DE	42137	-131396	22	-89259
FR	38099	-84533	-8	-46434
UK	22295	-59256	-25	-36961
SE	5058	-36118	-25	-31060
BE	2642	-25089	-14	-22447
ES	4950	-25829	-21	-20879
CZ	60302	-27492	112	32810
SK	38736	-5307	128	33429
RO	45745	-11523	49	34222
PL	79917	-28791	45	51126

Source: EU LFS, ERM.
Notes: For convenience, EU LFS data based on NACE rev 1.1 divisions 34–35 for 2003–2007 combined with NACE rev 2.0 divisions 29–30 for 2008–2012, (omits 2007–2008 due to classification change and sector groupings are similar but not matching through the change). Polish EU LFS data, 2004–2007 and 2008–2012.

With the exception of the German data, the net outcomes at country level of the large-scale restructurings captured in the ERM data correlate well with the employment shifts identified from EU LFS data. Employment has more than doubled in the Czech and Slovak republics in the car/

transport equipment sector over the last decade, and has grown by over 40% in Romania and Poland while contracting in most older Member States (-25% in the case of both Sweden and the UK). These Member States also show healthy positive employment balances from large-scale restructuring activity over the period. A possible explanation for the discrepancy with the German ERM data is that job creation in the sector has been more gradual, more likely to take place in smaller *mittelstand* establishments and less likely to attract media coverage than larger job-loss cases.

The west–east shift of production activities in the pre-crisis period suggested by ERM restructuring activity was not confined to the car/transport equipment sector. Similar developments are evident in the computer/electronics and optical sector (NACE CI), with substantial announced job creation in 2003–2007 followed by a sharp slowdown in job creation post 2008 (from 143,000 to 22,000 new jobs). In the electrical equipment sector (NACE CJ), net employment gains in 2003–2007 in the EU12 more or less matched net employment losses in the EU15 countries (+50,000, -52,000). Post-crisis, the sector has experienced significant net losses in both groups of countries.

In summary, there is strong evidence from the EU LFS of a pre-crisis shift in manufacturing activities and employment from EU15 to EU12 Member States, albeit in a context of longer-term decline in structural employment in the broad sector. This shift is especially evident in the car/transport equipment sector. The crisis appears to have put paid to this shift, as the employment destruction rate in manufacturing has been similar in older and newer Member States post 2008. These trends are largely reconfirmed by the ERM data from over 8,000 large-scale restructuring cases in manufacturing firms. There is, in particular, an abrupt deterioration in net employment outcomes from restructuring between the two periods in the EU12 in most manufacturing subsectors; in most the negative employment shift was greater between the two periods in the newer than in the older Member States.

One possible hypothesis for this is that the crisis itself has tended to undo some of the factors that generated divergent manufacturing trends in older and newer Member States pre-crisis. Fewer older Member State firms are offshoring, and foreign direct investment has declined.

A second hypothesis is that, with catch-up growth, a milder recession, and faster cost growth, the relative attractions of the EU12 for (re)locating production have diminished. Indeed, as already noted in the section on ERM offshoring cases, the share of offshoring in overall restructuring job loss has converged for newer and older Member States post-crisis. An emblematic restructuring case – or sequence of cases[26] – in this regard is that of Finnish mobile phone maker, Nokia which, in January 2008, announced the closure of its German factory at Bochum with the loss of 2,300 jobs. Production shifted to Jucu in Romania – primarily for wage-cost reasons – but after just over three years the company announced the closure of the Jucu facility in September 2011. Indeed, much of its European manufacturing activity (most of which was only recently offshored to Hungary and Romania is being moved to Asia.

Large-scale restructuring has, in aggregate, benefited the manufacturing sector in the newer Member States over the last decade, at least relative to that in the EU15 Member States but, in a context of company investment/disinvestment strategies that have increasingly brief lifespans, the gains are becoming more temporary, more vulnerable.

[26] In each of these production shifts, Nokia took advantage of significant national or regional subsidies to facilitate the set-up. Each of the major restructurings that followed resulted in successful applications to the European Globalisation Adjustment Fund (EGF) to help retrain redundant workers.

Offshoring in Europe 2003–2013

6

It was pointed out in the discussion on the ERM events database in Chapter 1 that, while there are issues with data quality in the ERM, there is currently no alternative means of monitoring the employment impact of restructuring in Europe. The greatest comparative advantage of the ERM, however, is its information on offshoring, asthere is practically no information at all on this at EU level. For this reason, particular emphasis is placed in this report on what the ERM can now provide on offshoring over the last 10 years

Introduction

The relocation of economic activity from developed world economies (EU, US, Japan) to developing world countries has been an important dimension of the most recent phase of globalisation. Since the early 1990s, in particular, the rapid integration in the global economy of populous, developing economies such as China and India, as well as the already industrialised former COMECON countries has led to what Richard Freeman has termed the 'great doubling' of the global labour market (Freeman, 2007). Given large differences in labour costs, this has created strong incentives for firms to relocate parts of their activities to lower-cost destinations. In the first instance, such transfers of economic activity involve job losses for those in developed economies who have, until now, performed the jobs.

Offshoring is an embodiment of the contemporary forces of globalisation. Political, institutional and technological barriers to the relocation of economic activity have declined markedly and the opportunities for businesses to exploit differentials in factor costs have grown commensurately. Offshoring, in particular, symbolises the shifting attractions of developed and developing economies in relation to labour costs. These continue to be much lower in offshoring destination countries, even if rapid development in these countries is beginning to erode the differentials. Large-scale corporate restructurings, involving redundancies and offshoring, make headlines. Public fears about a mass exodus of developed world jobs are therefore unsurprising, but a salient fact is that average, and structural, unemployment (NAIRU) levels have tended to be stable or have declined in most developed economies from the mid-1990s to the onset of the 2008–2009 crisis (Guichard and Rusticelli, 2011 pp. 16–20), coinciding with the recent peak period of offshoring from developed to developing economies.

This section uses the restructuring events database to give some estimates of the employment impacts of offshoring by EU-based companies. Measuring offshoring job loss is problematic, given the cross-national nature of offshoring, and the absence of relevant variables in the standard labour market data sources at European level (EU LFS, Structural Business Statistics). Eurostat's recent development of its International Sourcing Survey, involving the cooperation of some Member States' national statistical institutes with Eurostat has extended knowledge of European international sourcing/offshoring activity and intentions, based on establishment survey data (Alajääskö, 2009). The European Manufacturing Survey (2005–2006, 2009, 2012) is another source of representative data on offshoring activity, and the motivations of European manufacturing companies, which have been utilised, for example, in the *2012 European Competitiveness Report* (European Commission, 2012, pp. 62–69).[27]

The ERM adds to our knowledge of offshoring, as one specific dimension of large-scale organisation restructuring, by offering a database of information regarding restructurings announced at company-

[27] EMS involves a limited number of EU Member States, and is run by a cross-national academic consortium outside the EU statistical system. For more information, see http://www.isi.fraunhofer.de/isi-en/i/projekte/fems.php

level in EU Member States, from 2002 to date (over 16,000 cases, of which 781 involve total or partial offshoring). Ultimately, the company or firm is the appropriate level at which to measure offshoring and its effect on employment, and the ERM provides an extensive database of such occurences. In the absence of any reliable, cross-national, European official data on offshoring, it remains a unique source of information on this subject.

It is important, nonetheless, to acknowledge the limitations of the ERM data. They are indicative and not representative. The information compiled by the ERM is dependent on details reported by a network of national correspondents in Member States, based on media reports of restructuring events in their countries complying with ERM eligibility criteria (generally large-scale restructuring events involving at least 100 job losses or 100 new jobs). This mode of data collection and the ERM case thresholds introduce biases which are fully discussed elsewhere in this report. These limitations prompt caution in using the ERM for some purposes, such as estimating overall restructuring job loss. But for the purposes of this study's analysis, which looks at one specific type of restructuring, there is no reason to suspect that estimates of, for example, the offshoring share of overall large-scale restructuring job loss at aggregate EU level or (sample size permitting) country level are not representative.

This first section of this chapter presents a definition of offshoring, indicates the principal motivations for relocating economic activities and outlines recent research on the extent of offshoring in the EU, as well as in the US, and its employment consequences as well as predictions about likely future trends. The second section describes the ERM data used in the analysis. The third section presents the descriptive analysis of the ERM offshoring data from 2003–2013 and gives an indication of trends in the data, where appropriate, by comparing the pre-crisis period (2003q1–2008q1 inclusive) with the crisis and post-crisis period (2008q2–2013q2). The main findings are then summarised.

Overview of offshoring activity

What is meant by offshoring?

In the ERM, 'offshoring/delocalisation' is one of eight types of restructuring and relates to restructuring events involving substantial job loss 'where the activity is relocated or outsourced outside of the country's borders' (*European Restructuring Monitor operating manual*). A more expansive definition captures the important dimension of ownership:

> *Offshoring involves performing or sourcing any part of an organisation's activities at, or from, a location outside the firm's home country. Firms create captive centres offshore where people work for them, or outsource offshore where people work for the outsourcing provider*

(Brown and Wilson, 2005).

ERM data covers all activity which is transferred, regardless of ownership, which accounts for two of the four quadrants shown in Table 8 on relocated economic activity.

Table 8: Offshoring: Destination and firm ownership

Destination/ownership	Within company	External company
Within host country	Relocation	Outsourcing
Other country	Captive offshoring	Offshore outsourcing
	↓	
	Offshoring/delocalisation (ERM)	

Source: adapted from UNCTAD 2004 (p.148)

The main criteria is that the employment losses are linked to a transfer of activity from a contracting firm or establishment, in a host country, to a new or growing firm or establishment in a destination country or countries. It does not matter whether the firm in the destination country is part of the enterprise group ('captive offshoring') or an external company contracted at 'arm's length' to perform specific functions. For the purposes of this study, all cross-border transfers of activity – intra-EU or extra-EU – are taken into account.

Offshoring and comparative advantage

The economic arguments in favour of offshoring generally relate back to the Ricardian proposition of the welfare-enhancing effects of trade (Ricardo, 1821) with modern refinements in the form of the Heckscher-Ohlin model (see Flam and Flanders, 1991). In this perspective, offshoring is about the exploitation of comparative advantage, particularly in relation to one costly factor of production, labour. Large wage differentials between developing economies such as China or India and Europe, especially for low or medium-skilled production work, induce companies to offshore from Europe to Asia where similar labour is cheaper and more plentiful. European-based firms, according to this model, exploit their comparative advantages in high-skilled labour and production that is more capital-intensive.[28] Many economists tend to follow Ricardo in emphasising the overall benefits of extending the international division of labour in this way, while accepting that distributional consequences may be uneven in offshoring country labour markets. In particular, offshoring may depress low-skilled wages with resulting increases in wage inequality where it impacts predominantly on low-skilled employment, as has largely been the case to date.

There are counter-arguments to the optimistic prognosis about the impacts of offshoring, based on assimilating offshoring to trade theory. One disputes whether offshoring generates mutual benefits according to a traditional comparative advantage model. According to this critique, the emphasis of offshoring firms is on cost reduction rather than domestic reinvestment of the gains arising from offshoring. Indeed, offshoring eliminates much of the rationale for domestic investment, as expansion is more likely to take place abroad than at home. Without this positive loop of increased profits and reinvestment, the dynamic gains from offshoring are unlikely to accrue to host countries. Milberg and Winkler (2012) find that offshoring in the US in the period 1998–2006:

> *supported other aspects of corporate strategy, including a focus on core competence and a surge in the purchase of financial assets [...] by raising the profit share and at the same time reducing the domestic demand for investment.*

In this analysis, offshoring is one important factor behind rising company profitability, increased financialisation and the generally observed growing capital share of national income, but its potential to contribute to broader welfare gains is not being fulfilled.

The world's most valuable firm by current stock market capitalisation, Apple, provides some evidence to support this sceptical view of the mutual benefits of offshoring narrative. Most Apple products are made in China, but designed in California. Apple directly employs approximately 50,000 people inside the US and 30,000 outside, but an estimated 700,000 people are employed in producing

[28] As is obvious from the ERM data, a similar motivation has led to the offshoring of even more jobs within the EU, from older to newer Member States.

Apple products in offshore affiliates such as Foxconn, primarily in China (The New York Times, 2012). Apple enjoys very high profit margins on its products – based on premium brand value, but also because of the scale and efficiency of its offshore operations which benefit from access to plentiful cheap labour. The company is also regularly reported as 'sitting on' huge amounts of money as it fails to identify useful investment possibilities other than returning cash to investors via stock buy-backs.

Changing nature of offshoring

An older model of offshoring was predicated on the transfer of production of final products. This assigned more or less fixed roles to the host country (where firms reduced cost by sourcing in low-wage countries) and destination country (where captive or external firms produced for re-export to developed world markets). Such a model has, to a large extent, become anachronistic as the 'second unbundling' has succeeded the 'first unbundling' (Baldwin, 2006). In the second unbundling, firms have exploited the fact that production can be broken down into ever finer units and that different producers/suppliers in different countries can be coordinated to exploit the laws of comparative advantage at the component level. This has been facilitated by rapid progress in ICT, which has reduced coordination costs, as well as by lower trade barriers. With this fine-slicing of global production networks, the paradigm has changed from a trade in products to a 'trade in tasks' (Grossman and Rossi Hansberg, 2006). Intermediate products now account for over half of the goods imported by OECD countries, and an even larger share in developing countries such as China and Brazil (Ali and Dadush, 2011).

The increasing share of intermediate products in global production, the growing complexity and multi-path nature of global production networks, as well as the rising importance of offshoring destinations as markets in their own right, mean that offshoring in 2013 designates a broader swathe of cross-border economic exchanges than was the case when the term first became current.

A second major focus of research on offshoring focuses on an actual or impending transition from material offshoring to immaterial offshoring. The former refers, in the main, to manufacturing tasks, assembly and production of intermediate or final products. The latter refers to services that can be provided online such as business services, customer services and accountancy, as well as some higher-end functions in R&D and computing/IT. Despite accounting for around 70% of GDP and of employment in developed countries, trade flows in services are only a fraction of those in goods. Similarly, offshoring of services remains comparatively less developed than offshoring of goods production. Call centre services and IT functions in computing-intensive sectors, such as banking and insurance, may be the harbingers of a 'second wave' of services offshoring but, to date, services offshoring remains at an early stage. Barriers to offshoring include the high share of services that are better delivered face-to-face rather than remotely or virtually, the high level of tacit knowledge in services functions, as well as distinctive national regulatory and occupational licensing frameworks relating to many service occupations.

Technically, all forms of medical diagnostic imaging (such as X-Rays, CT scans, MRI imaging) can be digitised, transmitted and analysed by radiologists anywhere, providing they have access to a broadband internet connection. But US public health programmes Medicaid and Medicare, for example, require teleradiologists to be operating on US soil and there are additional requirements in relation to the privacy of patient records. In Europe, where teleradiology is much less developed, a recent survey of radiologists identified the 'legal complexity regarding delivery of cross-border services on a European level' as one of the several barriers to more widespread deployment. 'Other issues related to processing of health data, language, reimbursement and standardisation of training also remain to be solved' (Ranschaert and Barneveld, 2012). Legal, licensing, training and quality assurance concerns – as well as the professional self-interest of those currently providing high-skilled and highly paid services – will need to be addressed before the full potential in the trade in tasks is exploited in teleradiology.

Further gains from the fragmentation of services into tasks are emerging with the growth of crowdsourcing platforms such as Amazon Mechanical Turk or Microworkers. Easily codified tasks – such as the transcription of audio files, or skilled tasks that can be carried out remotely, such as translation of audio or text files, some forms of paralegal work – can be auctioned off online for a fraction of developed world labour costs and with minimal obligations for employers in terms of worker rights. Virtual offshoring of this type has a similar outcome to that of more traditional offshoring. Functions that used to be performed locally end up being carried out elsewhere. The difference is that functions are described more in terms of tasks than jobs and are more likely to be carried out by individuals/freelancers than by employees of firms. As jobs are increasingly able to be divided into tasks in this way, the temptation for firms to get rid of employees with rights and entitlements will grow, although new managerial jobs may be required to coordinate disparate crowd-sourced inputs.

Employment effects of offshoring

The employment impacts of offshoring are not easy to measure. Offshoring involves related events in different jurisdictions, takes place at enterprise level, and relevant labour market data sources in Europe do not, in the main, include offshoring-relevant variables. Many estimates of the employment consequences of offshoring activity are derived from mixed sources, where offshoring is proxied as the share of imported intermediate products in a final product, and trade data is matched with employment data at firm or sector level. A second difficulty is that, while capturing the direct (negative) employment consequences of an offshoring event in the home country may be relatively easy, capturing the indirect employment consequences (both negative and positive) are much harder but cannot reasonably be omitted from any impartial analysis. Perhaps the most important consideration is that a plausible counterfactual to offshoring may, in many cases, have been establishment closure involving even more significant job loss. Such possible confounding factors mean that any estimate of the impact of offshoring on employment necessarily has a wide margin of error.

One US data source that gives an estimate of the jobs lost in the US to offshoring is the Bureau of Labour Statistics (BLS) series on extended mass lay-offs. It finds that less than 1% of the 100,000+

workers separated in extended mass lay-offs in 2012Q3 had their jobs moved to another country.[29] This suggests a slowing of offshoring during the post-2008 period, as earlier estimates covering 2004–2005 and, based on the same source, were in a range of 1.4% to 4 % of mass lay-offs, depending on whether captive offshoring (inhouse) or offshore outsourcing were included (Kirkegaard, 2007, p.8). An estimate of the US net job loss from offshoring during the 2001 recession was 3% (gross job gains minus gross job losses) (Levine, 2012).

These estimates are perhaps surprisingly low, but indicate a scale of offshoring in overall restructuring comparable to that emerging from EU restructuring data in the ERM dataset. Recent French evidence (Fontagné and d'Isanto, 2013) comes to similar conclusions. Estimates of job losses in France attributable to offshoring in 2009–2011 are 6,600 per year, of which 3,800 per year were in the manufacturing sector. These are much lower than previous Insee estimates (Aubert and Sillard, 2005) of 13,500 annual job losses in the manufacturing sector alone in 1995–2001 (equivalent to 0.35% of total manufacturing employment, or 12% of job losses where establishments close or reduce employment by at least a quarter).[30]

While these earlier estimates included some sub-contractor job losses as well, this still amounts to a significant reduction in estimated direct offshoring losses in French manufacturing. The authors draw the conclusion that 1995–2001 represented something of a peak for offshoring in France with the emergence of the then EU accession countries as well as big emerging countries as offshoring destinations, while the 2008-2009 financial crisis and its aftermath have been marked by a reduction in firms' tendency to develop abroad. A similar pattern emerges, as will be seen later, from recent ERM data.

Offshoring results in a visible short-term loss of employment at the level of the offshoring firm in the home country, and a gain in the destination country. These first-order, direct impacts are unlikely to tell the whole story as regards the home country, and they omit the important counterfactual possibility of establishment closure. Positive, demand- and/or employment-boosting effects of offshoring include:

- growth in consumers' real incomes as imported goods become cheaper;
- increased firm productivity;
- expanding international markets as destination country consumers become better off;
- new, higher-skilled jobs whose function is to manage or coordinate geographically dispersed production networks.

Taking this broader perspective, one important study (Hijzen and Swaim, 2007) estimated positive overall employment effects in host countries as productivity gains from offshoring more than offset the job losses arising from production relocation. An OECD study (OECD, 2007, p.84) referred to

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[29] The BLS mass layoff statistics have advantages over the ERM as tools for making estimates. They are based on comprehensive administrative data of completed events, rather than newspaper reports of restructuring. The data also have similar limitations in terms of scope of coverage. They exclude smaller companies and focus on larger lay-offs. The criterion for inclusion is that a firm must have at least 50 employees and have laid off at least 50 employees for at least a month. Though these case eligibility criteria differ from those of ERM, the shared focus on the employment effects of larger-scale restructurings suggest that the BLS data may serve at least as useful benchmarks for ERM's estimates on the share of large scale restructuring job loss accounted for by offshoring. They will, for example, share a similar bias to inclusion of manufacturing firms where employment numbers are generally high.

[30] The Insee analysis is based on identifying offshoring (delocalisation) cases using a combination of sector and enterprise-level employment and trade data. Offshoring enterprises are those where there has been a reduction in employment levels of at least 25%, and where there has been an increase in imports of goods / components formerly produced in France.

French data and concluded that 'sectors that have most reduced manning levels are not those which are most engaged in offshoring' (with the partial exception of the textile and clothing sectors).

Falk and Wolfmayr (2005) also used sector-level data from European countries and concluded that offshoring (international outsourcing) resulted in small but significant job losses. Their analysis used two-digit manufacturing data for seven EU countries for 1995–2000. As is common in other empirical work, international outsourcing was proxied using the share of imported materials from the same two-digit industry. Multivariate analysis showed that imported materials from the same industry, originating from low-wage countries have a significant and negative impact on total employment, of around 0.25% per year. International outsourcing to other developed, industrialised, countries had no significant effect and the employment-lowering effects were significant only in low-skill intensive industries and not in high-skill intensive industries.

Future of offshoring – offshorability

Research on the employment impacts of offshoring tend to agree that:

- only a small share, never more than 10%, of gross job destruction in developed economies is offshoring-related and often less than 5%.
- offshoring accounts only for a relatively marginal share of trade-induced job losses in developed economies; the shift of certain industries such as textiles production or shipbuilding out of Europe occurs mainly as a consequence of independent developments of firm expansion and contraction in different countries over time, resulting from shifts in competitive advantage.
- lower-skilled workers in home countries are most likely to experience negative consequences as a result of offshoring, either in terms of lower wages or poor (re-) employment possibilities

Offshoring, however, is evolving and it is of interest to try to extrapolate, from current and recent trends, and speculate on what new types of job or activity may be amenable to offshoring, and what the consequences for developed country labour markets may be.

Recent work by US labour economist Alan Blinder has sought to quantify the share of employment in the US that is potentially offshorable. Initial estimates, based on analysis of the detailed O*NET database of occupational tasks, yielded estimates in the range of 22%–29% of all jobs (Blinder, 2007). Compared with the small share of developed world employment that has actually been offshored, this is a dramatically higher figure and offers at least the possibility of a significant acceleration of offshoring in future. This study points out, however, that offshorability indicates only whether in principle, based on specific job characteristics, a job may be offshored. It does not mean that jobs will be offshored. There are still millions of manufacturing jobs in the US and Europe, many of which could have been offshored but have not, for a variety of reasons.

Offshorability, according to Blinder and Krueger, depends on two primary criteria:

- whether the jobs must be done at a particular home country location (such as building a house);
- whether the work can be done at a remote location with little or no loss of quality.

In a recently published article (based substantially on 2008 data), Blinder and Krueger revisit the task of estimating the share of offshorable jobs using a combination of expert coding and self-reported survey answers on work tasks. They estimate that around a quarter of jobs in the US are offshorable. The different approaches yield estimates in the range 21%–27%, similar to the earlier

estimates.[31] Perhaps even more striking than the high estimates of offshorable jobs was the fact that jobs requiring higher, not lower, levels of education were considered at potentially greater risk of offshoring. The relationship is simple and linear for five of the six levels of educational achievement indicated (no high school diploma through to bachelor's degree). The pattern did not apply only to those with advanced degrees. The principal point, however, is that offshoring in the future is likely to affect jobs in higher occupational groups, requiring higher education levels (certainly up to basic degree level) with above median pay levels. This is quite different from the effects to date of offshoring in developed countries.[32]

Jensen and Kletzer (2005) and Moncarz, Wolf and Wright (2008) come to similar conclusions. Higher-skilled jobs in services including 'virtually all computer and mathematical science occupations [are] to some degree susceptible to offshoring'. This raises obvious questions: if this is the case why are most developed world high-skill labour shortages precisely in those STEM jobs that have enjoyed both significantly above average employment and wage growth over the last decade? This appears to be a clear case of offshorability not translating into offshoring. Existing labour demand is met more by high-skilled immigration (notably so in the US); by an influx of human capital rather than exportation of jobs. One can conclude that there must be a strong firm rationale to preserving expertise / human capital in situ, notwithstanding the theoretical offshorability of certain high-skilled jobs.

It can be concluded, therefore, that while many jobs are in theory offshorable, including a high share of high-skilled, well-paid jobs, offshoring has, to date, affected only a small share of employment in developed economies and the negative consequences have fallen, in the main, on lower-skilled workers.

Data on off-shoring from the ERM

From its inception in 2002, ERM tracked restructuring events in the EU15. Initially, the focus was exclusively on restructuring cases involving announced job loss. In 2003-2004, the ERM began also to capture cases of 'business expansion' involving announced job creation. In 2004–2005 coverage was extended to the then accession states. Annex 3 outlines the earliest ERM cases, by quarter, of job loss and job gain by Member State.

For the purposes of the offshoring analysis in this chapter, ERM restructuring events database data for EU Member States from 2003q1 to 2013q2 inclusive (n=14,776) is used. Earlier data are excluded as the ERM became operational in 2002 at different quarters in different Member States.

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[31] It is worth noting that, while the different approaches yield similar figures for the share of offshorable jobs, they disagree significantly on the share of offshorable jobs by occupation, sector and many other job characteristics. For example, expert coders consider 16% of management, business and financial occupation jobs to be offshorable while self-reported survey data generated estimates of between 46%–54%. In terms of sector, the reverse was true of manufacturing, where expert coder estimates of 50+% offshorability conflicted with estimates of 27%–33% from survey data. The authors tend to assign more importance to the expert coder estimates but large divergences in findings, based on different approaches, underline the empirical difficulties in estimating employment consequences of offshorability/ offshoring.

[32] Blinder and Krueger carry out regression analysis to identify what aspects of a job have a significant bearing on its offshorability. The results are surprising. One of the most important hypotheses regarding the determinants of shifts in the employment structure in recent decades holds that jobs, with a high share of routine or codifiable tasks, are declining relatively fast as they are capable of being replaced by computers/robots (and are more amenable to offshoring, for similar reasons). Blinder and Krueger found, however, that the extent to which jobs are routine/or could be made so, and offshoring are not even positively correlated. The most consistent results in the same multivariate analysis is that unionisation and licensing reduce offshorability substantially (both are also associated with significant wage premia). This would lend weight to the argument that institutional parameters of jobs play as strong a role in determining the likelihood of offshoring as technical/technological job dimensions.

Transnational restructuring cases (world and European Union) are also excluded as, in many cases, these involve double-counting of employment losses. There should be relevant national cases of offshoring for the affected countries, but in practice, this is not always the case. Data about offshoring job losses by a multinational company may be available in a news source but may not necessarily be disaggregated by country. This is one potential source of under-estimation of offshoring job losses in the analysis. In addition to the 781 cases of partial or total offshoring at national level, there were 25 cases of offshoring at EU or world level accounting for nearly 40,000 job losses. Their inclusion with a 50% weighting – to reflect non-EU employment effects in the world cases and the likely inclusion of matching national cases for many individual restructurings - would raise our global estimates of the share of offshoring job loss by less than 10%.

The ERM dataset allows national correspondents to select only one category of 'restructuring type' for each case. The available options, in order of importance, are:

- internal restructuring (43% of all cases);
- business expansion (32%);
- bankruptcy, closure (together 15%);
- offshoring/delocalisation (4%);
- merger/acquisition relocation, outsourcing and other (together accounting for the remaining 6%).

In reality, an individual restructuring case can involve a combination of types of restructuring. For example, a firm may close a factory as part of a broader group-wide restructuring in which production is offshored to South America. Such a case could be characterised as an internal restructuring (at company level), a closure (at establishment level) and an offshoring. To take account of this limitation of the data collection, keyword searches of the restructuring case narratives are used to identify cases of partial offshoring. Some cases identified as offshoring cases have been reclassified as 'partial offshoring' where it is clear from the text that not all employment losses were attributable to offshoring. A larger number of cases originally classified under another restructuring category have also been classified as partial offshoring where the case narrative suggests that offshoring took place. Where the offshored job loss number is explicit from the text in these partial offshoring cases the cited figure is used; otherwise it is assumed that 50% of the total job losses cited are attributable to offshoring.

For offshoring cases, one supplementary piece of information captured by the national correspondents is the 'new location' of the offshored jobs. In over 90% of offshoring cases, the destination(s) of the offshored jobs is identified.

In order to enrich the offshoring case data, further supplementary variables based on analysis of the case narrative (in some cases, with reference to the cited original news source) have been added.

Business functions offshored (five categories; multiple selection allowed):

- production/manufacturing;
- IT (the broad range of IT services from software development to simple technical assistance);
- front office services (services connected with customer service and call centres);
- back office services (supporting, administrative services such as data processing, typing);

- high value added services (more complicated, non-standardised and difficult to codify services, such as R&D).

Firm/enterprise nationality (four categories):

- national, (restructuring unit location and enterprise headquarters the same);
- other EU;
- US;
- other.

Where it was not possible to identify the destination country/countries of offshored jobs or the business functions offshored, these cases have been excluded from the relevant analysis. Where multiple destination countries or multiple business functions offshored were identified, announced job loss (our main dependent variable) was divided equally between the various destination countries or business functions.

The analysis follows earlier work on offshoring using the ERM (Eurofound, 2007a and Kalazna, K. 2010).

Descriptive analysis

Between January 2003 and the end of June 2013, the European Restructuring Monitor captured 711 cases of offshoring and 70 cases of partial offshoring. During this time, these cases resulted in just over 266,000 jobs being offshored, the equivalent of around 25,000 per year. Together, these cases accounted for 8% of job loss restructuring cases and around 6% of all announced restructuring job loss. The broad categories of internal restructuring and bankruptcy/closure account for much larger shares of job loss.

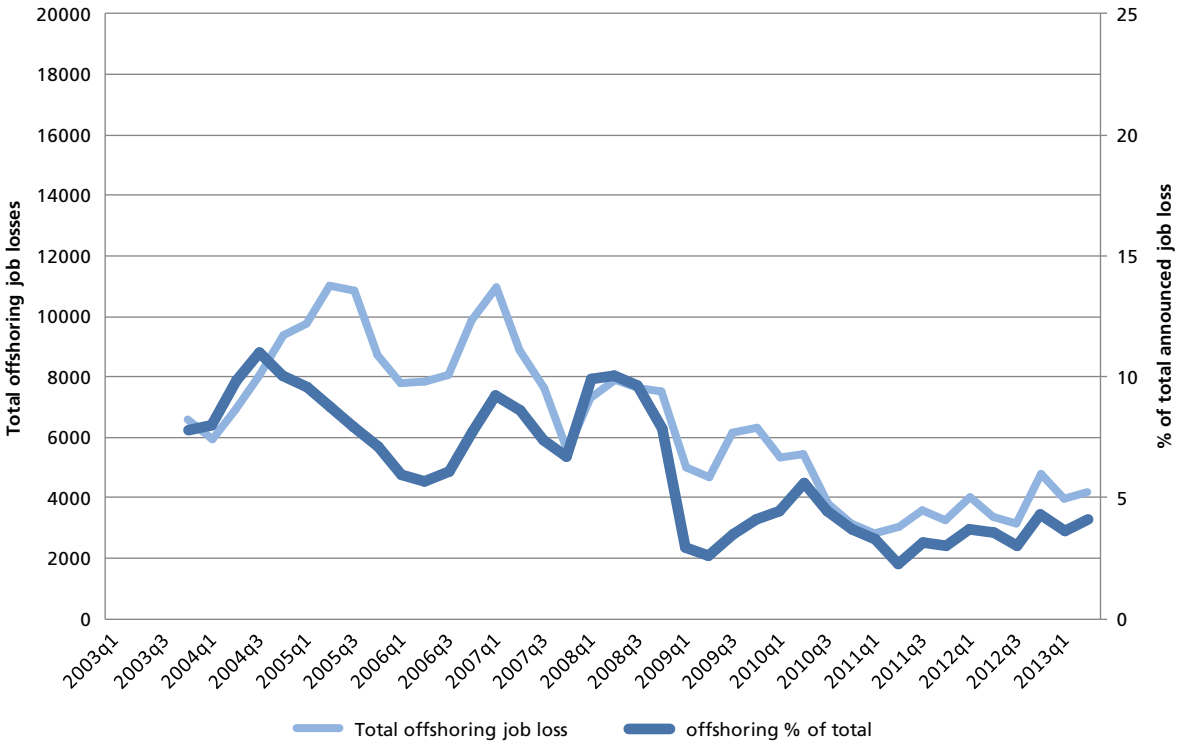
Table 9: ERM job loss cases by restructuring type 2003q1–2013q2

Restructuring type	total job losses (,000s)	cases	% of total job loss	% of job loss cases
Other restructuring types	4451816	8722	93.7	91.8
Offshoring	244489	711	5.1	7.5
Partial offshoring*	53513	70	1.1	0.7
Total	4749818	9,503	100	100

*of which partial offshoring cases accounted for 22041 job losses attributable to offshoring, or 0.5% of total job loss.
Source: ERM

As previously indicated, these estimates of the relatively modest offshoring share of restructuring job loss are consistent with earlier findings for France and the US (Levine 2012, Kirkegaard 2007).

Figure 15: Offshoring job loss trend



Source: ERM

The ERM records a notable decrease in offshoring from the 2008–2009 global recession to date compared with the pre-recession period. As Figure 15 above illustrates, this decrease is in terms both of absolute numbers of offshored jobs, as well as the share of overall announced job loss accounted for by offshoring. The largest single quarter for ERM offshoring job loss was just before the crisis (17,774 job losses in 2008Q1). There were seven quarters between 2003Q1-2008Q1 with over 10,000 offshoring job losses, but none subsequently. This is reflected in an offshoring share of overall job loss that fell from over 8% to just over 3% between the two periods.

What might the reasons for such a decline be?

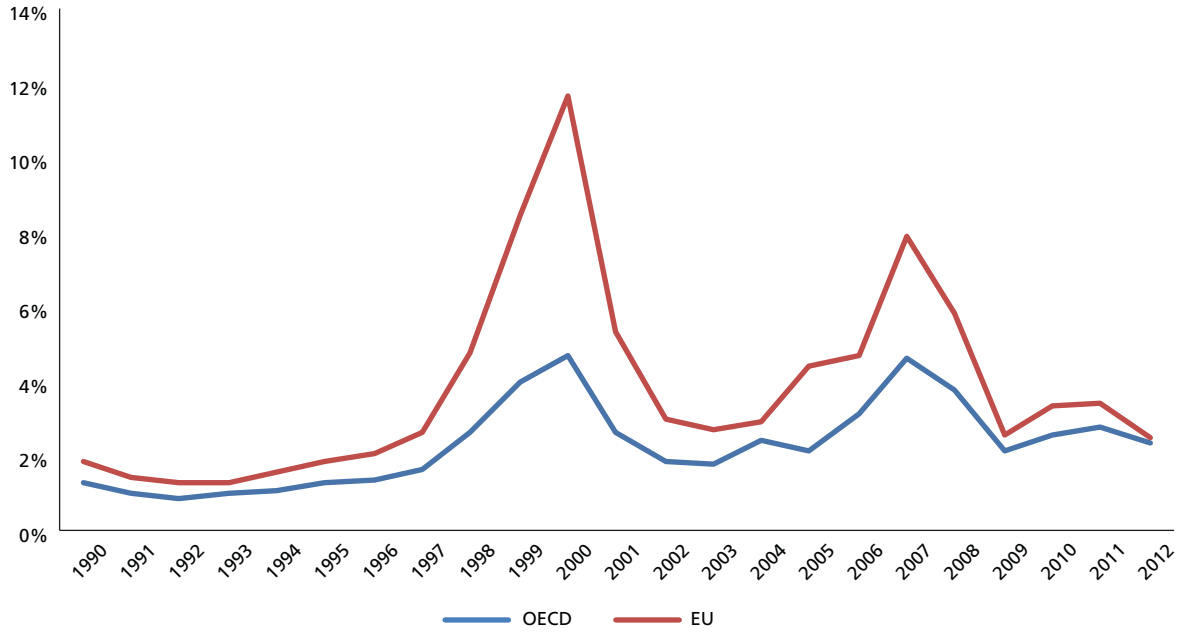
The primary reason is probably that major strategic decisions involving investment are more likely to be undertaken during periods of economic growth, and more likely to be deferred during downturns. Offshoring involves very significant costs in the domestic establishment (such as redundancy or mothballing facilities) and can involve even greater costs in the destination country, especially if the offshoring requires investment in new facilities. From this perspective, the declining level of offshoring post 2008 is consistent with normal corporate instincts in conditions of economic uncertainty.

The European Manufacturing Survey (see analysis in European Commission, 2012a) provides supporting evidence of a slowdown in offshoring activity by European manufacturing firms between its 2005/6 and 2009 waves. In six out of the seven countries, the share of firms offshoring in four major manufacturing sectors (car/transport equipment, electrical, chemicals and machinery) had decreased in the post-crisis 2009 wave of data collection. The decrease was general across the

selected sectors as well as firm-size classes. The Commission analysis concluded that 'firms focus on utilising their activities at home in times of (upcoming) economic crisis'.

Offshoring, especially captive offshoring, is one component of foreign direct investment and FDI flow data convey a similar picture.

Figure 16: Outward foreign direct investment annual flows (as % of GDP), EU and OECD countries, 1990–2012



Source: OECD.
Notes: EU= EU15 until end 2003, EU25 in 2004–2006, EU27 as from 2007. Based on data reported to Eurostat. OECD = current 34 OECD Member States.

The recent peak in annual EU FDI outflows was in 2007, just before the crisis, and FDI outflows, calculated as share of GDP, have contracted by 70% subsequently.[33] Probably for similar reasons to the offshoring decline recorded in ERM, the already marginal contribution of outsourcing, relocation and mergers/acquisitions to job loss also declined after the crisis (from 6% to 4%).

Even if economic circumstances were more favourable, the capacity of companies to finance expansion is likely to have been curtailed by the much tighter credit conditions that have prevailed since the global financial crisis of 2008–2009.

Figure 16 above also suggests another possible reason for the decline in offshoring. Firms may already have offshored the easiest to offshore activities in the pre-recession period. As the figure illustrates, foreign direct investment outflows in the EU were even bigger during the peak of the earlier business cycle prior to the dot com bust in 2001–2002. Offshoring activity in this earlier period is not captured in the ERM data, which begins in 2002, so it is not possible to see the extent to which the recent downwards shift in offshoring is cyclical, or part of a longer-term structural trend.

[33] Noteworthy, and possibly relevant, also is that the sensitivity of FDI outflows to the business cycle is much greater in the EU than in the broader OECD developed world grouping as a whole.

A recent series of articles by *The Economist* (The Economist, 2013) outlines a variety of further reasons why firms may be rethinking their offshoring strategies:

- eroding labour cost differentials between host and destination countries;
- declining labour intensity of production of many goods with technological advances and automation (labour represents a shrinking share of production costs;
- increased recognition of the costs of offshoring, in terms of management complexity, cultural and quality control issues, exposure to transport costs and delays;
- increased appreciation of the benefits of non-offshoring, for example the important synergies between R&D, product development and manufacture in a context of rapid product-cycle changes;
- increased vulnerability to supply chain disruptions for political reasons or as a consequence of one-off events, natural or man-made (Fukushima, Asian tsunami).
- public criticism of successful offshoring firms for their feeble contribution to host country economies, in terms of jobs, profit and investment, as well as the exploitation of foreign workers in their global production networks.

Given negative publicity regarding offshoring, there may also be measurement biases which push estimates of offshoring activity downwards.[34] Firms have an incentive to conceal offshoring activity where circumstances permit. The ability of firms to dissimulate offshoring may have increased as a result of the internationalisation of their activities during the latest phase of globalisation. For firms with a broad international presence, closure or internal restructuring in one Member State may not be described as an offshoring, even when it is accompanied by an expansion of the same activities in an existing affiliate in a third country. Where such developments are presented as discrete and unrelated, they will not be identified as offshoring.

Offshoring by country and sector

The scale of offshoring activity captured in the ERM corresponds, in general, to country size with more cases and greater related job loss in more populous Member States. The UK accounts for over a fifth of total ERM offshoring cases (142 of 780) while France, Sweden and Germany all record at least 60 cases during the period. However, as Table 10 confirms, it is smaller (and older EU15) Member States where offshoring accounts for a greater share of restructuring job loss. At least one in every six jobs (17%–18%) lost through restructuring in Ireland, Portugal and Denmark was offshored – over three times the EU average. By comparison, the offshoring share of job losses was in the range 4%–7% for the UK, Spain, France, Germany and Italy. Offshoring shares of job loss were as low as 1% for the newer large Member States, Poland and Romania.

Data from the two waves (2007, 2012) of the international sourcing survey coordinated by Eurostat come to a similar conclusion, albeit using a different metric of comparison: the share of enterprises sourcing internationally. The highest share of sourcing internationally is found in 'small, open economies with high labour costs' (Eurostat, 2013). For example, 25% of Danish enterprises reported having sourced internationally in 2009–2011 as well as 20% of Finnish enterprises, but only 6% of French and 3% of Romanian enterprises reported doing this. Firms in smaller countries are likely to be more international as they may have comparatively limited domestic sourcing possibilities.

[34] The corollary is that firms have strong incentives to advertise any reshoring activity, where jobs are transferred back to home country firms. Fiat's reshoring of jobs from Poland to Italy was a major news items in Italy and Poland for contrasting reasons, as was Apple's announcement in December 2012 that it would transfer some iMac production to a new facility in the US.

Table 10: ERM offshoring data by country

	ERM offshoring cases 2003-13				by sector			largest cases		
Country	n	announced job loss	total job loss	offshoring % of total job loss	sectors affected (n)	sector with most offshoring job losses	% manufacturing of offshoring job loss	announced job loss	quarter announced	company
AT	23	6539	71603	9.1	11	CG - Manuf: rubber, plastics etc	94	1100	2009q1	Swarovski
BE	37	11258	110629	10.2	14	CL - Manuf: transport	77	3200	2006q4	Volkswagen
BG	2	270	22489	1.2	1	CA - Manuf: food, bev and tobacco	100	167	2007q2	Kaliakra
CZ	23	7069	152340	4.6	12	CL - Manuf: transport	87	1400	2010q3	Delphi Packard Electric CZ
DE	69	40923	679858	6.0	23	JB - Telecomms	56	12000	2008q1	T-Systems
DK	49	11580	64675	17.9	15	CJ - Manuf: electrical equipment	77	900	2006q2	LEGO
EE	5	917	13133	7.0	5	H - Transportation and storage	54	300	2006q3	Tallink Grupp
ES	29	7758	187282	4.1	11	CL - Manuf: transport	95	761	2006q2	Braun
FI	37	7937	90015	8.8	10	CI - Manuf: computers etc	96	1132	2007q1	Perlos
FR	85	24979	670856	3.7	18	CL - Manuf: transport	88	2700	2004q4	Arc International
HU	15	6075	129861	4.7	7	CJ - Manuf: electrical equipment	100	2300	2012q1	Nokia
IE	52	14280	82019	17.4	15	CI - Manuf: computers etc	88	1900	2009q1	Dell
IT	44	9687	228750	4.2	12	CJ - Manuf: electrical equipment	96	620	2004q2	Irca
LT	1	115	27217	0.4	1	CJ - Manuf: electrical equipment	100	115	2010q1	Taurages Note
LU	3	443	6279	7.1	3	CC - Manuf: wood, paper and printing	68	224	2007q1	Technicolor
LV	5	1099	10608	10.4	3	CK - Manuf: machinery etc	100	533	2008q2	Rebir
MT	2	667	4862	13.7	2	CB - Manuf: textiles, clothing, leather	100	570	2007q2	VF Corporation
NL	32	9253	220178	4.2	13	JB - Telecomms	63	2000	2011q2	KPN
PL	8	5010	391060	1.3	5	CL - Manuf: transport	100	1450	2012q4	Fiat Poland
PT	25	11151	61654	18.1	7	CL - Manuf: transport	100	1400	2003q1	Indelma
RO	3	2820	247969	1.1	2	CJ - Manuf: electrical equipment	100	2200	2011q3	Nokia Romania
SE	72	11414	162740	7.0	14	CJ - Manuf: electrical equipment	93	650	2012q3	Sony Mobile Communications
SI	9	2805	52849	5.3	3	CJ - Manuf: electrical equipment	100	1000	2005q4	Prevent Global
SK	9	4611	55489	8.3	5	CL - Manuf: transport	100	1000	2009q1	Molex Slovakia
UK	142	67873	941107	7.2	24	K - Financial and insurance activities	39	4000	2003q4	HSBC
EU27	781	266530	4749818	5.6	32	CL - Manuf: transport	71	12000	2008q1	T-Systems (DE)

Source: ERM.
Notes: No cases of offshoring recorded for Greece or Cyprus.

Offshoring job loss was relatively dispersed across sectoral divisions (at two-digit level) but clearly concentrated in manufacturing (at one-digit sector level) in a majority of member states. Just over 70% of offshoring job losses recorded on the ERM were in manufacturing establishments with many countries recording offshoring *only* in manufacturing and not in other sectors (Portugal and Hungary). Such sectoral dispersion, as there was, therefore was largely across different types of manufacturing with three specific subsectors accounting for the largest job loss:

- auto/motor vehicles (NACE 29);
- electrical (NACE 27);
- computer/electronics (NACE 26).

As manufacturing accounts for 16%–19% of total EU employment during the period of observation, it can be inferred that:

- the ERM thresholds imply a size bias favouring the inclusion of larger firms and leading to an over-representation of manufacturing establishments;
- offshoring was much more likely to affect manufacturing/production jobs rather than service jobs.

The most recent Eurostat international sourcing survey (see Eurostat 2013) concludes that 'manufacturing drives international sourcing. In many countries, around two-thirds of all enterprises sourcing internationally are in the manufacturing sectors'.

One Member State, with a very distinctive sectoral profile of offshoring job loss, is the UK, where fewer than 40% of offshored jobs were in manufacturing. The main sectors affected here were financial services and insurance activities, as banks and other insurance/financial firms offshored IT as well as front and back office activities, predominantly to India. The UK accounted for four out of five of every financial services job offshored from the EU27 in 2003–2013.

Germany and the Netherlands also had notably fewer than average shares of manufacturing job losses via offshoring and were unique in experiencing most offshoring in the telecoms sector. The biggest single case of offshoring recorded in the ERM dataset was that of German IT and telecoms service provider T-Systems in March 2008 which involved 12,000 job losses over three years. The Deutsche Telekom subsidiary had entered into a partnership with Cognizant, an American business process outsourcing company, intended to replace many German IT jobs by offshore-outsourcing them to lower cost countries including India. The biggest Dutch case of (partial) offshoring also involved the transfer of jobs, beginning in April 2011, by mobile telecoms operator KPN to India over several years.

Table 11: Offshoring shares of announced restructuring job loss, before and after the crisis

	offshoring % of job loss		offshoring job loss	
	2003-8	2008-13	2003-8	2008-13
EU15	9.8	3.4	169864	65209
NMS12	1.9	3.4	8395	23063
EU27	8.2	3.4	178259	86822

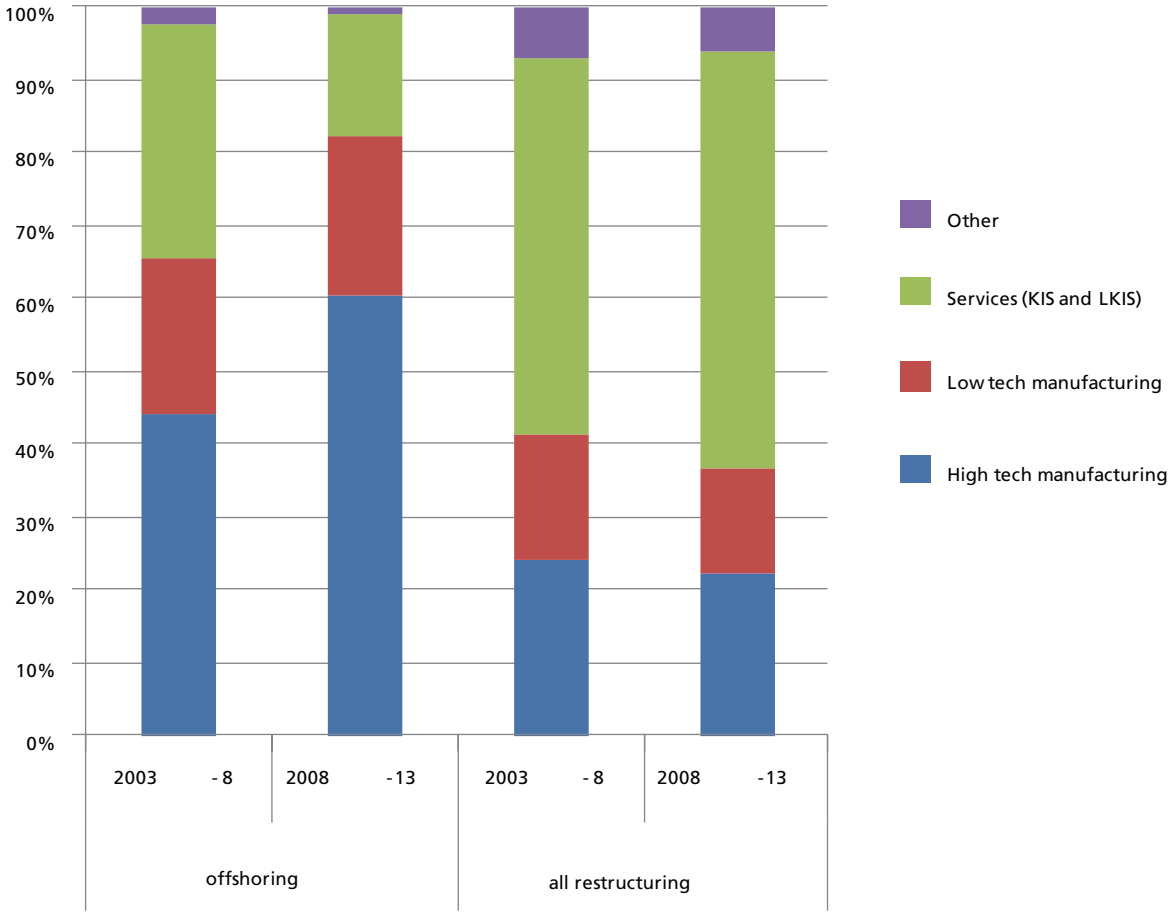
Source: ERM.

The data here have been broken into two equal periods, 2003q1–2008q1 inclusive and 2008q2–2013q2 inclusive, which correspond more or less to the pre-crisis expansion and the crisis and its aftermath. From this, it can be seen that the fall-off in the offshoring share of restructuring job losses is accounted for exclusively by EU15 countries. There were over a 100,000 fewer offshored jobs from the 'older' Member States during the crisis / post-crisis period compared with the number in 2003–2008. The offshoring share of total job losses also diminished from nearly 10% to just over 3%. Over the same period offshoring increased, in both relative and absolute terms, from the New Member States as their economies matured, wage levels increased and the labour cost attractions of third countries became more compelling. In the post-crisis period, the share of large-scale restructuring job loss attributable to offshoring has been the same in the EU15 as in the NMS12 (3.4%).

Much offshoring literature refers plausibly to a sequence in which material/production offshoring precedes, and is eventually supplanted by, services offshoring. In essence, the prediction is that offshoring patterns will follow likely trade patterns. Trade liberalisation emphasised the removal of restrictions on the trade of manufactured products earlier and more extensively than that of services. Despite accounting for around 70% of GDP in the national economies of developed countries, trade flows in services continue to be dwarfed by those of goods. Global exports of goods were nearly three times as high as those of all services in 2010 (WTO, 2011). Given the weight of services in developed economies and rapid changes in technological / ICT capacity, facilitating international services trade, as well as the intrinsic scalability of many services, it is highly likely that the services share of international trade will grow as will the services share of offshoring jobs.

There is, however, no evidence from the ERM data to suggest a major shift in the sectoral prevalence of offshoring from goods-producing to service sectors over the last ten years. Indeed, the evidence is more of an increase in offshoring job loss in high–medium technology manufacturing and a decline in job loss attributable to offshoring of services. As Figure 17 below illustrates, while the services share in overall restructuring job loss increased between 2003–2008 and 2008–2013 (from 52% to 57%), the services share in offshoring decreased markedly (from 32% to 17%).

Figure 17: Share of ERM job loss, 2003-13 by broad sector aggregate[35]



Source: ERM

As can be seen from Figure 17, a more detailed look at the prevalence of offshoring job loss in service sectors in the ERM dataset reveals several facts.

- The largest single sector in terms of restructuring job loss was public administration/defence, where no offshoring job losses were recorded.[36]
- Offshoring job losses were significant as a share of overall restructuring job losses in financial services, IT/information services, telecoms and administrative and support services (mainly call-centre offshoring)
- Financial services and IT/information services recorded a sharp drop in offshoring job loss from pre-crisis to post-crisis periods.
- Offshoring job loss was a very marginal phenomenon in most other service sectors, such as retail, education, health, publishing/broadcasting.

[35] See http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/Annexes/hrst_st_esms_an9.pdf, p.6-7 for sectors included in these broad sector aggregates

[36] While outsourcing has become more prevalent in government/ central administrations, restructuring in the public services tends to be national and large-scale – it accounts for half of the ERM cases with at least 10,000 announced job losses. They are all described as 'internal restructuring';other forms of restructuring including outsourcing / relocation / offshoring may be present but account for only a small share of overall announced job losses.

Table 12: Offshoring share of large-scale restructuring job loss by sector, EU27, 2003–2013

Sector	total job loss		total offshoring job loss		offsharing % of total job loss	
	2003-8	2008-13	2003-8	2008-13	2003-8	2008-13
O - Public administration and defence; compulsory social security	239505	410752	0	0	0.0	0.0
K - Financial and insurance activities	217732	314134	28342	3391	13.0	1.1
CL - Manuf: transport	242501	257825	25610	20931	10.6	8.1
H - Transportation and storage	227027	236189	827	2098	0.4	0.9
G - Wholesale and retail trade; repair of motor vehicles	90752	197234	1357	1537	1.5	0.8
JB - Telecomms	189366	93385	14834	2500	7.8	2.7
CI - Manuf: computers etc	118317	90747	20804	13355	17.6	14.7
CH - Manuf: basic metals	93133	113102	4098	1917	4.4	1.7
CA - Manuf: food, beverage and tobacco	88813	65974	7079	3681	8.0	5.6
CJ - Manuf: electrical equipment	67732	82716	20704	12341	30.6	14.9
CB - Manuf: textiles, clothing, leather	63304	52235	10133	4434	16.0	8.5
CG - Manuf: rubber, plastics etc	47113	58448	9213	4034	19.6	6.9
CK - Manuf: machinery etc	24368	79442	3959	5139	16.2	6.5
B - Mining and quarrying	74108	29392	1607	0	2.2	0.0
F - Construction	19938	68634	191	0	1.0	0.0
D - Electricity, gas, steam and air conditioning	40953	46520	2194	550	5.4	1.2
JA - Publishing, broadcasting	41269	42408	172	0	0.4	0.0
CC - Manuf: wood, paper and printing	36591	41797	1871	1993	5.1	4.8
CM - Manuf: other and repair	40615	33102	6076	2618	15.0	7.9
QA - Human health services	43055	30021	1060	0	2.5	0.0
CF - Manuf: pharmaceuticals	31343	36886	3247	1102	10.4	3.0
JC - IT and info services	28714	36920	7210	991	25.1	2.7
N - Administrative and support service activities	20870	39782	2748	2686	13.2	6.8
CE - Manuf: chemicals	34790	24634	4182	470	12.0	1.9
P - Education	10632	38708	0	0	0.0	0.0
A - Agriculture, forestry and fishing	14693	7661	115	0	0.8	0.0

Source: ERM. Intermediate sector classification (source).
Note: Excludes sector categories where 2003–2013 job loss <20,000.

As already indicated, offshoring in manufacturing sub-sectors accounts for much higher shares of overall restructuring job loss, although there has been a drop in that share post crisis in most categories. In electrical equipment manufacturing (white goods, lighting, domestic appliances) the share of job loss attributable to offshoring declined from 30% to 15%, while in textiles/clothing and leather production, it declined from 16% to 9%. For auto/transport manufacturing and computers/electronics manufacturing, the decline in shares was more modest.

Aside from business cycle factors, and the general decline in offshoring activity from 2008 onwards, different phasing of offshoring by sector may explain some of these differences. Some sectors are likely to have offshored earlier than others. As suggested earlier, the bulk of offshoring job loss in

textiles/clothing is likely to have happened before 2003. Offshoring job loss in white goods (primarily intra-EU to destination countries in NMS12) appears to have peaked in 2003–2008 while that in computer/electronics has been relatively stable over the two periods. Phased offshoring by sector relates, in all likelihood, to the expanding capacities of offshoring destination countries to take on increasingly high-end manufacturing tasks.

The main observable trends post crisis, therefore, are:

- the decline in the offshoring share of job loss;
- a marked decline in services offshoring;
- a shifting composition of manufacturing offshoring job loss towards high–medium technology manufacturing.

Destination of offshoring job losses

Around half of offshored jobs in the EU27 end up in other European countries and a relatively small share (25%) goes to China and India, according to the ERM data. The main offshoring destinations are the NMS12, where wage levels are lower than those in the main host offshoring countries (generally in the EU15). Physical proximity, good transport connections and cultural familiarity are other factors contributing to the flow of jobs from west to east Europe. But a significant (13%) share of offshoring job loss also involves the transfer of jobs to EU15 countries, generally from firms in other EU15 Member States.

Table 13: Share of offshoring job loss, 2003–2013

Destination	announced job loss	n	% of offshoring job loss
Americas	9853	52	3.7
China	27213	122	10.2
EU15	33901	159	12.7
India	39515	90	14.8
NMS12	87054	326	32.7
Not specified	25877	50	9.7
Other or non-specified Asian countries	22615	76	8.5
Other or non-specified European countries	11319	58	4.2
Rest of world	9183	34	3.4

Source: ERM.
Notes: 182 cases of offshoring indicated 'various locations' as the destination. Job loss in these cases has been re-apportioned to the above destination categories based on analysis of the case narrative and an equal share of job losses per case being assigned to the relevant destination category, where identifiable.

For the majority of Member States, the NMS12 was the main offshoring destination. They accounted for over 45% of offshoring job losses from Austria, Germany, the Czech Republic, Portugal and Sweden. China was the main destination for offshoring firms in only two Member States (Hungary and Slovakia) while India was the principal destination in the Netherlands and the UK. UK–India represents the single biggest country-to-country flow of offshoring jobs in the ERM dataset, with many large-scale cases of offshoring by financial services firms (there are nine cases involving more than 1,000 jobs offshored in this sector). Belgium and Poland were the only countries where the main destination for the bulk of offshoring job losses were EU15 countries.

Table 14: Offshoring job loss (%) by host country and destination, 2003–2013, EU27

		Destination									
n offshoring	**Host country**	*EU15*	*NMS12*	*Other Europe*	*Other Asia*	*China*	*India*	*Americas*	*Other*	*Not specified*	*Total*
23	**AT**	14	53	6	2	6	20	0	0	0	100
37	**BE**	67	21	3	0	2	1	5	0	2	100
23	**CZ**	10	51	4	0	23	7	0	3	2	100
69	**DE**	7	48	0	5	5	3	1	0	32	100
49	**DK**	32	40	6	1	15	2	2	0	3	100
29	**ES**	21	39	1	12	8	1	7	8	3	100
37	**FI**	8	25	8	17	20	10	5	0	5	100
85	**FR**	10	36	2	13	7	1	3	17	12	100
15	**HU**	2	20	6	23	27	13	5	1	3	100
52	**IE**	5	37	7	10	9	12	11	3	6	100
43	**IT**	17	39	15	3	10	2	7	0	8	100
32	**NL**	12	23	3	4	12	32	12	0	3	100
9	**PL**	43	14	0	0	5	20	0	18	0	100
25	**PT**	6	62	10	5	6	1	1	9	0	100
72	**SE**	17	45	1	12	10	1	4	1	8	100
9	**SI**	7	20	33	0	9	0	0	31	0	100
9	**SK**	11	29	14	0	31	0	7	0	7	100
142	**UK**	6	16	4	13	8	42	4	1	7	100
781	**EU27**	13	33	4	8	10	15	4	3	10	100

Source: ERM.
Notes: Omits countries where offshoring cases <9. Main destination is highlighted in red for each country/ Member State.

Since 2008, a higher share of offshoring job loss has been attributable to the transfer of activities to China (from 8% to 15%) and to the EU15 (11% to 17%) while a small increase in share was also recorded for the NMS12 (32% to 35%).[37] In each of these cases, however, the absolute number of offshoring job losses declined from the earlier period (2003–2008) to the later period. According to a European Commission analysis of the European Manufacturing survey data, the share of cases where production was offshored to the NMS12 declined between the pre- and post-crisis waves (2005/6 and 2009) while the share of cases where China was the main destination increased. Nonetheless, the NMS12 was the main offshoring destination category in both periods in this data source as it was also in the ERM. The NMS12 accounted for a similar share of offshoring cases (36% in 2005/6 and 30% in 2009) in the manufacturing subsectors covered by the European Manufacturing Survey (European Commission, 2012a), as of announced job loss in the ERM offshoring cases covering all sectors (33%).

Type of jobs offshored

The business function, or type of jobs, lost through offshoring is not captured by the national correspondents when completing a restructuring factsheet but can, in most cases, be inferred from

[37] The requirement to indicate offshoring destination was introduced in ERM only in 2009. For earlier cases, the destination has been identified based on the case narrative but this information cannot always be inferred from the case narrative. As a consequence, the 'non-specified' destination accounted for 13% of offshoring job loss in 2003–2008 but only 3% in 2008–2013.

the case narratives, at least at a broad level of description and with the caveat that news sources rarely offer a detailed breakdown of the types of job lost.

As might be expected from the preponderance of manufacturing in offshoring job loss, most of the jobs which are transferred are in production. This accounts for all but 4%–5% of jobs transferred in high-technology (HTM) and low-technology (LTM) manufacturing firms, and nearly 70% of overall jobs transferred.

Table 15: Offshoring job loss by broad sector and type of job offshored, EU27, 2003–2013

Business function	2003-8			2008-13		
	Manufacturing	Services	Total	Manufacturing	Services	Total
Production	95.3	2.5	63.5	96.0	13.1	81.5
IT	0.0	12.0	4.4	0.0	7.2	1.2
Front office	1.1	24.8	8.6	0.1	24.5	4.2
Back office	0.7	11.4	5.2	1.5	35.1	7.7
High value services	0.7	0.6	0.8	0.8	7.9	2.0
Multiple business functions	2.4	48.8	17.6	1.6	12.2	3.4

Source: ERM

Conversely, in service sectors, only a nominal share (5%) of offshored jobs are in production. Services offshoring is most likely to involve multiple business functions, generally some mix of:

- IT services (including software development, IT technical assistance);
- front-office functions (customer services, call centres);
- back-office functions (administrative services, data input, typing).

One strong prediction of recent offshoring literature is that high-skill service jobs will be increasingly at risk of offshoring, given rapid up-skilling in BRIC countries, notably in science, technology, engineering and mathematics disciplines where Europe and the US have skill shortages. ERM data does not support the contention that such a shift has already taken place to any great extent. Information technology jobs account for 11% of service jobs offshored during 2003–2013, while other high-value services (including R&D and management functions) account for only marginal shares (1%–2%) of jobs transferred. The share of high-value services increased from 1% to 8% of all service jobs offshored from the pre-crisis to the post-crisis period, which suggests expanding offshoring opportunities for these types of jobs, but nothing, as yet, big enough to change the paradigm. On the other hand, within manufacturing, the fact that firms in high and medium technology manufacturing sectors account for an increasing share of offshored production jobs suggests that higher-level production jobs were at relatively greater risk of offshoring post-crisis than pre-crisis.

Nationality of offshoring firms

By virtue of the case-size thresholds in ERM, many of the firms that appear in its dataset are multinational corporations [MNCs] or their subsidiaries. These are, by definition, large international enterprises with establishments, employees, markets and, in many cases, stock-market listings across many jurisdictions. The rapid growth of international trade until 2008 meant an expanding international footprint for many MNCs particularly in developing countries, as a result of offshoring

or the establishment of subsidiaries or green-field sites as well as the development of production networks and distribution channels in dynamic, emerging markets.

Despite this growing internationalisation, many MNCs have historical roots in one country which continues to host their company headquarters as well as a disproportionate share of enterprise employment. Nokia is considered Finnish, Telefonica Spanish and Renault French, despite each company having offices/units and sales on all five continents. For all offshoring cases, we were able to identify the nationality of the restructuring firm either in terms of company headquarters or main centre of ownership. This was done with a view to seeing what share of offshoring job losses are attributable to firms operating in their national base compared with firms operating outside their national base (and which, by definition, have previously offshored some activities to the host country).

Table 16: % of offshored jobs by host country and company nationality, 2003–2013, EU-27

Country	National	Other EU	USA	Other	Total
AT	59	11	12	17	100
BE	16	49	34	1	100
CZ	9	48	30	13	100
DE	53	17	28	3	100
DK	72	22	6	0	100
ES	22	37	25	16	100
FI	79	9	1	11	100
FR	50	28	11	11	100
HU	4	56	11	29	100
IE	11	19	59	11	100
IT	54	31	9	7	100
NL	56	21	14	9	100
PL	0	84	4	12	100
PT	15	23	40	22	100
SI	65	35	0	0	100
SK	14	16	70	0	100
SE	42	35	17	7	100
UK	66	12	19	3	100
EU27	**47**	**24**	**22**	**7**	**100**
2003-7	***53***	***20***	***20***	***6***	***100***
2008-13	***33***	***33***	***25***	***9***	***100***

Source: ERM.
Note: Countries where offshoring n < 9 omitted from table but included in EU27 total.

Overall, domestically owned firms accounted for nearly half (47%) of offshoring job losses between 2003–2013 but this share decreased notably in the post-crisis period (to 33%) as a greater share of offshoring job losses took place in non-domestically owned firms. Domestically owned firms accounted for a higher share of offshoring job loss during the up-phase of the business cycle but a lower share during the down-phase.

There is a wide variation in the shares by country, reflecting in part differences in the extent of foreign direct investment [FDI] penetration and dependence. Very low shares of offshoring by nationally

owned firms were recorded in the Czech Republic, Hungary, Ireland, Belgium, Poland, Portugal and Slovakia. These, generally, are countries with high shares of inward FDI in recent years and a significant presence of foreign MNC as a result. In Ireland's case, US firms have accounted for a large share of this FDI for cultural and linguistic, as well as economic, reasons and this is reflected in the high share of offshoring job loss in US-owned firms (59%).[38] Four out of every 10 Portuguese jobs offshored were also in US firms. In the CEE countries, most offshoring job loss was in other, non-national, European firms, although Asian firms were also responsible for 29% of Hungarian offshoring job losses.

Offshoring job loss shares for domestic firms were high in the UK, Denmark and Finland (over two-thirds of offshoring job loss in each).

Table 17: Destination of offshored jobs (%) by firm nationality

Firm nationality	Destination									
	EU15	*NMS12*	*Other Europe*	*Other Asia*	*China*	*India*	*Americas*	*Other*	*Not specified*	Total
National	5	25	4	10	10	24	2	4	17	100
Other EU	28	36	2	4	12	9	3	4	3	100
USA	13	45	6	7	8	6	8	2	4	100
Other	11	35	8	19	13	5	2	3	4	100
TOTAL	13	33	4	8	10	15	4	3	10	100

Source: ERM

Non-domestically owned companies tend to offshore to different destination countries than domestically owned firms. Firms from other EU countries are more likely to transfer jobs to other EU27 countries (28% to EU15 and 36% to NMS12). American firms show a similar pattern but with a stronger concentration of offshoring to NMS12 (45%). This may well relate to the more regionalised nature of US multinational operations in Europe: European subsidiaries of American multinationals are more likely to be constrained to relocate within Europe when deciding where to transfer activities (Eurofound, 2007). Nationally owned firms on the other hand are more likely to offshore to Asian countries (44%), in particular India.[39]

Trend of reshoring

There has been increasing effort in developed countries in recent years to encourage repatriation of activity of domestically-owned firms that had previously offshored. In the US, manufacturing employment has increased since 2010 by around half a million jobs (though after very sharp losses in preceding years; manufacturing represents less than 10% of total employment). This has led some to see a trend of reindustrialisation in the US supported by campaigns to 'bring our jobs back home'. Boston Consulting Group has estimated that up to five million jobs could be created by 2020 in the US:

> *as manufacturers shift production from leading European countries and Japan to take advantage of substantially lower costs in the US.*

(Boston Consulting Group, 2012)

[38] Slovakia shares a similar profile to Ireland but data are based on only nine offshoring cases.

[39] This particular figure is skewed by the size and number of UK-India service sector offshorings in the ERM data.

An industry-led and financed campaign, the 'Reshoring initiative' offers, among other advocacy efforts , a 'total cost of ownership' calculator for American firms enabling them to cost sourcing decisions more objectively, based on factors such as overheads, external and internal business costs, and implications for corporate strategy. The French government has recently introduced a similar online aid to employers considering relocating to France. Colbert 2.0 was launched by Arnaud Montebourg, Minister for Industrial Redevelopment (*redressement industriel*), in June 2013. The software requires users to complete around 50 questions before giving an assessment of their potential for relocation as well as an 'action plan proposal, available aid and a government contact' (De Beaupuy, 2012).

The ERM mainly identifies reshoring cases as a subset of offshoring cases, involving job loss in a firm located in the EU and where the destination of offshored jobs and company nationality are the same. Cases of reshoring from third countries to the EU are much less easy to identify in the ERM dataset though some cases of call-centre operators returning work to the UK from India (such as Gem in Table 19) have been picked up, based on additional information in business expansion cases. While this limits the capacity of ERM to identify perhaps the most interesting cases of reshoring, such as those from low-wage, non-EU countries such as China back to Europe, the dataset does, nonetheless, provide some interesting data on recent crossnational transfers of activity.

The bulk of reshoring flows captured in the ERM are intra-European, though reshoring by non-European, especially Asian, companies has increased since the crisis. Overall, 14% of offshoring job loss in the post-crisis period has involved partial or full reshoring, compared with 6% before. This evidence of domestic consolidation or retrenchment can only be considered tentative given the small number of cases involved, but is consistent with what is known about firms' international strategies during recessions, as well as the disinvestment patterns one observes in more aggregate trade data.

Over a quarter (27%–29%) of offshoring job losses in non-domestically owned EU firms happened in cases of either full reshoring or partial reshoring to the country of ownership.

Table 18: % of offshoring job loss

Firm nationality	2003-8		2008-13	
	Offshoring to third country	Partial or full reshoring	Offshoring to third country	Partial or full reshoring
National	100	0	100	0
Other EU	73	27	71	29
USA	96	4	90	10
Other	97	3	80	20
Total	94	6	86	14

Source: ERM

Belgium was the country from which reshoring was most likely to take place over the entire period, 2003-2013Q2. Nearly half of all offshoring job loss in Belgium (49%) happened in cases of full or partial reshoring. In terms of firm nationality, German and Italian firms were much the most likely to reshore. Some 27 out of 63 cases, accounting for 46% of offshoring job loss by German firms based outside Germany, were cases of full or partial reshoring to Germany. Eight out of 12 offshoring cases by Italian firms based outside Italy involved full or partial transfer of jobs back to Italy.

Table 19: Selected recent reshoring cases from ERM

Company	Group nationality	Affected units	Country	Announced	Jobs impact	Comments
Fiat Auto Poland	IT	Tychy	Poland	2012q4	1450	Transfer of production of Fiat Panda to group's Italian unit at Pomigliano d'Arco. Context: previous closure by Fiat of Termini Imerese plant in Sicily. Fears that Fiat was abandoning production in its home - and biggest - market. Polish criticism of the transfer focused on higher productivity and lower-wage costs of the Tychy plant.
Sony Mobile Telecomms	JP	Lund	Sweden	2012q3	650	Job losses amounting to 15% of staff at the Lund facility as well as contractors. Transferred back to Japan to "increase operational efficiency, reduce costs and drive profitable growth". Mainly R&D, software development jobs.
Asko (Gorenje Group)	SI	Jung	Sweden	2012q2	430	Following 2010 acquisition by Gorenje, Slovenian manufacturer of domestic appliances, all production of washing machines, dryers and dishwashers to be offshored to home country.
OM (Kion group)	DE	Modugno	Italy	2011q3	320	Closure of forklift truck production plant located in Puglia with jobs to be transferred to Hamburg. Reason according to management: low levels of production (8340 trucks per annum against targetted production of 15,700 unit).
Wittenborg (N&W Global Vending group)	IT	Odense	Denmark	2010q2	300	Transfer of production of vending machines to the company's production facilities in Valbrembo in Italy. Group formed from earlier merger of Danish (Wittenborg) and Italian (Nesta) companies.
BASF plant science	USA	Limburgerhof, Gatersleben	Germany	2012q1	200	Transfer of research jobs to new research centre in Raleigh (California, USA) attributed to limited penetration of genetically-modified crops in Europe.
Gem	UK	various sites	India	2007q4	500	Case of business expansion in Belfast. Call-centre operator responding to client-demands for a higher share of locally-based call-handlers; much of the business had been previously offshored to India.
Siemens Turbomachinery	DE	Helsingor	Denmark	2012q1	220	Discontinue the production of wastewater treatment plants in Denmark and transfer to Frankenthal (Germany)
Derbi	IT	Barcelona	Spain	2011q1	220	Relocation of production of motorcycles to other Piaggio group plants in Italy.

Source: ERM

Reshoring tends to be motivated by a variety of factors including:

- quality concerns;
- firm strategy focused on geographical consolidation of activities for operational efficiency;
- possible business-cycle factors (alluded to above).

According to the most recent international sourcing survey data covering international sourcing activity between 2009–2011 (Eurostat, 2013), the principal factor behind reshoring ('backsourcing' in their terminology) is the strategic decision of group headquarters. The most commonly cited motivations were, in order:

- higher than expected costs in international sourcing;

- insufficient quality of product / service;
- difficulties in managing business, given physical distance as well as language and cultural differences.

Less commonly cited motivations included:

- low labour productivity;
- lack of qualified personnel at the foreign location;
- excessive delivery times (Eurostat, 2013).

Reshoring may also arise as a consequence of previous merger/acquisition activity (see the Asko Gorenje case above). The largest recent reshoring (or backshoring) cases have been in the car/transport equipment sector. A precedent for the recent Fiat Auto Poland case (see Table 19 above) was Volkswagen closing their Belgian plant at Forest near Brussels in 2007 with the loss of 3,200 jobs. Most production was moved to the company's factory at their headquarters in Wolfsburg in Germany. Though multinational, large auto companies have strong historical, economic and cultural roots in their home countries which can mean – especially in during an economic crisis or declining sales – that restructuring activity is more likely to take place in foreign units, as production is consolidated to home country units.

Conclusions

The ERM restructuring events database includes a unique compilation of large-scale restructuring cases involving offshoring in between 2003–2013. Nearly 800 cases have been identified involving over 250,000 job losses. While not representative, the database does provide indicative evidence of the extent of offshoring, together with associated job loss. In the absence of alternative, more representative administrative or survey sources, it is the only European source that allows us to give estimates of the share of large scale restructuring job loss accounted for by offshoring.

The main conclusion of the analysis of the ERM data is that offshoring represents a small share of overall reported restructuring job loss (less than one in ten jobs in every year between 2003–2013) and that this share halved during the 2008–2009 financial crisis and has remained at lower levels subsequently. Both findings find echoes in recent analysis at country level in the EU (Fontagne and D'Isanto, 2013) and in other major developed economies such as the US (Levine, 2012) where offshoring is estimated to account only for a very modest share of recent job destruction.

The ERM data belies one of the most common predictions of the offshoring literature which is that a growing share of offshoring will be in service activities. In principle, many service functions – including those that involve higher skills – are as, if not more, offshorable than manufacturing/production jobs. Any of the growing share of high-skill jobs involving regular, extensive computer use – such as STEM (science, technology, engineering and maths) jobs – could be performed anywhere, with little or no loss of quality, by using a broadband internet connection. But there may be institutional resistances to such offshoring in the shape of national regulatory or licensing obligations, as well as the high share of well-represented, public sector workers in many service sectors. To date, the ERM data points to a continuation of the higher share of manufacturing in offshoring, and a trend for high-to-medium technology manufacturing sectors to account for a growing share of job loss after the 2008–2009 crisis.

The final main finding is that 50% of offshoring jobs in Europe remain within Europe, with the main flows from EU15 'older Member States' to CEE, the 2004–2007 enlargement Member States. The latter are, however, becoming offshoring countries in their own right; the share of offshoring in overall restructuring job loss was at the same (lower) level in the CEE12 as in the EU15 after the crisis. Over 2003–2013, Asian countries accounted for approximately one in three jobs offshored.

Declining levels and shares of offshoring may have cyclical as well as structural determinants. One likely cyclical factor is the reluctance of businesses to commit to the sizeable investments implied by offshoring during continuing economic uncertainty. If this was the main or only factor, one could anticipate that a return to more robust growth in the EU economy would be accompanied by a fresh surge in offshoring activity. The most regularly cited recent labour economics literature on offshoring deals with the concept of 'offshorability' and estimates that over a quarter of US jobs (and by extension the developed world) to be potentially offshorable. To pass from the current low levels of offshoring job loss to a situation where a quarter or more of jobs could be offshored would represent something of a revolution; but there are many factors that may militate against such a radical transformation of developed world labour markets. These include declining wage differentials between host and destination countries as well as the hitherto under-considered disadvantages of offshored activity (in terms of transport costs, quality control, ease of management) and related advantages of proximity (synergies between production and R&D, the requirements of rapid product cycles). Only time will tell whether the easy gains of offshoring have already been reaped by European businesses, as some commentators suggest (The Economist, 2013).

Offshoring of European SMEs

As SMEs with fewer than 250 employees tend to be anchored in their local environment, offshoring has traditionally been chosen by large firms in the majority of EU Member States (Eurofound, 2013). National data show, for example, that in a 2004 survey only 0.7% of German SMEs (defined as employing up to 499 workers) planned to offshore their production to central and eastern Europe within the next two years (Haunschild et al, 2007). Studies among Dutch and Finnish SMEs find offshoring levels of about 6%–7% of the national SMEs (Gorter et al, 2005; Deschryvere and Kotiranta, 2008). For several New Member States this low engagement in offshoring is explained by the countries' SMEs being on the receiving end of offshored activities, mainly due to the lower costs in these countries.

A medium level of SME offshoring is observed only in France, Hungary, Ireland and Sweden, and here mainly by medium-sized companies (50–249 workers). Interestingly, in Denmark, Greece, Malta, Slovenia and Spain increasing SME offshoring activities are noted, mainly driven by the global economic and financial crisis –as companies attempt to reduce costs or find alternatives to declining demand in their national market. To illustrate, it is estimated that between 2010 and 2011 about 1,500–2,000 Greek SMEs moved to neighbouring countries (ESEE, 2010), and in a 2012 study, about 30% of micro enterprises in Athens and Thessaloniki were considering shifting their activities abroad within the next few months (IME GSEVEE, 2012).

It is not very surprising that the general globalisation trend, as well as national framework conditions, such as public policies, legal and institutional frameworks, have been identified as the main drivers for SME offshoring (Eurofound, 2013). Searching for opportunities to reduce tax burden and administration costs are found to be the major factor attracting SMEs abroad (KPMG, 2007), particularly if combined with incentives to invest in the foreign country (see some examples of support instruments below). At the same time, the strong intrinsic motivation of the entrepreneur to internationalise (because they detect a business opportunity abroad or simply because of their global mindset) and the limitations linked to the smaller company size can be the reason for an SME to shift its premises abroad (for example, for cost considerations which can be more pressing in smaller than in larger firms, due to more limited financial reserves).

While restructuring in SMEs often happens in an unplanned, ad hoc manner, offshoring decisions seem to be better thought through (Eurofound, 2013). They tend to be accompanied by market research activities on:

- the legal framework;
- demand;
- competitive situation;
- availability of raw materials and suppliers;
- possible cooperation partners;
- expert staff to be hired for access to local knowledge and necessary networks.

It is assumed that this effort in the preparation phase of SME offshoring can be attributed to the anticipated high costs involved if the move abroad fails (for example, due to inadequate facilities, interruptions of the production processes or lack of demand).

Regarding SMEs' management of offshoring, it is widely observed that such activities are engaged in only after other modes of internationalisation, such as exports, foreign direct investments or joint ventures. Often, networks are used to share knowledge and resources with partners to overcome the obstacles and size constraints the small firm faces when moving abroad (Onkelinx and Sleuwaegen, 2008; De Magalhaes, 2001). Companies selecting a country also consider the stage of economic

development (the move is generally from more advanced to less developed economies, for cost reasons) and geographic and cultural distance.

The fragmented available data show some variation regarding the types of activities offshored by SMEs and larger firms. In the Netherlands, for example, it is observed that large companies offshore administrative and IT functions while SMEs offshore product development (RSM Erasmus University, 2007). In contrast to this, Czech, Greek or Italian SMEs tend to offshore labour intensive (manufacturing) activities to low-cost production locations (Karagianni and Labrianidis, 2001; Giusti, 2007). As regards support functions, in Denmark and Ireland SMEs are found particularly to source distribution, sales/marketing and engineering internationally.

Public instruments supporting offshoring in Europe

Governments across Europe are providing support to companies looking for business opportunities abroad, thereby attracting offshoring from foreign companies. The ERM database on restructuring support instruments[40] provides several examples of public instruments attracting foreign investors. In general, such tools provide potential investors with information about:

- the national market (demand indicators);
- labour market characteristics;
- taxation and other regulations/procedures related to setting-up and running a business in the country.

Furthermore, they might provide networking opportunities with potential clients, suppliers or other business partners.

IDA Ireland aims to attract international investors to Ireland, with a focus on life sciences, information and communication technology, engineering, professional services, digital media and consumer brands. It offers information and statistical data on these key business sectors, introduces potential investors to relevant stakeholders and assists the setting-up of a business in Ireland.

Support might also go beyond such advisory services in terms of providing a financial incentive for foreign investment. As this is related to higher expenses for the government, it can be assumed that knock-on or spill-over effects on national businesses or the image of the national economy as such are expected.

The Polish Programme for the promotion of investments of priority interest for the Polish economy (*Program wspierania inwestycji o istotnym znaczeniu dla gospodarki polskiej*) provides a grant (up to 30% of investment) for foreign investors in technologically advanced sectors and to companies in other sectors that plan to create at least 500 jobs, with the aim of boosting innovation and productivity in the Polish economy through such investments and the creation of highly productive jobs. The grant is based on an agreement between the Ministry of Economy and the investor and is paid in proportion to how far the commitment is fulfilled.

[40] http://www.eurofound.europa.eu/emcc/erm/supportinstruments/instruments/

Offshoring and industrial relations

Offshoring has inevitable consequences for industrial relations and, in particular, employment in the EU, as European jobs can be placed under threat if facilities are moved out of the European Union. Jobs in individual EU Member States can also be under threat by firms moving to other parts of the EU, typically away from the EU15 Member States to the Member States in central and eastern Europe. Individual offshoring and relocation activities around Europe have been well documented by EIRO over the past decade or so, as has the debate surrounding this phenomenon (for example Eurofound, 2006). This section aims to outline the industrial relations dimensions of offshoring, in addition to documenting the views and actions of the social partners.

One of the main fears of workers and trade unions is that offshoring will have a downward pressure on wages, as employers take advantage of opportunities to reduce labour costs by locating production in lower-cost economies, and/or using these lower-cost economies as a benchmark for labour cost calculations. Certainly in the late 1990s and early 2000s there was some evidence of concession bargaining in countries such as Germany, as trade unions strove to ensure that major companies made a commitment to their manufacturing locations in Germany, thus curbing the offshoring of production and manufacturing facilities from Germany to eastern European and far eastern countries (Schulten, 1998).

Views of the social partners

The social partners themselves have different views on issues related to offshoring, which is generally discussed within the debate on restructuring. Overall, trade unions, while not opposed to offshoring and restructuring, stress that governments should ensure that offshoring is managed well and that workers in the country of departure are consulted properly and workers in the destination country are guaranteed adequate working conditions.

Employers take the general view that offshoring and restructuring is a necessary part of the global economy that is vital to growth and competitiveness. While employers are keen to ensure compliance with legislation and fair working conditions, alongside appropriate assistance for those who lose their jobs as a result of offshoring, the preference is for a framework EU policy rather than any additional, prescriptive legislation.

These views are examined in more detail below.

Trade union views

International trade unions

The Trade Union Advisory Committee to the Organisation for Economic Cooperation and Development (TUAC OECD) issued a discussion paper on offshoring (TUAC, 2004) in which it calls for a government policy response to the employment consequences of offshoring that encompasses the international institutions:

> *Governments must guarantee core workers' rights on a global basis. A specific focus is needed on stopping the proliferation of labour rights abuses in export processing zones and ensuring the respect for workers' rights in China, which has become a magnet for foreign investment. OECD governments must encourage dialogue and negotiations between trade unions and businesses, supported by targeted regional and industrial policies along with active labour market policies to help those communities whose jobs may be affected by change.*

It also notes that the OECD Guidelines for Multinational Enterprises should be observed as a benchmark for good practice in managing change.

ETUC

The ETUC noted in an interview that the issue of offshoring was covered by the ETUC's activities in the areas of the anticipation of restructuring, and corporate social responsibility and supply chain management. On the issue of restructuring, the ETUC is adamant that there needs to be a legal framework at European level. The ETUC issued a statement following the Commission's January 2012 consultation, noting its demand for the Commission to issue concrete measures in the area of anticipating and managing restructuring. An ETUC Resolution, issued in March 2012 reiterates this view:

> *If the European Union is to respond successfully to the challenges posed by the economic crisis, imposed austerity, globalisation, climate change, demographic trends, rising inequalities and the swift pace of technological and organisational change affecting society in general and the workplace in particular, it needs to take urgent action and develop a strategic and pro-active approach with regard to anticipating and managing restructuring based on a European legal framework. For a decade, the ETUC has called consistently called for a 2nd stage social partner consultation and EU action. Today's employment and economic crises create an urgent imperative for this action.*

The ETUC is disappointed that the Commission has not reacted on the European Parliament's Cercas report (European Parliament, 2012) on a legal framework for the anticipation of restructuring, but has instead promised a commission on best practice by the end of 2013. However, it stated that 'the door is not fully closed. We are now waiting for the Commission's Communication'. It did stress, however, its view that there is an inherent contradiction between the promotion of a flexible labour market and the need to upskill the labour force: 'there is a contradiction here – how do you organise training and education when people are employed on precarious contracts?'.

It noted that in the longer term, what is needed is investment and some thought as to why companies want to offshore functions, rather than adherence to a short-term competitive agenda: 'Europe needs to focus on quality – Europe is about innovation and high quality. We cannot compete with other countries in terms of price, so we need to focus on what we're good at, with a high-skilled, trained and educated workforce'. The ETUC is calling for the development of a long-term European policy on the anticipation of change and the development of common industrial policies, in order to ensure that more and better jobs are created and that workers are able to improve their skills and match them to short-term and long-term labour market demand.

National trade unions

National trade unions typically state that they are not against the practice of offshoring, provided that it is managed well, from the point of view of the country of departure, as well as the destination country. For example, in the UK, the TUC has stated that 'offshoring can work for everyone if it's properly managed':

> *Workers in Britain under threat should be entitled to full consultation and a fair assessment of the contribution they make. But if the jobs do go, the Government needs to be proactive about alternative job creation and training. Crucially, we don't want offshoring or globalisation to be a race to the bottom, with wage levels leapfrogging*

> *downwards. Just as we want migrant workers' safety and wages to be protected, we want workers abroad to get the right to join a union, decent pay and decent working conditions.*
>
> (TUC, 2004)

The practice of offshoring from the UK promoted major trade union concerns in 2003 and at the time prompted the UK government to launch a consultation exercise on the issue (Marginson, 2004).

Overall, Van Zoest (2004) describes the position of the UK TUC towards offshoring as 'practical and non-protectionist', with the TUC noting that 'part of the hype around offshoring has been created by greedy consultants and commercial consultants wanting to drive up the numbers'. The TUC does accept, however, that offshoring is a significant trend, and calls on the UK government to draw up a strategy document, in cooperation with key stakeholders. Overall, the TUC, according to Van Zoest, wants to ensure that business base offshoring decisions on a clear assessment of the advantages and disadvantages, as well as consultation with staff and trade unions. The TUC is also keen to ensure that jobs lost are replaced by new jobs and that staff are given the opportunity to enhance and upgrade their skills and thus their employability and ability to move into high value-added work. Individual trade unions in the UK, such as the union Amicus (now part of Unite), have been more critical of offshoring decisions. Amicus has in the past criticised UK companies for not doing enough to protect workers against the negative consequences of offshoring.

A TUC working group on offshoring was established in 2004 to monitor union agreements on offshoring. Such agreements include the accord between the UK trade union Amicus (now part of the union Unite) in August 2005 and the information technology services company CSC on consultation procedures over the implementation of the company's 'world sourcing' strategy and on employment security in the event of work relocation. The agreement forms an appendix to a broader 'partnership agreement' between the union and CSC. In the agreement, CSC states that it will consult with Amicus on its strategy proposals in relation to world sourcing in order to allow consultation to take place as early as possible before any decisions are made or communicated to employees (Eurofound, 2005b).

Ireland is a country that has in the past benefited from inward investment from other European countries and the US. Nevertheless, as a relatively rich economy, it has also experienced offshoring. In a paper on offshoring and the implications for Ireland, the Irish Congress of Trade Unions (ICTU) states that offshoring 'should not be a tool used by firms to lead to the downgrading of pay and working conditions in base countries nor to the systemic exploitation of workers in poorer countries. The best way to manage the jobs which are offshored is to ensure that there are alternative jobs for those who lose out, preferably within the same employment with re-training provided in advance of the expected job losses' (ICTU 2006).

A Euround study on the relocation of production and industrial relations (2006) groups trade union reactions to offshoring into three categories: the so-called traditional approach, which focuses on reaching an agreement on alternatives to offshoring, or on mitigating its impact; the so-called interventionist approach, which seeks to reduce the benefits or the possibility of relocation; and the so-called proactive approach, which seeks to balance the negative impact of offshoring by encouraging the development of activities and employment in high-skilled sectors. The study notes that, in particular, Nordic unions view relocation as relatively unproblematic and do not engage in concession bargaining, preferring to concentrate on improving education and skills levels and promoting innovation.

In addition, trade unions have been successful in concluding European Works Councils agreements that include explicit reference to regular information and consultation over restructuring involving relocation. Examples include Deutsche Telekom, Vodafone, Eni and Syngenta (Eurofound, 2007a).

Employer views

BusinessEurope's main views in terms of the debate on offshoring are located within the debate on restructuring as whole. In its response to the European Commission's 2012 Green Paper on restructuring, BusinessEurope states its view that the social consequences of restructuring should be managed locally:

> *Employers and employees at company level are best placed to discuss and negotiate effective solutions. An adequate EU legal framework on consultation and information of workers is already in place. Further EU legal obligations on restructuring should be avoided.*
>
> (BusinessEurope 2012a).

In an interview for this report, BusinessEurope noted that it is of vital importance that international trade is encouraged, as this will bring growth not only to the emerging markets, but also to the European countries that trade with these markets: 'Some economies are growing very quickly, and the EU needs to make sure that it can benefit from this growth. We need an ambitious trade agenda to allow companies to invest and expand, which in turn will be a motor for job creation in Europe'.

BusinessEurope stressed that there are already extensive platforms for dialogue on restructuring and offshoring, in the form of European Works Councils (EWCs). These types of bodies are still relatively new (the recast Directive has only recently come into force), and therefore the development of discussions on restructuring and offshoring issues through these bodies is still ongoing.

> *It is clear that, given this very relevant platform of discussions involving offshoring, which provides a framework in terms of processes and employer obligations, coupled with the existing EU regulation in areas such as information and consultation and collective dismissals, we do not need any further platform at EU level to manage restructuring.*

Stressing the wide diversity of practice in Member States around the anticipation and management of restructuring and offshoring, BusinessEurope noted that it is very useful to compare and learn from good practice, but that there is no value in imposing an EU-level framework for this: 'There is absolutely no need to harmonise these practices at EU level – they have developed in individual Member States over the course of many years and there is no reason for any harmonisation'.

Conclusions

It is clear that the practice of offshoring, as part of overall restructuring activities, is a phenomenon that forms part of global business strategy and, as such, is welcomed by employer representatives. Trade unions accept the need for business to remain competitive, but are more wary of the possible implications for the workforce, such as job loss and downward pressure on pay and conditions. The social partners believe that workers in the country of departure should be supported in their search for alternative employment, through such means as education and skills upgrading, and that workers in the destination countries should be treated fairly. Where the social partners differ is on the ways

that this should be achieved. Trade unions are calling for some kind of binding European-level framework that will oblige employers to implement certain measures, such as training, social plans and audits of stress levels. Employers, by contrast, believe that the exchange of good practice and the coordination of industrial, education and skills and social policy is the best way forward, rather than burdening business with more obligations.

Bibliography

All Eurofound publications are available at www.eurofound.europa.eu

Alajääskö, P. (2009), 'Features of international sourcing in Europe in 2001–2006', Eurostat, *Statistics in Focus*, 73/2009. Available at http://epp.eurostat.ec.europa.eu

Ali, S. and Dadush, U. (2011), 'Trade in intermediates and economic policy', available at http://www.voxeu.org

Aubert P. and Sillard, P. (2005), 'Délocalisations et réductions d'effectifs dans l'industrie française' in Insee, *L'économie française: comptes et dossiers*, Insee Edition 2005–2006, pp.57-89.

Baldwin, R. (2006), 'Globalisation: the great unbundling(s)', paper produced for the Finnish EU presidency in 2006, Economic Council of Finland.

BBC (2011), 'Santander brings call centres back to UK', *BBC News*, available at http://www.bbc.co.uk/news/business-14073889

Bechert, S. and Schytke, L. (2008), *ANCOBEST Anticipation and collaboration to better understand structural transformation, Final Report*, RKW Rationalisierungs- und Innovationszentrum der Deutschen Wirtschaft e.V., Eschborn.

Blinder, A. (2007), *How many US jobs might be offshorable?* CEPS working paper no. 142 (March 2007), Princeton University.

Blinder, A. and Krueger, A. (2013), 'Alternative measures of offshorability: a survey approach', *Journal of Labor Economics*, Vol. 31, No. 2, Part 2, pp. 97–128, The University of Chicago.

Boston Consulting Group (2012), 'Rising US exports—plus reshoring—could help create up to 5 million jobs by 2020' (press release), available at www.bcg.com.

Bottini, N., Ernst, C., Luebker, M. (2007), *Offshoring and the labour market: What are the issues?* Economic and labour market paper 2007/11, International Labour Office, Employment Analysis and Research Unit, International Labour Organization, Geneva.

Bradford Jensen, J. and Kletzer, L. (2005), *Tradable services: understanding the scope and impact of services outsourcing*, Working Paper Series WP05-9, Peterson Institute for International Economics, Washington, DC.

Bronfenbrenner, K., Burke, J., Luce, S., Hickey, R., Juravich, T. and Braunstein, E. and Epstein, J. (2001), *Impact of US-China trade relations on workers, wages, and employment: Pilot study report*, US-China Security Review Commission/US Trade Deficit Review Commission, Washington, D.C.

Bronfenbrenner, K. and Luce, S. (2004), 'Offshoring: The evolving profile of corporate global restructuring', *Multinational Monitor* Vol. 25, No. 12, Questia, Chicago.

Brown, D. and Wilson, S. (2005), *The black book of outsourcing: How to manage the changes, challenges, and opportunities*, Wiley, Hoboken, New Jersey.

Business Europe (2012a), 'Response to Green Paper: Restructuring and anticipation of change: what lessons from recent experience?' Position paper, Brussels.

BusinessEurope (2012b), 'Response to Draft report by Alejandro Cercas on information and consultation of workers, anticipation and management of restructuring' – Letter from Philippe de Buck to members of the European Parliament Employment Committee.

Capelle-Blancard, G. and Tatu, D. (2012), 'Stock market reaction to layoff announcements: European evidence (2002–2010)', available at www.univ-orleans.fr

Central Statistics Office (2013), '*International sourcing survey 2009–2011*', available at www.cso.ie

CEEP (2013), *Mapping evolutions in Public Services in Europe: towards increased knowledge of industrial relations,* Cambridge Econometrics, Cambridge, UK.

Collins, P., and Grimes, S. (2011), 'Cost-competitive places: shifting fortunes and the closure of Dell's manufacturing facility in Ireland', *European Urban and Regional Studies,* Vol. 18, No, 4, pp. 406–426, Sage Journals, London.

Coris, M., Carrincazeaux, C., Frigant, V., and Piveteau, A. (2010), *Délocalisations, Relocalisations: Mise en perspective et enjeux pour la région Aquitaine*, Report by GREThA, for DIRECCTE Aquitaine.

Dachs, B., Ebersberger, B., Kinkel, S. and Waser, B.R. (2006), *Offshoring of production – a European perspective. Frequency, target regions and motives.* European Manufacturing Survey Bulletin 2, Fraunhofer Institute, Karlsruhe.

Dachs, B., Borowiecki, M., Kinkel, S. and Schmall, T.C. (2012), *The offshoring of production activities in European manufacturing, Frequency, target regions and motives,* MPRA Paper No. 42973, Vol. 67, Austrian Institute of Technology, Fraunhofer Institute, Karlsruhe.

Davis, S.J. and Haltiwanger, J.C. (1992), 'Gross job creation, gross job destruction, and employment reallocation', *The Quarterly Journal of Economics*, Vol. 107, No. 3, pp. 819–863, Oxford Journals.

Delteil, V., and Dieuaide, P. (2012), 'French multinational companies, new state regulations and changes in the employment relationship during the crisis: The exemplary case of the automobile sector', *Transfer: European review of labour and research*, Vol. *18, No.* 4, pp. 429–446, Sage journals.

Deschryvere, M. and Kotiranta, A. (2008), *Domestic Employment effects of offshoring: Empirical evidence from Finland*, ETLA Discussion Papers No. 1166, Research Institute of the Finnish Economy, Helsinki.

De Beaupuy, F. (2013), 'France taps Colbert in Obama-like effort to bring jobs home', Bloomberg online, 17 June 2013.

De Magalhaes, C. S. (2001), 'International property consultants and the transformation of local markets', *Journal of Property Research,* Vol. 18, No. 2, pp. 99–121, Taylor and Francis online.

De Santis, L. (2008), *IT Offshoring to Eastern Europe: Background report*. Report prepared for the UNI-Europa ICT Forum, 22–24 September, Nyon, Switzerland..

DIW (German Institute for Economic Research), *The German Socio-Economic Panel Study (*annual since 1984), Berlin.

ESEE (National Confederation of Hellenic Commerce) (2010), available at http://www.esee.gr/.

ETUC (European Trade Union Confederation) (2012), 'Anticipating change and restructuring ETUC calls for EU action', Resolution adopted at meeting of the Executive Committee of ETUC, 6–7 March, Brussels.

Eurofound (1998), 'New site pact signed for west German Opel plants', Information update 28 February, European Industrial Relations Observatory (EIRO), Dublin.

Eurofound (2004), '"Offshoring" of service sector jobs prompts union concerns', Information update 1 June, European Industrial Relations Observatory (EIRO), Dublin.

Eurofound (2005a), 'Offshoring found to create new jobs', Information update 28 June, European Industrial Relations Observatory (EIRO), Dublin.

Eurofound (2005b), 'CSC and Amicus agree offshoring deal', Information update 6 September, European Industrial Relations Observatory (EIRO), Dublin.

Eurofound, (2006), 'Relocation of production and industrial relations', EIRO Comparative study February 2006, European Industrial Relations Observatory (EIRO), Dublin.

Eurofound, (2007a), *European Works Councils and transnational restructuring*, Dublin.

Eurofound (2007b), *Restructuring and employment in the EU: the impact of globalisation: ERM Report 2007*, Publications Office of the European Union, Luxembourg.

Eurofound (2009a), *ERM Report 2009*, Publications Office of the European Union, Luxembourg.

Eurofound (2009b), *MNCs and cross-border dimension of collective bargaining*, Dublin.

Eurofound (2009c), *Restructuring in the construction sector*, EMCC Comparative study August 2009, Dublin.

Eurofound (2011), *Public instruments to support restructuring in Europe: ERM Report 2011*, Publications Office of the European Union, Luxembourg.

Eurofound (2012), *ERM Report 2012*, Publications Office of the European Union, Luxembourg.

Eurofound (2013), *Restructuring in SMEs in Europe*, Publications Office of the European Union, Luxembourg.

European Commission (1998), *Managing Change: High level group on economic and social implications of industrial change,* Directorate-General for Employment, Social Affairs and Inclusion, Publications Office of the European Union.

European Commission (2004), *Employment in Europe,* Directorate-General for Employment, Social Affairs and Inclusion, Publications Office of the European Union, Luxembourg.

European Commission (2006), *Commission staff working document - European Globalisation Adjustment Fund regulation (EGF) - Rationale for the intervention criteria* (COM 2006/91), Brussels.

European Commission (2012a), *European Competitiveness Report 2012*, pp. 62-67, Commission staff working document SWD(2012)299 final, Brussels.

European Commission (2012b), *Green Paper: Restructuring and anticipation of change: what lessons from recent experience?* Brussels.

European Commission (2013), Commission staff working document *'Fitness check' on EU law in the area of information and consultation of workers* , Brussels.

European Parliament (2012), *Draft report with recommendations to the Commission on Information and consultation of workers, anticipation and management of restructuring*, Committee on Employment and Social Affairs (rapporteur Alejandro Cercas), (2012/2061(INI)) of 8 June 2012.

European Parliament (2013), *Report on the proposal for a regulation of the European Parliament and of the Council on the European Globalisation Adjustment Fund (2014–2020)*, (COM(2011)0608 – C7-0319/2011 – 2011/0269(COD)) Committee on Employment and Social Affairs *(rapporteur Marian Harkin)*, Brussels.

European Skills Council and consulting europa (2012), *Impact of change and new technologies on skills and occupations in the commerce sector,* Brussels.

Eurostat (2013), *International sourcing of business functions* (results of the 2nd international sourcing survey), available at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/International_sourcing_of_business_functions

Falk, M. and Wolfmayr, Y. (2005), *Employment effects of outsourcing to low-wage countries: empirical evidence for EU countries*, WIFO (Austrian Institute of Economic Research) working paper 262/2005, Vienna.

Farber, H. and Hallock, K. (2009), 'The changing relationship between job loss announcements and stock prices: 1970–1999', *Labour Economics*, Vol. 16, No. 1, pp.1–11, Science Direct.

Flam, H. and June Flanders, M. (eds.) (1991), *Heckscher-Ohlin Trade Theory*, Cambridge, MA: MIT Press, pp. 39-69.

Fontagné, L. and D'Isanto, A. (2013), 'Chaînes d'activité mondiales: Des délocalisations d'abord vers l'Union européenne', *Insee Première*, No. 1451.

Forde, C., Stuart, M., MacKenzie, R. and Wallis, E. (2007), 'The European globalisation adjustment fund and the regulation of redundancy in Europe', conference presentation, the International Industrial Relations Association European Congress, 3–6 September, University of Manchester.

Fort, T., Haltiwanger J.C., Jarmin R., and Miranda J., (2013), *How firms respond to business cycles: The role of firm age and firm size*. National Bureau Of Economic Research, Cambridge, Massachusetts.

Freeman R. (2007), 'The great doubling: The challenge of the new global labor market', in Edwards J., Crain, M. and Kalleberg, A. (eds.) *Ending Poverty In America: How to Restore the American Dream*. The New Press, New York.

Frigant, V., and Layan, J. (2009), 'Modular production and the new division of labour within Europe', European Urban and Regional Studies, Vol. 88, No. 1, pp.72–96. Sage journals.

Giusti, M. (2007), *L'esperienza italiana di delocalizzazione produttiva all'estero tra incentivi e dissuasioni*, Dipartimento di Diritto pubblico dell'Università di Pisa.

Goos, M., Manning, A., and Salomons, A. (2009), 'Job polarization in Europe', *The American Economic Review*, Vol. 99, No. 2, pp. 58–63. American Economic Association, Pittsburgh, Pennsylvania.

Görg, H. (2011), 'Globalization, offshoring and jobs', in Bacchetta, M. and Jansen, M. (eds.) *Making Globalization Socially Sustainable*, pp. 21–39, International Labour Organization and World Trade Organization, Geneva.

Gorter, J., Tang, P. and Toet, M. (2005), *Verplaatsing vanuit Nederland [Relocation from the Netherlands] Motives, consequences and policy*, Central Planning Bureau, The Hague.

Grossman, G. and Rossi Hansberg, E. (2006), 'Trading Tasks: A Simple Theory of Offshoring', NBER Working Papers 12721, National Bureau of Economic Research, Cambridge, MA.

Guichard, S. and Rusticelli, E. (2011), *Reassessing the NAIRUs after the crisis*, OECD economics department working papers, No. 918, OECD iLibrary.

Gunnigle, P., Lavelle, J. and Monaghan, S. (2013), 'Weathering the storm? Multinational companies and human resource management through the global financial crisis', *International Journal of Manpower, Vol. 34, No. 3, pp. 214–231*.

Hallock, K. F. (2009), 'Job loss and the fraying of the implicit employment contract', *Journal of Economics Perspectives*, Vol. 23, No.4, pp.69–93.

Haunschild, L., Hauser, C., Günterberg, B., Müller, K. and Sölter, A. (2007), *Die Bedeutung der außenwirtschaftlichen Aktivitäten für den deutschen Mittelstand,* IfM-Materialien 171, IfM Bonn/ifh/ Bundesministerium für Wirtschaft und Technologie, Bonn.

Hijzen, A and Swaim, P (2007), *Does offshoring reduce industry employment?* Research paper 2007/24, University of Nottingham, UK.

ICTU (Irish Congress of Trade Unions) (2006), 'Offshore Outsourcing: the Implications for Ireland', Briefing Paper. Dublin.

IME GSEVEE (Small Enterprises' Institute of the Hellenic Confederation of Professionals, Craftsmen and Merchants) (2012), *Economic climate trends*, Athens.

IndustriAll Global Union (2013), 'Final countdown for companies to sign Bangladesh fire and safety accord before 15 May midnight deadline', Press release, 13 May, Geneva.

ISER (Institute for Social and Economic Research), *British Household Panel Survey (*annual since 1991), University of Essex, UK.

Kalazna, K. (2010), *Offshoring in the EU according to the ERM*, draft unpublished report, Eurofound, Dublin.

Karagianni, S. and Labrianidis, L. (2001), 'The pros and cons of SMEs going international', *Eastern European Economics,* Vol. 39, No. 2, pp. 5–28.

Kinkel S, (2012), 'Trends in production relocation and backshoring activities: Changing patterns in the course of the global economic crisis', *International Journal Of Operations and Production Management*, Vol. 32, No. 6, pp. 696–720.

Kirkegaard, J. F. (2005), *Outsourcing and offshoring: Pushing the European model over the hill, rather than off the cliff!* Peterson Institute for International Economics Working paper No. 05–1, Washington, DC.

Kirkegaard, J.F. (2007), *Offshoring, outsourcing, and production relocation—labor-market effects in the OECD countries and developing Asia*, Peterson Institute for International Economics Working paper 07–2, Washington, DC.

KPMG (2007), *Thinking Big!, SME Action Day*, BusinessEurope, Brussels, 2007.

Lamertz, K. and Baum, J.A.C. (1998), 'The legitimacy of organizational downsizing in Canada: An analysis of explanatory media accounts', *Canadian Journal Of Administrative Sciences,*Vol 15, No.1, pp. 93–107, Wiley Online.

Levine, L. (2012), *Offshoring (or offshore outsourcing) and job loss among US workers*, US Congressional Research Service (Report for Congress), Washington, DC.

Mandl, I. (2012), 'Europäische Beispiele öffentlicher Unterstützungsinstrumente für Restrukturierungen', in *Wirtschaftspolitische Blätter 4/2011*, pp. 751–762, Austrian Federal Economic Chamber, Vienna.

Milberg W. and Winkler, D. (2012), *Outsourcing economics: Global value chains in capitalist development*, Cambridge University Press, New York.

Moncarz, R., Wolf, M. and Wright, B. (2008), 'Service-providing occupations, offshoring, and the labor market', *Monthly Labor Review* Vol. 131, No. 12, pp. 71–86, Bureau of Labour Statistics, US Department of Labour / Bureau of Labour Statistics), Washington, DC.

OECD (Organisation for Economic Cooperation and Development) (2005), 'Trade-Adjustment Costs on OECD Labour Markets: A Mountain or Molehill?' *OECD Employment Outlook* Paris.

OECD (2007), *Offshoring and Employment: Trends and Impacts*, Paris.

OECD (2013) *Employment Outlook*, Paris.

Onkelinx, J. and Sleuwaegen, L. (2008), *Internationalization of SMEs*, Flanders District of Creativity and Vlerick Leuven Gent Management School, Flanders.

Otto, K, Rigotti, T. and Gisela, M. (2013), 'The psychological effects of restructuring' in Antoniou, A. and Cooper, C. (eds.) *The psychology of the recession on the workplace,* pp. 308–323, Edward Elgar, Cheltenham, UK.

Pavlínek, P. (2012), 'The impact of the 2008–2009 crisis on the automotive industry: global trends and firm-level effects in central Europe', *European Urban and Regional Studies,* 5 November 2012.

Pujals, G. (2005), 'Offshore outsourcing in the EU financial services industry' in Daudin, G., Gaffard, J-L, Levasseur, S. Mathieu, C. Pujals, G. Quéré M. and Sterdyniak, H. (eds.) *Competition from emerging countries, international relocation and their impacts on employment*, No. 2005–09 pp. 27–49, French Economic Observatory, Paris, .

Ranschaert, E.R. and Barneveld Binkhuysen F.H. (2012), 'European teleradiology now and in the future: results of an online survey' *Insights into Imaging* (2013) Vol. 4, No. 3, pp. 93–102.

Ricardo, D. (1821). *On the principles of political economy and taxation,* 3rd edition; republished Batoche Books, Ontario, 2001.

RSM Erasmus University (2007), 'Erasmus Entrepreneurship Outlook 2007', press release, Rotterdam.

Siegrist, J. and Dragano, N. (2012), 'Health effect outcomes: "Survivor disease" in the context of economic change' in: Cooper, C.L., Pandey, A. and Quick, J.C. (eds) *Downsizing: Is less still more?*, pp. 168–196. Cambridge University Press, Cambridge

Stehrer, R. and Ward, T. (2012), *Monitoring of sectoral employment* (study for the European Commission), DG Employment, Social Affairs And Inclusion, Brussels.

The Economist (2013), 'Special report on outsourcing and offshoring', 17 January 2013.

The New York Times (2012), 'How the US lost out on iPhone work', 21 January.

Time (2012), '$100 billion question: What should Apple do with its cash?' 26 January.

TRACE (Trade Unions Anticipating Change in Europe) (2006), *Anticipating and managing change, TRACE Topic Sheet 1*, Brussels.

TUAC (Trade union advisory committee to the OECD) (2004), *Trade, offshoring of jobs and structural adjustment: The need for a policy response.* TUAC Consultations with the OECD Liaison Committee. TUAC Discussion Paper, Paris.

TUC (Trades Union Congress) (2004), Trade Union European Information Project. European Review No. 27, July 2004, London.

UNCTAD (UN Conference on Trade and Development) (2004), *World Investment Report 2004: The shift towards services,* New York and Geneva.

Vaara, E. and Tienari, J. (2002), 'Justification, legitimisation and naturalisation of mergers and acquisitions: A critical discourse analysis of media texts', *Organization,* Vol. 9, No. 2, pp. 275–303.

Van Zoest, A. (2004), *Offshoring practices in the UK – Where are the limits?* Background paper, IPPR (Institute for Public Policy Research), London.

Voss, E., Wilke Maack and Partner, (2007), *Toolkit restructuring. Key findings from the ETUC project 'Strengthening the role of worker representation bodies and trade union organisations within the framework of restructuring operations',* European Trade Union Confederation (ETUC), Hamburg.

Warda, P (2012), *Working paper 8.2, Trends and patterns in outsourcing and offshoring in Europe: A literature review,* The Espon 2013 programme, Territorial impact of globalization for Europe and its regions (TIGER), European Union, Brussels.

Werner, W. (2009), 'Service offshoring' *Intereconomics*,Vol. 44, No. 2, pp.96–104, Springer-Verlag.

Wiederin, E. (2012), *How private employment services facilitate adaptation to change, better labour markets and decent work*, European Confederation of Private Employment Agencies and Boston Consulting Group, Brussels.

WTO (World Trade Organization) (2011), *International Trade Statistics 2011*, Geneva.

For the offshoring and industrial relations section, interviews in June and July 2013 were carried out with Judith Kirton-Darling, ETUC Confederal Secretary, and Magdalena Bober, Adviser for Social Affairs, BusinessEurope.

ANNEXES

Annex 1 – ERM restructuring event factsheet (sample)

Company: Avia Ashok Leyland Motors

Country: Czech Republic

Region: Czech Republic ; Praha

Location of affected unit(s): Praha

Group : Ashok Leyland

Sector : Manufacturing: Manufacture of transport equipment, 29.1

Number employed: 227

Announcement Date: 17-06-2013

Planned job reductions (min.): 227

Planned job reductions (max.):

Type of restructuring: Offshoring/Delocalisation

New Location: India

Employment effect start: 31-07-2013

Foreseen end date:

Direct dismissals: 227

Other job reduction measures:

Planned job creation:

Additional information: Avia Ashok Leyland Motors, a Czech subsidiary of the Indian Ashok Leyland vehicle producer, has announced the closure of its Prague plant. Some 227 jobs are going to be lost as the plant will discontinue its operations by the end of July 2013. Reportedly the closure is due to the global economic slowdown. The company´s management has decided to move the production of Avia trucks with a 66-years tradition from the Czech Republic to India.

Sources: Avia (press release), 17-06-2013; MF Dnes, 17-06-2013

Links:

http://ekonomika.idnes.cz/avia-v-cesku-konci-0m5-/ekoakcie.aspx?c=A130617_115227_ekoakcie_fih

http://www.avia.cz/en/press/press-releases/avia-truck-production-activities-to-cease-in-czech-republic/

Annex 2 – Sector aggregations

This report principally uses an intermediate sectoral aggregation as described in the table below. A major NACE reclassification in 2008 means that sectoral categories before and after that date – even where titles are similar or the same – are unlikely to correspond exactly. The main objective of the revision was to capture in greater detail the growing range of service sector jobs. An effort is made in the table below to show the similar categories in the old NACE rev 1.1 and current NACE rev 2.0 classifications.

For all analysis of the ERM data, the current NACE rev 2.0 classification is used to describe cases. Pre 2008 cases were recoded to the new classification in 2010/11. For the EU LFS data, NACE rev 1.1 up to 2007 and NACE rev 2.0 for 2008 onwards are used.

Sector aggregations

NACE rev 1.1 (2003-7)		Nace rev 2 (2008 onwards)	
Sector	**Divisions (total=62)**	**Sector**	**Divisions (total=88)**
A+B. Agriculture, hunting and forestry+Fishing	1-2, 5	A. Agriculture, forestry and fishing	1-3
C. Mining and quarrying	10-14	B. Mining and quarrying	5-9
D.Manufacturing, of which:	15-37	*C.Manufacturing, of which:*	10-33
DA. food, beverages and tobacco	15-16	CA. Food, beverages, tobacco	10-12
DB+DC. Textiles, clothing, leather	17-19	CB. Textiles, clothing, leather	13-15
DD+DE. Wood, paper and printing	20-22	CC. Wood, paper and printing	16-18
DF. Coke, petroleum products and nuclear fuel	23	CD. Coke, petroleum products.	19
DG. Chemical	24	*CE+CF. Chemicals and pharma, of which*	20-21
		CE. Chemicals	20
		CF. Pharmaceuticals	21
DH+DI. Rubber, plastics, etc.	25-26	CG. Rubber, plastics, etc.	22-23
DJ. Basic metals and fabricated metal products	27-28	CH. Basic metals	24-25
DL. Computers, office machinery	30	CI. Computers, etc.	26
DL. Electrical equipment	31-33	CJ. Electrical equipment	27
DK. Machinery etc	29	CK. Machinery, etc	28
DM. Transport vehicles and equipment	34-35	CL. Transport vehicles and equipment	29-30
DN. Other manufacturing	36	CM. Other and repair	31-33
DN. Recycling	37		
E. Electricity, gas, steam and air conditioning supply	40	D. Electricity, gas, steam and air conditioning supply	35
E. Collection, purification and distribution of water	41	E. Water supply; sewerage, waste management and remediation activities	36-39
F. Construction	45	F - Construction	41-43
G. Wholesale and retail trade	50-52	G - Wholesale and retail	45-47
I. Transport, storage	60-64	H - Transportation and storage	49-53
H. Hotels and restaurants	55	I - Accommodation and food service activities	55-56
I. Post and telecommunications		*J. Information and communication, of which*	58-63
		JA. Publishing, broadcasting	58-60
		JB. Telecomms	61
		JC. IT and info services	62-63

NACE rev 1.1 (2003-7)		Nace rev 2 (2008 onwards)	
Sector	**Divisions (total=62)**	**Sector**	**Divisions (total=88)**
J. Financial intermediation	65-67	K. Financial and insurance	64-66
K. Real estate, renting and business activities	70-74	*No direct correspondence*	
		L. Real estate activities	68
		MA. Legal, accounting, architecture, engineering, etc	69-71
		MB. Scientific research/development	72
		MC. Other prof. scientific, technical	73-75
		N. Administrative and support service activities	77-82
L. Public administration and defence; compulsory social security	75	O. Public administration	84
M. Education	80	P. Education	85
N. Health and social work	85	*Q. Health, of which*	86-88
		QA. Human health services	86
		QB. Residential care and social work	87-88
O. Other community, social and personal service activities	90-93		
		R. Arts, entertainment	90-93
		S. Other service activities	94-96
P. Activities of households as employers of domestic staff	95-97	T. Activities of households	97-98
Q. Extra-territorial organizations and bodies	99	U. Activities of extraterritorial organisations	99

Source: Eurostat. The sectors in the period 2003-2007 and 2008-2013 are not fully comparable due to a change in the NACE classification in 2008 (for info on the changes involved from NACE rev.1.1 to Rev.2: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-07-015/EN/KS-RA-07-015-EN.PDF).

Annex 3 – Dates of first ERM restructuring events by country and quarter

	First cases - announcement date	
	Job loss	Job gain
Austria	2002q2	2003q4
Belgium	2002q2	2004q2
Bulgaria	2005q3	2005q2
Cyprus	2005q4	2007q2
Czech Republic	2004q4	2005q1
Denmark	2002q2	2003q2
Estonia	2005q1	2005q3
European Union	2002q2	2003q3
Finland	2002q2	2003q4
France	2002q1	2003q2
Germany	2001q3	2004q2
Greece	2002q3	2006q2
Hungary	2005q2	2005q2
Ireland	2002q2	2003q3
Italy	2002q1	2003q2
Latvia	2005q2	2005q2
Lithuania	2004q2	2005q1
Luxembourg	2003q4	2011q1
Malta	2005q4	2006q3
Netherlands	2002q2	2004q3
Norway	2006q1	2006q1
Poland	2004q1	2004q2
Portugal	2002q2	2006q1
Romania	2005q1	2005q2
Slovakia	2004q2	2004q2
Slovenia	2005q1	2005q2
Spain	2002q2	2004q1
Sweden	2002q2	2003q4
United Kingdom	2002q2	2004q1
World	2001q1	2003q2

Source: ERM

Annex 4 – Restructuring events database – principal media sources

Country	Media source
Austria	Die Presse
	Der standard
	Wirtschaftsblatt
Belgium	Het Laatste Nieuws
	L'Echo
	Le Soir
Bulgaria	Dnevnik
	Pari
	Trud
Czech Republic	Lidové Noviny
	Právo
	Hospodářske Noviny
Denmark	Børsen
	Jyllands-Posten
	Erhvervsbladet
	Berlingske Tidende
Estonia	Aripaev
	Eesti Päevaleht
	Postimees
Finland	Kauppalehti
	Helsingin Sanomat
	Uutispaiva Demari
	Kansan Uutiset
France	Le Monde
	La Tribune
	Les Échos
	Usine Nouvelle
	Le Parisien
	Libération
	Le Figaro
Germany	Frankfurter Allgemeine Zeitung
	Handelsblatt
	Financial Times Deutschland
Greece	Naftemporiki
	Kathimerini
	Hmerisia
	Elefterotypia
	Ned Kerdos
Hungary	Napi Gazdaság
	Népszabadság
	Világgazdaság
	Hrportal.hu
Ireland	The Irish Times
	Irish Independent
	Sunday Business Post
	Irish Examiner

Country	Media source
Italy	Il Sole 24 Ore
	La Repubblica
	Il Corriere della Sera
	La Stampa
	Il Mondo
Latvia	Diena
	Latvijas Vestnesis
	Financenet.lv
Lithuania	Lietuvos Profsajungos
	Lietuvos Rytas
	Verslo zinios
Luxembourg	La Voix du Luxembourg
	Le Quotidien
Malta	Malta independent
	The Times
	L-Orizzont
Netherlands	Het Financieele Dagblad
	De Volkskrant
	NRC Handelsblad
Poland	Gazeta Wyborcza
	Rzeczpospolita
	Wirtualny Nowy Przemysł
	Dziennik Gazeta Prawna
Portugal	Jornal de Notícias
	Diário Económico
	Público
	Correio da Manhã
	Sol
	TSF
Romania	Adevarul
	Economistul
	Ziarul Financiar
Slovakia	SME
	Hospodárske noviny
	Pravda
Slovenia	Delo
	Finance
	Dnevnik
Spain	Expansión
	El País
	La Gaceta de los Negocios
	Cinco Dias
Sweden	Svenska Dagbladet
	Dagens Industri
	Dagens Arbete
United Kingdom	The Observer
	The Guardian
	The Financial Times
	BBC News

Annex 5 – ERM policy references

Year	Organisation	Title	Data use / Reference
2004	European Commission	*Employment in Europe 2004*	ERM data; data on offshoring, outsourcing and relocation
2004	European Economic and Social Committee (EESC)	Opinion (2004/C 302/11) on 'Industrial change and economic, social and territorial cohesion'	Reference to the EMCC
2005	European Commission	*Restructuring and employment: the role of the European Union in anticipating and accompanying restructuring in order to develop employment*	Reference to the EMCC
2005	European Commission	European Economy: *Responding to the challenges of globalisation*	ERM data; data on offshoring, outsourcing and relocation
2005	EESC	Opinion (2005/C 294/09) on the scope and effects of company relocations	ERM sectoral data on relocations
2005	BusinessEurope (former UNICE)	UNICE newsletter: the voice of business in Europe	ERM data on relocation
2005	BusinessEurope (former UNICE)	UNICE position paper on relocation: Challenges and opportunity	ERM data; data on relocation
2006	European Commission	BEPA report : *EU competitiveness and industrial location*	ERM Quarterly; data on offshoring, outsourcing and relocation
2006	European Commission	European Globalisation Adjustment Fund Regulation (EGF): rationale for the intervention criteria (COM 2006/91) Annex to proposal for a regulation establishing the European Globalisation Adjustment Fund (EGF) – Impact assessment (SEC 2006/274)	Considerations on the ERM data in relation to EGF intervention
2006	European Commission	Restructuring in Europe and the anticipation of negative labour market effects (prepared by Danish Technology Institute on behalf of the Commission)	ERM data on offshoring and relocation
2006	European Parliament	Resolution on restructuring and employment	ERM data
2006	EESC	Information report of the consultative commission on industrial change on a sectoral survey of relocation (CCMI/030)	ERM data on relocation
2006	EESC	Study by reckon – A sectoral survey of relocation: a factual background	ERM data on job losses
2006	EESC	EESC/CCMI own-initiative opinion on Sustainable development as a driving force for industrial change	ERM data on relocation
2006	EESC	EESC/CCMI special reviews Relocation – Challenges and opportunities	General references to the ERM and use of ERM data on relocation
2006	European Trade Union Confederation (ETUC)	ETUC press-release on European Globalisation Adjustment Fund	ERM data on job losses
2007	European Commission	*Textile innovative restructuring. Preventing and managing the crisis.* Benchmarking research	ERM annual report 2007
2008	European Commission	EC Staff Working Document – *Restructuring in Europe 2008. A review of EU action to anticipate and manage employment change*	ERM data ERM annual report: *Restructuring and employment in the EU: The impact of Globalization*
2008	European Commission	EC staff working document – *New skills for new jobs. Anticipating and matching labour market and skills needs* (COM(2008) 868 final).	ERM Annual Report: *More and better jobs: Patterns of employment expansion in Europe*
2008	European Commission	EC staff working document – *Restructuring and employment the contribution of the European Union* (COM(2008) 419 final)	Reference to EMCC / ERM

Year	Organisation	Title	Data use / Reference
2008	European Commission	EC staff working document accompanying the proposal for a regulation of the European Parliament and of the Council amending Regulation (EC) No 1927/2006 on establishing the European Globalisation Adjustment Fund - Impact Assessment Report (COM(2008) 867 final)	ERM data
2009	ETUC	ETUC newsletter - Monitoring job losses across Europe	General information and considerations on the ERM database
2009	International Labour Organization	Socially-sensitive labour force restructuring in South Eastern Europe	ERM data 2008–2009; ERM Quarterly, Issue 3, Autumn 2008; ERM Quarterly, Issue 1, Spring 2008.
2009	European Commission	*Employment in Europe 2009*	ERM data on job losses and gains (March 2008–August 2009)
2010	European Commission	EU employment situation and social outlook – monthly monitoring	ERM data on job losses, variation across the MSs, job creation and job loss across sectors
2010	European Commission	EC occasional papers No. 64 'Short time working arrangements as response to cyclical fluctuations'	ERM Report 2009: 'Restructuring in recession'.
2010	European Commission	EC report: 27 national seminars on anticipating and managing restructuring - EU synthesis report	ERM data Restructuring in recession, ERM report 2009
2010	European Commission	*Employment in Europe 2010*	ERM data on job losses and gains (2008Q2–2010Q2)
2010	European Commission	Report: *Should aid be granted to firms in difficulty? A study on counterfactual scenarios to restructuring state aid*	ERM data (location of the job losses)
2010	Council of the EU	Council Belgian EU presidency conference background paper: *Psychosocial risks and health effects of restructuring*	ERM annual report 2006
2010	European Trade Union Institute (ETUI)	ETUI working paper: *How do institutions affect the labour market adjustment to the economic crisis in different EU countries?*	ERM annual report 2009
2010	CEDEFOP	Working paper No. 7: *Socially responsible restructuring. Effective strategies for supporting redundant workers.*	ERM annual report 2007
2010	EESC Labour Market Observatory	EESC Minutes of the 11th meeting of the Labour Market Observatory (LMO) section for Employment, Social affairs and Citizenship.	ERM annual report 2009
2010	Metis	METIS Web page, Documentation on recession	ERM annual report 2009
2010	Oxfam	Paper: *Women's poverty and social exclusion in the European Union at a time of recession.*	ERM quarterly autumn issue and ERM annual report 2009
2010	International Labour Organization	ILO briefing note: 'Restructuring enterprises through social dialogue and labour - management agreements: Social responsibility practices in time of crisis.'	ERM annual report 2009
2010	International Labour Organization	Report: *Responsible and Sustainable Enterprise-level Practices at Times of Crisis, A Guide for Policy -Makers and Social partners.*	ERM annual report 2009
2010	International Labour Organization	ILO web page: 'Anticipating Restructuring in Enterprises: National seminars (A.R.E.N.A.S.)'	Reference to the EMCC/ERM
2011	European Commission	EC Discussion paper: *European Globalisation Adjustment Fund. Experience and prospects for future*	ERM annual report 2007
2011	European Commission	Report: *EU Employment and Social Situation*, Quarterly review June 2011	ERM annual report 2008
2011	European Commission	EC Anticipedia online debate 01: The impact of restructuring on health	ERM quarterly - Issue 1, spring 2011/ ERM annual report 2007

Year	Organisation	Title	Data use / Reference
2011	European Commission	Report: *EU Employment and Social Situation*, Quarterly review September 2011	ERM data
2011	European Commission	Report: *Anticipation and Management of Restructuring in the European Union*	ERM annual report 2009
2011	European Commission	*Employment and social developments in Europe 2011*	ERM annual reports 2008 / 2009
2011	European Commission	Report of the Elders Project: *Elder employees in companies experiencing restructuring: stress and well-being*	ERM annual report 2009
2011	ETUI	ETUI working paper: *The economic crisis - challenge or opportunity for gender equality in social policy outcomes*	ERM annual report 2009
2011	ETUC	ETUC report: *Working for Better Times, Working time regulation and innovation in the 21st century*	ERM annual report 2010
2011	CEDEFOP	CEDEFOP report: *Learning while working, Success stories on workplace learning in Europe*	ERM annual report 2007
2012	European Parliament	EP report with recommendations to the Commission on information and consultation of workers, anticipation and management of restructuring (2012/2061(INI))	ERM data
2012	EuroCommerce and Uni-Europa Commerce	UNI-Europa/ Eurocommerce report: *Impact of change and new technologies on skills and occupations in the commerce sector*	ERM annual report 2010
2012	BusinessEurope	BusinessEurope Emmanuel Julien's speaking notes for EMCO meeting with social partners to exchange views on 2013 Annual Growth Survey	ERM annual report 2012
2012	International Labour Organization	Report *EuroZone job crisis: trends and policy responses: studies on growth with equity*	ERM quarterly Issue 1, 2012
2012	European Commission	Report: *Restructuring In Europe 2011*	ERM annual reports 2009 / 2010, ERM quarterly Issue 3, 2010
2012	European Commission	Green paper: *Restructuring and anticipation of change: what lessons from recent experience?*	ERM annual reports 2009 / 2011
2012	European Parliament	EAVA 2/2012: European added value of an EU measure on information and consultation of workers, anticipation and management of restructuring processes	ERM data (2002-2012), ERM Quarterly – July 2012, ERM annual reports 2009 & 2011

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The 2013 annual report from the European Restructuring Monitor (ERM) presents a retrospective of over a decade of measuring the impact of large-scale restructuring activity in Europe. Based on a database containing details of over 16,000 large-scale restructuring events– each generally involving at least 100 job losses or gains – it paints a picture of restructuring trends across the EU Member States. The report sets out to compare activity in the period leading up to the economic and financial crisis (2003–2008) with the post-crisis period (2008–2013), in order to identify changes in restructuring practices and to pinpoint the sectors that have been disproportionately affected, in employment terms, by the global recession. Also included is a critical assessment of all ERM activities, including the two newer policy-oriented databases: public support instruments and restructuring legislation. Finally, the report places the spotlight on the phenomenon of offshoring, charting the decline in offshoring activity by European firms since the onset of the crisis.

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