



Restructuring and employment in the EU: Concepts, measurement and evidence

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Preface

Restructuring is at the root of a widespread sense of insecurity in Europe. With unemployment levels still high in many Member States, the loss of a job is often perceived as an irreversible blow, with serious long-term consequences for the welfare of the citizen concerned. Not surprisingly, restructuring is therefore high on the agenda of policymakers in both individual Member States and the European Union. It is a central focus of the European Monitoring Centre for Change (EMCC), within the European Foundation of the Improvement of Living and Working Conditions.

There is no direct correlation, however, between this perception of insecurity and the increase in objective measures of job security such as employment turnover and job tenure. Research from the Organisation for Economic Cooperation and Development (OECD) and the International Labour Organisation cited in this report show little indication of significant changes in the data. Moreover, there are several countries within the European Union with unemployment rates well below not only the OECD average but also lower than in the United States. Nevertheless, it is indisputable that both new technologies and the entry of new players, not least India and China, into global competitive markets have sharpened the intensity of competition. Handled appropriately, this presents a great trade – and therefore growth – opportunity for Europe; handled inappropriately, it may seriously undermine not only the welfare of our citizens but also the future of the European Union.

Progress in finding constructive solutions to the challenges that lie ahead is not well served by an alarmist, exaggerated and non-credible description of the facts – this, indeed, may lead to overly defensive protectionist measures that ultimately lead to even greater hardship. Nor is it well served by complacency. Good policymaking requires a clear understanding of the facts. Policymakers must recognise the extent of job loss in the European Union and know in which sectors and regions it occurs and what demographic and educational and skill groups are affected.

This report is intended to contribute to an understanding of the employment consequences of restructuring. It provides an inventory of what sources are available at EU level and presents some evidence of the facts. It also highlights the lack of available solid evidence and proposes how this may be remedied in both the short and long term. The Foundation hopes the information and analysis contained in the report will prove useful in the search for socially acceptable forms of anticipating and managing change.

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Country codes used in the report

EU15 (former 15 'old' Member States pre-enlargement 2004)

AT	Austria
BE	Belgium
DK	Denmark
FI	Finland
FR	France
DE	Germany
EL	Greece
IE	Ireland
IT	Italy
LU	Luxembourg
NL	Netherlands
PT	Portugal
ES	Spain
SE	Sweden
UK	United Kingdom

NMS10 (the 10 new Member States which joined the EU in 2004)

CZ	Czech Republic
EE	Estonia
CY	Cyprus
HU	Hungary
LT	Lithuania
LV	Latvia
MT	Malta
PL	Poland
SI	Slovenia
SK	Slovakia

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Executive summary

This is the first report of the European Restructuring Monitor (ERM). The aim of these reports is to present information on restructuring data, policies and practices. As policy should be based on an understanding of the nature and extent of the matter to be addressed, it is logical to focus this first report on defining and measuring the extent of restructuring throughout the Member States. This is particularly relevant for the issue of restructuring, as there are serious measurement problems in most Member States and even more so at the European Union level. Future editions of the ERM report will focus less on such issues.

In the introduction to this report, restructuring is viewed as the necessary response to the long-term forces of economic development. Shifts in relative productivities and patterns of consumer demand push labour out of declining sectors and into expanding ones. The ensuing labour market adjustment generally yields substantial benefits for the economic welfare of society as a whole; however, its often sudden and disruptive nature can also lead to substantial costs for those who are negatively affected by the process. It is pointed out that while there is a widespread perception that the rate of structural change has accelerated appreciably in recent decades, there is little evidence to substantiate such an interpretation.

Chapter 1 of the report provides an overview of the potential and existing sources used to measure the impact of restructuring on jobs. Despite widespread concerns about the issue, there is no firm statistical evidence on the extent or consequences for employment of restructuring in the EU. There is an obvious need to remedy this situation. In the short term, there are two obvious ways forward, both of which lie within the broad realm of the Community's legislative mandate.

The European Labour Force Survey (ELFS) is the most obvious means of collecting information on the extent of jobs lost due to restructuring. It has a clearly defined sampling frame, covers the entire EU in an acceptably standardised format, and is available on a quarterly basis with relatively short publication lags. However, it does not currently provide any information on the extent of job loss due to restructuring. Information on the occurrence of collective dismissals is only available for those not employed at the time of interview. Nevertheless, in terms of calculating the number of people experiencing job loss, and their characteristics (age, sex, region, etc), there is no better potential source than the ELFS. There are some problems with the ELFS approach, and suggestions are made as to how these issues could be addressed.

A further weakness of the ELFS is that it provides only very limited information on the restructuring company and the restructuring process. For this, one requires some information from, and contact with, the company. The most obvious means of acquiring such information is to use the existing administrative procedures stipulated in the EU directive on collective redundancies, which requires notification of intended collective redundancies to public authorities. The information requirements of the directive provide some relevant basic information on the company and the restructuring process and it is provided early in what may be a lengthy process. This system of 'flagging' the start of a restructuring case could also provide the basis for a more systematic follow-up interview, along the lines of that currently conducted in the United States.

Therefore, the ELFS could provide data for the total number of workers affected (and their characteristics) and the notification based data could provide the company level and restructuring process information. This would ensure an integrated approach to obtaining information on restructuring.

Chapter 1 also gives an outline of the ERM. Located within the European Monitoring Centre on Change (EMCC) at the European Foundation for the Improvement of Living and Working Conditions (hereafter the Foundation), the ERM collects and presents cases of restructuring in a systematic format, based on media reports. These cases provide much useful information on restructuring at the establishment level. The early warning feature of the ERM is one of its major strengths, as information is usually available long before the reduction of the workforce is enacted. Another major strength is that it is based on information in the public domain. There are no issues regarding privacy, and the identification of specific cases allows the process of structural change to be observed at the company level. However, one must be careful when interpreting the statistics generated, as they have not yet been subjected to a proper test of their representativeness of restructuring cases in general. Nonetheless, some indication of the direction of bias in the ERM statistics is provided and a more stringent examination will be completed by 2007.

Chapter 2 examines the recent evidence of restructuring in Europe, using the only sources that can provide EU-wide information on this topic, namely, the ELFS and the ERM. The chapter begins by presenting employment data from the ELFS, which show the net changes in employment in the EU by sector and region between 2000 and 2005. Since 2000, employment shares by economic sector continue the long-term trend out of the primary sectors and manufacturing and into services. An often neglected aspect of employment trends in a restructuring context is the substantial loss of employment in agriculture in parts of the EU15 and most of the NMS10. With the ongoing reform of the Common Agricultural Policy (CAP), this trend will continue to dampen net aggregate employment growth throughout the EU. The decline in manufacturing is, however, solely attributable to employment in the EU15, with NMS10 figures holding up rather well. There are also some clear differences in the pattern of employment growth by (NACE 2) economic sectors between the old and new Member States, reflecting their different stages of economic development.

In the EU15, all of the top 10 growth (NACE 2) sectors are either service sectors or in construction, while the top 10 declining sectors are all in manufacturing with the exception of agriculture and diverse financial services. It is also notable that the two, largely public, sectors of health and social work and education contribute to much recent employment growth in the EU15. However, unlike the EU15, the NMS10 has two manufacturing sectors with high employment growth, i.e. motor vehicles and electrical machinery. In both the NMS10 and the EU15, the manufacture of food, textiles and wearing apparel are among the top 10 losers. These sectors are typically viewed as being among the most low-tech in the manufacturing sector. However, in the EU15, the decline of manufacturing also extends to many other sectors, and it is interesting to observe that while the manufacture of fabricated metal products is in the top 10 declining sectors in the EU15, it is one of the top 10 growth sectors in the NMS10. This suggests a geographical relocation of production.

Chapter 2 also presents a more detailed regional picture of employment growth since 2000. Ireland and Spain show high employment growth, which is evenly distributed throughout these countries' regions. Pockets of high growth are found in parts of France (most notably in the mid-west regions), Italy, Greece, the UK (particularly in parts of the west coast), and in southwest Sweden. Among the new Member States, employment growth is highest in Cyprus and Latvia. While the overall picture in eastern Europe is rather bleak, there are some pockets of relatively high growth in Poland (the Slaskie region) and in the Czech Republic (Stredni Cechy). The most significant decline in employment is to be found in most regions of Poland and eastern Germany. In France, the Lorraine

region shows the highest level of employment decline. Pockets of more modest decline can be found in Greece, Italy, the UK and all of Denmark. This statistical presentation is complemented by cases from the ERM, which illustrate many of the general representative trends found in the ELFS data. In addition, the ERM statistics are used to illustrate the current and prominently discussed issue of offshoring.

Chapters 1 and 2 were concerned with measuring the extent of restructuring in terms of jobs lost or created. Chapter 3 takes up the issue of measuring the consequences of job loss, i.e. what happens to those who lose their jobs due to restructuring. The chapter starts by underlining the methodological approach required to identify these effects and how to evaluate policy addressed to ameliorate the negative consequences of job loss.

At present, the only direct source of EU-level information on job loss at restructuring is the ELFS. It reports on the previous job of those currently not employed. It can also distinguish among several reasons for separation from the previous job (including the response 'dismissal'), when it occurred, in which sector and in which occupation. This is a very useful and underused source of information for EU policymakers. It provides a consistent, EU-wide measure of the negative employment consequences of job loss in terms of region, sector, demographic group, etc. This is of obvious use for an examination of the negative impact of restructuring, not only in terms of the Lisbon employment rate targets, but also as a complementary means of identifying the target regions for the structural funds. In particular, this may be of relevance for the recently created Globalisation Adjustment Fund. A strong concentration of negative employment effects due to dismissals is to be found in most of eastern Germany, and parts of Hungary and Austria. All of Ireland, Latvia, Lithuania and parts of England, France and Italy are among the least negatively affected.

Chapter 4 provides a brief outline of policy conducted at the EU level, aimed at promoting structural change and at ameliorating the negative consequences of restructuring for both the enterprise and the individuals involved. It is emphasised that much of the EU policy is designed to induce structural change – indeed this is the fundamental economic rationale for the creation of the Single Market. This both creates and destroys jobs throughout the Union. Other aspects of EU policy – for example, the ongoing CAP reform – obviously leads to job loss. As regards policies focused on displaced workers, the EU sets the legislative framework and the European Employment Strategy has much that, if fully implemented, could greatly facilitate the labour market adjustment of those workers who are made redundant. Finally, the structural funds are the most concrete means by which the EU addresses structural change. The recently introduced, but not yet implemented, European Globalisation Adjustment Fund is also examined in this chapter.

Introduction

The long-term development of the economy is often best seen as shifts in economic structure, i.e. out of agriculture, then to industry and on to services. These transformations characterise entire eras of economic development, giving rise to expressions such as ‘the industrial revolution’ and ‘the services economy’. Indeed, structural change, driven by shifts in relative productivity and demand, is practically synonymous with economic development. This reallocation of resources towards more productive activities is how market economies have grown and yielded previously unimaginable standards of living for the majority of their citizens. However, structural change is seldom a smooth and painless process. The reputed economist of structural change, Joseph Schumpeter’s famous characterisation of the process as ‘gales of creative destruction’ is as imaginative and accurate today as when it was first coined over 50 years ago (Schumpeter, 1942).

The term ‘restructuring’ has come to be associated with the enactment of structural change below the macro or national level: one speaks of the restructuring of sectors, companies and establishments. Restructuring is also seen as more of an active process initiated by employers, in contrast to the more passive and deterministic long-term forces of structural change and economic development. Even if it is driven by the need to maintain or enhance profitability, and to therefore ensure the survival of the company (and thus jobs) in the long term, restructuring is primarily perceived as having a negative impact on employment levels at particular workplaces. Nonetheless, the more abstract concept of structural change, i.e. the reallocation of resources to more productive uses, is generally viewed in positive terms. Job creation in new companies and sectors of the economy is, together with cheaper goods and services, the main benefit of structural change. However, to define this job creation as restructuring is both contrary to public perceptions of the term, as well as being somewhat illogical.¹ The short-term negative consequences of structural change, i.e. those enacted through the downsizing (or closure) of enterprises, are relatively identifiable, publicly visible and often strongly concentrated in particular sectors. The positive effects of structural change, both in terms of new companies and the expansion in existing companies, are generally less visible, much less publicised and more evenly spread throughout the economy. Moreover, a stylised fact established by the research on job destruction and job creation is that job destruction is concentrated in the trough of the business cycle, while job creation is much more evenly spread over the cycle.²

There appears to be some perception of an increased rate of structural change (and restructuring) in recent decades. However, this is not fully supported by available statistical evidence. The Organisation for Economic Co-operation and Development (OECD) has measured the change in the sector composition of employment and finds no recent significant shifts. Similarly, research by the International Labour Organisation (ILO) and others show no significant shortening of the length of an average employment spell.³ There is, nonetheless, concrete evidence of increased concern about restructuring. Surveys show a significant decline in employees’ sense of job security, and restructuring is high on the policy agenda in the Member States and at European level. The most obvious way to reconcile the lack of convincing statistical evidence of increasing levels of restructuring with people’s perceptions of insecurity is that the survey respondents are not so much

¹ The creation of new companies can hardly be viewed as restructuring, nor can all job creation. For example, is it reasonable to term the creation and expansion of, for instance, Microsoft, as a restructuring case; or when BMW expands its production capacity in response to an increase in export demand? This is job creation pure and simple.

² See, for example, Davis and Haltiwanger (1999) and Hall (1995).

³ See Auer and Cazes (2000). See also Farber (1995) and OECD (2005a).

expressing increased risk of job loss, but rather an increase in the expected negative consequences of job loss.⁴

Another aspect of restructuring, prominent in both the public and policy debate, is the impact of globalisation on structural change. While it is common to reply to concerns about the possible negative impact of globalisation by pointing out that globalisation is not a new phenomenon, the scale and nature of current globalisation almost certainly is a new occurrence. Political events in recent decades have seen a significant increase in countries participating fully in world trade, along with a massive increase in the potential global labour force. The increased openness of low cost countries to foreign investment, and advances in information and communication technologies (ICT), have not only allowed a more dispersed international division of labour but have also enhanced the tradability of many services. More specifically, this has promoted the feasibility of offshoring – where domestic production is replaced by foreign production due to a decision by a producer to cease or reduce domestic production in order to relocate or outsource production abroad.

The ongoing restructuring of market economies creates benefits for many. However, these benefits are often achieved together with losses for those displaced in the process. Research from both Europe and the United States shows quite conclusively that there are significant average costs to displaced workers in terms of health, labour market status, earnings and other welfare measures. Moreover, these effects are not limited to a brief adjustment period but may in fact be persistent.⁵

The valid and widespread policy concern regarding problems associated with job loss, which is the most obvious short-term consequence of restructuring, is one reason why much of the focus in this report concentrates on job loss at restructuring. With the recent adoption of the European Globalisation Adjustment Fund, these issues will be firmly placed on the policy agenda of the European Union for the foreseeable future. The other reason is that, while the statistical sources on job loss at restructuring are far from perfect, systematic EU-wide information on job creation is very poor indeed.⁶

⁴ OECD (1997) summarises some evidence. See also Manski and Straub (1999) and Schmidt (1999).

⁵ See Eliason and Storrie (2006) and Kuhn (2002).

⁶ A soon-to-be launched project within the Foundation will, however, attempt a more systematic identification of the growth of new jobs in the EU25 by sector, occupation and productivity.

Measuring the employment impact of restructuring

The report refrains from engaging in a detailed discussion of the term restructuring itself.⁷ Some definitions of restructuring might include events that do not have any impact on employment levels and that, through a reorganisation of work, may impact on the workforce in some other way. The definition in this report focuses exclusively on a change in the number of jobs. One could question whether all job loss due to economic reasons can be fully attributed to structural reasons without reference to the business cycle.⁸ It is often difficult to distinguish between cyclical and structural phenomena. Certainly, at the time of the dismissals (i.e. when job loss often has to be measured), even the employer may have difficulty in judging whether the dismissals are due to a temporary downturn in the business cycle or whether they are of a more long-term structural nature. Essentially, job creation is pro-cyclical while job destruction is counter-cyclical. However, the correlation is much stronger for job destruction, which is heavily concentrated in the trough of the recession.⁹ It is likely that most structural problems will become apparent and so enacted when the business cycle is poor.

To begin with, this chapter examines the legal definitions of involuntary job loss (primarily collective dismissals) and shows how this does not represent a very useful definition of job loss at restructuring. It continues by looking at sources that could, in principle, be used to measure the impact of restructuring on employment, as well as statistical sources that are currently available. The chapter concludes with some concrete recommendations on how the employment impact of restructuring could be better measured, both in the short and long term.

Job loss at restructuring

When considering the best way to obtain a statistical understanding of the labour market consequences of restructuring, one must first be clear about the purpose of the exercise. In the fields of both research and policy, there are two obvious main purposes: the nature and extent of restructuring (how many jobs were lost and created in the different sectors and regions and why this happened) and the consequences of restructuring (for example, determining whether or not the redundant workers moved on to a new job, and what impact the job loss had on subsequent earnings). In the latter case, much of the focus of recent EU policy has been placed on the labour market outcome for the affected employees. These two different questions provide two different answers.

Legal definitions

An employment contract may be terminated by either the employee or the employer. Contract termination by the employer falls into two broad categories: termination due to the performance or behaviour of the employee, or due to 'other reasons'. The term 'other reasons', which is the category of interest in relation to restructuring, may appear unnecessarily vague. In some Member

⁷ See Camerson et al (1993) for an influential discussion on the term restructuring.

⁸ For example, typologies of unemployment distinguish between structural and cyclical unemployment.

⁹ In labour economics, job creation and job destruction, as expounded in, for example, Davis et al (1996), have very specific definitions and are based on establishment level data. Job creation is defined as the sum of the increase in employment in all establishments that started up or expanded operations during a particular period. Job destruction is the sum of employment lost in establishments that reduced its operations or that were shut down.

States, the corresponding term is, for example, ‘economic reasons’ or ‘lack of work’; however, such terms usually lack literal meaning and seldom does the employer have to prove economic hardship or document a lack of work to motivate such dismissals. Such vague terminology as regards motivation for dismissals is reflected in the catch-all definition in European legislation of ‘for one or more reasons not related to the individual workers concerned’.¹⁰ In this report, dismissals for ‘other reasons’ are categorised as collective dismissals.

While legislators generally adopt a vague definition with regard to the motivation for dismissals, more precision is required in relation to the numbers and timeline of dismissals. For the purposes of this report, the legislative implementation of ‘collective dismissals’ are referred to as ‘collective redundancies’. This term is taken from Council Directive 98/59/EC, which defines the thresholds and timelines for collective redundancies as:

Either, over a period of 30 days:

- at least 10 redundancies in establishments normally employing more than 20 and less than 100 workers;
- at least 10% of the number of workers in establishments normally employing at least 100 but less than 300 workers;
- at least 30 redundancies in establishments normally employing 300 workers or more.

Or, over a period of 90 days, at least 20 redundancies, regardless of the number of workers normally employed in the establishments in question.

The purpose of this definition is to stipulate the circumstances under which information is to be provided to employee representatives and public authorities. This definition does not necessarily cover all job losses resulting from restructuring. Collective dismissals may fall below the collective redundancy thresholds and, as will be seen in the next section, some of the ensuing job loss may be enacted through formal termination of the employment contract on the initiative of the employee, thus not legally forming part of a collective dismissal.

Measuring job loss

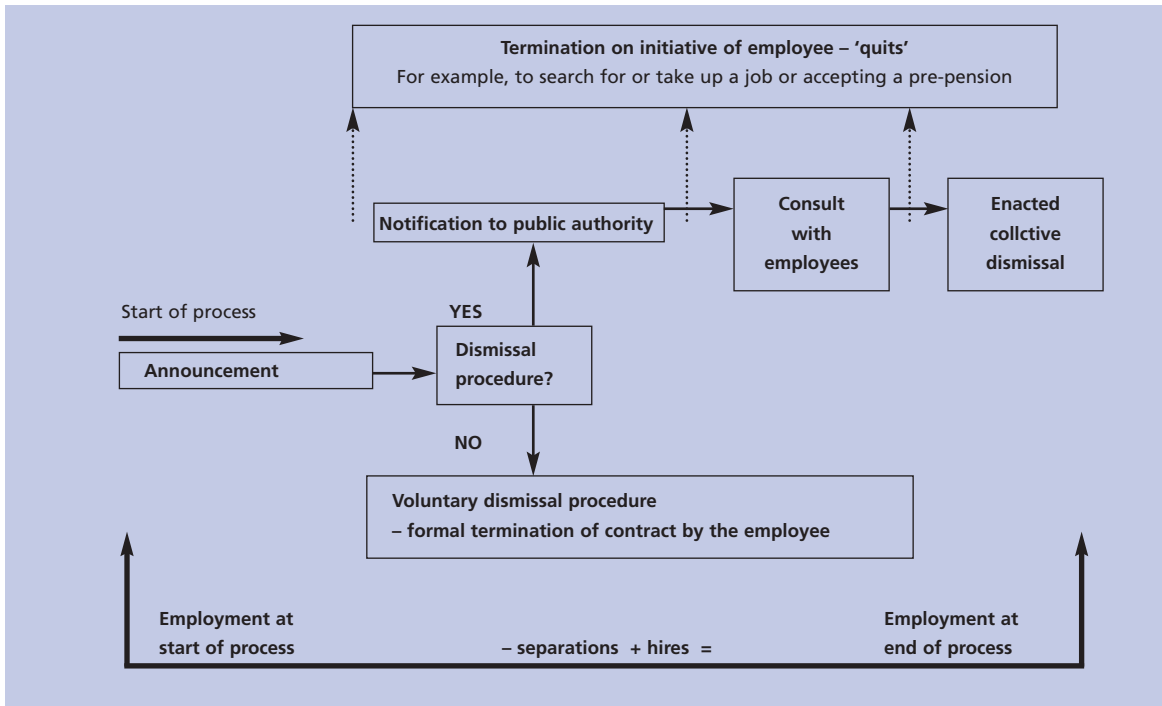
The issues relating to appropriate measures of job loss due to restructuring are best illustrated by examining a typical restructuring process. Figure 1 provides a stylised outline of the job loss process at restructuring.

To the outside observer, the first indication that the company is to reduce its workforce is the initial announcement and it is this stage which is picked up by the European Restructuring Monitor (ERM). Following the formal dismissal procedure, as stipulated under the EU directive on collective redundancies, the next step is notification to the relevant authorities, followed by some form of negotiation or consultation, and finally the enactment stage whereby the employer terminates the employment contract. Determining which of these three states – announcement,

¹⁰ Council Directive 98/59/EC of 20 July 1998 on the approximation of the laws of the Member States relating to collective redundancies. This directive consolidates directives 75/129/EEC and 92/56/EEC; Annex 1 outlines selected parts of the directive.

notification or enactment of the collective dismissal – is the ‘best’ measure of job loss following restructuring may vary from case to case; however, some general observations can be made.

Figure 1 Outline of job loss at restructuring



The number of enacted collective dismissals is unlikely to provide a good measure of the number of jobs lost due to restructuring. In many cases, the major discrepancy between the dismissals enacted by the employer and an initial tally of projected dismissals is due to employees issuing their notice of termination of the employment contract ('quits'). Employees who are aware of the impending dismissals and who believe that they may be targeted may search and find jobs elsewhere.¹¹ Moreover, workers with some form of work disability or older workers may be entitled to avail of some publicly and/or enterprise funded pension scheme (see Figure 1). It is important to emphasise that, even if these individuals are not formally dismissed, their pre-emptive decision to terminate the employment contract is still a consequence of the restructuring and should be counted as such. Thus, measuring job loss due to restructuring through 'enacted collective dismissals' is totally inappropriate. Moreover, it is difficult to conceive of any administrative source that would provide statistics on the number of enacted collective dismissals.

What then about the number of dismissals notified to the public authorities? As this occurs quite early on in the process, it is likely that considerably fewer employees will have left the workplace in anticipation of the dismissals.¹² Moreover, for other reasons, the notification data may exaggerate actual job loss. The employer may subsequently withdraw some of the intended dismissals due to an unexpected upturn in the business cycle; the lengthier the dismissal process, the more likely this may occur. However, the most obvious shortcoming of the number of notified

¹¹ Note that in some European countries the employee has a legal right to take time off work to search for a job after notice has been served.

¹² Note that 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 it is that they will believe they will lose their jobs.

dismissals is that they precede the negotiation or consultation stage, which may lead to a reduction in the number of intended dismissals. Indeed, in light of the forthcoming consultations with the employee representatives, the employer may have tactical reasons for notifying more employees than are in fact intended. Nevertheless, in most cases, it is reasonable to believe that the notification data will be more accurate than the number of enacted collective dismissals. Also, in practical terms, the notification data are more interesting than the number of enacted dismissals, as the European directive on collective redundancies requires that notification figures be reported to the appropriate public authorities, thus possibly providing the basis for statistics.

Even if the 'quits' are pre-emptive responses to the announcement of impending job loss, they have been viewed as unilateral actions by the employees. However, in many cases, the employer may actively induce quits and may even circumvent the formal dismissal process entirely (see Figure 1). It should be emphasised that there is nothing necessarily improper about such behaviour. Indeed, as the employer may provide economic compensation to train employees for a new job, or grant lump sum payments to induce quits or funds to complement an early pension, this may be an attractive option for many employees.¹³

Statistical sources for job loss at restructuring

The previous discussion mentioned two feasible sources of data for measuring job loss at restructuring: the announcement (as recorded in the ERM) and notification data received by the public authorities. This section explores possible ways of measuring job loss at restructuring (as defined in the directive on collective redundancies) and the strengths and weakness of the various approaches, together with some interesting and useful examples of how these possible methodologies have been implemented in practice.

Labour force and other surveys

The most common means of gathering information on labour market status is through a labour force or household survey. All surveys have general issues and problems, such as finding an appropriate sampling frame, deciding on a suitable questionnaire methodology and difficulties with non-response. The particular issue related to measuring job loss at restructuring in surveys was already mentioned, namely, how workers who formally quit but did so due to the expectation of impending job loss will respond to a question on whether they have experienced a dismissal. Will they reply that they were dismissed by the employer or will they respond that they left voluntarily?

The quality of labour force surveys in the EU is relatively high and many of the statistical concepts are harmonised and published in the European Labour Force Survey (ELFS). However, there is no information available on whether all respondents have experienced collective dismissals. Such questions are asked only for individuals who were not employed at the time of the survey. Thus, the ELFS includes some measure of the negative employment effects of restructuring, but as many of those who lose their jobs due to restructuring soon find a new job, it cannot provide information on the extent of job loss due to restructuring.¹⁴

¹³ Some EMCC case studies exemplify this approach. See, for example, *Innovative restructuring: Ericsson Microwave Systems*, available at: <http://www.emcc.eurofound.eu.int/content/source/se06001s.html>.

¹⁴ Nonetheless, this ELFS information on job loss addressed to those currently not employed is useful in other respects (see Chapter 3).

Despite the concerns raised about the ability of surveys to distinguish between ‘quits’ and ‘dismissals’, there is the potential to use the labour force surveys as a monitoring tool. The ELFS already exists and the organisational structure could accommodate additional obligations for the national statistical offices in the Member States to provide standardised information. Currently, the ELFS only provides information on the ‘main reason for leaving last job or business’, only for those who are not employed at the time of interview, with one of the values being ‘dismissed or made redundant’. This obviously does not address the issue of ‘threat of job loss induced quits’. The UK Labour Force Survey goes somewhat further by asking all persons in the survey: ‘Could you tell me the reason why you left your last job?’. It allows, among other responses, the following two replies: 1. You were dismissed; 2. You were made redundant or took voluntary redundancy. If the ELFS was to attempt a similar approach, further effort could be made to elicit more exact responses.

The most comprehensive labour force survey approach is that of the Displaced Worker Survey (DWS) run by the Bureau of Labor Statistics (BLS) in the United States. This is a regular addition to the US labour force survey, i.e. the Current Population Survey. While the survey has its limitations, it has the potential to provide useful guidelines for a more comprehensive ELFS approach to job loss in the EU.¹⁵

Household surveys such as the German and British Household Panel Surveys also contain information on job loss, and their longitudinal dimension, together with a rich array of other variables, may provide the basis for useful research on the individual consequences of job loss. However, they generally have appreciably smaller sample sizes and longer publication lags than labour force surveys, the latter usually being quarterly or, in some cases, monthly. Thus, the Household Panel Surveys cannot be considered a useful line of further enquiry in the quest to develop monitoring tools.

A further limitation of surveys addressed to the worker is that they reveal only limited information about the company and, presumably, very little data about the restructuring process. Therefore, the use of establishment or enterprise surveys could also be considered, although no such surveys appear to exist in Europe that are used to quantify restructuring events. The most fundamental problem with establishment surveys is that they do not have the same reliable sampling frame that census type data provides in surveys of individuals; a further issue is finding the appropriate person in the company to respond to questions, which is more problematic than in surveys of individuals or households. Non-response rates are also typically large in company-based surveys. Moreover, establishment surveys are typically highly unreliable for small companies. Such surveys more frequently address manufacturing than services and very seldom include public employment. Again, the contrast in coverage compared with, for example, labour force surveys is striking. Thus, as a means of measuring the extent of job loss at restructuring, this source does not appear to be a fruitful way forward. Nonetheless, it should be noted that the company perspective is extremely important, and some suggestions are made later on in this chapter as to how this could be addressed.

¹⁵ See Annex 2 for a short summary of the survey. Farber (2005) provides an overview of the DWS data between 1984 and 2004, and discusses some of the methodological issues. More details on the DWS can be found on the BLS webpage at: <http://www.bls.census.gov/cps/dispwkr/dispwkr.htm>.

Establishment or company registers

In the 1980s, the job creation and job destruction literature that emerged in the US, and subsequently in some European countries, was based on data on employment levels in establishments or companies.¹⁶ These registers may have been based on registers of companies used in national accounting, or for administering social security contributions or taxation. In this context, job creation is defined as the sum of all jobs gained at expanding or start-up establishments, while job destruction is the sum of all jobs lost at contracting or closing establishments. Such an approach permits the study of job flows. However, these statistics measure the magnitude of establishment-level changes in total employment, without taking into account whether or not the employees are the same people who were working in the establishment in the previous period. Neither do they distinguish whether a change in establishment level is due to an increase in hires or separations. Net employment change can be examined in terms of worker or job flows.

Figure 2 Measuring net employment change

<i>Worker flow</i>	<i>Net employment change =</i>	<i>hires – separations</i>
<i>Job flow</i>		<i>job creation – job destruction</i>

In terms of measuring direct job loss at restructuring (collective redundancies), an obvious shortcoming of the establishment registers of job creation and destruction is that they cannot attribute an observed decline in employment to dismissals. In terms of worker flows, changes in employment stock are due to changes in hiring and separation. Separations may be due to quits (including retirement) or dismissals. How then can one identify job loss due to restructuring (dismissals and pre-emptive quits) from these establishment registers? A common approach is to assume that when the level of employment at an establishment has decreased by at least a certain percentage – say, for example, 30% – that collective dismissals have been enacted. However, even if this assumption is correct, it is certainly not accurate to attribute the entire decrease in employment to job loss. Moreover, the cut-off percentage will always be somewhat arbitrary and will therefore either miss some collective dismissals or include some normal turnover as dismissals. A more certain identification of job loss at restructuring can be made when the establishment closes. If the closure can be correctly identified in the register, then presumably the majority of those employed in the year prior to the closure suffered job loss. These approaches will work relatively well when the closure process is short and relatively large. However, when the process is spread out gradually over a number of years, it is very likely that this method will miss much of the job loss.¹⁷

Nevertheless, these statistics are in principle by far the best means of measuring the impact of structural change on employment at company or establishment level. The bottom line is the level

¹⁶ See Davis et al (1996) and Haltiwanger and Schuh (1999) for the US manufacturing industry; Lagarde et al (1994) for France; Dolado and Gomez (1995) for Spain; Blanchflower and Burgess (1996) for the UK; Broersma and Gautier (1997) for the Netherlands; Albaek and Sorensen (1998) for Denmark; Contini et al (1991) for Italy; Stiglbauer et al (2002) for Austria; Faggio and Konings (2001) for five accession countries. The OECD (1994) and Bartelsman et al (2005) present results from comparative work on job flows using business registers (Canada, Denmark, France, Finland, the Netherlands, the UK and the US) and social security records (Germany and Italy) from the mid 1980s to the mid 1990s.

¹⁷ See Kuhn (2002) for several studies using administrative data and for a discussion on some of the methodological issues in using such data. Eliason and Storrie (2006) show how one can attempt to capture job loss during a prolonged closure process.

of employment at the establishment. Whether this is enacted by recruitment bans (i.e. by not hiring even when employees quit either to take up another job or a pension) or collective dismissals is, in many contexts, of minor importance; the focus on jobs rather than employees makes the problem of quits or dismissals, which also plagues the survey approach, irrelevant. Moreover, measurement at the establishment level provides insights into the dynamics and heterogeneity of structural change, which are simply not observable at any published sectoral level.¹⁸

Nonetheless, there are practical problems and limitations with this approach. A particular problem is the coverage of the company or establishment registers as regards size and sector. Many registers are either not available or reliable for small establishments (10 or less employees) and often include only manufacturing, sometimes services, but seldom the public sector. Moreover, the production interval in these statistics is often too long (up to two years) to function as a timely monitoring tool. Not many Member States have such data at all and also the methodologies differ between the countries. Eurostat (2005) provide some information on how they attempt to resolve certain issues. Eurostat also presents some comparable data in relation to the opening and closure of enterprises. It should be noted that the unit of observation here is the enterprise and not the establishment.

Finally, some mention should be made of the role of registers in examining the impact of job loss on individual workers, i.e. by following the labour market status of the displaced worker after they lose their job (see Chapter 3 for more on this). Unlike job flows, data on worker flows require linked employee–employer data – also a growing source of information. Linked employer–employee datasets covering the entire economy, and for a longer time period, are only available in a few European countries. In France, Finland, Denmark and Sweden (as well as Norway), unique identifiers of employees, establishments and enterprises make it possible not only to link to many other registers (unemployment benefit, social security, hospitalisation registers, etc), but also to other sources of information, for example, questionnaires that have made use of the same identifiers. Other Member States have linked panels covering a considerable and/or representative portion of the economy. These include Germany and Portugal, and outside of the EU, most notably the US, Canada and New Zealand. It should be noted that the main statistical requirement for such research is to obtain a sample of job losers that may be considered to be representative of job losers in general. Thus, one is not necessarily concerned about the size of the population of job losers, only if the sample is representative of all job losers. This is a different requirement to that of a monitoring tool which attempts to measure the extent of all job loss.

Notification data

According to the EU directive on collective redundancies, written information should be given to a competent public authority when the employer is ‘contemplating’ collective redundancies, and this information should consist of the:

1. reasons for the projected redundancies;
2. number of categories of workers to be made redundant;
3. number and categories of workers normally employed;

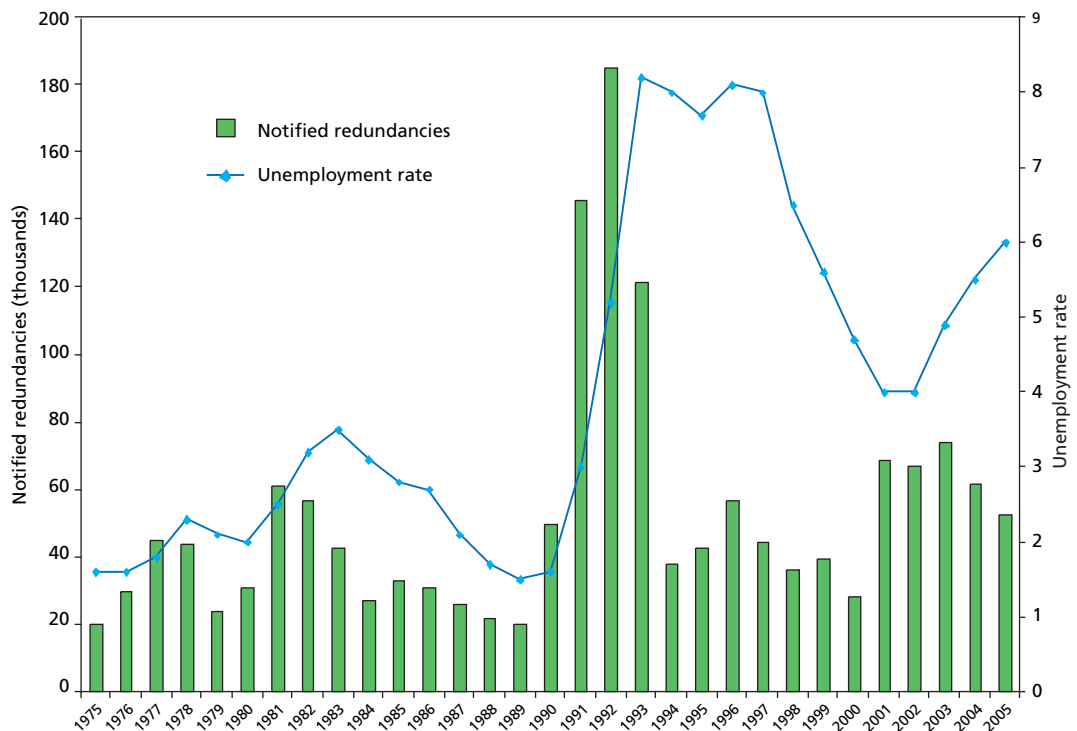
¹⁸ The gross job flow approach shows the surprising amount of job reallocation that occurs in the market economy. For example, in the US, Davis et al (2006) find that roughly one in 10 jobs is created and one in 10 jobs is destroyed each year. They also find that a large fraction of gross job flows occurs within sectors (two-digit sectors), suggesting that establishment and company specific factors lie behind much job creation and destruction.

4. period over which the projected redundancies are to be put into effect;
5. criteria proposed for the selection of the workers to be made redundant, in so far as national legislation and/or practice grants the employer such a power.

The legislation stipulates that the projected collective redundancies shall take effect not earlier than 30 days after the notification. It gives appreciable scope for the Member States to implement the details in national legislation. While there is no obvious non-compliance with the requirements of this directive in the Member States, preliminary and unpublished investigations conducted by the EMCC indicate that the potential to use the information reported to the public authorities as a basis for statistics has not been developed in many Member States. The purpose of reporting the information was of course not to produce statistics, but to allow time for the public authorities to prepare an appropriate policy response.

Despite the problems with notification data already outlined, there appears to be considerable potential to develop this source. Figure 3 presents the number of collective dismissals notified to the Swedish public authorities between 1975 and 2005.

Figure 3 Notification of collective redundancies and the unemployment rate in Sweden, 1975 to 2005



Source: Notification data from the National Labour Market Board; unemployment data from the Swedish Labour Force Survey

Figure 3 suggests that the notification data reflect the time trend for collective redundancies very well. The figure also plots the unemployment rate. Evidently, both the notification data and the unemployment rate exhibit a very similar cyclical variation and are closely correlated. A further indication that the notification data are credible is that they appear to lead the unemployment

series by about a year. However, on the basis of Figure 3, there is no means of gauging how representative Swedish notification data are with respect to, for example, the regional or sectoral distribution of all job losses. Neither can it be judged how accurate an estimator these data are of the total number of jobs lost due to restructuring. However, they certainly do appear to give a good estimate of changes in the level of job loss.

This is an issue worthy of further investigation. Notification data are based on EU legislation and do, at least in some Member States, provide useful information. The major factor behind such data not being used throughout the EU appears to be the fact that the authorities have not used the full potential of such a resource, rather than the fact that the employer fails to report details to the public authorities. Moreover, even if the data were not of the highest quality in all respects, they could function as a 'flagging device', which could then be followed up by additional monitoring procedures. Such a process is further illustrated in the following section.

Mass layoff statistics in the US

As mentioned above, the main problem with company-based surveys is obtaining an appropriate sampling frame. Another approach to eliciting company-based information is not to sample all companies, but only those that announce impending collective redundancies. The US experience may be useful in this respect.

While there is federal legislation on notification of redundancies in the US since the early 1990s, according to the Worker Adjustment and Retraining Notification Act, its limited coverage does not provide a sufficiently solid basis for statistical purposes. However, the unemployment insurance system (filed against specific firms) does permit a means of warning the public authorities when significant restructuring occurs, and is the basis of the Mass Layoff Statistics (MLS).¹⁹

Accordingly, the state authorities identify establishments that have at least 50 initial claims for unemployment insurance filed against them, during a consecutive five-week period. The authorities then contact the establishment to obtain information on the total number of persons made redundant, the reasons for these redundancies, and recall expectations. They can also provide information on the economic sector and location of the establishment. The unemployment insurance claimants can be identified by age, race, sex, ethnic group and place of residence. This procedure can also yield information on the employee's entire spell of registered unemployment, until regular unemployment insurance benefits are exhausted. Thus, it provides data on both establishments and claimants.

The MLS approach in the US is one means by which the EU could proceed. Indeed, there are some reasons to believe that this approach could be better applied in the EU than in the US. The MLS system uses the filing of unemployment insurance claims to indicate that some redundancies may be occurring. In the EU, notification of redundancies to the public authorities could be used. As it is far from clear that all redundancies lead to unemployment, the US system warns of some possible consequences of restructuring, while the notification procedure warns of all job loss.

¹⁹ Further information on the MLS can be found at the US Bureau of Labor Statistics on: <http://www.bls.gov/mls/#overview>.

The Foundation is currently carrying out further work on the use of EU-based notification data. As the Swedish example above showed, notification data are almost certainly of use for providing information on the change in levels of collective redundancies. This work will examine how these data are reported and compiled in all Member States. It will also investigate the quality of the data as regards their representativeness and their potential as a means of identifying restructuring, which can be followed by a survey similar to that used in the US. Finally, it will also assess the representativeness of the announced restructuring cases in the ERM.

European Restructuring Monitor (ERM)

The ERM defines job loss at restructuring in a similar fashion to the European directive on collective redundancies, in that it refers to intended redundancies. However, the intended redundancies do not have to be reported to any public authority but rather ‘announced’ either in the media or in some other public domain. The thresholds are: at least 100 jobs or involving sites employing more than 250 people and affecting at least 10% of the workforce. Unlike the directive, however, in the ERM there is no stipulation of time within which the intended job loss has to occur.

As mentioned, a major advantage of the ERM is that, as it monitors events very early on in the dismissal process, it will capture those who depart at this initial stage of the process. Nonetheless, it will also almost certainly overestimate the actual number of workers affected by the restructuring.²⁰ The early warning feature of the ERM is one of its major strengths, as information is usually available long before the reduction of the workforce is implemented. Another major strength of the ERM is that it is based on information in the public domain. Thus, there are no issues with privacy and the identification of specific cases allows the process of structural change to be observed at company level.

A significant problem with the ERM, however, is determining whether or not the macro picture it provides is representative of job loss in general. In fact, a major focus of the ERM in the next year will be to ascertain the extent to which it is indeed representative of job loss at restructuring, in general. This will be determined by comparing the ERM data with other possible sources and initially the notification data described above.

In what way therefore can one expect the ERM to be statistically biased with respect to job loss in general? There is reason to expect the following biases.

By definition, a ‘company size bias’ occurs in the ERM due to its thresholds. Moreover, even within the company size definitions, there will almost certainly be an over-representation of large companies and of more extensive job losses, as these are more likely to be reported in the media. As company size is correlated with, for example, economic sector, the size bias will lead to other types of bias. For example, the large company bias probably leads to a higher reporting rate in the ERM for manufacturing compared with services. The manufacturing bias may, in turn, lead to a bias as regards region and gender. The fact that the sampling error will be greater when companies are small may lead to inconsistencies over time (if company size varies over time) and between countries with differing company size distributions. In the European context, there may be reason

²⁰ While the ERM does require the correspondents to update any subsequent revisions of announcements, it is likely that these revisions will be less well covered in the media.

to believe that the main aspect of the small company bias, at present and in years to come, will be the ongoing 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 think about restructuring. The most obvious impact of the large company bias will be on the small Member States, such as Malta and Cyprus, as they have very few companies of the size that correspond to the ERM thresholds. As a result, the ERM provides quite poor information on restructuring in these countries.

A 'regional bias' is also likely to occur, if media coverage is not evenly spread throughout the country. While most of the designated newspapers are national newspapers, some may have a capital city or regional bias.

Moreover, a 'country size bias' is also likely. In absolute numbers, job loss is obviously more frequent in large countries. Thus, in terms of national impact, restructuring involving, for example, 100 employees will be a less frequently occurring and more prominent media event in countries such as Portugal or Greece, than in Germany or the UK. This suggests that the reporting frequency will be higher in smaller countries than in larger ones. Such a bias could lead to serious flaws in comparisons between countries (although not over time). Nonetheless, because there are more large companies in the bigger countries, this leads to better coverage in the ERM. Thus, there are likely to be conflicting tendencies in relation to bias as regards country size, which gives little indication of the size and direction of the bias.

The ERM also reports cases of job creation. As the major proportion of ERM cases are identified in newspapers, one could expect – in accordance with the journalist adage that 'the best news is bad news' – a higher rate of reporting of job losses relative to the reporting of job creation.

Business information services

While newspaper articles may be the only means currently available of collecting public information on restructuring, there are limitations to this approach. For instance, it is difficult to monitor the quality of reporting in many countries and several languages. Moreover, observed variations in restructuring between the countries may arise, not due to actual differences as such, but rather due to different traditions, practices and the competence of the national media. As a result, the ERM is closely observing advances in business information services, which are becoming increasingly available online and which are presented in an accessible and consistent manner. Although such services do not appear to be sufficiently developed for all Member States as yet, they may well be in the near future. Business information companies have two basic sources of information: information received directly from the company or sector organisation, or information sourced from the media. Two interesting examples of such services are Amadeus and Faktiva.

The Amadeus database, produced by Bureau van Dijk (BvD), provides private sector, company-level data for European countries and covers all sectors, with the exception of the financial sector. The local data providers collect balance sheet information and data on the sector of operation and the number of employees from the national Chambers of Commerce. They then apply uniform formats to allow cross-country comparisons. To be included in Amadeus, a company must satisfy at least one of the following criteria: have operating revenues equal to at least €1.5 million, total assets equal to at least €3 million, and at least 15 employees for the UK, Germany, France and

Italy.²¹ The database contains much financial and company information, including information on the number of people employed, and is of a similar type to the Dun and Bradstreet Market Identifier (DMI) from the US. Data from the DMI are subjected to numerous quality evaluations.²² In terms of estimating job flows, however, the DMI suffers from two key problems. First, there are major discrepancies (of the order of 10 million jobs) between the DMI and census data, thus casting doubts on any statistical analysis based on the DMI. Secondly, the DMI data contains many errors in recording the opening and closure of enterprises. A study by the US General Accounting Office found that 81% of the mass layoff events were erroneous. Other studies have found major errors in information pertaining to company openings.

The Faktiva service uses more than 10,000 sources from 152 countries in 22 languages, and over 900 sources are available on or before the date of publication. It accesses over 120 newswires, including Dow Jones, Reuters, the Associated Press (AP), Agence France Presse (AFP), Agencia EFE and other industry, press release and local newswires. The service also provides same-day and archival coverage of *The Wall Street Journal*, *Financial Times*, *Les Échos*, *Frankfurter Allgemeine Zeitung*, *The Irish Times* and other local newspapers. In addition, it uses television and radio transcripts from the BBC and other broadcast stations. It also uses key business and industry publications like *The Economist*, *Finanz & Wirtschaft*, *Business Week* and *L'Express*. While electronically based business information services are probably not yet sufficiently well developed (and have a strong English language bias) to supply the coverage and analysis provided in the current ERM, they could almost certainly be used as a potential source at some time in the near future, possibly substituting some parts or even all of the ERM.

Job creation at restructuring

As mentioned earlier, the concept of job creation at restructuring is difficult to deal with due to conceptual and practical reasons. The act of restructuring, both in the public perception and in reality, usually means the loss of jobs in the short term, even if this may be required to maintain competitiveness, and thus secure jobs in the long term. Moreover, the cutting back of current employment levels may even provide the basis for subsequent job growth in the future.

Nonetheless, job creation is very obviously related to restructuring in the short term in one particular context – when jobs are lost in one company or location in order to be moved to another company or location. This occurs either through the process of outsourcing or offshoring. While it might appear strange to view offshoring as a form of job creation, it depends of course on the geographical context. Jobs may be lost due to offshoring, for example, in Germany, but not from the EU. Some evidence, for instance in the ERM, indicates that much job creation in the new Member States emanates from companies located in the EU15.

There are a number of factors that make the measurement of job creation more difficult than job loss. Probably of most practical importance is the fact that job loss tends to be perceived as a much more dramatic and problematic occurrence. In one respect, this is literally true. Research in the job creation and job destruction literature shows that while job destruction is heavily concentrated in

²¹ See Gomez-Salvador et al (2004) and Messina and Vallanti (2006) for examples of research based on these data.

²² See Davis et al (1996) for references and a summary.

the trough of the recession, job creation is more evenly distributed throughout the business cycle.²³ Events that cluster at certain points in time are more noticeable than dispersed occurrences. Moreover, the decision to cut jobs will affect identifiable, possibly organised, workers, while job creation will not. This is also reflected in labour law: dismissals, particularly the procedures, can be very strictly regulated while hiring is much less so.²⁴

Another statistical problem in relation to measuring job creation at restructuring is that while restructuring is often enacted at the same time as a reduction of the workforce, job creation may occur at a later stage and may thus not be as easily observable. Evidence regarding subsequent job creation some period after job loss is mixed. Baumol et al (2003) find some weak evidence of this, while US literature on job creation and job destruction does not appear to support this view. For example, Davis et al (1996) observe significant persistence in relation to job destruction, in the sense that jobs lost tend to stay lost.

Statistical sources measuring job creation

Compared to job creation, therefore, job loss is often deemed more newsworthy, of greater policy concern and requiring more administrative procedures. Moreover, job loss occurs in bursts and tends to be located closer in time to the restructuring process than the possible ensuing job creation. Despite these problems, some potential statistical sources do exist in relation to job creation.

Job vacancy statistics, for example, are in principle a very useful source of information on the hiring of staff. They constitute a measure of concrete intentions declared by the employer to hire workers and could thus be an excellent leading indicator of labour demand. In a sense, they are to hiring what notification is to collective redundancies. Moreover, in some Member States, there is a legal requirement to notify the public employment services of job vacancies. However, as there is no European legislation in this area and as such legal requirements, if properly implemented, would probably impose an unacceptable administrative burden on the employer, this is hardly a realistic avenue for further development. Moreover, information on vacancies is increasingly being gathered through surveys of employers; in fact, some informal cooperation already exists between the Member States on vacancy statistics, which is coordinated by Eurostat. These surveys may include not just information on vacancies but also on recent recruitment. However, in the context of restructuring, the most obvious problem with vacancy data, and indeed with hiring data generally, is that the creation of most vacancies is totally unrelated to restructuring. A vacancy can arise to replace workers who voluntarily quit to take up another job or who left the labour market for good to take up their pension. This type of data is usually used as a leading indicator for labour demand or a measure of skill mismatches in the labour market.²⁵

Other possible sources of information relate to some of those already mentioned in relation to job loss. Establishment or company registers have the same strengths and weaknesses in terms of

²³ See, for example, Davis et al (1996).

²⁴ This is not to say that hiring is without regulation. Anti-discrimination legislation is important here as is the distinction between open-ended and fixed-term contracts.

²⁵ The Job Openings and Labor Turnover Survey (JOLTS) in the US is an interesting example. Its primary purpose is to measure the presence or extent of labour shortages. JOLTS samples monthly approximately 16,000 US business establishments in the public and private sectors and collects data on employment, job openings, hires, quits, layoffs and discharges, and other separations.

monitoring job creation as have already been outlined in relation to job losses. It has also been argued that the ERM may less accurately capture job creation. Labour force surveys could conceivably, and some do, obtain estimates of the number of individuals taking up new jobs, by asking how long current jobs have been held. This information is not available in the ELFS, however.

Globalisation and restructuring

Given the current policy debate throughout Europe, it is impossible to ignore the issue of globalisation and restructuring. This issue is more complicated than just merely measuring the extent of job loss or job creation, as it requires identification of the reasons and thus richer data and a more sophisticated analysis.

Globalisation is not a new phenomenon and it is clear that earlier spells of job loss at restructuring in Europe were largely due to competition from abroad. The massive decline in European textiles, iron and steel, and shipbuilding in the 1970s and 1980s are striking examples of shifts in the international division of labour, which had severe consequences for certain European regions – possibly more serious than the job losses currently being experienced. Nonetheless, the current globalisation has some unique features, which have particular consequences for restructuring in Europe.

First, there has been a rapid recent increase in foreign direct investment. However, even in a global perspective, this investment mainly occurs between the Member States of the EU, and can hardly be a matter of concern for the EU as a whole. The Single Market programme promoted and envisaged such a development, and while enlargement has raised some concerns among workers in the EU15, it is surely the case that such developments are yielding net welfare gains for the EU as a whole.

A second feature of current globalisation is that political events in recent decades have led to a significant increase in countries fully participating in world trade, along with a massive increase in the potential global labour force. These countries, primarily the Asian giants China and India, are developing rapidly and have the potential to compete in high-skill and high-value added activities. Another important driver is the increased preference of many companies to be based locally, so that they are closer to the customer. Moreover, the increased openness of low-cost countries to foreign investment, together with advances in information and communication technologies, allow for a different international reallocation of labour than that which occurred decades earlier during the decline of heavy European industry. Previously, the main negative impact of foreign competition was both job and capital destruction, with foreign companies (shipbuilding, textiles, etc) replacing the higher cost European producers. Today, however, both the relative ease of establishing companies abroad and technological advances have facilitated the phenomenon of offshoring. While, as in the 1970s and 1980s, some jobs will be lost to labour abroad, nowadays these activities may still be conducted by the domestic (European) companies serving domestic markets.

It may be useful at this point to refer to research regarding the impact of trade in general on employment. The overriding conclusion of this research is that fair and free trade, through the exploitation of comparative advantage, yields net welfare gains for the world as a whole. Does it

follow, therefore, that trade say with China is good, for example, for Germany? Conventional wisdom appears to contend that while there are winners and losers (at least in the short term), in terms of average GDP per capita, Germany will gain. Although some jobs will be lost, trade will create other jobs in Germany. Moreover, the cheap manufacturing of goods in China, which are then sold to German consumers, will increase the average real wage and the net result will be positive in Germany. However, Paul Samuelson, one of the most influential economists of the last 50 years, underlines that an increase in productivity in China in goods over which Germany has a comparative advantage (typically high-tech activities) can induce 'permanent lost per capita real income'. Samuelson (2004) bases his analysis on Ricardo's theory of comparative advantage, i.e. the very model that has provided the basis for economists' very optimistic view on the benefits of trade for all countries. He concludes that this 'deals some weighty blows against economists' oversimple complacencies about globalisation'. Thus, welfare can be maintained in Germany, only if it continues to maintain a productivity gap with China in high productivity activities. As China is continually increasing its productivity, even in the high-tech sectors, the only viable strategy for Germany is to ensure that it remains ahead of the high-tech countries. The only alternative is protectionism, which will yield other losses.

What then are the empirical results regarding the impact of trade liberalisation on employment in developed countries? Such a general question will yield quite disparate answers. However, there is broad consensus among economists that the net employment effects of changes in exports and imports have not been significant in OECD countries, despite significant adverse effects in particular industries. From a policy perspective, more interesting results can be obtained at a less aggregate level. The impact of trade on various types of labour (skilled or non-skilled) is widely researched and suggests, not surprisingly, that trade induces a shift from low to high-skilled labour in EU15 countries. However, as already pointed out, much job creation and job destruction occurs within sectors, and reliable estimates of the impact of trade on employment can surely only be obtained from research based on establishment level data and gross job flows. This research is still in its infancy.²⁶

Offshoring and outsourcing

Some confusion still persists about the concepts of offshoring and outsourcing. Offshoring is more specific than just the loss of jobs due to international competition. A more appropriate definition of offshoring is when domestic (European) production is replaced by foreign production due to a decision by a producer to cease or reduce domestic production (in Europe), in order to purchase or outsource (subcontract) production abroad. The definition underlines the continued presence of the original producer company in Europe. It also emphasises that the offshored activities may either continue to be owned by the company or may be outsourced.

Outsourcing occurs when some economic activity ceases to be performed within the company (in-house) and is instead purchased from another company. The key issue is whether the company obtains intermediary goods or services through hierarchical control within a single organisation or through the market. There is extensive literature on the boundaries of the company, and on when it is rational to produce in-house or to purchase from the market. The industrial organisation

²⁶ See Klein et al (2003) for a review of the literature. See also Chapter 5 of *Employment in Europe* (European Commission, 2004) and various publications of the OECD, such as OECD (2005a), OECD (2005b).

literature concludes that outsourcing may be profitable when inputs are standardised (can be specified), when there are several competing suppliers, if there are economies of scale in the supply firms that are too large to be duplicated by the buyer, when there are economies of scope that would force the procuring firm into unrelated business, and when there are no specific investments on the part of either the buyer or seller.²⁷ Outsourcing is a significant recent trend in work organisation, and to some extent the decline in manufacturing employment is due the reclassification of economic activities that were previously done within a manufacturing company and which subsequently become outsourced to companies classified as being in the services sector.

Table 1 lists the various dimensions of offshoring and outsourcing. Whether offshoring is defined as the transferral of activities between EU Member States, or only when relocation occurs to countries outside the EU, depends on context and perspective. For example, relocation of call-centres from the EU15 to the NMS10 is a very similar phenomenon, from the perspective of the workforce in the EU15, to that of the activities being moved out of Europe entirely. Nonetheless, the European Commission would rightly not view these two events as being equivalent.

Table 1 Offshoring and outsourcing – dimensions of location and control

Change of location	Change of ownership	
	No change – own company	Change to another company
Same country	Internal relocation	Outsourced
Other EU country	Offshored	Offshored and outsourced
Outside the EU	Offshored	Offshored and outsourced

Offshoring may or may not lead to the outsourcing of the offshored activity. However, the distinction between whether an offshored activity is outsourced or not may be blurred, and it is not uncommon that an offshored activity can entail joint ownership between the original domestic producer and a partner in the host country. Moreover, from the perspective of the domestic workforce, the distinction may not be of any relevance.

Measuring offshoring and outsourcing

How then is the employment impact of offshoring to be measured, regardless of whether it is outsourced or not? Offshoring is more complex to measure through surveys than simply measuring the extent of job loss at restructuring. It requires considerable analytical expertise that may not be obtainable in large representative company surveys. As a result, the level of investigation required to accurately ascertain the employment impact of offshoring probably necessitates in-depth case studies.

Most estimates of the employment impact of offshoring are based on macroeconomic estimations of aggregate data. One method starts with the measurement of geographical shifts in the supply of intermediary goods and services to domestic firms, using input-output tables that distinguish between the inputs’ country of origin. Input-output tables calculate the value of inputs (of goods

²⁷ See, for example, Milgrom and Roberts (1992) and Roberts (2004).

and services) from various sectors used in another sector's output.²⁸ Once shifts in the source of the supply chain are identified, then the domestic impact on employment of these shifts must be estimated. Hijzen et al (2005) estimate labour demand equations to ascertain the impact on domestic employment of the shift in intermediate purchases to abroad.²⁹ The main focus of the study is not so much the level of labour demand, but rather the occupation and skill shifts. Not unsurprisingly, they find that unskilled labour suffers most.

As much job reallocation occurs within sectors, reliable estimates of offshoring should be based on establishment level data. Aubert and Sillard (2005) base their study of the employment effects of offshoring on individual establishments in French manufacturing between 1995 and 2001. Offshoring is identified by the simultaneous decrease in establishment level employment, the decrease in production, and the increase in imports of the same goods. Aubert and Sillard find that, on average, 13,500 jobs are lost per year due to offshoring. This amounts to 0.35% of employment in these industries; 47% of this job loss was to low-wage countries, with China being by far the largest source of job loss.

There are still a number of difficulties with all of these approaches, for example, problematic aggregation issues regarding the classification of imports and production. Moreover, when the offshored company is owned by the domestic importer, the problematic issue of pricing practices with multinational operations may distort the real value of imports. Moreover, the macro impacts may be smaller for many reasons, not least because the alternative to a partial offshoring of the activities may be a total cessation of all activities in the home country.

Another approach is that of van Welsum and Vickery (2005), which attempts to identify possible occupations that may be at risk of being outsourced. In their study of service outsourcing, occupations at risk are defined as those with an intensive use of ICT, an output that can be traded/transmitted by ICT, high codifiable knowledge content, and low face-to-face contact requirements. They estimate that such occupations constitute an upper level of 20% of OECD employment and that this share increased in the EU15 from 17% in 1995 to 19% in 2003.

The obvious difficulties entailed in measuring these phenomena warrant an outline of ERM data on offshoring, which will be presented in the next chapter.

Statistics on restructuring – the way forward

When deciding on the appropriate statistical sources and methodology in relation to employment and restructuring, one should first be clear about the purpose of the exercise. The statistics in the ERM are primarily designed to provide timely information on planned restructuring activities in terms of the number of jobs created and lost and in the context of the type of restructuring, sector and region. This is quite a different issue to examining the subsequent labour market and general welfare outcome of the employees who initially lost their job due to restructuring.

²⁸ The European System of Accounts ESA 95 has established a compulsory transmission of tables of the input-output framework by the Member States, valid as of the end of 2002. These are compiled at five year intervals and cover the period from 1995 onwards, with 2000 being the most recently available. There is a considerable time lag in producing such tables. There is also quite a high level of sector aggregation. For example, other transport equipment includes sectors as diverse as railway equipment, aerospace and shipbuilding.

²⁹ Hijzen (2005) provides a useful overview of data, methods and some results.

The most obvious means of collecting information on the extent of jobs lost due to restructuring is through labour force surveys. These surveys have a clearly defined sampling frame (based on population census type data), and thus allow random sampling and statistical inference up to the level of population. Moreover, the ELFS covers the entire EU in an acceptably standardised format and is available on a quarterly basis with relatively short publication lags. However, the survey does not currently provide any direct information on the extent of job loss due to restructuring, only the previous occurrence of collective dismissals for those not employed at the time of interview. Nonetheless, in terms of calculating the number of people experiencing job loss, and their characteristics (age, sex, region, etc), there is no better potential source than the ELFS. In principle, it requires the inclusion of similar questions for the employed respondents as those currently posed to the non-employed respondents, i.e. asking if the individual had a previous job and, if so, their reasons for leaving the job. It is also important that additional questions address the issue of voluntary and 'involuntary' quits more comprehensively than the existing questions asked of the non-employed respondents.³⁰ If this course of action was to be taken, experiences from the Displaced Worker Survey in the US would also be a useful reference.

The major shortcoming of the labour force survey approach is that it provides only very limited information on the company and the restructuring process. One cannot, for example, link displaced individuals in the ELFS to particular restructuring cases and can only expect (probably unacceptably) poor information on the size and sector of the restructuring company. Moreover, an employee cannot be expected to provide any information on most aspects of the restructuring process, including the total number of redundancies and the reasons for restructuring. For this, some information from, and contact with, the company is required. Representative company surveys are rare and the only EU-wide company survey of this kind – the Foundation's European survey on working time and work-life balance, which focuses almost exclusively on working time issues – does not ask about restructuring. There are many problematic issues with company surveys such as: the sampling frame, finding the appropriate respondent, and non-response issues. However, instead of sampling all companies, a more direct and efficient approach to obtaining information at the company level would be to observe only those companies signalling that job loss due to restructuring is occurring.

The notification data is the obvious way forward, particularly as it is timely, and indeed forward looking, and is based on EU legislation. In accordance with the EU directive on collective redundancies, the data should provide information on: the reasons for the projected redundancies; the number of categories of workers to be made redundant; the number and categories of workers normally employed; the period over which the projected redundancies are to be put into effect; and the criteria proposed for the selection of the workers to be made redundant. As outlined earlier, some principal problems remain with this data, but as the Swedish example illustrated (see Figure 3 on p.14), it provides a convincing picture of the variation of notification over time. While there is no firm evidence as yet, there is little reason to suppose that the information is biased as regards sector or region. Ongoing work within the ERM will, by 2007, be able to provide a more concrete assessment of the availability and quality of this data, which will enable the Foundation to suggest improvements for the quality and availability of this data. Of particular interest in the longer term would be to use the notification event as the first step towards a more systematic

³⁰ In addition, the longitudinal dimension of most labour force surveys could also allow for some information on the consequences of job loss in terms of a follow-up of the labour market experience of the employees made redundant.

follow-up by the public authorities, along the lines of the MLS approach in the US. For example, a short questionnaire on the reasons for and enactment of the redundancies would be very useful.

As the ELFS and notification data approaches complement each other, the ERM's proposals cover much of the required information on job loss at restructuring in Europe: the ELFS data for the total number of workers affected (and their characteristics) and the notification data for the company level and restructuring process information. Nonetheless, a major weakness of this combined approach, and of most other approaches, is the lack of information on small companies that are under the notification thresholds.

As explained earlier, the issue of job creation at restructuring is conceptually and practically much more difficult. However, a general measure of new recruits could be obtained by asking the employed people in the ELFS if they have recently obtained their current job. Reliable measures of job creation (and of job destruction), even for small companies, can only be obtained from sources within the enterprise or company itself.

Registers of establishments and employment levels are even of interest in relation to job loss. These registers do not yet cover every sector in all the Member States and, at least currently, have too long a production lag to function as a monitoring tool. However, it must be strongly emphasised that this is by far the best data source for analytical work on restructuring, not only from the perspective of the company, but also as a source of reliable estimates of the labour market consequences of restructuring, through the use of linked employee–employer datasets.

Table 2 summarises the main points as regards the future development of statistics on restructuring.

Table 2 Data on the employment effects of restructuring – the way forward

The ERM

- Ongoing internal quality control has been enhanced, with editing and quality control being conducted in-house at the Foundation since March 2006.
- The representativeness of the ERM is to be checked against the notification data.
- Ongoing investigations are being conducted on the use of other business information services as a potential quality control device and as a complement to the ERM.

Other feasible sources that could be developed in the short to medium-term

- It would be worthwhile adding a few questions to the ELFS on respondents' recent experience of job loss. This will give a good estimation of the total number of persons affected and the breakdown by age, sex and region.
- The notification requirement in the collective redundancies directive is an underused source of information, which could make up for the limitations of the ELFS, i.e. by providing information on the company and on the restructuring process. This could be complemented by a follow-up survey.

Long-term development

- More comprehensive development and harmonisation of establishment or company level registers would also be beneficial. This is by far the best means of providing data for the analysis of restructuring. It applies particularly for an economic analysis from the company perspective.
-

What then of the future of the ERM? Since March 2006, the ERM has been reorganised, with quality control now being carried out in-house while a major review is due to be conducted in early 2007, all of which will hopefully improve quality. Earlier on in the chapter, some indication of the

current situation regarding the use of electronic business information services as a complement to the ERM was outlined; further explorations of this will be conducted with a view to a systematic use of these sources. While some probable sources of bias in the ERM have been outlined, there is still no firm evidence regarding the representativeness of the ERM. Some firmer indication of possible biases will be provided in 2007, based largely on comparisons between the notification data and the follow-up case studies of company restructuring announced in the ERM.

Evidence of recent restructuring in Europe

The previous chapter examined the different EU-wide sources that provide evidence of the process of structural change and the enactment of restructuring. In this chapter, the focus is on how many jobs were lost or gained due to restructuring (job flows). The issue of what happened to these individuals after losing their jobs (worker flows) will be taken up in the next chapter. In the first part of this chapter, data from the ELFS describes the net employment outcome of the ongoing structural change within the EU. The second part outlines findings of the ERM in relation to recent restructuring.

Before this, a brief mention should be made of estimates cited in research literature of the incidence of job loss, termed as 'displacement'. As is clear from Chapter 1, there are many potential means of measuring displacement. Kuhn (2002) made the only attempt to gather and analyse information on displacement from several countries, using a number of different statistical sources. The countries included in the research were Canada, the Netherlands, France, Germany, Japan, the UK and the US. Attempting to generally account for the different biases in the various methods, he concluded that: 'we have yet to see convincing evidence of a modern capitalist economy with a total displacement rate very different from four to five percent per annum'. In all the countries Kuhn examined, men, unskilled people and young persons were found to be more likely to experience displacement. The impact of age, however, is due to the correlation with tenure (years on the job); thus, short tenure is associated with a high displacement probability.

Net employment effects of structural change in the EU

The net labour market effects of structural change between 2000 and 2005 can best be summarised by examining changes in the level, and shift in the composition, of employment. Table 3 (overleaf) presents the relative growth rates and employment structure by broad economic sector (NACE 1 classification) in 2000 and 2005.³¹ These years represent somewhat similar phases in the business cycle and so, to some extent, remove the distorting effects of the business cycle on comparisons between employment levels.

The primary sectors – agriculture, forestry, fishing, mining and quarrying – continue to demonstrate a long-term relative decline. As these represent important sectors in the NMS10, their decline has led to the loss of a very substantial number of jobs in these countries. There are reasons to suppose that agriculture will continue to be the source of significant job loss, particularly in the NMS10, for many years to come. This is due to the ongoing rationalisation of the agriculture sector, mainly in the eastern European countries as a consequence of their adoption of the Common Agricultural Policy (CAP), and to the implementation of the CAP reforms throughout the EU25. This underlines the often neglected fact that a major share of job loss due to structural change is actually still found in agriculture. Manufacturing, the largest of the NACE 1 sectors, also continues its long-term decline. This is, however, solely attributable to its decline in the EU15, as the NMS10 figures are quite stable. Employment in both the hotels and restaurants sector and business services sector exhibit high job growth and contribute significantly to the aggregate increase in employment. The rapid increase in business services in the NMS10 (38%) is striking, and presumably this sector will

³¹ The relative growth rate is equal to $100 * (\text{employment}_{2005} - \text{employment}_{2000}) / \text{employment}_{2000}$.

keep on growing as these economies continue to develop. In particular, the three sectors – education, health and social work, and social and personal services – have proved to be major contributors to employment growth.

Table 3 Employment level and growth in the EU, by NACE 1 sectors, 2000–2005 (%)

	EU25			NMS10			EU15		
	change	level		change	level		change	level	
	2000–2005	2000	2005	2000–2005	2000	2005	2000–2005	2000	2005
Agriculture, etc	-11.0	5.2	4.4	-12.1	12.4	10.9	-10.4	3.9	3.3
Fishing	-16.6	0.1	0.1	-5.4	0.1	0.1	-18.1	0.1	0.1
Mining and quarrying	-17.2	0.5	0.4	-26.5	1.5	1.1	-9.2	0.3	0.3
Manufacturing	-5.8	20.4	18.4	0.6	22.5	22.5	-7.2	20.1	17.7
Electricity, gas and water supply	-2.9	0.9	0.9	-8.2	1.9	1.7	-0.6	0.8	0.7
Construction	5.2	7.9	7.9	-3.3	7.7	7.4	6.7	7.9	8.0
Wholesale and retail trade	4.0	14.6	14.6	2.0	14.0	14.2	4.3	14.8	14.7
Hotels and restaurants	13.8	3.8	4.2	12.5	2.5	2.9	13.9	4.1	4.4
Transport, storage and communications	2.2	6.3	6.2	-6.9	7.2	6.7	4.2	6.1	6.1
Financial intermediation	-1.9	3.2	3.0	-8.4	2.3	2.1	-1.1	3.4	3.2
Business services	23.6	7.9	9.4	38.3	4.3	5.9	22.3	8.7	10.1
Public administration and defence	3.5	7.4	7.3	10.9	6.1	6.8	2.4	7.6	7.4
Education	10.2	6.8	7.2	5.1	7.3	7.7	11.2	6.7	7.1
Health and social work	13.3	9.0	9.8	-2.0	6.4	6.2	15.1	9.6	10.5
Social and personal services	10.3	4.5	4.7	1.2	3.8	3.8	11.6	4.6	4.9
Private households	32.4	0.9	1.1	88.0	0.1	0.2	31.7	1.1	1.3
Extra-territorial organisations	-11.6	0.1	0.1	-22.2	0.0	0.0	-11.2	0.1	0.1
Total	4.5	100	100	0.4	100	100	5.2	100	100

Note: Figures for Belgium and Luxembourg are from 2000 to 2004.

Source: ELFS, 2000–2005

The employment decline in the primary sectors and in manufacturing, along with the increase in business, personal and some social services, is a well-known, long-term trend.³² The rate of structural change in terms of shifts between sectors depends crucially on the level of sector aggregation. The OECD (2005a) finds that the rate of change has been relatively stable over the past two decades. However, its findings also show that while the rate of change in broad shifts between the primary sectors, industry and services have declined, there is some indication of an increased change within the various sub-sectors of the ever-growing services sector. This implies that structural changes in employment patterns, to an increasing extent, are taking place within the services sector. Again, it is likely that this trend will continue, as the services sector becomes ever more deeply affected by both technological change and international competition.

³² See, for example, Elfring (1988), OECD (2001), Storrie (2002) and *Employment in Europe* (European Commission 2004).

Tables 4 and 5 show changes in employment growth according to the NACE 2 sector classification, which is more detailed than the classification presented in Table 3. The tables focus on the fastest growing and most rapidly declining sectors in terms of changes in the absolute level of employment. As such, they provide a general picture of the main sectors that have impacted on job growth in Europe since 2000.³³

Table 4 Employment changes in top 10 growing and declining NACE 2 economic sectors in the EU15, 2000–2005 (absolute increase/decrease in thousands)

	Top 10 employment growth sectors	Change		Top 10 employment decline sectors	Change
1	Health and social work	2,261	1	Agriculture, etc	-624
2	Other business activities	2,143	2	Manufacture of textiles	-324
3	Education	1,176	3	Manufacture of wearing apparel	-317
4	Hotels and restaurants	885	4	Manufacture of machinery	-281
5	Construction	828	5	Manufacture of electrical machinery	-254
6	Retail trade	595	6	Leather tanning and dressing	-148
7	Private households	523	7	Manufacture of office machinery, etc	-148
8	Computer and related activities	448	8	Manufacture of radios, televisions, etc	-134
9	Transport services, travel agencies	352	9	Manufacture of fabricated metal products	-120
10	Recreation and sport	308	10	Financial intermediation	-116

Note: Figures for Belgium and Luxembourg are from 2000 to 2004.

Source: ELFS, 2000–2005

There are some clear differences in the pattern of employment growth by economic sector between the old and the new Member States. Table 4 shows that, in the EU15, the top 10 growth sectors consist of either service sectors or the construction sector, while the top 10 declining sectors are all manufacturing related, with the exception of agriculture and diverse financial services. It is also notable that the two, largely public or ‘not for profit’, sectors of health and social work and education contribute to much of the recent employment growth in the EU15. There are five common sectors in the top 10 lists of both the EU15 and the NMS10, namely: construction, business services, hotels and restaurants, health and social work, and retail along with computer and related activities. However, unlike the EU15, two manufacturing sectors within the NMS10 do record high employment growth, i.e. motor vehicles and electrical machinery. In both the NMS10 and the EU25, the manufacturing of food, textiles and wearing apparel are among the top 10 declining sectors. These sectors are typically viewed as being among the most low-tech in the manufacturing sector. However, in the EU15, the decline of manufacturing also extends to many other sub-sectors, and it is interesting to observe that while the manufacturing of fabricated metal products is in the top 10 declining sectors in the EU15, it is one of the top 10 growth sectors in the NMS10. This suggests a geographical shift in production. The EU15’s top 10 list also includes the two sectors, recreation and sport and private households. These are perhaps not typically perceived as high growth sectors but are typical expenditure patterns in high income economies.

³³ Note that these figures do not correspond to either job creation or job destruction specifically. These net employment growth figures also include job destruction. Moreover, the figures represent absolute changes, unlike the figures in Table 3 which represent relative changes.

In many respects, when comparing the NMS10 and the EU15, two distinct geographical regions emerge, each of which is at different phases of their economic development.

Table 5 Changes in employment in the top 10 growing and declining NACE 2 economic sectors in the NMS10, 2000–2005 (absolute increase/decrease in thousands)

	Top 10 employment growth sectors	Change		Top 10 employment decline sectors	Change
1	Construction	211	1	Agriculture, etc	-191
2	Other business activities	116	2	Manufacture of food products	-89
3	Hotels and restaurants	102	3	Manufacture of wearing apparel	-63
4	Health and social work	100	4	Manufacture of textiles	-43
5	Manufacture of fabricated metal products	75	5	Leather tanning and dressing	-42
6	Retail trade	61	6	Land transport	-35
7	Public administration	60	7	Post and telecommunications	-31
8	Manufacture of motor vehicles	49	8	Mining of coal and lignite	-26
9	Computer and related activities	48	9	Electricity, gas, etc	-23
10	Manufacture of electrical machinery	36	10	Extraction of crude petroleum, etc	-13

Note: Poland has been excluded, as NACE2 data are only available from 2004 onwards. This skews the NMS10 figures quite considerably and does not allow for a comparison between Table 3 and Table 5.

Source: ELFS, 2000–2005

Structural change also has a regional dimension and recent employment performance has also varied greatly throughout the EU. The map in Figure 4 shows the absolute increase in employment per 1,000 people in the NUTS 2 regions³⁴ between 2000 and 2005.

The map provides a clear picture of where employment has increased in the last five years throughout Europe. Ireland and Spain show high employment growth that is quite evenly distributed throughout the regions. Pockets of high growth are found in parts of France (most notably in the mid-west regions), Italy, Greece, the UK (notably in parts of the west coast) and in southwest Sweden. Among the new Member States, employment growth was greatest in Cyprus and Latvia. While the overall picture in the eastern part of Europe is rather bleak, there are some pockets of relatively high growth in Poland (Slaskie) and in the Czech Republic (Stredni Cechy). The most significant decline in employment is to be found in the majority of regions in Poland and in eastern Germany. In France, the Lorraine region shows the highest level of employment decline. Pockets of more modest decline can be found in Greece, Italy, all of Denmark, and the UK.

Finally, Table 6 (p. 32) combines the sectoral and geographical aspects of employment growth. In general, it shows that many of the sectoral trends found in Tables 3 to 5 are quite evenly distributed among the Member States. In terms of the top five growth sectors, the most geographically widespread is construction, which appears in the top five growth sectors in 18 Member States. The construction boom is particularly strong in Spain, which has seen a net increase of some 635,000

³⁴ The Nomenclature of Territorial Units for Statistics (NUTS) was established by Eurostat more than 25 years ago in order to provide a single uniform breakdown of territorial units for the production of regional statistics for the EU.

jobs. Construction is also the major contributor to job growth in Ireland, Lithuania, Latvia, Poland, Slovakia and in Italy, where employment in construction has increased by 344,000 jobs.

Figure 4 Employment increase per 1,000 people in NUTS 2 regions, 2000–2005

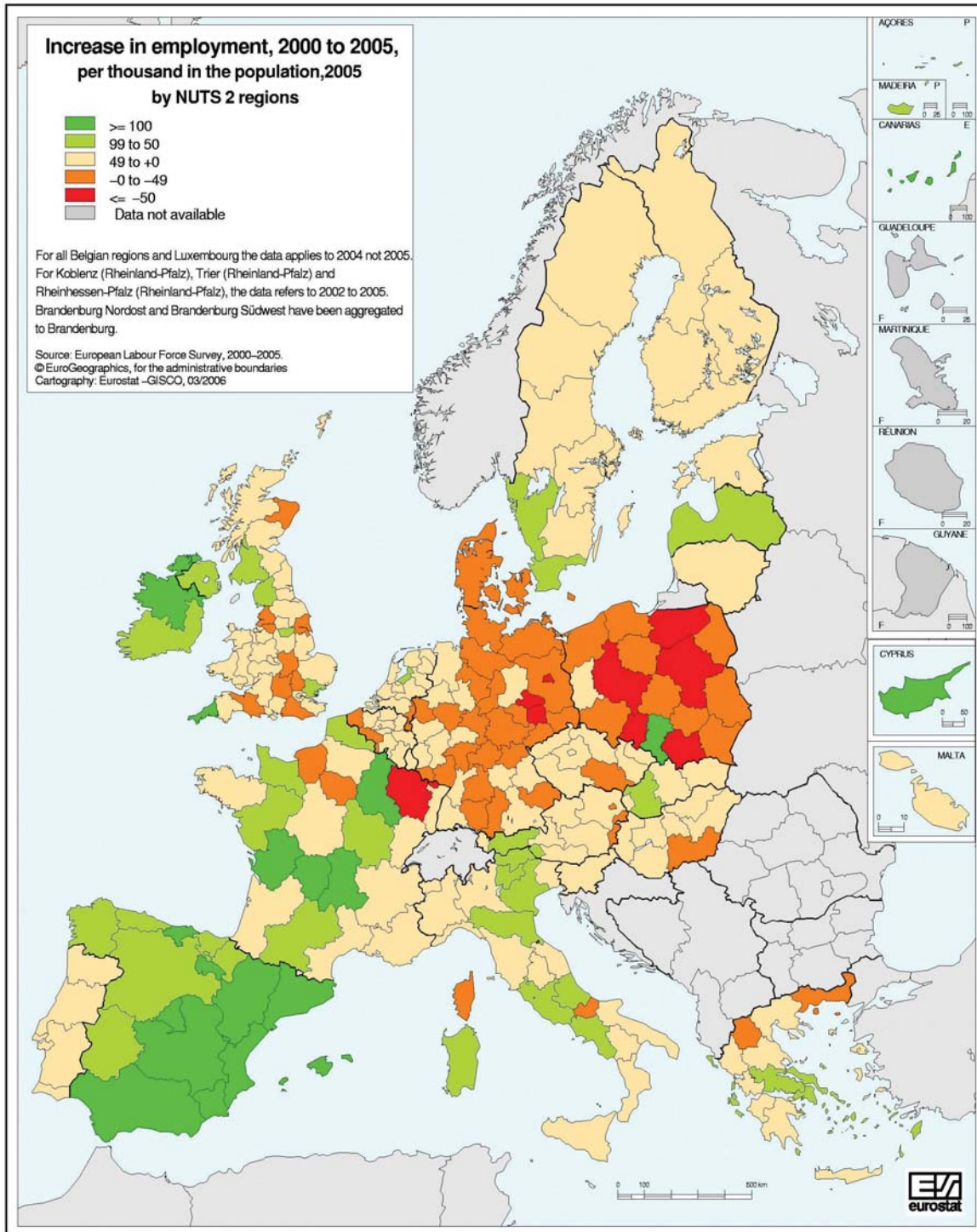


Table 6 Increase in employment in the top five NACE 2 economic sectors (absolute increase in thousands) in each Member State, 2000–2005

NACE 2 code	000's	NACE 2 code	000's	NACE 2 code	000's	NACE 2 code	000's	NACE 2 code	000's
Austria		Belgium		Cyprus		Czech Republic		Germany	
85	54,0	85	31,8	45	11,5	85	43,0	74	422,8
74	52,9	80	24,2	95	8,8	28	34,9	85	304,3
67	27,8	74	22,0	52	7,2	34	25,6	93	173,9
55	24,6	75	17,7	80	5,6	55	25,5	72	160,4
51	18,0	92	12,9	74	4,8	45	25,0	34	153,4
Denmark		Estonia		Greece		Spain		Finland	
80	17,2	80	11,6	74	72,4	45	635,3	85	42,3
45	13,8	50	9,4	45	71,1	74	390,2	74	21,1
90	13,1	28	9,3	80	61,1	55	316,0	52	14,8
85	12,2	55	5,6	52	56,1	85	304,2	51	9,7
52	10,5	31	5,5	75	41,6	80	255,2	70	7,8
France		Hungary		Ireland		Italy		Lithuania	
85	538,4	74	52,7	45	75,0	74	715,5	45	42,2
52	186,1	45	48,1	85	53,9	45	344,8	52	17,8
74	183,7	52	32,1	52	25,4	55	320,0	85	15,7
75	151,3	55	25,4	74	22,6	85	252,5	60	14,2
45	98,0	32	23,2	80	20,0	51	208,8	50	10,2
Luxembourg		Latvia		Malta		Netherlands		Poland	
75	3,3	45	32,5	52	1,9	85	166,2	45	52,1
45	2,3	02	13,4	75	1,7	52	115,2	52	51,6
74	2,1	60	12,1	28	1,6	80	84,7	27	23,6
91	1,6	85	11,6	18	1,5	36	73,4	28	22,3
85	1,5	52	10,6	45	1,4	75	48,2	74	21,6
Portugal		Sweden		Slovenia		Slovakia		UK	
85	64,1	80	149,1	29	12,1	45	38,5	85	455,3
74	46,2	74	65,5	74	11,5	74	26,2	80	350,0
51	43,1	45	34,4	45	11,2	31	24,4	75	304,3
80	42,7	75	24,7	80	10,5	55	22,6	45	269,0
72	17,0	73	20,6	55	6,8	34	18,8	52	175,0

NACE 2 classification Occurrence in country top five lists

Code	Occurrence	Code	Occurrence	Code	Occurrence			
02	Forestry, etc	1	50	Sale and repair of motor vehicles	2	75	Public administration	8
18	Manufacture of wearing apparel	1	51	Wholesale trade	4	80	Education	12
27	Manufacture of basic metals	1	52	Retail trade	13	85	Health and social work	16
28	Manufacture of fabricated metal products	4	55	Hotels and restaurants	8	90	Sewage and refuse disposal, etc	1
29	Manufacture of machinery	1	60	Land transport	2	91	Membership organisations	1
31	Manufacture of electrical machinery	2	67	Diverse financial services	1	92	Recreational, sporting activities	1
32	Manufacture of radio, TV, etc	1	70	Real estate activities	1	93	Other service activities	1
34	Manufacture of motor vehicles	3	72	Computer and related activities	2	95	Private households	1
36	Manufacture of furniture	1	73	Research and development	1			
45	Construction	18	74	Other business activities	17			

Note: Figures for Belgium and Luxembourg are from 2000 to 2004; figures for Poland are from 2004 to 2005.

Source: ELFS, 2000–2005

The major growth sector in the aggregate EU15 is health and social work (NACE 85), which is in fact one of the top five growth sectors in all the EU15 Member States, with the exception of Denmark, Sweden and Greece. The growth of business services is also evenly spread throughout the Member States. In absolute numbers, extensive increases in business services are to be found in Italy, Germany and Spain. While the growth of these services is also widespread in the NMS10, the increase has been particularly impressive in Hungary. The business services sector is also an important source of employment growth in Slovakia and Slovenia. Retail trade is another sector showing widespread job growth and appearing in the top five list in six of the new Member States. The apparent shift in the production of fabricated metal products (NACE 28) from the EU15 to the NMS10, as indicated in Tables 4 and 5, has led to high job growth in this sector in Estonia, Poland and Malta. Finally, in the Czech Republic, Slovakia and Germany, the important sector of manufacturing of motor vehicles ranks among the top five growth sectors.

Evidence from the ERM

The ERM has yet to undergo a rigorous representativeness check; therefore, caution should be taken regarding its use in describing restructuring from a macroeconomic perspective. Nevertheless, the ERM is useful in many other respects. It provides a large number of identifiable cases of restructuring, collected, edited and published in a consistent fashion. At the very least, it may be used to illustrate, using specific cases, some general trends found from other representative sources. The following section illustrates the recent structural changes in Europe in terms of net employment growth, as identified in the previous section, using ELFS data with ERM evidence. It subsequently presents some ERM data on offshoring, which could conceivably be considered as being representative.³⁵

ERM findings on structural change in Europe

While the ERM cannot claim representativeness as regards overall European employment trends, it is clear that it does detect many of the prominent trends. The identifiable cases³⁶ can provide more substance to the numbers and may even give an indication of the reasons for some of these macro trends. While the data on employment growth in the previous section referred to the years 2000 to 2005, the ERM data outlined in this section mainly refer to the most recent cases, i.e. those pertaining to 2005. Therefore, they provide information about some of the more recent trends. Indeed, as the ERM cases refer to ‘intended’ business creation or job loss, they may also provide some indication of short-term developments in the future.

Expansion of business services in eastern Europe

As was seen from Tables 5 and 6, business services are a major contributor to employment growth in eastern Europe. Many of the ERM cases in 2005 illustrate this growth. The sector (NACE 74) includes a wide range of business services. Among these are accounting, call centres, and business and management consultancy activities, which featured prominently in the ERM cases. Most of these cases pertain to Poland, where, according to the ELFS, employment in the sector increased by over 20,000 jobs between 2004 and 2005. Altogether, the 25 cases of business services’ expansion in Poland corresponded to the announced creation of over 12,000 jobs.

³⁵ Anke Reinhardt, a trainee at the European Monitoring Centre on Change, made a highly significant contribution to this section.

³⁶ More detail about these cases can be found on the ERM website: <http://www.emcc.eurofound.eu.int/erm/>.

In Poland, many companies have recently opened accounting centres. In September 2005, Capgemini Polska announced the investment of PLN 31.5 million (about €7.8 million³⁷) in an information technology (IT) and accounting centre in Cracow, which will eventually lead to the creation of 900 jobs. During the same month, Shell announced the opening of an accounting and financial centre, which will employ about 500 people. Tobacco giant Philip Morris chose Cracow to establish an accounting and European workforce management centre, which will also lead to the creation of some 500 jobs. In April 2005, Volvo Business Services announced plans to increase the number of jobs (mainly economist and IT specialist positions) at its Wrocław centre from 50 to 500 jobs. A Volvo spokesperson cited Poland's low-wage advantage and underlined the impact on profits for the whole group and thus for employment in Sweden. In addition, the case also indicates that another reason to invest in Poland may be the financial incentives provided by the Polish government. Accordingly, Volvo will benefit from nearly PLN 2 million (€494,974) in grants provided by the Polish government, as well as a tax-exempt site and a donation from the Labour Office. Altogether, the planned state contribution will amount to PLN 9.7 million (€2.4 million).

While the abovementioned cases relate to instances of offshoring – in terms of conducting business for high cost markets in low cost countries – other business service expansions concern an expansion into the eastern European market. For example, in August 2005, the Netherlands-based Ahold Back Office Services (ABOS) established a new centre in Cracow. The centre provides accounting services (processing incoming and outgoing invoices and payments) for the operations of 430 Royal Ahold supermarkets in Poland, the Czech Republic and Slovakia, employing around 200 accounting and finance professionals.

In 2005, the widespread trend of a growth in call centres also continued in eastern Europe. Apart from low costs, the proliferation of call centres in eastern Europe is also attributed to the linguistic capabilities, other than the English language, of the local workforce. Affiliated Computer Services of Poland, Call Centre Poland, Contact Centre TP Internet and Polskie Centrum Marketingowe (PCM) are among the companies that have expanded their call centre business activities in 2005, increasing their respective workforces by more than 100 employees. One high profile case was that of American Stream International, which opened a new call centre in Szczecin in October 2005. While its initial workforce amounts to 100 people, this is expected to increase to 400 people in the long term. The centre in Szczecin will provide services to German speaking customers of Hewlett Packard. Its employees were trained in Stream's facility in Berlin as well as in Szczecin. In June 2005, the German telemarketing company Communication Factory opened its Polish subsidiary in Cracow. The centre, with a staff of several hundred people, provides telesales services and customer services to the German market.

Finally, it should be emphasised that far from all of the jobs created in this sector are low-skilled jobs, typically associated with call centres. Apart from the accounting centres mentioned above, in 2005 the ERM reported cases of expansion in Poland by some of the world's biggest business and management consultancy companies. In September, Accenture Poland, Ernst & Young, KPMG and PriceWaterhouseCoopers each announced that they would recruit about 100 university graduates and qualified professionals in the country.

³⁷ The euro equivalents in this report are calculated at the median rate of PLN 1 = €0.26259, as at 16 June 2006.

Rapid growth of retail trade in eastern Europe

Retail trade appears to be one of the most rapidly growing sectors in the new Member States (see Table 4), and is one of the five most rapidly growing sectors in six of the new Member States – Cyprus, Hungary, Lithuania, Latvia, Malta and Poland (see Table 6). Perhaps the most obvious feature of the business expansion cases recorded in the ERM is the large number of recent cases of retail expansion. Three developments are particularly striking, namely: the large-scale investment by western European retail companies in discount or supermarket chains, the substantial number of shopping malls built in these countries, and the expansion of many clothing retailers in the eastern European market.

Some of the major western European retail chains have been maintaining a presence in the NMS10 market for some time now, as exemplified by the opening of French supermarket chain Carrefour's thirty-first supermarket in Poland, in April 2005. The evidence from announced plans recorded in the ERM suggests that this trend will continue. For example, in June 2005, the UK supermarket chain Tesco, which already has a significant presence in Slovakia, announced its intention to open five new hypermarkets in 2005; this will bring the total number of outlets to 32 hypermarkets in Slovakia, along with five other stores. In Poland, Tesco is also the largest retail company in the country. In May 2005, Tesco announced its decision to open 20 new supermarkets and 'cornershops' in Poland and to further develop its network of petrol stations. In addition to the proliferation of foreign-owned retail companies, indigenous companies are also creating new retail jobs. Polish Alma Market, a Cracow-based company that in 2004 only operated two supermarkets in Cracow and Tarnów, plans to open another 10 supermarkets by the end of 2006.

Another significant retail development relates to the opening or announcement of 11 shopping malls in 2005. The job creation impact of these announcements ranges from a minimum of 130 new jobs in the Rimi Lietuva Shopping Centre in Rimi Baltic in Lithuania, up to a maximum of 2,200 new jobs in the Parkridge CE Retail in Slaskie in Poland. As is the case with the supermarket chains, these establishments have been backed by significant foreign investment. For example, US capital has been invested in Polimex International, a shopping mall in Poznan, Poland. In October 2005, the Danish company Braaten+Pedersen invested €75 million in the FORUM Gliwice shopping centre in Poland, in a move which is due to create 1,200 new jobs. Similarly, in April 2004, the Dutch company AM Development announced its intention to build a new commercial and entertainment complex in the centre of Ústí nad Labem city in the Czech Republic. The investment, amounting to CZK 1.2 billion (about €42.3 million³⁸) will create new employment opportunities for 400 to 600 people.

Clothing retailers are also expanding quite considerably in eastern Europe. Unlike the cases mentioned above, however, the companies referred to in these ERM cases appear to be largely of eastern European origin.³⁹ Among the most prominent of these companies is the Polish clothing retailer LPP, which announced plans for expansion that will lead to the creation of 220 new jobs. Moreover, the Polish shoe retailer CCC increased the workforce in its store network by 255 people in 2005. Altogether, CCC operates 280 shops (together with the franchising units). By 2007, it

³⁸ The euro equivalents in this report are calculated at the median rate of CZK 1 = €0.03525, as at 16 June 2006.

³⁹ There are exceptions however: for example, one ERM case relates the opening of French Decathlon sports supermarkets in Wrocław and Cracow, Poland. A total of 100 jobs will be created.

intends to increase the number of retail outlets to 350 stores. In Lithuania, similar cases of business expansion have been recorded, for example the cases of Levuo in Klaipėda and Apranga in Kaunas.

While no ELFS data were presented for employment growth in the acceding countries, Bulgaria and Romania, the ERM has been observing quite similar trends in retail in these two countries to those found in the new eastern European Member States. Once again, western European companies in particular appear to be driving the trend. For example, the French group Hyparlo is now operating Carrefour stores in Romania under the franchise Hiproma, maintaining full capital control. In October 2005, it opened its fifth store in Romania, and intends to have 20 hypermarkets in Romania over the next few years, with a total investment of €400 million to €500 million. Billa, part of the German Rewe group, has just opened seven new supermarkets in Bulgaria, totalling 18 supermarkets altogether; the company plans to have 50 Billa supermarkets in the country by the end of 2010. Regional chains are also playing an increasing role in Romania and Bulgaria. The Romanian group Trident, for instance, has just opened the first supermarket in Deva, Romania, and is already planning to open 10 more outlets by the end of 2007. In 2005, the Bulgarian food and beverages chain Familia opened the doors of its twenty-third store in the country, and has announced that it will build 10 more outlets within the next year. In addition, the ERM has also recorded five cases of new shopping malls built in Romania in 2005 along with five more malls in Bulgaria. Again, there has been significant foreign backing in these malls. For example, the US group General Electric has invested in the Mall of Sofia, which was due to open in March 2006 in Bulgaria's capital city.

High employment growth in Poland's Slaskie region

One of the striking features of the map in Figure 4 is the strong employment growth in Poland's Slaskie region (bordering on the Czech Republic and Slovakia), whose regional centre is Katowice. As the region is surrounded by areas exhibiting some of the strongest employment decline in Europe, such as Malopoloski and Opolskie, the employment growth in Slaskie is worthy of some further comment. Slaskie was previously one of the most industrialised regions in Poland, and was the centre of the mining and quarrying industry, with a relatively good transport infrastructure. For many years, the region has pursued intensive industrial policy. Even before Poland joined the EU in 2004, the region obtained some PHARE funding from the EU, and in some respects, the Katowice Special Economic Zone (KSEZ) is one of the most developed of such zones in Poland today.

Slaskie features prominently in the ERM, with some 34 cases reported in 2005, of which 31 concerned business expansions. According to the ERM, most of the business expansion was in the automotive sector, the white goods industry and transport. Nonetheless, the traditional coal and steel industry still represents an important sector for the region, although it has undergone some restructuring, which has led to significant job losses. In December 2004, Kompania Węglowa, the biggest European mining group with 21 coal mines, unveiled a restructuring programme aimed at restoring the profitability of its operations. The plans called for the closure of two mines, the merging of several other mines, and extensive organisational changes to at least one more. Of the combined Kompania Węglowa workforce of 74,000 people, some 12,000 were to be dismissed. However, in February 2005, the company subsequently announced its intention to hire 600 graduates, educated at the regional mining college. In October 2005, Katowicki Holding Węglowy, the second largest mining company in Poland, announced that it was going to hire 535 new

workers; priority was to be given to the dismissed miners who worked in the Kompania Weglowa mines that closed.

Most of the investment in the Slaskie region is drawn to the KSEZ. This zone was established in 1996 and has attracted 130 business entities so far. The main expanding sector is motor vehicle production along with a broad range of supply firms. The first company in this sector was Fiat Auto Poland, which already had strong ties with the region due to licensing agreements from the socialist period. In 1992, Fiat acquired 90% of its former licensee, FSM, and its component manufacturers. In 1996, Opel also opened a production site in KSEZ. A number of years later, in 2005, many supply firms expanded their business in the zone. For example, in the same year, the French Saint-Gobain hired 200 additional workers for the production of automotive glass, to be further processed in Poland. The Spanish manufacturing company, Ficomirrors, which produces car mirrors, created 350 jobs, while Kirchhoff Polska expanded its workforce by 140 people due to its successful cooperation with Opel in doors and car parts. At the same time, Eaton Automotive Systems, the global leader in hydraulic systems for auto and aviation, created 375 jobs and is estimated to have indirectly contributed to the creation of 1,000 more jobs in the region. Some of the jobs created in the Slaskie region are high-skill jobs. In January 2005, for example, TRW Automotive, the air cushions producer, opened a new research and development centre, hiring 238 engineers. Later that year, in September 2005, the Polish engineering corporation Bumar installed a new assembly line for Opel. After already hiring 300 workers, the company still had vacancies for more specialists, including 60 locksmiths, and 23 welders and machine cutting specialists.

The white goods sector is another growing sector in the KSEZ. In September 2005, the Swiss company Saia-Burgess announced the building of a motor assembly line for the white goods market in Dąbrowa Górnicza. The plant will be one of the group's largest facilities in Europe, and requires an investment of PLN 1.4 million (€346,481). In November 2005, both Stilpol and BEST Poland, producers of white goods components, announced the expansion of their businesses, creating 152 and 270 jobs, respectively.

The KSEZ also attracts companies offering business services to manufacturers. Business Solutions Polska, located on the Fiat site, specialises in data processing, accounting and book-keeping. In 2005, it increased its staff by 100 workers. Another expanding sector in Slaskie is transport. The Gillette Group Poland and DHL Solutions (the business unit of DHL Logistics) jointly opened a logistics centre in Dąbrowa Górnicza, which will become one of Gillette's largest distribution centres in Europe. The centre will supply Gillette products to customers across central Europe (Poland, the Czech Republic, Hungary and Slovakia), as well as to wholesale distributors in Africa and Asia. Furthermore, Schenker has opened a new transport terminal in Pyskowice (near Katowice) – which is now one of the largest terminals in Poland – serving both local and foreign clients.

Job loss in France's Lorraine region

In contrast to the Polish region of Slaskie, the Lorraine region in France has suffered the most severe employment decline in the EU15. A comparison between Slaskie's high growth and Lorraine's strong decline is interesting, in that both these regions are border regions and are based on traditional heavy industry. For decades, Lorraine has experienced extensive job loss in the steel industry, and this process appears to be continuing in the current decade. For example, in 2003,

the ERM reported that Arcelor, employing a workforce of 37,000 people in France, closed its blast furnace and reduced its staff at the Florange site by 1,550 people. The case was also deemed to have had repercussions for the subcontractors and associated companies. A subsidiary of Arcelor, Sollac Lorraine, also dismissed 620 workers at several sites in 2003.

Many industries related to the steel industry are also located in Lorraine, several of which have also recently experienced a significant decline in employment. In December 2004, France-Transfo, a subsidiary of Schneider Electric, announced 215 dismissals at three different sites, while SEB, a producer of small electronic appliances, announced the closure of its Vecoux site with the loss of 191 jobs. Meanwhile, Cinram, a videotape producer, closed its plant in Lorraine, leading to the loss of 103 jobs. In addition, the automation of production at Impress, a producer of tin cans and a subsidiary of Doughty Hanson, led to the loss of some 90 jobs.

There are also several examples involving the relocation of jobs from Lorraine to regions both within and outside of France. CNIM, a manufacturer of industrial boilers, closed its site in Golbey in May 2004 to relocate to another city in France. In October 2004, Ronal France, a producer of car parts, filed for bankruptcy and relocated its production to Poland, resulting in the loss of 206 jobs. Earlier, in 2002, Daewoo Electronics announced the offshoring of its Lorraine operations to the Far East.

Despite the region's decline in employment, its strong links with the metal industry have, nevertheless, led to some evidence of job creation. The Canadian supplier Magna, for instance, opened a factory in Moselle East to serve the car industry. Furthermore, in June 2005, Carbone Lorraine announced the opening of a centre of expertise for precious metals. Indeed, this case of business expansion was the only case recorded in the ERM for the Lorraine region in 2005. It may be an indication of some level of recovery in the region.

Ongoing employment decline in textiles

In both the NMS10 and the EU15, employment in textiles is one of the most rapidly declining of all the sectors (see Tables 4 and 5). Indeed, in the EU15, its decline is surpassed only by the employment decline in agriculture. The ERM has recorded many cases of job loss in the textiles sector, particularly in Portugal and Italy. However, the ERM cases suggest that the nature of job loss in these two countries is quite different. While the Portuguese cases referred to a total cessation of activities, the Italian cases indicated that the companies were able to maintain their core activities. This may reflect the higher value and quality of Italian manufacture and design in textiles.

In 2005, the ERM reported seven cases of bankruptcy or closure in Portugal's textiles sector. In January 2005, Cardifil filed for bankruptcy with the loss of 103 jobs, while Confecções Pacheco, a coat manufacturer, announced the closure of its Santo Tirso plant and the dismissal of all of its 150 workers. In December 2005, the textile company Confecções Corgo announced the closure of its Vila do Conde plant due to outstanding debts owed to the Ministry of Finance, to social security and to the workers. Altogether, some 180 workers were affected by the closure. The closures include some of the country's oldest companies, such as Sampaio and Ferreira, which was established in 1896 and which closed its Riba de Ave factory in July 2005. Similarly, Sociedade de Fabricantes, the first clothing factory established in Castelo Branco, filed for bankruptcy in January

2005 with the loss of 120 jobs. It is notable that many of these restructuring cases were located in Portugal's Norte region.

The ERM cases relating to Italy's textiles sector show a more diverse picture compared with Portugal. For one, the cases are more evenly spread regionally; there were also more cases of a reorganisation or relocation of operations compared with Portugal where closure was more common. For example, in October 2005, the management of La Perla, a leading manufacturer of women's underwear and fashion, announced the restructuring of both its manufacturing and commercial activities; this will lead to a loss of 410 jobs by 2007, after which the company expects to regain profitability. Another such example was the announcement by the management of Ratti, one of the leading Italian producers of silk products, of a restructuring plan involving 105 redundancies out of the 650 jobs in its Italian plants. Also in 2005, Franzoni Filati announced a restructuring plan including the closure of the Albano plant (employing 88 workers), along with a further 80 job cuts in Esine and Trani. In the announcement, the company emphasised the need to concentrate its activities on high value-added products, in the face of increasing competition from producers in the Far East.

The major textiles producer, Marzotto, is among the more prominent ERM cases relating to the offshoring of Italian textiles. The group employs some 3,600 workers worldwide (Italy, the Czech Republic, Lithuania and Tunisia), of which around 2,100 are based in Italy. In 2005, the company announced a significant shift in production to the group's Czech plant in Nova Mosilana. This led to the closure of the company's Schio and Praia a Mare manufacturing plants, along with the cessation of its office activities at Mongrando, resulting in a total of 225 dismissals. Another example concerns Cofra, a footwear company specialising in professional and safety shoes, which announced its intention to offshore production, while retaining both its research and development and marketing departments in Italy.

Business expansion in automobile manufacturing

In many respects, automobile manufacturing is a key sector. Apart from housing, it is the most expensive product commonly purchased by consumers. At the same time, the employment generated from the sector, broadly defined along the entire supply chain, is very significant. Moreover, it has featured prominently in debates on restructuring in Europe, and is a highly influential sector as regards the organisation of work. In terms of net employment, it is one of the fastest growing sectors in the NMS10 (see Table 5), largely due to the relocation of foreign, usually European, producers in eastern Europe. Between 2000 and 2005, the manufacture of motor vehicles was among the top five employment growth sectors in the Czech Republic, Slovakia and Germany (see Table 6).

The trend in the ELFS data is reflected by the large number of business expansion cases pertaining to the manufacture of motor vehicles recorded in the ERM. In 2005, there were 30 such cases of announced business expansions in the Czech Republic and 26 cases in Slovakia. All of these cases, with the exception of four cases in the Czech Republic, concerned foreign-based companies. Most of these companies were from western Europe, such as INA of Germany, which announced the creation of 1,500 jobs in Zilinsky kraj in Slovakia, and Saint-Gobain of France, which opened a site in Stredocesky kraj in the Czech Republic. However, several automotive companies from the Far East have also been involved, such as Donghee from South Korea, which created 200 jobs in

Slovakia, and Futaba Czech, a subsidiary of the Japanese Futaba Industrial, which announced a major investment in Vysocina in the Czech Republic in June 2005. Companies from the US and Mexico are also moving into these countries. Examples include Johnson Controls from the US, which announced investment plans for Slovakia in November 2005, and Nematik from Mexico, which intends to employ 1,800 workers in Ustecky kraj in the Czech Republic from May 2005 onwards.

Interestingly, motor vehicle manufacturing is also a major source of employment growth in Germany, where expansion primarily relates to the automotive supply industry. In May 2005, Borbet Thuringen, a supplier serving all German car manufacturers, announced the creation of 231 new jobs. The release of new car models by the successfully operating original equipment manufacturers (OEMs) is also set to create more jobs. Porsche is due to present a new model in 2009, and is therefore planning to hire 400 new workers at its three sites in Baden-Württemberg.

In Germany, the share of national automobile manufacturing companies is appreciably greater. Nonetheless, the international character of the motor vehicle industry can be seen in this country too. While German car manufacturing is mainly concentrated in the south and southwest of the country (Baden-Württemberg and Bayern), many of the new jobs in the automotive sector are set to be located in eastern Germany. For example, BMW has announced that it will build its new model in a new production site in Leipzig, creating an estimated 5,500 jobs. The Swiss supplier Weidmann, which serves Volkswagen and the new BMW site in Saxony, intends to increase employment by 140 workers at its Chemnitz site. Meanwhile, Fliegl, a producer of trailers and special-purpose vehicles, will invest €4 million in a new production site in Thuringia, leading to the creation of 130 jobs.

In both Slovakia and the Czech Republic, location is quite obviously regionally clustered. This is a typical feature of the sector, as timely delivery and low transportation costs are of high importance. For example, the Swedish company Kendrion (automotive and car safety parts) cited the proximity to other companies in the sector as a reason for its investment in Zilinski kraj in Slovakia, which will lead to the creation of some 150 jobs. In October 2005, Dongil Rubber Belt followed the steps of seven other South Korean companies that came to Slovakia to operate as subcontractors for Kia Motors Company in the Žilina region. This clustering may also be partly influenced by national governments. For example, the Slovakian government attracted India's Steel Strips Wheels' first European subsidiary, Euro Wheels Slovakia, to Nitriansky kraj with the promise of financial support. The government also offered financial support to Burgmaier of Germany to open its plant in Banskobystricky kraj in August 2005. Among the reasons for the French company Valeo Security Systems' investment in a new plant in Kosicky kraj, with the creation of 727 jobs, was the provision of a site and infrastructure by the local government.

A considerable proportion of the new jobs being created in the sector are predominantly high-skilled jobs. For example, in December 2005, French car manufacturer PSA Peugeot Citroën announced the extension of its business activities in Slovakia with the building of two new manufacturing plants in Trnava in the Zapadne Slovensko region, leading to the creation of 3,500 and 1,800 new jobs respectively. Almost a third of these jobs are managerial positions. In order to recruit suitably qualified staff, the company's management is actively cooperating with secondary, vocational and apprentice schools in the region.

While most ERM cases in the Czech Republic and Slovakia mainly involve supply firms, there has nevertheless been some recent business expansion in car manufacturing among the few OEMs that are located in this area. These include the abovementioned Peugeot Citroën plants in Slovakia, and Skoda, the Czech car manufacturer located in Kralovehradecky kraj. In March 2005, it announced its expansion and the creation of 3,370 new jobs. This was facilitated by investment incentives provided by the Czech government.

Some of these companies, especially those from outside the EU, have chosen the NMS10 countries as the location for their head offices for the European market. For example, the Japanese company Daido Metal, producer of vehicle bearings and fluid systems, is set to build a new plant in Černovická terasa in the Czech Republic. Through its Czech subsidiary, Daido Metal Czech, the company will invest CZK 400 million (about €14.1 million) in the production of vehicle bearings and intends to employ up to 100 people in the first stage of expansion. The plant will serve as the business headquarters for Europe. Similarly, Australian Howe Leather will set up a European head office and production unit in Košice, east Slovakia. The new investment will amount to €1 million, and some 300 people will be employed to produce leather seats for motor vehicles; production will be exclusively for export, mostly supplied to Land Rover, Audi and BMW motorcar producers.

Some of the ERM cases clearly show that offshoring to the NMS10 countries has implied job losses in the EU15 countries. In November 2005, IFE, one of the world's largest producers of automatic door systems for rail vehicles, decided to close its factory in Waidhofen in Austria and to move production to the Czech city of Brno, where it will create 120 jobs. Similarly, Siemens VDO Automotive, a supplier of electronics and electrical products to the automotive industry, announced its intention to relocate production from its Würzburg site in Germany to the Czech Republic, where it plans to build a new plant in Hrabová, the industrial zone of the city Ostrava, employing up to 1,200 people. In Slovakia, the Austrian MAN company will extend its production facility, investing €3 million for the fabrication of components for MAN trucks produced in Austria. With this new production plant, the company will replace subcontractors from the EU15 countries, which produce components at a higher cost.

ERM findings on offshoring

As outlined in the previous chapter, measuring the employment effects of offshoring and outsourcing is particularly problematic. It was argued that reliable information is probably only feasible through conducting in-depth case studies. On the other hand, case studies do not provide representative evidence. The ERM cases are not extremely detailed and are probably not fully representative. However, the evidence presented in the previous section shows that they do capture some representative trends. One area in which the ERM may be particularly useful is in recording information about the type of restructuring, given that there is such a serious lack of good evidence on offshoring. While the type of restructuring information is closely related to the motive of the enterprise, and may thus require some careful analysis, one could perhaps question the reliability of the sources upon which the ERM is based to provide such answers. Nonetheless, previous research from the US (Baumol et al, 2003) shows that journalists' analyses of downsizing cases are remarkably accurate. Moreover, the ERM provides a further analytical filter through the use of national correspondents who analyse the data. The main problem with the ERM is not how the given cases are analysed, but rather which cases enter the database.

Table 7 Total job loss and job loss due to offshoring announced in the ERM, by country, 2005

Total job loss		Offshoring job loss		Offshoring as % of total	
UK	200,706	Germany	7,765	Portugal	54.7
Germany	108,233	UK	6,764	Austria	29.6
France	45,405	Portugal	2,448	Denmark	28.8
Poland	27,117	France	2,080	Slovakia	25.2
Netherlands	22,111	Slovenia	1,516	Slovenia	24.0
Sweden	16,691	Denmark	1,505	Ireland	23.6
Czech Republic	14,949	Ireland	1,345	Finland	15.9
Spain	13,963	Italy	1,171	Italy	15.7
Hungary	10,960	Finland	1,153	Belgium	10.9
Italy	7,467	Sweden	904	Germany	7.2
Finland	7,240	Hungary	620	Hungary	5.7
Slovenia	6,327	Poland	610	Sweden	5.4
Ireland	5,697	Slovakia	600	France	4.6
Belgium	5,266	Belgium	576	UK	3.4
Denmark	5,234	Austria	505	Spain	2.3
Portugal	4,478	Spain	320	Poland	2.2
Lithuania	3,398	Netherlands	160	Czech Republic	0.9
Slovakia	2,383	Czech Republic	130	Netherlands	0.7
Austria	1,708	Cyprus	0	Cyprus	0
Estonia	1,068	Estonia	0	Estonia	0
Malta	850	Latvia	0	Latvia	0
Latvia	600	Lithuania	0	Lithuania	0
Cyprus	60	Malta	0	Malta	0

Source: ERM, 2005

Table 7 and Table 8 present data on announcements of job losses recorded in the ERM in 2005, according to country and economic sector.⁴⁰ It should be noted that the announcements may have been enacted later than 2005.

In absolute numbers, most job loss due to offshoring is recorded in Germany, followed by the UK, Portugal and France. The ERM reports that Portugal has, by far, the highest proportion of job loss due to offshoring. One interesting feature of the findings outlined in Table 7 is that some countries, such as Slovenia, Slovakia and Ireland, which are more commonly perceived as being recipients of offshored activity, are also losing jobs due to offshoring. The most prominent sector in this respect is the offshoring of textiles from Slovenia.

In relation to the findings for job loss according to economic sector (Table 8), the sector experiencing the most total job loss is, somewhat surprisingly, the public sector. This is almost entirely attributable to job loss in this sector in the UK. The offshoring data also show that, in

⁴⁰ Gerstenberger and Roehrl (2006) analyse earlier ERM data on the offshoring of business services. Other work conducted on this issue by the EMCC includes 'Outsourcing of ICT and related services in the EU', a status report, 2004, available at: <http://www.eurofound.eu.int/publications/files/EF04137EN.pdf> and 'Offshore outsourcing of business services', four case examples, 2005, available at: <http://www.emcc.eurofound.eu.int/content/source/tn05001a.html?p1=exchange&p2=null>.

absolute numbers, the metal and motor sectors account for the greatest number of offshored jobs. However, it is within the highly mobile business consultancy services that the largest proportion of total job loss due to offshoring is to be found. Reflecting the ELFS data, which showed a sharp decline in employment in textiles, this sector ranked second among the highest percentages of jobs lost due to offshoring.

Table 8 Total job loss and job loss due to offshoring announced in the ERM, by economic sector, 2005

Total job loss		Offshoring job loss		Offshoring as % of total	
Public sector	128,254	Metal and machinery	4,583	Consultancy business services	25.9
Financial services	49,790	Motor	4,483	Textiles and leather	16.9
Post and telecommunications	47,934	Electrical	3,905	Chemical	16.4
Motor	40,969	Financial services	2,445	Electrical	16.2
Transport and storage	30,598	Construction and woodworking	2,343	Metal and machinery	16.1
Metal and machinery	28,473	Textiles and leather	2,322	Construction and woodworking	16.0
Commerce	26,954	Chemical	2,079	Information technology	13.6
Electrical	24,105	Energy	2,000	Glass and cement	13.1
Food, beverage and tobacco	20,505	Information technology	1,570	Motor	10.9
Energy	18,599	Food, beverage and tobacco	1,035	Energy	10.8
Construction and woodworking	14,646	Post and telecommunications	947	Pulp and paper	5.9
Textiles and leather	13,774	Glass and cement	900	Food, beverage and tobacco	5.0
Chemical	12,655	Consultancy business services	758	Financial services	4.9
Information technology	11,518	Commerce	400	Publishing and media	2.7
Health and social work	9,660	Pulp and paper	294	Post and telecommunications	2.0
Performing arts	8,032	Publishing and media	108	Commerce	1.5
Glass and cement	6,861	Agriculture and fishing	0	Transport and storage	0
Pulp and paper	4,946	Education	0	Public sector	0
Publishing and media	4,018	Extractive industries	0	Performing arts	0
Consultancy business services	2,929	Hair and beauty care	0	Maintenance and cleaning	0
Extractive industries	2,265	Health and social work	0	Hotel, restaurant and catering	0
Hotel, restaurant and catering	2,044	Hotel, restaurant and catering	0	Health and social work	0
Education	1,336	Maintenance and cleaning	0	Hair and beauty care	0
Agriculture and fishing	503	Performing arts	0	Extractive industries	0
Maintenance and cleaning	330	Public sector	0	Education	0
Hair and beauty care	212	Transport and storage	0	Agriculture and fishing	0

Source: ERM, 2005

Labour market consequences of restructuring

The previous two chapters were concerned with measuring the extent of restructuring in terms of jobs lost or created. This chapter is concerned with measuring the consequences of job loss at restructuring. Much of the public concern and policy discussion on restructuring is related to its potential effects on the labour market. It must be emphasised that the extent of restructuring (the number of jobs lost at a particular workplace) and the consequences for the individuals (whether or not the loss of these particular jobs had significant negative effects on the workers who held these jobs) are two quite different concepts. For example, if all those who experienced job loss at restructuring quickly found similar new jobs, then presumably restructuring would not be such an important policy issue.

Measuring the consequences of job loss at restructuring

Impact on displaced workers

A scientific investigation of the impact of job loss at restructuring (displacement) for the displaced workers requires some knowledge of what would have happened to these workers had they not been displaced – ‘the counterfactual case’. This can be clearly illustrated by looking at the health effects of displacement (along with the impact of job displacement on earnings). Changes in health status after job loss could be attributed to many factors and not necessarily related to the displacement. Ideally, therefore, one requires a comparison group that serves to represent the counterfactual case. In practice, real world research can only partially fulfil this requirement and further methodological issues arise from the selectivity problem. This is due to the difficulty in establishing whether an observed correlation between job loss and, for example, ill-health is due to job loss causing ill-health or whether employees with poor health were more likely to be displaced in the first place.

Most scientific research on displaced workers has been conducted in the US; a much studied issue is the impact of displacement on earnings. All of this research shows that displacement leads to significantly lower average earnings. Moreover, these are not just short-term adjustment effects but may in fact be long lasting.⁴¹ Research in Europe is less conclusive and is sparse on the long-term effects of displacement. Recent research by Eliason and Storrie (2006), however, is able to identify all workers displaced due to plant closures in the mid 1980s in Sweden and follows them until the end of the last century. They found that the displaced workers suffered both substantial losses in earnings and a worsened labour market position (lower employment and higher unemployment) compared with other similar but non-displaced workers. These effects were found not only during a transitory period of adjustment but also in the longer term. Such longer-term effects seem to be driven by an increased sensitivity of initially displaced workers to subsequent macroeconomic shocks, including recurring job loss. Substantial differences are also found for different age groups, with older workers faring the worst.⁴²

⁴¹ Important references in US research include Hamermesh (1987), Ruhm (1991), Jacobsen et al (1993), Stevens (1997) and Farber (2005). Kletzer (1998) provides a review of the literature.

⁴² Other recent European studies include Huttunen et al (2005), Hijzen et al (2005) and Kuhn (2002).

Kuhn (2002) provides an overview of the labour market outcome for displaced workers from Canada, the Netherlands, France, Germany, Japan, the UK and the US. He finds that women are more likely than men to experience a period of joblessness after displacement and that the spell of joblessness is longer. However, as pointed out in the previous chapter, women are less likely to experience displacement in the first place. In all of these countries, except Germany, the unskilled experience significantly longer periods of joblessness. Older displaced workers also experience longer periods of joblessness in all these countries. In the US, long tenure workers experience a considerable loss of earnings; nevertheless, in Europe, the evidence is more mixed. Overall, however, the evidence in all these countries in terms of the frequency of displacement, subsequent unemployment and wage effects, and in relation to gender, age, tenure and skills, does not seem to indicate that any particular single group fares consistently worse than the other, although unskilled workers do come close in this respect.

Finally, it should be noted that the discussion in this section is limited to labour market outcomes, such as lower earnings and unemployment. Nonetheless, given the important role of the job in modern society, one can suppose that the loss of a job can have broader consequences on individual welfare. Indeed, this is one of the most researched issues in the social sciences with a long history of empirical research. Jahoda et al (1933) provide a classic example of a case study outlining the socio-psychological impact of mass unemployment in Austria on a community, on the family and on the individual. There is particularly extensive research literature on job loss and health from numerous academic disciplines.⁴³

Regional effects and policy evaluation

Most research and policy interest on job loss at restructuring has focused on the consequences of displacement for those affected at a specific workplace. It is obvious, however, that the regional impact of a major restructuring case can be much wider than this. There are essentially two means by which restructuring leading to job loss within one company can have a negative labour market impact on others outside the company. Firstly, the company may purchase some intermediary goods or services from other companies in the region. Downsizing may lower demand for such goods and services and may thus have knock-on effects on these other companies. Secondly, if downsizing leads to an appreciable loss of earnings in the region, this could result in lower levels of demand for a broad range of goods and services and may therefore have further employment consequences in many sectors. It is not possible, however, to provide systematic evidence regarding the size of these regional effects. They will vary, for example, according to the relative size of the initial phase of restructuring and the subsequent re-employment rate of these workers, along with the size and location of the company's supply chain, the size of earning losses and the extent to which workers are compensated.

One aspect of the regional consequences of restructuring – the subsequent re-employment rate of the displaced employees – deserves further attention due to its importance for evaluating policy. This is the most commonly applied single measure of a successful restructuring case, at least in Europe. The European Commission and most national governments correctly place great emphasis on active policy in this respect, and certainly the ongoing demographic changes in most European

⁴³ See, for example, Kasl et al (1975), Iversen et al (1989), Catalano (1991), Keefe et al (2002) and Eliason and Storrie (2004). Eliason (2005) provides an analysis of the impact of job loss on marital stability, as well as references to studies on other welfare consequences.

countries make the ‘passive’ approach (such as early pensions), as applied in continental countries in the 1970s and 1980s, an even less desirable option today.⁴⁴ However, there are a number of reasons why the re-employment rate is a highly unsatisfactory measure for evaluating the relative merits of, for example, two cases when one case has applied active measures and the other has not. The employment outcome for the displaced worker depends on three broad factors: the level of labour demand at the time and place of restructuring; the employability of the workforce; and policies and practices. Ascribing the success of measures taken in one case compared with another must first take account of the different status of labour demand and supply factors in each case. Moreover, when comparing cases between countries, a successful policy outcome in one case may not be solely attributable to the specific measures taken during the restructuring process, but rather due to a whole array of policy measures that are generally applied in the particular country. The evaluation of policy directed towards employees who experience job loss should be able to construct the counterfactual case, in order to compare the outcome for the displaced workers had they not received the policy measures. In practice, however, it is extremely difficult to do this properly and very few attempts have been made.⁴⁵

If, however, all these factors were taken into account, what then of the measure itself? One interpretation of assessing the re-employment rate of workers displaced due to restructuring is that it is simply a measure of the success that these workers had in competing with other members of the local labour force in finding new jobs. Thus, if there is no net job creation in the local labour market, active measures that have positive effects for the displaced may impact negatively on other local job seekers and result in, for example, an increase in youth unemployment. This calls into question the whole idea of social responsibility during restructuring and suggests that some forms of social responsibility may in fact only be an expression of preference for the welfare of insiders at the expense of outsiders. At the very least, this ‘crowding-out phenomenon’ must be noted in evaluations of cases. It is likely to be more severe when unemployment is high and less of a problem in expanding labour markets or when there are skill mismatches. The crowding-out phenomenon presumes that active labour market policies do not create more jobs; it also underlines the importance of a regional industrial policy dimension and of net job creation measures, rather than an exclusive focus on the fate of those directly affected by job loss.

ELFS findings on the labour market effects of job loss

The ELFS is able to provide one very relevant piece of information relating to job loss at restructuring from the national labour force surveys, by reporting on the previous job, if any, of ‘those currently not employed’. By asking this question, the survey can provide information about the reason for separation from the previous job (including the response ‘dismissal’), when it occurred, in which sector and in which occupation. In addition, it provides details about the many personal characteristics of the survey respondents, such as their age, sex, education level, place of residence, etc. It is important to underline that the survey cannot provide any information about the previous job of those ‘currently employed’, and thus cannot shed much light on the total extent of job loss, as many who separate from a job subsequently take up another. Neither can it provide

⁴⁴ See, for example, Stråth (1986) for an account of policies used during the contraction of the European shipbuilding industry in the 1970s and 1980s.

⁴⁵ See Engström and Ohlsson (1985), Steinberg and Monforte (1987), and Ohlsson and Storrie (2005).

the basis for an analysis of the labour market consequences of job loss, as it does not provide information on those who make a quick and successful transition to a new job.

Nevertheless, this is a valuable and underused source of information for EU policymakers, providing a consistent EU-wide measure of the negative employment consequences of job loss in terms of region, sector, demographic group, etc. This is of obvious use for an examination of the negative impact of restructuring, not only in terms of the vital Lisbon employment target rates, but also in light of the EU's increased policy activity in this field, as shown by the recently adopted Globalisation Adjustment Fund.

Non-employment and previous job in EU

In 2005, the employment rate for men and women in the EU was 71% and 56% respectively (Table 9).⁴⁶ Looking at the non-employment rate for the same year (defined as 100% minus the employment rate), of the 29% of men and 44% of women who were not employed in 2005, 11 of the percentage points for men and 16 of the percentage points for women represent those who had previously held some type of job. It is among this group that information about those who experienced job loss due to restructuring can be obtained.

Table 9 Non-employment rate and incidence of a previous job in the EU, 2005 (%)

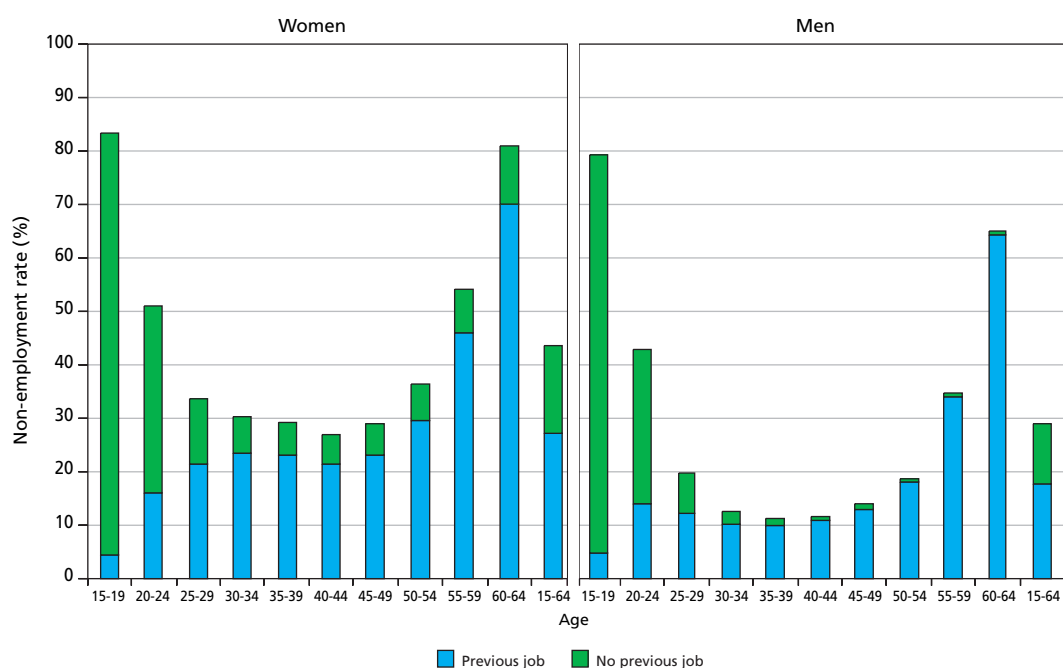
	NMS10		EU15		EU25	
	Women	Men	Women	Men	Women	Men
Employment rate	50.5	62.8	57.4	72.7	56.2	71.1
Non-employment rate	49.5	37.2	42.6	27.3	43.8	28.9
Previous job rate	18.2	16.3	16.1	10.1	16.5	11.2
No previous job rate	31.3	20.8	26.5	17.2	27.3	17.8

Source: ELFS, 2005

The breakdown of the non-employment rate, according to whether or not the respondents have held a previous job, clearly varies with age and, to a lesser extent, according to sex (Figure 5).

While the data outlined in Figure 5 are based on a cross-section of the population in 2005, the non-employment rates of the various age groups can be interpreted from a life course perspective. Both sexes exhibit a similar U-shaped non-employment profile over their working lives. The most obvious difference between the sexes is that there is a considerably greater share of older women who have never held a job, which is largely due to labour supply factors. The non-employment rate for men who have at some time held a job is lowest at around 10% for the 35–39 years age group, and thereafter increases up to 34% for 55–59 years age group and to 63% for the 60–64 years age group. For women, the lowest non-employment rate among those who have held a job is around 22% for the 40–44 years age group, increasing up to 45% for those in the 55–59 years age group and to 70% for the 60–64 years age group. Given the higher mid-life employment rate of men, the potential impact of job loss at restructuring is therefore probably greatest for these men.

⁴⁶ The data used in this chapter refer to the ELFS spring data.

Figure 5 Non-employment rate in EU, by previous job, age and sex, 2005

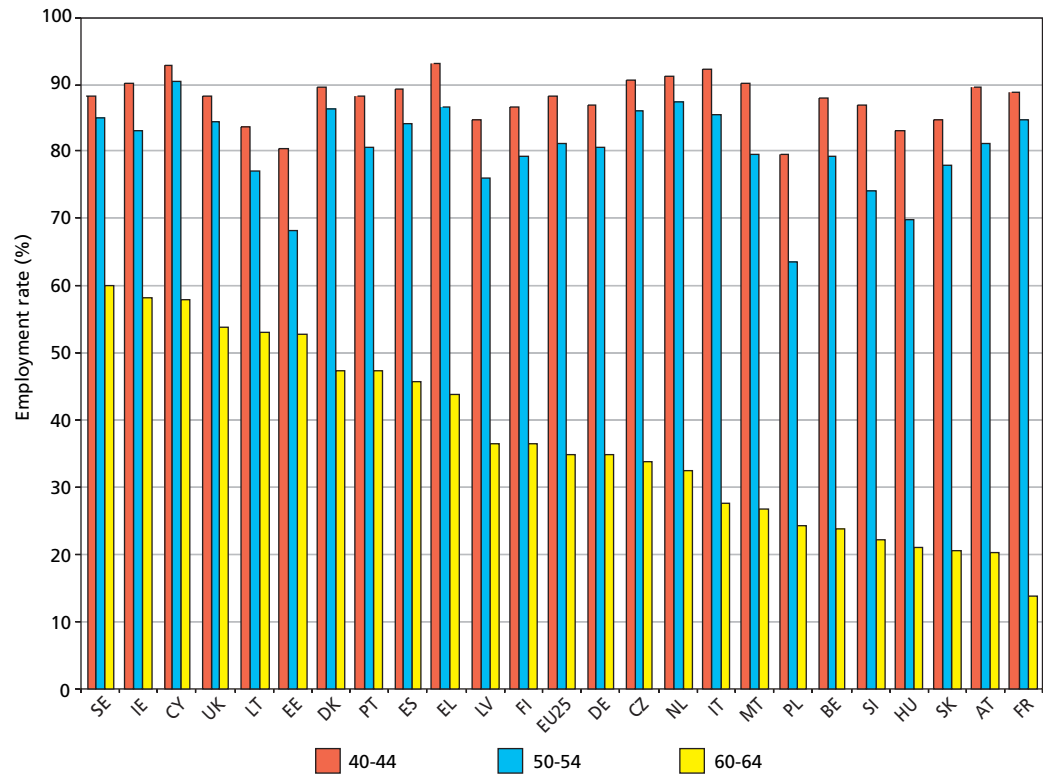
Source: ELFS, 2005

Figure 6 (overleaf) shows that men aged 40–44 years have very high and similar employment rates. However, towards the end of their working lives, this situation changes dramatically not only as regards the level but also the variation between the different Member States. The variations between the countries are extensive. For example, the employment rate for 60–64 year old men in France is 14%, while in Sweden it is 60%. In Denmark, the employment rate for 55–59 year old men is 83% compared with only 42% in Poland and 54% in Belgium. Thus, these differences represent currently a major source of variation in total employment rates. Indeed, the ongoing demographic shifts towards older workers constituting an increasingly larger share of the population of working age should make this a matter of increasing policy concern in the future.

The significance of these large and important differences in the context of this report is that they are closely related to how Member States are affected by and deal with restructuring. As the vast majority of these older non-employed men (and to a somewhat lesser extent, older non-employed women) have previously had a job, the huge variations in employment rates depend on one of three broad factors. Firstly, some countries have been hit harder than others by job loss at restructuring and this may explain some of the differences between a number of the new and the old Member States. Secondly, the impact of a macroeconomic shock may be felt more by older workers in some Member States than in others. For example, strong seniority rules may be more protective of older workers in some countries than in others, or working life may be made more suitable for older workers. Social norms may differ and impact on how the company selects employees for dismissal. Thirdly, the level of demand for older workers may vary between Member States. Finally, variations in social security provision, in particular early pension schemes related

to redundancy, towards the end of working life surely lie behind some of the differences. Compare, for example, Ireland and the UK with Belgium and France in Figure 6.

Figure 6 Employment rates of men aged 40 to 64 years, 2005*



* Sorted by employment rate of 60 to 64 year olds

Source: ELFS, 2005

Previous job and reason for separation

According to the ELFS, some 68 million people who were not employed in 2005 had previously held a job. A large proportion (37%) of these people separated from the job more than seven years previously. However, a considerable proportion separated relatively recently. Just over 20% (14 million people) had previously held a job within the last year. There are a number of reasons to focus on those whose previous job was quite recent. The first reason relates to ‘recall bias’ – the fact that responses far back in time are appreciably less reliable than more recent responses. Moreover, from a policy perspective it would appear more relevant to examine recent job separations. While the welfare loss due to long periods of non-employment may be considerable, it is arguable that much less can be done for people who have been out of the labour force for long periods. The remainder of this chapter will focus exclusively on those people who have separated from their job up to one year before the interview in 2005. Table 10 presents data on reasons for leaving the previous job by country. The data quality in Spain and the Netherlands is not sufficient to do a further analysis.

Table 10 Reasons for leaving previous job, by non-employed people who separated from previous job up to one year before (thousands), 2005

Country	Reason for leaving previous job										Total
	Dismissal	Temporary job ends	Personal or family reasons	Illness or disability	Education or training	Early retirement	Retirement	Military service	Other	Missing	
BE	52.5	71.7	6.9	17.3	25.2	24.9	15.6	0.0	47.5	0.0	261.5
CZ	82.9	41.6	70.9	23.1	3.7	13.2	41.2	0.0	13.4	0.8	290.9
DK	43.6	26.3	3.4	13.4	15.4	11.6	1.1	0.0	0.8	0.0	115.5
DE	982.6	447.3	124.2	110.4	136.3	100.6	179.3	10.3	382.0	0.9	2473.9
EE	8.7	5.6	6.9	3.6	2.4	0.4	4.7	0.5	5.6	0.0	38.3
EL	38.8	71.4	16.7	6.3	7.4	5.2	23.8	0.7	18.6	0.0	188.9
ES	27.7	202.1	11.4	20.0	16.4	10.4	4.1	0.0	2.9	2088.0	2383.0
FR	401.4	861.8	45.8	52.6	20.7	58.4	292.8	0.0	226.0	0.0	1959.6
IE	11.2	10.3	10.9	4.7	2.6	2.1	1.3	0.0	6.1	0.1	49.2
IT	294.3	705.1	71.5	58.3	35.0	0.0	170.1	2.5	206.0	43.4	1586.2
CY	4.0	4.4	6.9	1.7	1.1	0.4	1.6	0.0	1.2	0.0	21.3
LV	7.8	11.8	20.2	6.9	2.8	1.9	5.1	0.0	14.3	0.0	70.8
LT	9.0	20.8	6.0	5.6	4.3	1.0	7.8	0.0	27.4	0.0	81.8
HU	117.3	32.9	30.4	20.2	4.3	6.2	30.1	0.0	10.8	0.0	252.2
MT	1.3	0.4	0.8	0.4	2.8	0.3	0.7	0.0	0.3	0.0	6.9
NL	0.0	62.2	8.6	14.9	42.0	57.9	0.0	0.0	12.2	159.8	357.6
AT	100.1	55.7	19.4	29.4	23.3	16.3	22.9	8.1	89.6	0.4	365.4
PL	308.7	350.8	72.0	72.6	18.6	62.6	55.0	2.1	133.6	0.0	1075.9
PT	91.6	69.8	6.4	21.9	6.9	8.8	5.5	0.0	68.2	0.0	279.2
SI	9.9	10.3	1.2	1.6	1.2	0.9	7.0	0.0	3.7	0.0	35.8
SK	48.3	24.3	10.3	6.5	0.7	0.0	19.0	0.0	9.5	0.0	118.6
FI	28.8	219.4	10.2	15.7	30.0	2.7	13.4	0.6	23.3	0.4	344.4
SE	76.0	147.3	12.8	21.2	42.3	13.8	3.5	3.0	31.2	0.1	351.3
UK	256.4	214.9	242.0	162.0	0.0	53.7	77.7	0.0	456.4	0.9	1463.9
Total	3002.8	3668.1	815.9	690.3	445.3	453.4	983.3	27.9	1790.6	2294.8	14172.2

Source: ELFS, 2005

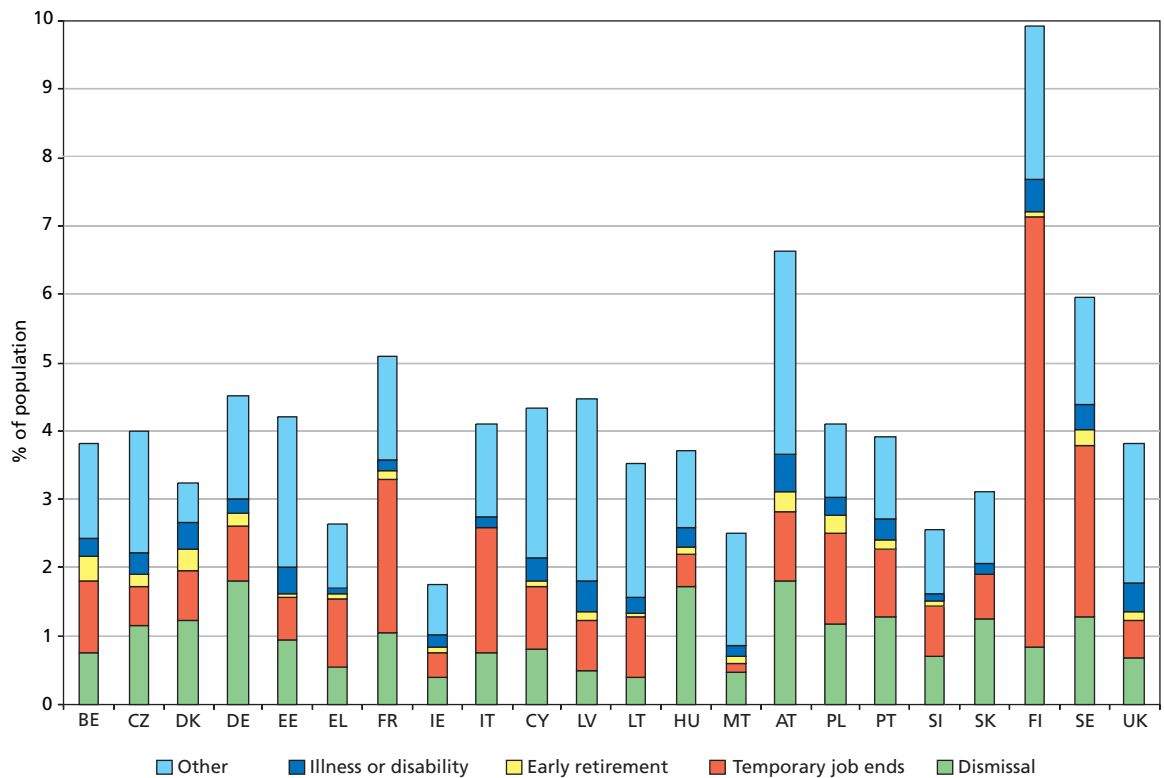
As mentioned in Chapter 1, it may be difficult to identify the full impact of restructuring through survey data. The possible responses to reasons for separation include: 'dismissed or made redundant', 'a job of limited duration has ended', 'own illness or disability', 'education or training' and 'early retirement'. Obviously, the first category should be included in any measurement of the impact of job loss at restructuring. Legally, the second category concerning the end of a limited duration contract should not be included. However, at the very least, the exclusion of this category would make comparisons between Member States very difficult given that, for example, in Spain 30.6% of all jobs for men and 35% of jobs for women are of limited duration. This is well over twice the EU15 average in 2004.

On the other hand, it would probably not be appropriate to equate the loss of these jobs to longer tenure jobs where investment in specific human capital is thus larger. Early retirement is also relevant, to some extent, as it is quite common that redundancy is a reason for taking up early

retirement and this may be partially financed by the company. It is also highly likely that the category ‘own illness or disability’ will include many people who have experienced displacement. There are numerous case studies showing that displaced workers qualify for a disability pension after losing their jobs. Thus, it is not an easy task to determine from this information the real negative employment impact of job loss at restructuring. Once again, this underlines the need for a dedicated survey on job loss at restructuring. Without further information, the choice of measures will be arbitrary and so various measures will be used.

Figure 7 provides a very broad measure of the negative impact of restructuring. It includes not only the category of dismissal but also the categories ‘early retirement’, ‘the end of a temporary job’ and ‘illness and disability’.

Figure 7 Reasons of non-employed people, who previously held a job up to a year ago, for separating from previous job, 2005



Note: Figures are expressed as a percentage of the working age population. Data for Spain and the Netherlands are excluded due to non-response.

Source: ELFS, 2005

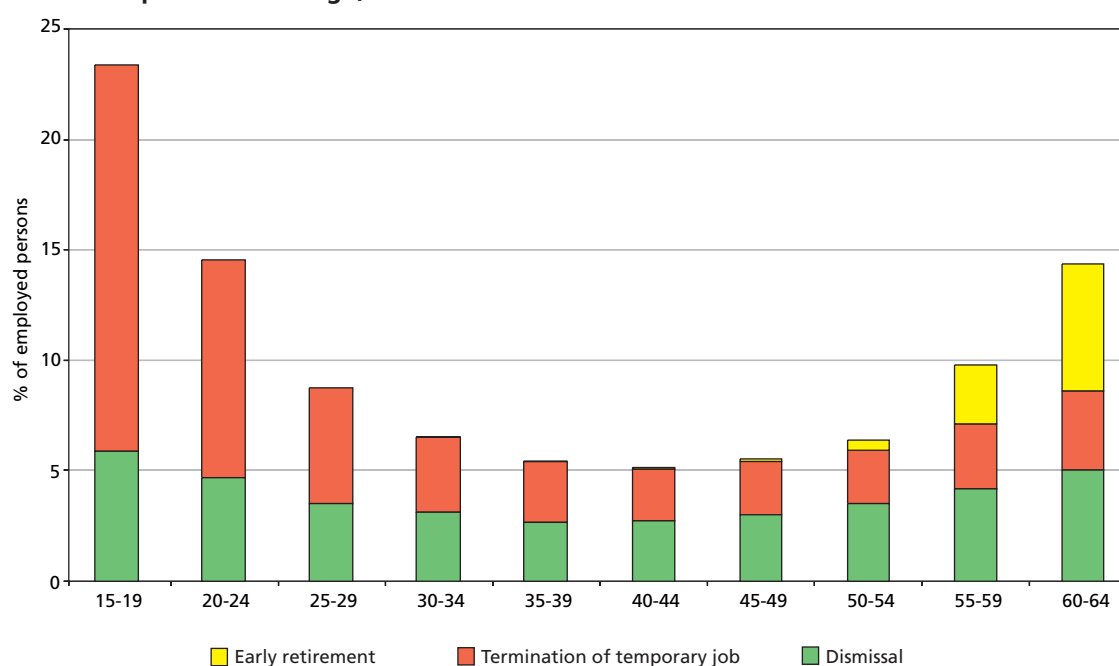
In many countries, the total figure of those currently non-employed who previously held a job up to a year ago is dominated by people who separated from a contract of limited duration. This is to be expected in countries with a high rate of limited duration contracts, such as Finland (12.6% of all jobs for men and 19.5% for women), France (12.6% for men and 19.5% for women) and Sweden (13.5% for men and 17.5% for women).⁴⁷ The two categories of ‘early retirement’ and ‘illness or

⁴⁷ According to the ELFS in 2004.

disability' occur at appreciably lower levels than the other categories. However, it should be noted that, in contrast to the termination of a temporary job, the duration of these states, particularly early retirement, is likely to be much longer. One must differentiate between an annual in-flow and a stock of accumulated annual net flows. The most limited measure of the impact of restructuring on non-employment, i.e. collective dismissals or redundancies, is highest in Austria, Germany and Hungary. The lowest level is found in Ireland.

The probability of experiencing negative employment consequences of restructuring varies with age. A measure of the risk of losing one's job and remaining without a job can be calculated by dividing the number of non-employed people who were dismissed by the number employed in the relevant age group (i.e. the probability of being dismissed times the probability of remaining jobless) (Figure 8).⁴⁸

Figure 8 Non-employed people who separated from a job in last year, by reason for separation and age, 2005



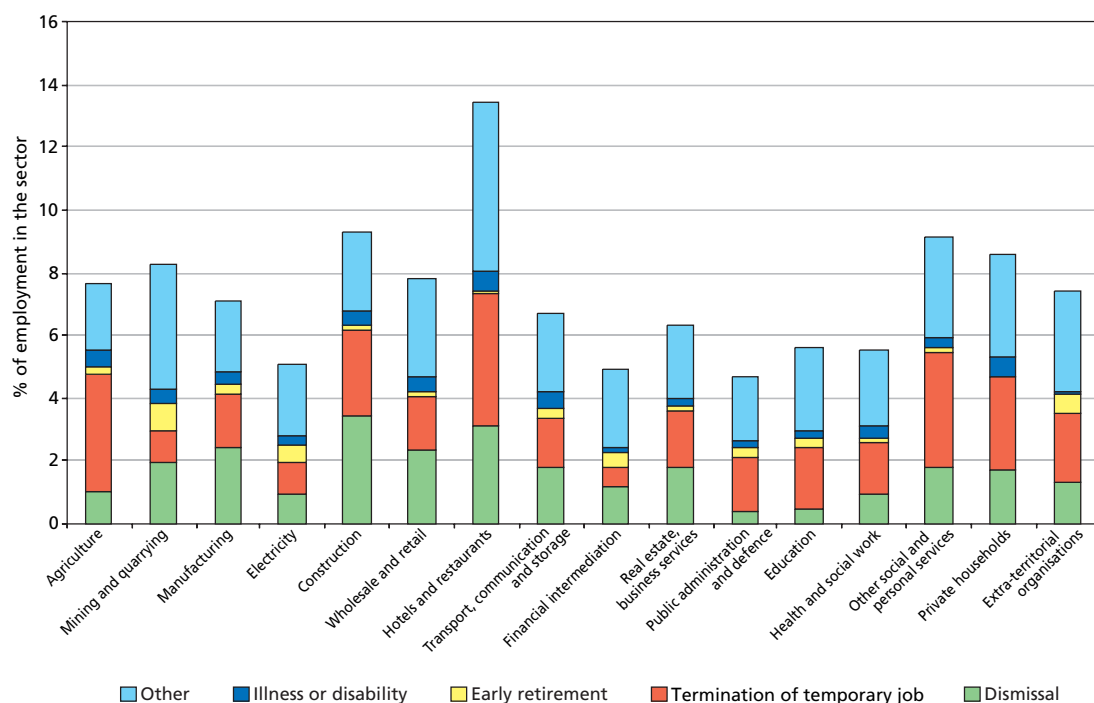
Note: Figures are expressed as a percentage of the working age population. Data for Spain and the Netherlands are excluded due to non-response.

Source: ELFS, 2005

The findings outlined in Figure 8 are in line with previous research regarding the high negative impact of job loss at restructuring on older workers. This may be due to either a higher rate of displacement among older workers or a lower re-employment rate once displaced, although it is more likely that the latter leads to such high non-employment rates for older workers. As shown in Figure 8, 5% of the previously employed 60 to 64 year olds are currently not employed because they were dismissed from a job within the last year. Similar crude risk measures can be calculated in terms of previous employment in a particular sector (Figure 9).

⁴⁸ The age profile for women and men is very similar. The high rate of the youngest age group may cast some doubt on the quality of responses in this context.

Figure 9 Non-employed people with previous job, by economic sector and reason for separation from previous job, 2004



Note: Figures are expressed as a percentage of the working age population.

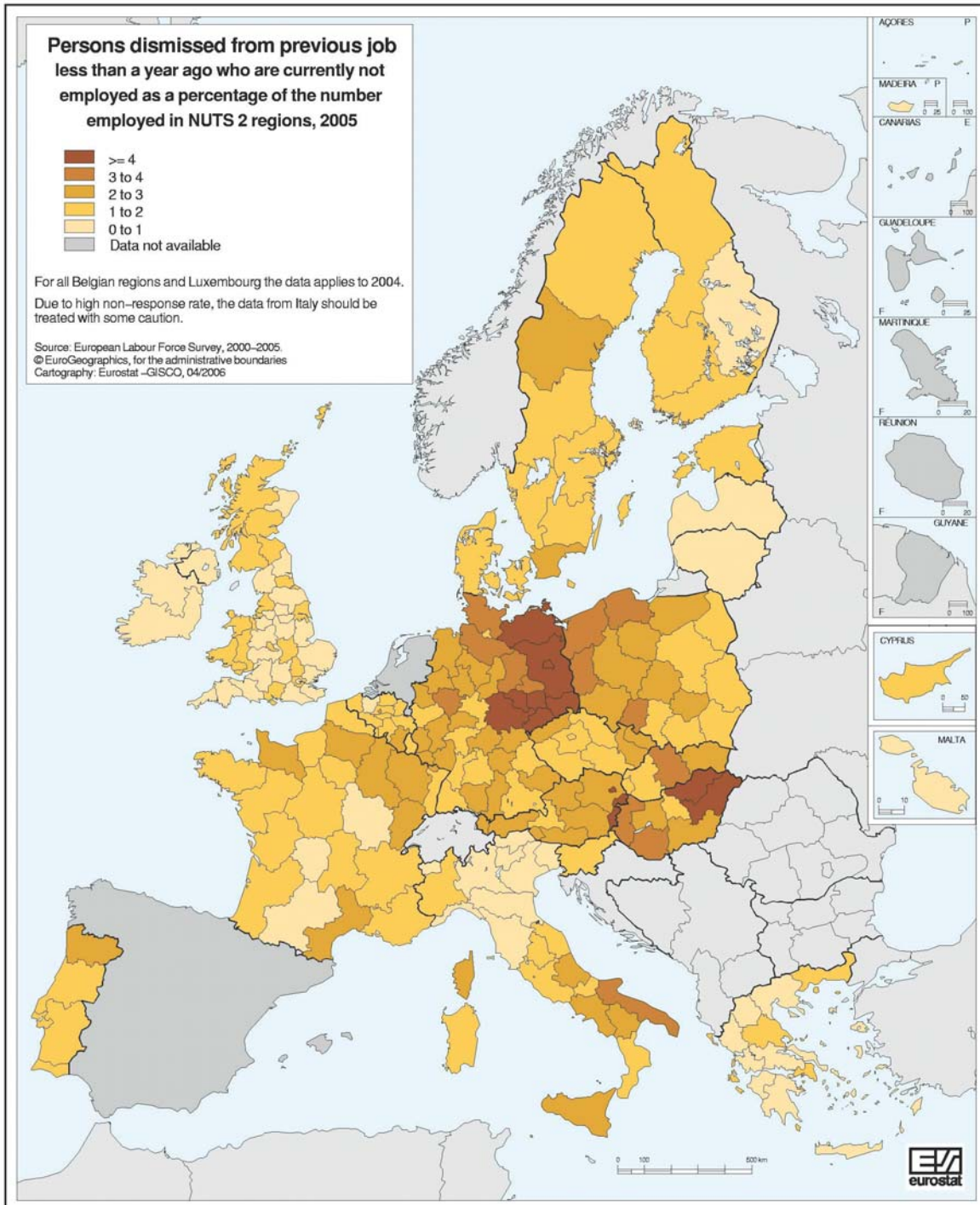
Source: ELFS, 2004

As Figure 9 shows, the highest risk of being dismissed and remaining jobless is found in construction, followed by hotels and restaurants and then manufacturing. Given the large size of manufacturing, this sector contributes to much of the joblessness in Europe. Joblessness following the termination of an employment contract of limited duration is most prevalent in hotels and restaurants, agriculture (probably seasonal work) and other service sectors. Joblessness due to separations is considerably lower in the large and mainly public sectors of education, public administration, and health and social work. These three sectors also show the lowest level of joblessness resulting from dismissals.

Finally, it is also possible to provide a regional picture of the risk of joblessness in 2005 for people who were dismissed from a job up to a year previously (Figure 10). Although the criteria for the new European Globalisation Adjustment Fund are not formulated in these terms (see next chapter), this type of information may be useful both for identifying policy target regions and for providing some evaluation of the policy measures.

In some respects, Figure 10 shows a similar picture of employment growth to that in Figure 4. The high level of non-employment in the eastern part of Germany is particularly striking. This is presumably due to a combination of high levels of job loss, low employment growth and relatively high levels of social security. Similarly high levels of non-employed people who were recently dismissed are also found in the eastern regions of Hungary and Austria. Most of the new Member States also have quite high levels of non-employment, with the exception of Latvia and Lithuania. In contrast, northern Italy, Ireland and some regions of France and the UK show low levels of non-employment.

Figure 10 Non-employed people who were dismissed from previous job less than a year ago as a percentage of the number employed in NUTS 2 regions, 2005



Policy aimed at addressing restructuring, or which has an impact on restructuring, covers practically all fields of economic policy of both the EU and the Member States.⁴⁹ EU policies that have a very obvious impact on the extent of restructuring include single market legislation, trade policy, the CAP, competition policy, environmental policy, and social and employment policy. The mandate at the European level varies from the extensive, such as agricultural policy, to the more limited, such as social and employment policy. One can examine policy and restructuring from two perspectives: policy that induces or promotes structural change; and policy aimed at ameliorating the negative effects of restructuring.

There are essentially four broad policy options designed to deal with the negative employment effects of restructuring: the 'laissez faire' approach; prevention; compensation; and active industrial and labour market policy. Proponents of the laissez faire approach believe that adjustment is best achieved by the market, which implies that policy should be confined to enabling the market to function. Prevention relates to protectionism and other subsidies for enterprises. Compensation refers to both social security payments to employees and adjustment funds for enterprises. Active measures encompass matching workers to jobs, mobility, retraining and temporary employment subsidies addressed to employees, along with an active promotion of the competitiveness of enterprises and can be broadly defined.

While there are quite vocal proponents of both the laissez faire and prevention approaches within Europe, most would nevertheless agree on some role for compensatory and active measures. It would appear that both the Commission and most Member States call primarily for the active option and that such an approach is attractive in many respects. However, as already pointed out, given the size of the current labour reserve in most Member States, active labour market policies (properly defined as matching, mobility, retraining and temporary employment subsidies, as for example stipulated in the recently announced European Globalisation Adjustment Fund) are not enough to properly address restructuring both in relation to employment rates and social cohesion. An outline of the broad approach to be taken by the Commission was set out in the Communication, *Restructuring and employment: Anticipating and accompanying restructuring in order to develop employment – the role of the European Union* (COM (2005) 120 final).

Policies promoting restructuring

Much of the single market and competition legislation aims to create a free and fair European market and continues to mould the structure of the European economy. A fundamental economic rationale of this policy is to enlarge the market and thus allow companies to expand in order to guarantee economies of scale and to ensure sufficient numbers to promote competition. These policies, together with industrial policy, serve to promote structural change and to both create and destroy jobs. In legislative terms, this is far from a complete process. The proposed Services Directive and the recent initiatives concerning the defence industry are important recent examples. The extent to which they will actually remove barriers to trade and establishment of companies will continue to have very significant consequences for the levels and geographical distribution of employment in these sectors.

⁴⁹ In 2007, the ERM will provide a consistent and systematic account of policies introduced by Member States to counter the negative effects of restructuring.

Other fields of EU policy, such as the ongoing CAP reforms, lead to restructuring that quite unambiguously lowers net employment in that sector. Finally, the strong trade policy mandate of the EU also has far-reaching consequences for employment throughout the EU, although it is inappropriate to provide any systematic description or analysis of this policy at this particular point. One clear example worth mentioning is the ongoing restructuring taking place in the sugar industry, necessitated by a World Trade Organisation (WTO) ruling based on the Uruguay Round trade deal negotiated by the EU.

The broad focus of policies regarding the promotion of structural change in industry can be found in the Commission Communication, *Fostering structural change: An industrial policy for an enlarged Europe* (COM (2004) 274). This document outlines the Commission's perspective on restructuring, namely, the focus placed on globalisation and enlargement. Three broad strands of future development of policy are proposed:

1. bringing EU legislation on industrial activity into line with the needs of businesses. Particular attention is to be paid to competitiveness and to analysing the combined effects of regulation on each sector of activity;
2. ensuring a better coordination of all EU measures that have an impact on industry, particularly research, competition, employment and regional development;
3. making EU industrial activity more visible in key sectors.

Policies addressing the negative effects of restructuring

Policies aimed at enterprises

EU policies designed to ameliorate the negative consequences of restructuring can either be directed towards the enterprise (its shareholders) or towards the employees. The aforementioned sugar case provides a recent example of the former. The policy response in this instance involved the setting up of a restructuring fund in February 2006, which primarily serves to ameliorate the consequences of the WTO ruling for the enterprise.⁵⁰ The compensatory mechanism is not straightforward but if, for example, the company ceases production totally and dismantles all production capacity, it will be paid €730 per ton of sugar. Several of these cases have recently been picked up in the ERM, for example the closure of the Greencore plant in Mallow, which will mark the end of all sugar production in Ireland.

A recent report published by the Foundation (Corral et al, 2006) outlines a broad range of measures used to create new businesses after restructuring. Most of these policies are financed and conducted by the Member States.

Policies aimed at employees

EU policy addressing employees and restructuring relates to three broad spheres: labour law directives; the European Employment Strategy (guidelines); and the Structural Funds. In relation to the latter, current interest has been focused on the European Globalisation Adjustment Fund.

⁵⁰ Some of this funding may be used for social plans and may thus compensate not only the shareholders, but also the employees. The regulation envisages a social plan in accordance with national requirements, and the availability of extra funding may, through negotiations, lead to more generous funding of social plan provisions than would have otherwise been the case.

Legal framework of redundancy procedures

The EU has played a significant role in providing the legal framework for collective redundancy procedures (see Chapter 2). Initial EU legislation in this respect was largely a consolidation of some of the national legislation in several Member States in the mid 1970s. While the legislation is not very interventionist and the directive on collective redundancies provides much scope for implementation in national legislation, it does give a coherent framework for national legislation and, as part of the *acquis communautaire*, it presumably has had some impact on legislation in new Member States.

Other EU labour law legislation with some relevance in this context includes:

- Council Directive 2001/23/EC of 12 March 2001 on the approximation of the laws of the Member States relating to the safeguarding of employees' rights in the event of transfers of undertakings, businesses or parts of undertakings or businesses;
- Council Directive 94/45/EC of 22 September 1994 on the establishment of a European Works Council or a procedure in Community-scale undertakings and Community-scale groups of undertakings for the purposes of informing and consulting employees.

The Commission is currently reviewing much of this legislation (Green Paper on the development of labour law) and is conducting a study on the national implementation of labour law directives in some Member States.

European Employment Strategy

The current Guidelines for the employment policies of the Member States (2005/600/EC), adopted in July 2005, if fully implemented by all Member States, would do much to prepare employees when faced with redundancies. The guidelines call for action based on the following three priorities, all of which have relevance during restructuring:

1. attracting and retaining more people in employment, increasing labour supply and modernising social protection systems;
2. improving the adaptability of workers and enterprises;
3. increasing investment in human capital through better education and skills.

In the first priority, mention is made of 'support for active ageing, including appropriate working conditions, improved (occupational) health status and adequate incentives to work and discouragement of early retirement'. This is important for two reasons. Firstly, much research shows that it is older workers who are most negatively affected by restructuring.⁵¹ Secondly, as was underlined in the previous chapter, it is among older workers that the greatest potential lies in terms of achieving the Lisbon employment rate targets.

The second priority – to improve the adaptability of workers and enterprises – has the most obvious link with restructuring. Guideline 21 calls for 'better anticipation and positive management of change, including economic restructuring, notably changes linked to trade opening, so as to

⁵¹ See, for example, Eliason and Storrie (2006) and references within.

minimise their social cost and facilitate adaptation'. However, it is possible that, in terms of supply side employment policy, investment in human capital through better education and skills has in fact the greatest relevance for helping employees deal with the negative effects of restructuring. Recent research suggests that a major obstacle to a successful occupational transition is the low and limited range of human capital of displaced workers.⁵² Thus, truly proactive policy in this context should ensure that the marketable skills of the workforce are not limited to a particular company or sector. Only when this is achieved will relatively smooth occupational transitions be feasible. This in turn is closely related to lifelong learning as an integral part of the working life for all citizens. Lifelong learning, as pointed out by Esping-Andersen (1999), is only feasible when the individual has the ability to reap the benefits of training later on in life, and this can often only be achieved by first securing a sound education in childhood.

Structural Funds

Once jobs have been lost due to restructuring, the main EU level policy response is through Structural Funds. Again, however, the Member States have a considerable role to play with regard to implementation. In the past, the Structural Funds that most specifically addressed restructuring were the industrial areas included in the Objective 2 criteria. These funds were applied in (NUTS 3) regions that met the required criteria, namely: an unemployment rate above the EU average, a higher percentage of jobs in the industrial sector than the EU average, and a decline in industrial employment.

More recently, one of most interesting facets of the European policy response to negative effects of restructuring on employees is the European Globalisation Adjustment Fund (EGF). The fund was proposed by President Barroso in October 2005. In December 2005, the European Council agreed on the establishment of the EGF, and asked the Commission to present a concrete proposal for its implementation. The main criterion for support is evidence of a significant amount of job loss attributed to competition from outside the EU. This is further distinguished according to two sets of criteria:

- Trade criteria
 - Either
 - a massive increase of imports to the EU;
 - or
 - progressive decline of the EU market share;
 - or
 - delocalisation to a third country from an EU region.
- Labour market criteria
 - Either
 - 1,000 redundancies in one enterprise but including supply and customer firms and $U\text{-rate}_{\text{NUTS3 region}} > U\text{-rate}_{\text{average EU or national average}}$;
 - or
 - 1,000 redundancies in a sector (NACE 2) over a six-month period and $\geq 1\%$ jobs in region (NUTS 2).

⁵² See Lamo et al (2006) and Ohlsson and Storrie (2005).

Obviously, it is not yet possible at this point to name the specific regions that will qualify for the EGF, as the award criteria are contingent on the occurrence of future events (redundancies). Moreover, unlike most criteria in the Structural Funds, the EGF criteria largely do not require evidence of low income or employment, and may be awarded to regions in most Member States.⁵³ Thus, the regional distribution of these funds is likely to be quite different from both the outgoing Objective 2 regions (which were the closest previous functional equivalent) and from the current allocation of the Structural Funds in general.

Another difference from existing Structural Funds is the EGF's role as a crisis response mechanism. The European Social Fund, for example, is intended for the pursuit of long-term preventive measures, and this is reflected in its financial structure. In the EGF, there is no fixed budget and resources are to be made available only when required but subject to an annual ceiling. Emphasis is to be placed on active measures for affected employees, such as promoting geographical mobility, providing aid in setting up new businesses, and education and training. The specific measures have yet to be formulated and will presumably adapt to circumstances in the Member State in question.

⁵³ The only labour market stock criterion is found in the second item of the first labour market criteria, i.e. higher than average unemployment. There are at least pockets of high unemployment in all Member States.

Measuring the employment effects of restructuring

There is an acute lack of solid evidence on the employment effects of restructuring at European level. While the ERM is not fully representative of the employment effects of restructuring, it is the only EU-wide attempt to measure restructuring directly. Moreover, the ERM is a very timely and, indeed to some degree, anticipatory measure. This characteristic, together with the fact that it identifies the companies and establishments undergoing restructuring, makes the ERM a particularly useful measure from a policy perspective.

In relation to improving statistics on restructuring, the following three proposals are recommended:

1. The ERM
 - Intensified quality control – this has already been facilitated through editing and quality control, which since March 2006 is now conducted in-house at the Foundation.
 - The representativeness of the ERM is to be checked with other sources.
 - The use of business information services could serve as a complement to the ERM.
2. Other feasible sources that could be developed by others in the short to medium-term
 - The ELFS should add a few questions on the recent experience of job loss for all ELFS respondents.
 - The notification requirement in the EU Directive on collective redundancies is an underused source of information that could complement what the ELFS lacks, i.e. by providing information on the company and the restructuring process. This could be further complemented with a follow-up survey.
3. Long-term development
 - Establishment or company level registers could be more fully developed and harmonised. This is by far the best means of providing data for the analysis of restructuring, and is particularly relevant for an economic analysis from the company perspective.

EU-wide evidence on the employment effects of restructuring

Between 2000 and 2005, employment shares by economic sector continue to show the long-term trend of economic shifts out of the primary and manufacturing sectors and into the service sectors. The substantial loss of employment in agriculture in parts of the EU15 and in most of the NMS10 continues. In manufacturing, the decline is solely attributable to employment in the EU15, with NMS10 figures holding up rather well. In the EU15, all of the top 10 growth (NACE 2) sectors are either service sectors or in the construction sector, while the top 10 declining sectors are all in manufacturing (with the exception of agriculture and diverse financial services). It is also notable that the two, largely public, sectors of health and social work and education have contributed to much of the recent employment growth in the EU15. The two manufacturing growth sectors in the NMS10 are motor vehicles and electrical machinery. In both the NMS10 and the EU15, the manufacture of food, textiles and wearing apparel are among the top 10 declining sectors. It is interesting to observe that while the manufacture of fabricated metal products is in the top 10 declining sectors in the EU15, it is one of the top 10 growth sectors in the NMS10. This suggests a geographical relocation of production.

Ireland and Spain have exhibited high employment growth between 2000 and 2005, quite evenly distributed throughout the regions. Pockets of high growth are also to be found in parts of France (most notably in the mid-west regions), Italy, Greece, the UK (notably in parts of the west coast), and in southwest Sweden. Among the new Member States, employment growth was greatest in Cyprus and Latvia. While the overall picture in eastern Europe is rather poor, there are some pockets of relatively high growth in Poland (Slaskie) and the Czech Republic (Stredni Cechy). The most significant decline in employment is to be found in most regions in Poland and eastern Germany. In France, the Lorraine region shows the highest level of employment decline. Pockets of more modest decline can be found in Greece, Italy, all of Denmark, and the UK. Many of these trends are reflected in the cases recorded by the ERM.

In 2005, the most negative employment impact of job loss due to redundancies in 2004 was concentrated in most of eastern Germany, and parts of Hungary and Austria. All of Ireland, Latvia, Lithuania and parts of England, France and Italy are among the least negatively affected by job loss due to redundancies.

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Annex 1:

EU Directive on collective redundancies

The following section outlines selected paragraphs of the European Directive on collective redundancies (the text of the Directive is in italics).

1) Defining collective redundancies

Section I, Article 1

(a) 'collective redundancies' means dismissals effected by an employer for one or more reasons not related to the individual workers concerned where, according to the choice of the Member States, the number of redundancies is:

- (i) either, over a period of 30 days:
 - at least 10 in establishments normally employing more than 20 and less than 100 workers;
 - at least 10% of the number of workers in establishments normally employing at least 100 but less than 300 workers;
 - at least 30 in establishments normally employing 300 workers or more.*
- (ii) or, over a period of 90 days, at least 20, whatever the number of workers normally employed in the establishments in question.*

2) Information to the employee representatives

2. To enable workers' representatives to make constructive proposals, the employers shall in good time during the course of the consultations:

- (a) supply them with all relevant information and*
- (b) in any event notify them in writing of:
 - (i) the reasons for the projected redundancies;*
 - (ii) the number of categories of workers to be made redundant;*
 - (iii) the number and categories of workers normally employed;*
 - (iv) the period over which the projected redundancies are to be effected;*
 - (v) the criteria proposed for the selection of the workers to be made redundant in so far as national legislation and/or practice confers the power therefore upon the employer;*
 - (vi) the method for calculating any redundancy payments other than those arising out of national legislation and/or practice.**

3) Information to the public authorities

The employer shall forward to the competent public authority a copy of, at least, the elements of the written communication which are provided for in the first subparagraph, point (b), subparagraphs (i) to (v).

Section III, on procedures to be observed, gives more detail on the notification requirements to the relevant public authorities.

Section III, Article 4

1. Projected collective redundancies notified to the competent public authority shall take effect not earlier than 30 days after the notification referred to in Article 3(1) without prejudice to any provisions governing individual rights with regard to notice of dismissal. Member States may grant

the competent public authority the power to reduce the period provided for in the preceding subparagraph.

- 2. The period provided for in paragraph 1 shall be used by the competent public authority to seek solutions to the problems raised by the projected collective redundancies.*
- 3. Where the initial period provided for in paragraph 1 is shorter than 60 days, Member States may grant the competent public authority the power to extend the initial period to 60 days following notification where the problems raised by the projected collective redundancies are not likely to be solved within the initial period. Member States may grant the competent public authority wider powers of extension. The employer must be informed of the extension and the grounds for it before expiry of the initial period provided for in paragraph 1.*
- 4. Member States need not apply this Article to collective redundancies arising from termination of the establishment's activities where this is the result of a judicial decision.*

Annex 2: Displaced Worker Survey

The first question asked of survey respondents aged 20 years and older is: ‘During the last three calendar years, that is, xxxx through xxxx, did (you/name) lose a job, or leave one because: (his/her/your) plant or company closed or moved, (his/her/your) position or shift was abolished, insufficient work, or another similar reason?’ If the answer to that question was ‘yes’, then the respondent was asked to identify which reason, among the following, best described the reason for the job loss:

- Plant or company closed down or moved;
- Plant or company operating but lost job because of:
- Insufficient work;
 - Position or shift abolished;
 - Seasonal job completed;
 - Self-operated business failed;
 - Some other reason.

Respondents who provided one of the first three reasons – i.e. plant or company closed or moved, insufficient work, or position or shift abolished – are classified as ‘displaced’ and asked additional questions about the lost job, including: how many years they had worked for their employer; the year the job was lost; the earnings, industry, and occupation of the lost job; and whether health insurance had been provided. Other questions are asked to determine what occurred before and after the job loss, such as: Was the respondent notified of the upcoming dismissal? How long did he/she go without work? Did he/she receive unemployment benefits? And, if so, were the benefits used up? Did the person move to another location after the job loss to take or look for another job?

Annex 3:

Mass Layoff Statistics (MLS) in the US

The analyst has the following information on a potential layoff event:

- Establishment name
- Establishment address
- Industry of the company
- Number of initial claims filed against the company, weeks in which the claims were filed, and week in which the event triggered
- Prior layoff history of the establishment

Using the telephone number and contact person, the analyst calls and asks the following:

- Did a layoff in fact occur?
- Did the layoff last more than 30 days?
- How many people were involved in the layoff?
- When did the layoff begin?
- What was the (economic) reason for the layoff?

For all reasons other than seasonal and vacation:

1. a) Did this layoff include your company moving work from this location(s) to a different geographic location(s) within your company?
 - Yes, go to 1b.
 - No, skip to question 2a.
 - Don't know or refusal, go to question 2a.
- b) Is the other location inside or outside of the U.S.?
 - Inside U.S.: Which State(s)?
 - Outside U.S.: Which Country(s)?
- c) How many layoffs were a result of this reduction?
 - Number inside U.S.?
 - Number outside U.S.?
2. a) Did this layoff include your company moving work that was conducted in-house by your employees to a different company, through contractual arrangements?
 - Yes, go to 2b.
 - No, proceed with employer interview.
 - Don't know or refusal, proceed with employer interview.
- b) Is that company located inside or outside of the U.S.?
 - Inside U.S.: Which State(s)?
 - Outside U.S.: Which Country(s)?
- c) How many of the layoffs were a result of moving the work to the different company?
 - Number inside U.S.?
 - Number outside U.S.?

Is a recall expected?

Will the recall be total or partial (percentage)?

What is the timeframe for possible recall?

Open/closed status of the worksite?