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# **Defining and measuring relocation and outsourcing of production**

*Lars Mattila and Anne-Christine Strandell*



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## **Foreword**

In the debate about globalisation attention is increasingly focused on the transfer of production from workplaces in Sweden to countries abroad. There is, however, no systematic information on offshoring/relocation and outsourcing of production and it is seldom clear what is involved.

In this report ITPS has surveyed the terminology relating to this phenomenon and has attempted to define the extent of what is usually termed offshoring respectively relocation and outsourcing of production.

The results indicate that offshoring goods and services in the sense of the relocation and outsourcing of production outside of Sweden represents only a small part of total restructuring and expansion by companies abroad. This finding is similar to estimates which have been made in the EU and in the U.S.

The report is the work of Lars Mattila and Anne-Christine Strandell (project leader). Markus Lindvert also contributed to the project.

Östersund, June 2006

**Sture Öberg**  
Director-General



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## Summary

This study by ITPS analyses the phenomenon of transfer of production. In line with increasing globalisation, attention has been increasingly drawn to the relocation and outsourcing/offshoring of production. The debate has thrown up differing, and widely differing, information regarding the scale of the relocation and outsourcing of Swedish production abroad. One of the main reasons for this is the lack of clarity regarding what is really meant by relocation and outsourcing of production. An increase in both imports and direct investment overseas could displace employment if they are due to Swedish production of goods and services being uncompetitive. In this sense it can be seen that offshoring takes place. However, a sweeping definition like this creates difficulties in differentiating relocation and outsourcing of production from the overall restructuring process of change in a small open economy.

ITPS proposes a closer definition of offshoring goods and services, restricting it to when offshoring is taking place within (relocation) or outside (outsourcing) the company and/or within national boundaries or abroad.

If offshoring is measured according to this definition, its scale is very limited. According to the statistics available somewhere between 0.05-0.10 per cent of all employed persons in Sweden have been affected by production which has been offshored abroad. According to the Swedish Labour Market Administration, AMS [Arbetsmarknadsstyrelsen], approximately five per cent of the total number of redundancy notices in the business sector is due to relocation of production abroad. This means that approximately 2 000 people may have lost their jobs due to relocation of production from, Sweden to other countries, of which approximately 1 500 to the EU. The main portion of the relocated production went therefore to another EU country. The majority of personnel employed abroad by Swedish firms work in EU15 and the U.S. i.e. in countries with high labour costs.

The results indicate that offshoring goods and services in the sense of relocation and outsourcing of Swedish production comprise only a small part of the firms' total restructuring and expansion abroad. In terms of the question of whether the cross-border net flow of production moving has increased or reduced employment levels, there is still no answer in the complete absence of statistics on jobs being relocated or outsourced from other countries to Sweden.

Information regarding relocation and outsourcing of production must still be interpreted with care, since the term lacks a clear definition both in the public debate and in purely statistical terms. There is consequently every reason to improve definitions, measuring methods and statistical data needed to analyse the development.

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# 1 Introduction

Since 2000, productivity in the business sector and growth in the Swedish economy have increased, but not employment levels.<sup>1</sup> In the debate relocation and outsourcing of production from Sweden to countries with low labour costs has been held up as the main reason why employment levels in Sweden are not growing as expected. This has resulted in offshoring receiving more and more attention in the media.

The driving forces behind the fact that firms increasingly relocate or outsource parts of their production are many. One explanation is the technological development and economic growth in Eastern Europe, Asia and South America. Another reason is that developments in ICT have improved international business communication to which must be added lower transport costs. Overall the motives can be attributed to increasing globalisation changing the geographical landscape of the business sector.

This has meant that the value added chain can be broken up with each stage located wherever it is most profitable to operate that part of the business. The effects of this structural change can be far-reaching for a country like Sweden with a tradition of having large international companies. There are grounds therefore for discussing the impact on employment levels in Sweden of outsourcing and relocation of production.

One of the basic problems in this context is that there is at the moment no generally accepted definition of the terms offshoring/relocation and outsourcing of production. Definitions vary of the types of jobs that are affected and there is no clearly defined boundary drawn between relocating production domestically and abroad. This makes it difficult to assess to what extent production has been moved abroad and it provides ample opportunity for speculation about this in the political debate and in the media.

It is against this background that ITPS has taken the initiative to analyse what is meant by the terms offshoring/relocation and outsourcing of production and at the same time establish whether it is possible to define it and measure it statistically. The intention is to contribute to the fund of knowledge and understanding of moving production abroad and thereby to contribute to a well-informed debate on its consequences. This is the first step in analysing that part of the restructuring that can have an impact on international competitiveness and growth.

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<sup>1</sup> The phenomenon gives rise to the English expression “jobless growth”.

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## 1.1 Purpose

The report aims to define the meaning of the terms relocation and outsourcing of production and to report the methods used to study the extent of this kind of restructuring. The conclusions of the report will be used as a basis for continuing studies in this area and for the development of statistics.

The purpose can also be said to achieve an answer to three main questions

- What is meant by offshoring, relocation and outsourcing?
- What methods are used to measure the extent of moving production abroad?
- In what ways is available data deficient?

## 1.2 Methodology

ITPS has used as a basis the definition of the English terms “relocation”, “outsourcing” and “offshoring” which have been recorded by the U.S. Government Accountability Office (GAO), the audit, evaluation and investigative arm of Congress. Subsequently a number of different studies have been surveyed which deal with relocation and outsourcing of production, together with estimates of its extent, in order to determine what can be measured using existing data. Swedish reports as well as reports from the U.S. and the EU have been analysed. Moreover ITPS’s statistics relating to Swedish controlled enterprise groups’ international business operations, foreign trade statistics, and redundancy notice statistics from AMS and media review carried out in the EU and by ITPS have all been analysed and processed.

## 1.3 Terms of reference

This report focuses on relocation and outsourcing of production (goods and services) from Sweden to countries abroad<sup>2</sup>. Different methods are surveyed here that measure the extent of the direct effect on employment levels resulting from a firm’s relocation and outsourcing of production abroad. Apart from the direct effect on employment levels in firms that reduce their numbers employed, there are also indirect effects, i.e. other firms that lose customers and therefore reduce the number of employees. Special studies need to be carried out in order to analyse the extent of indirect effects on employment levels but these are outside the scope of this report. However some examples of indirect effects are reported. In addition the motives to reduce costs and produce goods and services in low labour cost countries is in particular discussed.

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<sup>2</sup> There is also a corresponding movement of production from other countries to Sweden which has been examined by, e.g. Eliasson & Eliasson (2005). There are however no statistics covering the total extent of this.

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## **1.4 Contents of the report**

Chapter 1 includes an introduction and also covers the report's purpose and methodology. The definitions of offshoring, relocation and outsourcing as well as general economic interpretations are discussed in Chapter 2. In Chapter 3 existing statistics are surveyed with a view to seeing whether they can be used to measure extent. Chapter 5 reviews different sampling surveys and their contribution to assessing the extent and consequences of relocation and outsourcing of production. Possibilities and problems associated with measuring extent are summarised in Chapter 6. Conclusions and recommendations for further work with the relevant statistics and analyses can be found in Chapter 7.

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## 2 Defining relocation and outsourcing of production

The following section discusses the significance of the terms relocation and outsourcing of production. It begins with general economic explanations for these kinds of restructuring and its consequences. After that the international activities of firms are dealt with and the changes in production and employment levels in Sweden. The chapter concludes with discussion about terminology where the significance of the English terms offshoring, outsourcing and relocation is analysed.

### 2.1 Comparative advantages

Independent of the type of business involved, offshoring production represents an application of David Ricardo's<sup>3</sup> theory of comparative advantages. This is based on the theory that two countries can profitably trade with one another even if one country is more efficient in all types of production. Ricardo states that if all the parties involved specialise in producing the goods and services where they have a relative advantage, then the aggregate production of all countries will grow. If a country concentrates on taking advantage of its relative advantages, jobs will disappear in sectors which have relative disadvantages (importing sectors), while jobs are created through exports in sectors where the country has relative advantages.

Critics<sup>4</sup> of this theory point out that the economic development seen today is of a different character to that previously encountered and that the theory of relative advantages is no longer valid. Underlying this assessment is the view that Ricardo's thesis is undermined by the mobility of production factors between countries nowadays compared with the past. It is considered that this leads to flow of capital to low labour cost countries to maximise return on investment as much as possible. The effect of this is that new jobs are continually being created but only where labour costs are most advantageous. If this is the case, economic gains arising from the changes are not shared but some countries win while others lose.

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<sup>3</sup> Ricardo (1817).

<sup>4</sup> For example Schumer & Roberts (2004) och Dobbs (2005).

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## 2.2 Effects on the national economy

Research into the effects on the national economy of relocation and outsourcing of production is reasonably comprehensive and points to two important conclusions<sup>5</sup>: (1) general economic gains and (2) adjustment problems. Economists who refer to gains at the national level, such as Catherine L. Mann<sup>6</sup> of the Institute for International Economics in the U.S., assert there are manifest reductions in prices and costs. Offshoring services to low labour cost countries has generated productivity gains and lower inflation, creating a basis for a more expansive monetary policy. The long-term effect is believed to be strong economic growth and an increase in employment levels.<sup>7</sup> In addition it is considered that offshoring services contributes to innovation development, particularly in the ICT area. Savings in development costs are stated to be the result of offshoring giving rise to new goods and services.

To be set against general economic gains is the difficult position that arises for individuals affected by closures. Offshoring goods and services can mean that employees in the businesses involved lose their jobs. Alternative job opportunities can be less attractive than the job which has in effect been exported. It should be added that the general economic gains are only realised if there is a system for adjustment that enables the affected individuals to obtain employment in more productive businesses. The European Economic Advisory Group (EEAG) and others emphasise the importance of creating the right framework for a more flexible labour market<sup>8</sup>.

## 2.3 Driving forces

Reference is often made to John Dunning<sup>9</sup> in the context the driving forces behind companies internationalising their businesses. According to Dunning there are three principle motives why firms expand their businesses outside their own country. The motives are to find new resources and skills (skills-driven) or access to markets (market-driven). Firms can also benefit from differences in the cost base in different countries (cost-driven).

The skills motive is based on firms establishing businesses in a country in order to access advanced technology, specialised skills, good infrastructure or raw materials. The market-driven motive hinges on the firm's interest in entering a specific region's market and its potential growth. H&M's establishment of

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<sup>5</sup> Kirkegaard (2004).

<sup>6</sup> Mann (2003) och Mann (2004).

<sup>7</sup> McKinsey Global Institute (2003).

<sup>8</sup> EEAG (2005).

<sup>9</sup> Dunning, (1977).

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shops outside of Sweden and the acquisition by Securitas of other security firms are examples of market-driven initiatives in the services industry. In terms of cost-driven motives it is essentially labour costs that prompt firms to establish their businesses outside their own country, e.g. the textile industry.

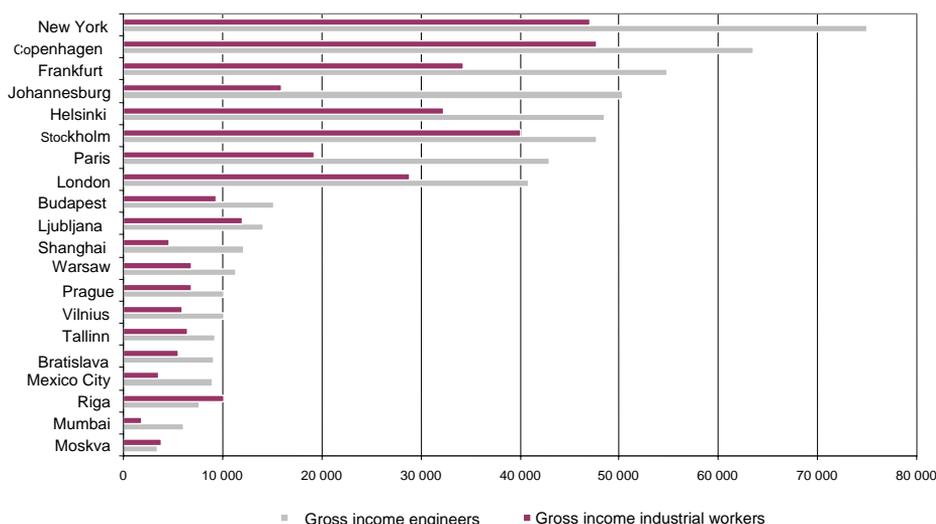
The most common reason for Swedish firms wanting to operate an international business is thought to be because they want to increase market share through acquiring similar businesses in larger or growing markets. Apart from access to growth markets, the ability to recruit personnel with the right skills is most important. Proximity to customers is also considered to be a significant factor. More recent motivating factors include deregulation in the electrical power supply and telecommunications industries which has contributed to increased international investment. Investment decisions of this type do not generally involve any displacement of employment and production in the home country.

It is therefore important to distinguish between firstly, internationalisation carried out to access skilled labour or cost savings, and secondly, the motive to access a specific market. This report focuses specifically on relocation and outsourcing of production which is primarily motivated by a reduction in costs.

### 2.3.1 What is the attraction of host countries?

What therefore has brought about the relocation and outsourcing of production to low labour cost countries in recent years? The answer to this question has many facets. One answer is the technological and economic development which has taken place in Eastern Europe, Asia and South America. These regions now offer high quality production at low cost. Economic growth has been fast in former and current developing countries and they have invested more and more in education and research and development in order to catch up with the industrialised countries. They have gone from specialising in basic low price products to a more diversified production landscape that covers advanced and internationally competitive products. Their relatively low cost base is an advantage in this competitive scenario. Examples of the differences in labour costs are shown in Figure 1.

Figure 1 Gross income for engineers and industrial workers in 2003 USD per annum.



Source: UBS (2003), edited by ITPS.

Further reasons for companies operating their businesses on a global basis are reduced technical problems in international communication combined with lower transport costs<sup>10</sup>. This gradual change has made it easier for firms to produce goods and services in other countries which are then sold on the global market. Instant telecommunication is also a reason for the increased globalisation in the services industry. Technology enables ICT-related business functions such as data recording, payroll handling and different forms of telephone support to be carried out abroad<sup>11</sup>. On the other hand, language is an important factor in localising telephone exchanges and customer service.

## 2.4 International activities of companies

A number of attempts have been made in the recent past to estimate the extent of relocation and outsourcing of production from Sweden to other countries. One reason for the divergence seen in results from differing studies is the difficulty in separating out the phenomenon from the firms' other activities abroad. The problem arises because of the lack of clear definition between different forms of international activity. The assessment is further complicated by the need to take

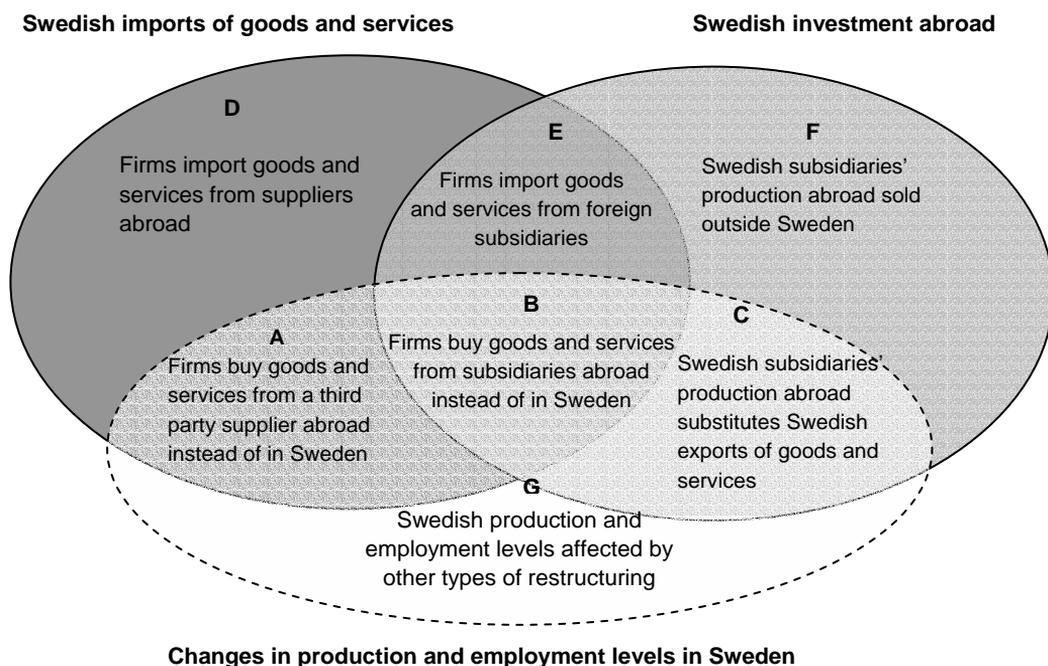
<sup>10</sup> Grossman & Helpman (2003).

<sup>11</sup> OECD (2004).

into account information that is difficult to obtain, such as the motive behind international operation.

To help clarify the effect on employment levels by different types of business decisions, Figure 2 shows a model of international activities by firms including relocation and outsourcing of production. The upper circle to the left in the figure (area D) represents imports of goods from abroad into Sweden, the upper circle to the right (area F) represents Swedish direct investment abroad and the lower circle (area G) represents the changes in production and employment levels in Sweden. The overlap areas marked A, B and C show examples of activities by firms abroad that can have an effect on employment levels and production in Sweden.

Figure 2 International activities and changes in production and employment levels in Sweden.



Source: GAO (2004:57), edited by ITPS.

Areas A and B consist of import activities that lead to increased imports of goods and services instead of purchasing in Sweden. In other words a Swedish firm decides to buy intermediate goods made abroad of higher quality or lower price instead of continuing to produce them in Sweden. Area C can also have an adverse effect on employment levels if production abroad substitutes exports from Sweden. If this is the case, it can be said that the relevant jobs in Sweden have been exported.

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Figure 3 Examples of international activities by companies in Figure 2

The following represent examples of the activities by companies in the partial areas marked with a capital letter in Figure 2. The term 'company' is used as a synonym for 'enterprise group'.

Enterprise group is defined as a parent company with at least one subsidiary.

- A:** A company in Sweden employs construction workers from Latvia instead of using a Swedish contractor.
- B:** A company in Sweden decides to close a department responsible for technical support and relocate the function to its subsidiary in India.
- C:** A company in Sweden manufactures drugs at its U.S. subsidiary in order to sell the production in the local market. Local production substitutes exports from Sweden.
- D:** A company in Sweden imports ICT-related business functions from a third party supplier located in India to support its expanding business.
- E:** A company in Sweden imports ICT-related business functions from a subsidiary in India to support an expanding business in Sweden.
- F:** A company in Sweden manufactures pharmaceuticals at its subsidiary in the U.S. in order to sell the production locally. This business has no effect on exports from Sweden to the U.S.
- G:** A company improves the efficiency of its business in Sweden.

## **2.5 Definition of the terms “relocation and outsourcing”**

Estimates of the extent of relocation and outsourcing are at variance largely because there is no clear definition of these terms. A number of differing terms and definitions are currently in use in the debate. Jobs in Sweden that disappear because of imports or direct investment abroad are usually included in wider definitions (areas D, E and F in Figure 2). Other more closely defined definitions are limited to decisions by companies regarding relocation or outsourcing that can directly affect production and employment levels in Sweden (areas A, B and C in Figure 2).

### **2.5.1 Outsourcing**

Outsourcing is the term used to describe the situation when a company transfers an activity to a third party supplier which it has previously been carried out in-house. This English term has no direct equivalent in Swedish. The term has however increasingly acquired currency in Sweden in recent years. Despite the fact that outsourcing is regularly used in both political and academic circles it is often done so without any definition of what it really means. A possible explanation of this is the word's relatively short history.

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Outsourcing found its way into the English dictionary for the first time in 1982. This can explain why there is no well-established definition of the term or tradition of how the term should be used.

Outsourcing is described as follows in two English reference books:

1. *the delegation of tasks or jobs from internal production to an external entity, such as a subcontractor (Oxford English Dictionary)*
2. *the practice of subcontracting manufacturing work to outside and especially foreign or non-union companies (Merriam-Webster's)*

The definitions represent two different interpretations but lack clarity in definition. Both explanations of the term refer to subcontracting of the activity. In contrast to outsourcing, the English word subcontracting existed as far back as 1842. According to Merriam-Webster's, the term describes when a company "engages a third party to perform under a subcontract all or part of work included in an original contract".

Obviously subcontracting is a closely related term to outsourcing. The term is also used by many authors and experts as a synonym of outsourcing.

What is it that differentiates the term outsourcing from subcontracting? In our opinion outsourcing is the transfer to a third party of a process, product or specified functions that have been previously undertaken in-house. The transfer of the activity can take place either to a supplier operating in Sweden or abroad. The company has consequently an on-going need of the activity or activities which are affected by the phenomenon. Subcontracting applies when the transfer of the activity to a third party is on a more temporary basis. Abrahamsson et al.<sup>12</sup> express this aptly by saying: "outsourcing is a more irreversible step than subcontracting. A decision which cannot easily be reversed".

A decision to transfer the activity to a third party supplier is normally motivated by the company wishing to concentrate on its core business. The rationale for this is based on the assumption that specialisation brings reduced costs, increased strategic flexibility and reduced financial risks. According to Bengtsson et al.<sup>13</sup> many companies base their decision on an inadequate assessment with the result that the advantages of outsourcing are overestimated.

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<sup>12</sup> Abrahamsson et al. (2003:36).

<sup>13</sup> Bengtsson et al. (2005).

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It is important to point out that the word outsourcing is significantly more recent than the activity it describes<sup>14</sup>. As far back as the 1930's Ronald Coase<sup>15</sup> developed a rationale covering which activities should be organised within a company and which ones outside the company. He focused on the relative importance of transaction costs as a basis for making a rational choice in economic terms. The rationale has been further developed by Williamson<sup>16</sup> by including phenomena such as opportunism, limited rationality and uncertainty in the discussion.

In addition in the theory related to multinational enterprises and foreign direct investment there is research which has been carried out over many years which addresses the issue of whether a company should produce in-house or transfer the activity to a third party. In this context, instead of outsourcing, the almost opposite term is used, namely 'internalisation'<sup>17</sup>.

## 2.5.2 Offshoring

A further term with a central role is the English term 'offshoring'. The term, which came to the surface in connection with the US presidential election in 2004, is an expression that relates to the allocation of jobs abroad. The word offshoring lacks, just as in the case of outsourcing, a satisfactory Swedish equivalent which would make direct translation possible. In the Swedish debate the terms 'flytt av produktion' (relocation of production) or outsourcing are used to describe the phenomenon.

Despite the fact that a number of different definitions of offshoring have been presented in the literature it is evident its meaning is diffuse. The situation is further complicated by the fact that offshoring is often mixed up with outsourcing. Overall, a lack of clarity and confusion exists which in itself calls for clarification. In this context it is important to differentiate between the two terms and to clearly define the meaning of offshoring.

The term offshoring is defined in the Encyclopædia Britannica as follows: "the practice of companies outsourcing operations overseas, usually to less-developed countries with the intention of reducing costs". Offshoring is given in this definition a restricted meaning by emphasising a specific type of relocation of activity despite the fact that allocation of activity abroad takes place in many areas and sectors. It is, therefore, obvious that the above definition is not fully comprehensive but, at the same time, this interpretation reflects the meaning that

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<sup>14</sup> Markusen (2005).

<sup>15</sup> Coase (1937).

<sup>16</sup> Williamson (1988).

<sup>17</sup> Dunning (1977).

is many times intended. This shows the vague way in which the term is used and the difficulty in determining a uniform meaning for the expression

In the American debate the term offshoring is usually used as an umbrella term for two types of activities: relocation of activity abroad which is done within the company (offshore in-house sourcing) or transfer abroad of the activity to a third party company (offshore outsourcing). Both these forms of offshoring represent what is referred to as relocation and outsourcing of production in this report.

### 2.5.3 Towards a better terminological framework

In order to analyse the extent of offshoring and its effects, it is important to clarify which phases are being measured. It is, consequently, important to differentiate between relocation/outsourcing respectively expansion and change in ownership.

Figure 4 shows a matrix with four different restructuring parameters: within or outside the organisation and within or to/from a country. ITPS suggests that a change of geographical location is termed relocation when it takes place within the same organisation and outsourcing when the activity is transferred to an third party supplier. Relocation and outsourcing within a country occur without effect on employment levels nationally; on the other hand, a region can be affected as much by changes within the country as by changes abroad, if it happens outside the local labour market.

Figure 4 Four examples of restructuring

	Domestic	International
Within the organisation	Domestic relocation of production within the organisation	International relocation of production within the organisation
Outside the organisation	Domestic outsourcing of production to a third party supplier	International outsourcing of production to a third party supplier

*Note. International covers both relocation and outsourcing to and from abroad. This report focuses on the direction from the home country to a country abroad.*

Source: GAO (2005), edited by ITPS.

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Relocation of production within the same organisation can take place domestically and to and from a country abroad. Figure 4 shows international relocation and outsourcing in both these directions but this report focuses on the direction from the home country to a country abroad.

In the case of relocation the company has control over the activity and can change the decision it has made. Outsourcing means, contrary to relocation, that the activity is transferred to another company and the original company loses control and in principle cannot change its decision. The latter does not apply to businesses where there is little need for control and where there are many alternative suppliers, e g cleaning. Both relocation and outsourcing of production from Sweden to other countries usually leads to reduced employment levels, but it can also contribute to a beneficial effect on employment.

ITPS's review of methods which are used to measure relocation and outsourcing of production are evident in the right-hand column of Figure 4. It would be an advantage if future measuring of the extent of offshoring were to differentiate between outsourcing and relocation and the geographical parameter as well. In addition it should be made clear whether production covers both goods and services.

In addition the terms offshoring, relocation and outsourcing should not be used in the context of expansion or change of ownership. Expansion is a normal reason for a company increasing number of employees and that applies as well when the company is growing in other countries. Change in ownership and other types of restructuring could also affect employment levels but there is a reduced likelihood of the production location being affected.

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## **3 Measuring international activities**

The following section examines whether it is possible to study relocation and outsourcing of production using statistics relating to international enterprises based in Sweden. The number and changes in the number of employees per country and per industry are examined here. Finally the possibility is discussed of using foreign trade statistics to increase understanding of relocation and outsourcing of production by companies.

### **3.1 Swedish international enterprises**

ITPS is responsible for the official statistics for international enterprises, i.e. foreign controlled enterprises in Sweden, and all enterprise groups with at least one subsidiary abroad. These statistics contribute to understanding where Swedish companies in different sectors have the most employees and in which countries number of employees have increased or decreased. The following reviews Swedish controlled enterprise groups with at least one person employed abroad.

#### **3.1.1 Number, and change in the number, of employees**

According to ITPS in the reference year of 2003 there were 2 792 enterprise groups, of which 2 207 were Swedish controlled and 585 foreign controlled. A large proportion of the Swedish controlled groups (1 363) had subsidiaries but no employees abroad. Many of the foreign controlled groups had acquired companies in Sweden and then reorganised the subsidiaries abroad so that they are directly controlled by the new parent company. Changes in ownership of this type make it more difficult to study the businesses outside Sweden. The following statistical review therefore relates only to Swedish controlled groups which comprised 30 per cent of all enterprise groups under review.

Number of employees analysed per type of country of location can be used as a proxy for businesses in high and low labour cost countries respectively. Further the assumption can be roughly made that in high labour cost countries the motive is market-driven while in low labour cost countries it is cost-driven. To achieve a more accurate estimation of the extent and degree of change that is attributable to offshoring goods and services, the assumption regarding the main motive must be combined with assumptions on whether the dominating industries are moveable/offshorable or not. The term offshoring here covers relocation within the company and outsourcing to a third party company abroad.

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Since 1998 Swedish international groups employ more people abroad than in Sweden. Nearly 46 per cent of all employees work in EU (EU15) countries and 22 per cent in the U.S. In other words, nearly 70 per cent of all employees abroad worked in these high labour cost countries in 2003. From Table 1 it can be seen that just over three out of four employees work in high labour cost countries where the groups have at least 10 000 employees. In terms of low labour cost countries, most are employed in Eastern Europe and the Baltic States, corresponding to nearly 9 per cent of the total employed abroad. In India, Mexico and China the corresponding share was just under two per cent for each country.

The majority of employees in subsidiaries of Swedish groups consequently work in high labour cost countries, which points to market-driven motives being the prevailing one overall. On the other hand there has been a substantial increase in the numbers employed in low labour cost countries, primarily in Eastern Europe.

Table 1 Number and change in the numbers employed in Swedish international groups in their largest markets 1996-2003.

<b>Country</b>	<b>% change 1996-2003</b>	<b>% employees abroad/total abroad 2003</b>	<b>Number employed 2003</b>
Total	12		1 459 543
Sweden	-28		503 107
Outside Sweden	58	100.0	956 436
EU15	29	45.8	438 460
USA	147	22.4	213 947
Nordic countries	71	14.7	140 370
Germany	27	10.0	96 082
Eastern Europe/Baltic	162	9.4	89 822
France	86	7.1	68 370
United Kingdom	1	6.1	58 816
Finland	104	5.3	51 122
Denmark	57	4.8	46 300
Norway	56	4.5	42 924
Spain	55	3.4	32 315
Poland	224	3.0	28 595
Italy	-16	2.9	27 503
Netherlands	-1	2.0	19 047
Belgium	-3	1.8	17 385
China	134	1.8	17 123
India	73	1.7	16 515
Canada	82	1.6	15 002
Brazil	-26	1.5	14 468
Mexico	99	1.4	13 376
Czech Republic	512	1.4	13 201
South Africa	362	1.4	13 167
Estonia	66	1.3	12 252
Australia	48	1.2	11 714

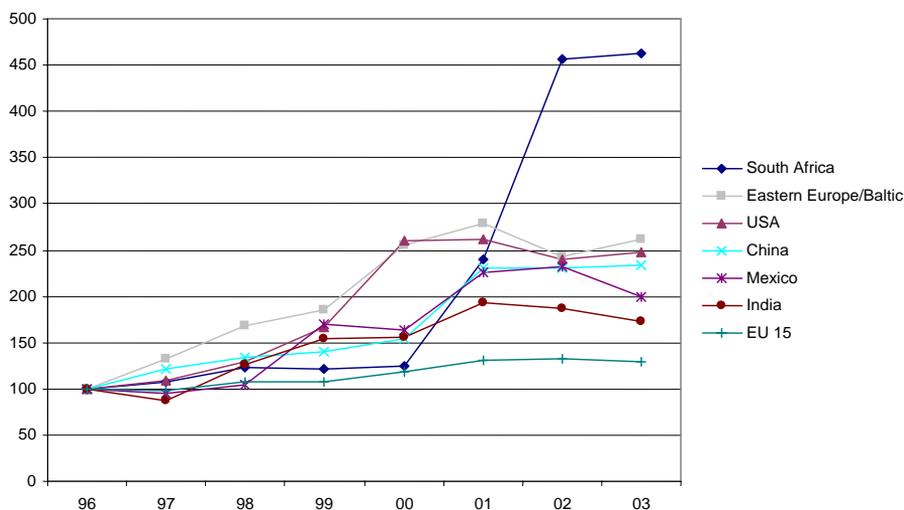
*Note. Eastern Europe/Baltic includes: Bulgaria, Moldavia, Poland, Romania, Russia, Slovakia, Czech Republic, Ukraine, Hungary, Belarus, Estonia, Latvia and Lithuania. Denmark and Finland are represented in both Nordic countries and EU15. Only countries with at least 10 000 employees are included in the table.*

*Source: ITPS, International enterprises.*

During the period 1996-2003 the highest per cent increase in numbers employed was greatest in South Africa, Eastern Europe, U.S., China, Mexico and India. In Eastern Europe, the largest increase in numbers employed was in

the Czech Republic and Poland while in EU15 the largest increase was seen in Finland and France. The per cent increase in numbers employed is shown in Figure 5.

Figure 5 Indexed growth in numbers employed in Swedish controlled groups 1996–2003.



Source: ITPS, *International Enterprises*.

### 3.1.2 Construction industry and services grow most

In addition to the majority of employees working in high labour cost countries, the increase has been highest in sectors previously considered not capable of relocation, e.g. security services, the construction industry and electrical power supply. Growth by companies in these sectors abroad is usually due to a desire to access large and growing markets rather than to displace employment in Sweden. The manufacturing industry can be assumed to benefit most in moving labour intensive production to low labour cost countries. The largest growth in numbers employed in manufacturing companies has been seen in China and India although at a low level.

South Africa showed the highest growth in numbers employed in the period between 1996 and 2003, primarily in the construction industry. In Eastern Europe, the highest growth in numbers employed has been in the Czech Republic and Poland, with the construction industry again dominating. In 2000 Poland was the ninth largest market for Swedish groups. This was primarily due to some individually large acquisitions in the business services and

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electrical power supply areas, with the result that numbers employed also increased strongly in these sectors. The largest manufacturing industry which has invested in Poland is manufacture of motor vehicles.

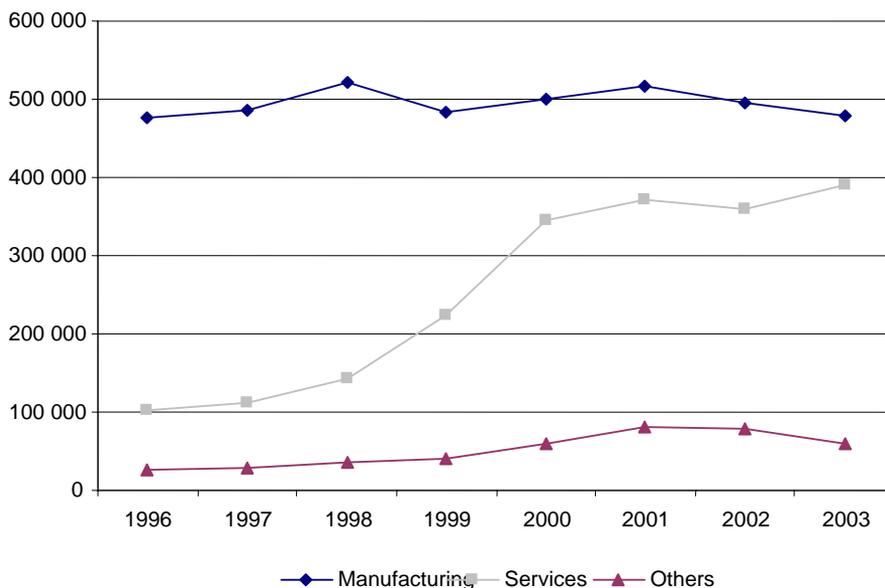
In the U.S. and Mexico the growth has been primarily in business services. Business services, machinery and metals manufacturing employ most workers in the U.S. The largest sectors in Mexico are wholesale trade, business services and machinery manufacturing. The manufacturing industry takes most of the growth in India and China. In China Swedish groups have the largest number of employees in machinery manufacturing, followed by communications equipment and metal goods. Manufacturing of machinery also employs the largest number of employees in India. The next largest sector is tobacco, followed by metal goods manufacture.

### 3.1.3 The development in the manufacturing and service sectors

From the middle of the 1990's companies in the services sector have shown the strongest growth abroad. Employment levels in manufacturing groups abroad have been relatively unchanged since 1996 although higher than in services groups. The years 2000-2003 saw a strong growth in the numbers employed abroad in electrical power supply.

It is business services that have grown most abroad in the services groups with 93 per cent of all employees working for Securitas subsidiaries (security services). In 1993 Securitas was the largest Swedish controlled group abroad measured by number of employees. During 2002 Securitas acquired companies in the Netherlands and Canada. Securitas continued to grow in 2003 through the acquisition of security companies in Germany, the U.S. and Spain. The increase in employment levels in the services sector can consequently be explained by market-driven expansion.

Figure 6 Numbers employed abroad in Swedish international manufacturing, services and other groups abroad 1996-2003

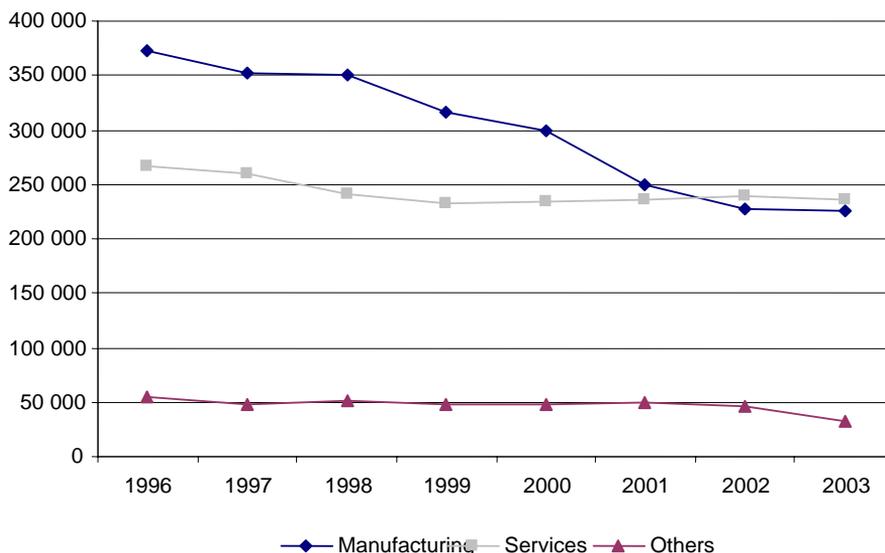


*Note. Other includes the construction industry and electrical power supply. Part of the change abroad is due to companies becoming foreign controlled and they are no longer included in the population.*

*Source: ITPS, International companies.*

Companies in the manufacturing industry have the longest history in operating businesses globally. In 2003 they also had more employees abroad than the service industries. Growth in employment levels between 2000 and 2003 was primarily in manufacture of motor vehicles and metals as well as financial services. On the other hand employment levels fell in manufacture of communications equipment, machinery, paper and pulp both domestically and abroad. Employment levels also fell in post and telecommunications and retailing in Sweden. The decline within manufacturing industry in Sweden was substantially more than abroad: a decline of 72 000 compared with just under 5 000.

Figure 7 Numbers employed in Swedish international manufacturing, services and other groups in Sweden 1996–2003.



*Note. Other includes the construction industry and electrical power supply. Part of the change in Sweden is due to companies becoming foreign controlled and are no longer included in the population.*

*Source: ITPS, International companies.*

## 3.2 Foreign trade statistics

When companies purchase goods and services abroad, including from foreign subsidiaries, instead of domestically, this can have an adverse effect on domestic production and employment levels. Also when foreign investment constitutes substitution of exports this can indicate offshoring goods and services. See areas A, B and F in Figure 2. Foreign trade statistics have been used in this section to analyse the effect of trade on employment levels.

### 3.2.1 Employment levels and foreign trade

A rough estimate of the correlation between direct investment abroad and trade gives some indication of the extent that domestic production that has been displaced with a consequent effect on employment levels in Sweden. ITPS's statistics for the increase in numbers of employees in the subsidiaries abroad of Swedish controlled groups have been compared with the total changes in foreign trade with the same countries.

In the countries where Swedish groups have increased number of employees most, trade has risen strongly. The EU and the U.S. dominate both foreign direct investment and trade with Sweden in absolute figures. There is consequently some correlation between trade and production abroad.

The highest percentage increases in imports of goods between 1996 and 2003 were from South Africa, China and Eastern Europe. Poland and the Czech Republic were responsible for the largest increases among the eastern European countries. Exports during the same period showed highest growth in Mexico, Eastern Europe and India. Exports have increased strongly to the countries where Swedish companies have increased numbers employed most. Imports have also grown from all these countries with the exception of the U.S. In 2003 Sweden had a trade surplus with all countries mentioned above except China. Sweden has the largest trade surplus with the U.S.

Table 2 Total trade in goods with countries in which numbers of employees have increased most in Swedish controlled groups 1996–2003, SEK billion.

	Imports	Imports	% change	Exports	Exports	% change
	1996	2003	1996–2003	1996	2003	1996–2003
U.S.	29.2	27.8	-5	47.1	94.8	102
China	7.2	19.7	172	9.3	18.0	93
Eastern Europe/						
Baltic	10.2	18.4	81	22.4	50.8	127
India	1.3	2.2	69	3.4	7.1	107
South						
Africa	0.4	1.1	178	2.6	3.6	35
Mexico	0.3	0.4	28	1.3	5.8	359

Source: SCB, *Foreign Trade Statistics*.

### 3.2.2 Imports of intermediate goods

In a number of academic publications<sup>18</sup> imports of intermediate goods taken from input-output tables have been used as an approximation of international relocation and outsourcing<sup>19</sup>. The studies have tried to show how changes in imports of intermediate goods affect labour demand domestically. It is primarily the relative demand for unskilled and highly skilled labour

<sup>18</sup> E.g. Falk M. & B.M. Koeble (2002), Strauss-Kahn V. (2003) and Hijzen. A. et al. (2004)

<sup>19</sup> Many researchers have unfortunately not made clear the difference between relocation and outsourcing and consequently used the term outsourcing for both of these activities.

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respectively that has been analysed. This method has been used for example by the Confederation of Swedish Enterprise [Svenskt Näringsliv]<sup>20</sup> to analyse the effects on employment levels in Sweden.

The Confederation of Swedish Enterprise shows in its analysis that the share of imported intermediate goods in relation to total production of goods in Sweden grew by 7 per cent between 1995 and 2003. The authors estimate that the total increase in the share of imported intermediate goods is due to relocation of production abroad and that employment levels for this intermediate goods production is similar in proportion with that in the rest of manufacturing industry. This leads to the finding that employment levels have dropped by approximately 50 000 persons in the period 1995-2003.

An advantage in using data based on imports of intermediate goods compared with employment levels data (for numbers employed abroad) is that this data is not limited to measuring processes in the multinational groups (relocation) but phenomena such as outsourcing and new subcontracting contracts can also be taken into account. However there are some problems in using data for imports of intermediate goods taken from input-output tables as representing relocation and outsourcing of production.

- Input-output tables available in Sweden are highly aggregated statistically and the aggregation level used can affect the results. As always with data analysed per industry, the level of statistical aggregation should be justified and the influence of this on the results made clear. In addition there is no data on a per annum basis, only for very fifth year, e g 1995 and 2000.
- Imports of raw materials should be seen as complementing the domestic labour pool and not as substituting it (assuming it is not just the raw material producing sector which is being studied). For example if rising oil prices have a substantial impact, then that means that if imports of intermediate goods increase then demand for different types of labour should rise.
- There are two methods in the literature to define supplier sectors. The results can differ somewhat depending on which definition is used, i.e. narrow or broad definition of importing industries<sup>21</sup>. In addition, it is not possible to identify the country of origin in the statistics for imports of intermediate goods in the input-output tables, which means that other sources have to be used to see from where the imports come.

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<sup>20</sup> Confederation of Swedish Enterprise [Svenskt Näringsliv] (2004)

<sup>21</sup> Narrow considers imported intermediates in a given industry from the same industry and broad refers to imported inputs from all industries.

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### 3.2.3 Imports of services

Several studies in the U.S. have focused on changes in different types of services primarily through analysis of imports of services to assess the effect on employment levels.

The U.S. and OECD have compared imports of services with exports of services from India. According to Indian trade statistics<sup>22</sup> exports of ICT services to the U.S. increased substantially between 1998 and 2002, from USD 1 966 million till USD 6 402 million. However this is not seen in the U.S. imports statistics<sup>23</sup>. Imports of ICT services from India according to American statistics declined during the same period from USD100 million to USD 80 million. Notwithstanding the fact that Indian and American measurement methods are not identical, a number of American experts consider the differences are far too large.<sup>24</sup> They are further of the opinion that foreign trade statistics for goods are generally speaking more reliable than those for services.

Table 3 Indian exports and other countries imports of services 1999-2002, USD billion.

<b>Trade in services</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Indian world exports	14.5	19.2	20.9	24.9
Imports from India to:				
U.S.	1.5	1.9	1.8	1.7
EU	2.5	2.3	2.4	2.3
Japan	0.5	0.4	0.4	0.3
Canada	0.1	0.1	0.2	
Imports total	4.5	4.6	4.6	4.3
Per cent of Indian exports not recorded by the above countries	68.0	76.0	77.0	83.0

Source: OECD, *Information and Technology Outlook 2004*.

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<sup>22</sup> Indiatat: <http://www.indiastat.com>

<sup>23</sup> Bureau of Economic Analyses: <http://www.bea.doc.gov>

<sup>24</sup> Kirkegaard (2004)

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## **4 Restructuring statistics**

Restructuring of company businesses is increasingly taking place across borders. Redundancy notice statistics and statistics based on information published in the media are two sources which can be used to study the effects of restructuring on Swedish levels of employment. The following section discusses these two methods and possibility of using them to estimate the extent of relocation and outsourcing of production abroad.

### **4.1 Redundancy notice statistics**

Redundancy notice statistics represent a method used in the U.S. and elsewhere to assess the scale of the employment levels that can be affected by relocation and outsourcing abroad. The US Bureau of Labor<sup>25</sup> collects data in the U.S. on redundancy notice numbers. These statistics cover all employers who plan to make redundant or lay off 50 or more employees for at least 31 days. In addition a wide variety of the causes of redundancy notices are recorded. Relocation of production abroad was responsible in 2003 for 0.9 per cent of redundancy notices while the figure for relocation of production within the U.S. was one per cent. Internal restructuring was a more common reason for redundancy notices (9.1 per cent) than relocation, and commonest was seasonal work. In Sweden, the Swedish Labour Market Administration (Arbetsmarknadsstyrelsen, AMS) produces corresponding statistics.

#### **4.1.1 The Swedish Labour Market Administration**

The Swedish Labour Market Administration, AMS compiles statistics on both the redundancy notice numbers in Sweden and the number subsequently made redundant. Employers intending to make redundancies are obliged to report the number redundancy notices if it amounts to five employees or more and in the case of the construction sector, 20 or more. The number of redundancy notices is the maximum number of employees who may be made redundant, but usually significantly fewer actually lose their jobs. According to AMS, on average 20-30 per cent of the total number of redundancy notices result in job losses. In order to find out the real extent, it is consequently necessary to track how many who received redundancy notices were not successful in obtaining a new job after a certain period of time.

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<sup>25</sup> US Bureau of Labor: <http://www.bls.gov>.

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There were a total of 43 229 redundancy notices in the business sector in 2005 and 9 278 in the public sector. In the business sector 12 658 redundancy notices were due to closures. The highest numbers of redundancy notices in this year were in manufacturing industry, primarily manufacture of communications equipment, pulp and paper, and metal goods. In the services sector most redundancy notices were in data processing, wholesale trade and other business services.

From 1 January 2005 AMS has also recorded the causes of redundancy notices relating to the relocation of businesses. Differentiation is made between relocation abroad (within and outside the EU) and domestically (analysed per county as well as Sweden as a whole). These redundancy notice statistics could in the long-term be used to estimate the extent of total relocation of production abroad. Since statistics for causes such as relocation have only been available since January 2005, insufficient time has elapsed to be able to generalise on the extent each year in this report. Single important events can have a large impact. For example, there were a large number of redundancy notices in the first half of 2005 due to cutbacks in the defence area. The effects of relocation within Sweden in this context affected more persons than those affected by relocation abroad in the business sector in this period.

The business sector there were a total of 1 980 redundancy notices due to relocation abroad and 2 215 due to relocation within the county or in Sweden as a whole. The majority of redundancy notices due to relocation abroad related to another EU country, 1 510 persons. In the whole of 2005 redundancy notices in the business sector due to relocation abroad constituted five per cent of the total number. In the public sector the number of redundancy notices due to domestic relocation corresponded to 20 per cent of the total number for this sector.

## **4.2 Media review**

Recording of information publicised in the media can be used in compiling statistics regarding announced changes regarding employment levels affected by restructuring. Continuous press review of changes in EU15 as well as in Poland, Slovakia and the Czech Republic<sup>26</sup> has been carried out by The European Restructuring Monitor<sup>27</sup> (ERM). ITPS had carried out corresponding recording of restructuring in Swedish media. In this section light will be thrown on the method which ERM and ITPS use and the results for 2005.

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<sup>26</sup> From April 2005 all 25 EU countries are included as well as Bulgaria and Romania.

<sup>27</sup> ERM: <http://www.emcc.eurofound.eu.int/erm>

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#### 4.2.1 The European Restructuring Monitor

The European Restructuring Monitor, ERM, records changes in employment levels caused by restructuring in the business sector affecting 100 or more employees in the EU countries. The difference between planned and implemented cutbacks cannot be seen. On the other hand this source gives indications of current changes in employment levels in the EU, the reasons behind the changes and which industries are affected.

Only a minority of the cutbacks in Europe are considered to be due to relocation and outsourcing of business activities abroad. Five per cent of planned cutbacks relate to relocation and outsourcing of business activities abroad and just over one per cent domestic relocation. Half of one per cent results from domestic outsourcing in these EU countries. The majority of jobs disappear because of internal restructuring, 73 per cent. The new jobs that are created arise primarily from business expansion.

The largest reduction in employment levels in Sweden was also due to internal restructuring with only a small part due to relocation and outsourcing abroad during 2005. Reduction in Swedish employment levels due to relocation abroad was approximately five per cent, about the same level as in the other EU countries under review. The number of planned new jobs was significantly lower than the planned reductions, both in Sweden and the rest of the EU.

Table 4 Breakdown of employment effect by type of restructuring in Sweden during 2005.

Type of restructuring	Planned job reductions	% Planned job reductions	Planned job creation
Internal restructuring	11 742	70.4	200
Bankruptcy or closure	1 988	11.9	0
International relocation	765	4.6	0
Domestic relocation	546	3.3	0
Acquisition	800	4.8	0
International outsourcing	150	0.8	0
Domestic outsourcing	700	4.2	0
Expansion	0	0	1 645
Other	0	0	0
Total	16 691	100	1 845

*Note. Data includes both announced and implemented job reductions and creation of new jobs if 100 or more. Definitions of restructuring in the table has been changed in some cases by ITPS as ERM does not always differentiate between domestic and international relocation and outsourcing. Furthermore, ERM use the terms offshoring/delocation for international relocation and outsourcing, relocation respectively outsourcing for changes within a country.*

*Source: European Restructuring Monitor (2005).*

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United Kingdom, Germany and Romania were together responsible for almost seven out of ten planned direct dismissals due to restructuring. The countries in which there were the largest reductions in employment levels also create most new jobs, with the exception of Poland with five per cent of cutbacks and 26 per cent of new jobs. Over five out of ten planned new jobs in 2005 are in Poland, United Kingdom, and Romania. In Sweden there was a planned reduction in employment levels of approximately 17 000 and an increase of nearly 2 000 jobs.

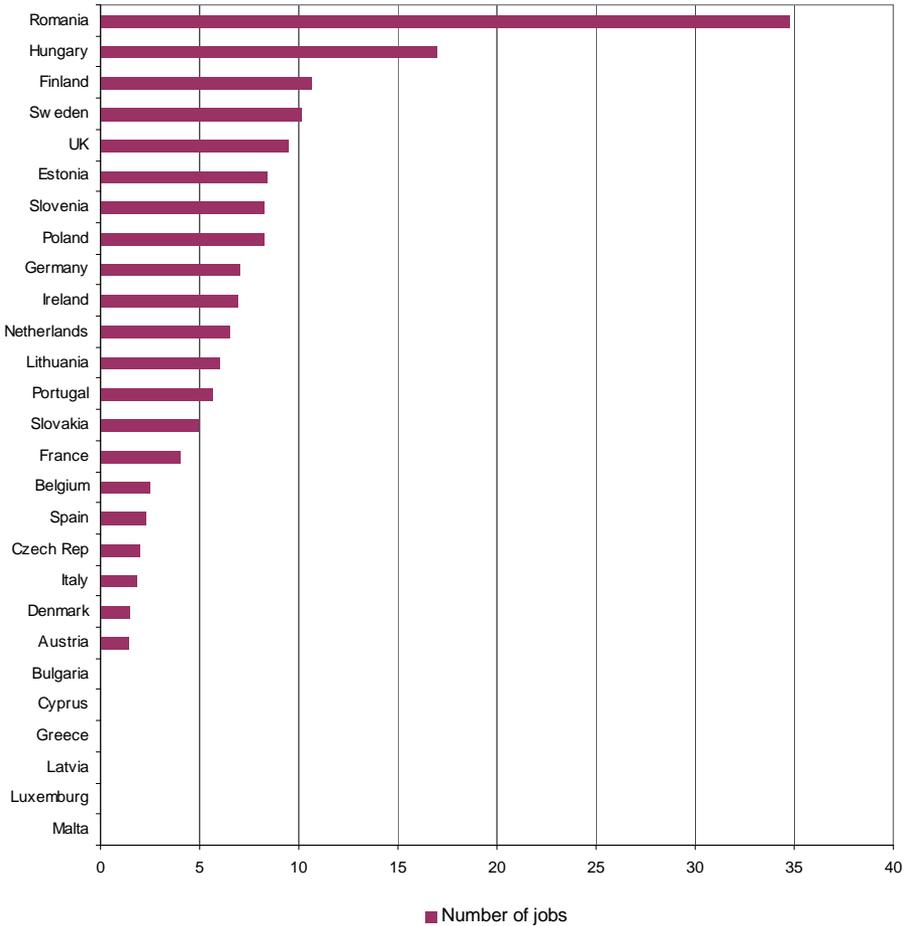
The largest reductions in numbers employed in the EU were estimated to be in the public sector, financial services, and post and telecommunications. The largest planned cutbacks in Sweden were also in post and telecommunications but also in machinery and metals manufacturing and motor vehicles.

### *Restructuring in the EU second quarter 2005*

In order to take account of differing country size in the EU, the number of jobs affected by all restructuring has been determined per 10 000 employees in each country. Figure 8 shows this comparison of the relative changes during the second quarter 2005.

Romania suffered most with 35 lost jobs per 10 000 employees. The defence area is estimated to have shown the largest decrease in numbers employed. Restructuring in Hungary can lead to 17 jobs per 10 000 employees disappearing. Sweden is fourth highest in terms of reduction in employment levels in the European countries with 10 jobs per 10 000 employees. Bulgaria, Cyprus, Greece, Latvia, Luxembourg and Malta reported no planned or implemented job reductions in the second quarter 2005.

Figure 8 Number of jobs per 10 000 employees lost due to restructuring in EU countries during the second quarter 2005.



Source: *European Restructuring Monitor Quarterly (2005)*, edited by ITPS.

#### 4.2.2 Media review by ITPS

ITPS began media review of restructuring in autumn 2004 including closures, relocation and outsourcing of production. The object was to compile current statistics on announced changes in employment levels affected by restructurings and particularly relocation and outsourcing of production abroad. This review has been systematised using the ERM model and the results have been compared with ERM's and others.

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The survey shows that the extent of relocation and outsourcing of production abroad constitutes a minor part of the total restructuring of businesses during 2005. The number of employees recorded as being affected by restructuring was 25 232, which seems to be underestimated in comparison with redundancy notice statistics at AMS. Of these 4 236 jobs were affected by relocation from Sweden to other countries. This corresponds to 17 per cent of the recorded number of restructurings. No cases of outsourcing abroad were revealed in this period.

Most of the cutbacks were in manufacturing industry due to relocation abroad, affecting 3 400 jobs. The engineering industry was worst hit with 1 600 jobs affected. The same reason was responsible for the loss of 830 jobs in the services sector.

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## 5 Sample surveys

In order to increase knowledge about, and understanding of, the relocation and outsourcing of production a number of sample surveys have been carried out both in Sweden and abroad. Below, there is an overview of current surveys in Sweden. To begin with, there is a presentation of results from a survey carried out by ITPS itself on the business climate in Sweden.

### 5.1 Business climate in Sweden

In the eighth survey of the business climate in Sweden<sup>28</sup>, ITPS has analysed the attitudes towards carrying out business in Sweden and future plans by just over 300 international companies. The selection of companies is based on a population comprising partly Swedish controlled companies with at least one subsidiary abroad and partly foreign controlled companies active in Sweden. Companies replying to the questionnaire represent enterprise groups with a total of about 263 000 employees. The questionnaire was carried out during the period December 2004 to January 2005.

#### 5.1.1 Companies' future plans

One of the questionnaire questions concerned the companies' future plans in Sweden and abroad respectively. To summarise, a major change took place in companies' employment plans during the 1990's. Since 1992 there has been a steady increase in the number of companies planning to increase employment in Sweden. In the latest survey for 2004 there is the same proportion of companies intending to increase both production and employment in Sweden. This is a change compared with previous years when there were significantly more companies that planned to increase production than increase employment in Sweden. The foreign controlled companies expect to increase the number of employees in Sweden slightly more than the Swedish ones.

The companies are also planning to continue to increase the number of employees abroad during the next five years. The most important reason for this is stated to be the expansion of activities. In addition, increased demand in Sweden is planned to lead to increased employment. Three of four companies state that lower labour costs in Sweden are an important reason for increasing the number of employees in Sweden. The companies planning to reduce employment in Sweden cite three main reasons. The foremost appears to be low or declining demand followed by increased competition as well as

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<sup>28</sup> ITPS (2004).

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the possibility of rationalising and streamlining production e.g. on account of developments in technology.

### 5.1.2 Location of head office

Another question handled in the report on the business climate in 2004 was the location of the head office. The moving of the head office from Sweden to other countries is one of the consequences that have been the subject of frequent debate. The occurrence has been particularly associated with the relocation of strategic functions such as R&D. This has created a threatening picture whereby when the head offices move from Sweden other activities are drawn away too. The proportion of head offices abroad has increased since 1990 and the first and sharpest increase took place between 1997 and 2000. Subsequently, this development has continued. The proportion of companies that answered that their head office was abroad increased from 30 per cent in 2000 to 52 per cent in 2004.

The majority of all interviewed Swedish companies have their head offices in Sweden and most, but not all, foreign controlled companies have their head offices abroad. It is not possible to see any clear tendency for Swedish companies to physically move their head offices abroad. The most important reason for the head office being abroad is the foreign control. Comments from those interviewed indicate that head offices do not appear to be a function that is moved from the home country in the first instance.

### 5.1.3 Relocation of operations

In the survey of the business climate for 2003 it appears that closure is a more common consequence than relocation when the number of employees declines<sup>29</sup>. Relocation of operations from Sweden abroad or within Sweden is slightly less frequent. Of the survey's 188 companies, eight planned to relocate operations abroad and nine companies expected to locate operations in another locality in Sweden.

The respective type of relocation corresponds to 4 per cent of the number of companies interviewed. However, there is no information concerning whether it is parts of or entire operations that may be affected by these relocations. Nor does the number or character of the jobs that disappear appear from the survey. The majority of these companies, six in number, belong to the engineering industry and two belong to the wholesale trade. The cost-driven motive was the most common reason for relocation abroad.

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<sup>29</sup> In the business climate report for 2004 there was no question concerning relocation for which reason the previous report is referred to.

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## 5.2 Outsourcing

Studies that analyse the redistribution of responsibility in the value chain between companies are also interesting from the perspective of offshoring goods and services. Transfer of operations to a third-party supplier (outsourcing) within the same country may be a first step in a production transfer chain abroad. Moreover, the effects for individuals and localities affected may be the same in the event of national outsourcing as with corresponding international outsourcing, assuming a change in actual location. Below, two examples of sample surveys are considered in which outsourcing of production take centre stage.

### 5.2.1 Outsourcing according to Swedish Enterprise

The Confederation of Swedish Enterprise [Svenskt Näringsliv] issues annual studies of company views on the business climate in Sweden. Apart from basic facts on operations in the survey<sup>30</sup> for 2003, supplementary questions were framed with the focus on outsourcing abroad. The relatively wide-ranging questionnaire was answered by just under 200 randomly selected member companies. The term outsourcing in the survey referred to a “company transferring one or several stages of the production chain to a third party”.

Of the companies asked, 35 answered that they had transferred parts of operations to other companies. The companies were also asked to reply to the question if the personnel had decreased on account of outsourcing in recent years. The replies were weighted according to the number of employees in the respective company and the result was that 2 000-3 000 people were affected by outsourcing. This was calculated on average to correspond to about 7 per cent of the companies’ employees. The proportion of 7 per cent was then used to calculate the direct effect of transfer of production abroad for the whole business sector in Sweden. Assuming that the answers are representative of the business sector as a whole this shows that between 50 000 and 60 000 employees could be affected by outsourcing. According to the study it is mainly within the less qualified business areas that the personnel reduction was carried out. For example, only 3 per cent of the reduction in the number of employees will have occurred within the R&D operations.

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<sup>30</sup> Svenskt Näringsliv (2004).

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## 5.2.2 Outsourcing within the engineering industry

A further survey with the focus on outsourcing has been carried out by Professor Lars Bengtsson<sup>31</sup>. In this study 267 Swedish engineering companies have replied to questions on the scope and focus of relocation and outsourcing abroad. The survey is based on a questionnaire focused on strategies and effects at the workplace level over the last three years. In the questionnaire the term outsourcing is defined as follows: “outsourcing occurs when a company engages a supplier in order to carry out an activity that was previously carried out under its own management”.

Results show that about a half of the engineering companies surveyed have relocated or outsourced production. In broad terms, an equivalent proportion has been moved to low labour cost countries as within the country itself. As regards the larger companies with more than 500 employees, 26 of those asked have transferred production abroad, frequently to an external supplier active in a low labour cost country.

A rough calculation of the direct effect of offshoring shows that about 13 000 jobs in the companies studied have been affected over three years. The indirect effect, i.e. sub-contractors/suppliers that are forced to reduce operations as a result of their customers locating production abroad is more difficult to estimate. The authors are of the opinion that, in the longer term, there is a risk that a hidden offshoring chain of production entails deterioration in the industrial environment that then leads to increased offshoring. From the results it is clear also that offshoring does not only refer to simpler production but also complex products with high customer value.

## 5.3 Regional surveys

Regional analyses of production relocation have also been carried out. This approach to the problem increases comprehension of the direct and indirect consequences of the relocation within a specific region. The analysis shows both causes and effects when companies choose to shift production from workplaces in the region to other countries. Regional sample surveys have been carried out by e.g. West Sweden Chamber of Commerce and Industry and SIF [Sweden's White-Collar Union].

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<sup>31</sup> Bengtsson et al. (2005).

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### 5.3.1 Moving abroad from West Sweden

In 2005 the West Sweden Chamber of Commerce and Industry carried out a regional study of the relocation phenomenon in western Sweden. The study of 98 major industrial companies showed that 37 of those companies are planning or implementing offshoring. The majority of the companies surveyed are looking to cut costs and are considering outsourcing as well as automating production and increasing purchasing from low-cost countries, primarily in Eastern Europe (Poland and the Baltic States) and then China.

There is no information on the number of jobs in West Sweden that may be affected by relocation but only on the number of companies that replied. According to this study it is the ICT companies who predominate in terms of numbers, followed by construction and real estate companies, furniture and textile manufacturers. Biotechnology and pharmaceutical companies are most positive to moving to or expanding their activities in West Sweden. In general terms, high-tech companies tend to be more active than low-technology companies in seeking and implementing new localities. Process industries are less prepared to move and instead may consider importing consultancy services and service functions. This indicates that labour-intensive industry has more to win by low labour costs. Relevant competence, low costs and high tempo are desired by almost all companies interviewed. Competition is perceived mainly to come from Eastern Europe and Asia.

### 5.3.2 Moving abroad from Småland

SIF<sup>32</sup> has studied relocation and expansion of production abroad from a regional perspective with the aid of its local union branches in the Swedish provinces of Småland, Norrbotten and Västerbotten, Skåne and Halland, Västra Götaland as well as in Stockholm-Mälardalen. Above all, the driving forces behind, and experiences from, the relocation of production have been studied. Below are shown the results from the study in Småland. Roughly a quarter of the manufacturing companies surveyed have relocated operations abroad in the last five years. All in all, this amounts to 600 jobs in 24 companies. Almost as many companies have newly established operations abroad amounting to about 1 350 jobs.<sup>33</sup> This kind of expansion abroad might have no impact on job reductions in Sweden. It is primarily manufacturing jobs that are relocated or newly established in other countries. Every tenth job that is

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<sup>32</sup> See SIF (2004), SIF (2005a), SIF (2005b) and SIF (2006a), SIF (2006b).

<sup>33</sup> Newly established operations include both greenfield investment and acquisitions. This term means creation of jobs abroad, but is not the equivalent to displacement of jobs in Sweden.

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relocated or newly established abroad respectively relates to services. China, the Baltic States, Poland and Germany are the countries to which most companies have relocated to.

A fifth of the companies studied are planning to move jobs during the period 2005-2006. It is primarily production jobs that are to be relocated and the prospective recipient countries are to be found in Eastern Europe and China. Just over 600 jobs in Sweden may be affected by these companies' plans. Three fifths, on the other hand, do not plan to move in future. Reasons behind the relocation of production abroad are lower costs, primarily lower labour costs (45 per cent) and proximity to the market (27 per cent). Corresponding reasons also apply to establish new operations abroad. The increasing international competition leads to price pressure. The reason for retaining operations in Sweden includes good quality, delivery security and the difficulty in finding the right competence abroad.

## **5.4 Forecasts concerning the trend in offshoring**

In recent years a number of calculations concerning the trend in offshoring have been published<sup>34</sup>. One method used to assess development uses calculations based on results of sample surveys. In general, the results show that the offshoring is accelerating substantially compared with what has been the case during recent years. Below, we shall throw light on two different calculation examples that are highlighted in the Swedish debate, more precisely calculations for the EU countries carried out by the consultancy company Forrester Research Inc. and the Confederation of Swedish Enterprise's estimate of relocation from Sweden.

### **5.4.1 Offshoring services from EU**

Forrester is one of the most cited sources in the USA in respect of the trend in offshoring in the longer term. The consultancy company combined case studies with labour market statistics in order to make forecasts on the extent and type of production that may be offshored. An assessment of the trend for the number of service activities that may be moved from the EU to low labour cost countries was made public in 2004 and attracted wide attention.

The forecast<sup>35</sup> is based on a survey of 247 companies in 19 European countries. To this end, consultancy firms working on helping companies to offshore operations to low labour cost countries were interviewed. The calculations show that in the EU countries a little less than 1.2 million jobs will be affected

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<sup>34</sup> For example McKinsey (2004) and Goldman Sachs (2003).

<sup>35</sup> Forrester (2004).

between 2004 and 2015. This may be compared with the corresponding calculations for the USA that imply that 3.3 million jobs will be affected.

Forrester calculates that it is in United Kingdom that most jobs in the service sector will be affected. If this forecast turns out to be true 760 000 jobs will be affected up to 2015. The corresponding forecast for Germany is 140 000 service-sector jobs, France 98 000, The Netherlands 37 000, Italy 29 000. So far as Sweden is concerned, Forrester estimates that 20 000 service jobs will disappear between 2005 and 2015. Results from Forrester's forecast are shown in Table 5.

Table 5 Number of service-sector jobs that may be moved from the EU to low labour cost countries 2005–2015.

	<b>2005</b>	<b>2010</b>	<b>2015</b>
United Kingdom	99 704	320 969	758 401
Germany	11 354	61 056	139 914
France	7 636	42 839	98 174
The Netherlands	3 481	16 794	36 663
Italy	4 125	12 518	28 834
<b>Sweden</b>	<b>1 845</b>	<b>9 213</b>	<b>20 240</b>
Belgium	1 381	7 610	17 621
Denmark	1 181	5 889	13 102
Spain	1 489	4 465	10 303
Austria	1 002	5 342	12 065
Finland	812	4 667	10 730
Ireland	513	1 639	3 868
Portugal	356	1 102	2 552
Greece	313	982	2 316
Luxembourg	75	394	902
Total EU	135 267	495 479	1 155 685

Source: Forrester (2004).

## 5.4.2 Relocation of production from Sweden

The Confederation of Swedish Enterprise [Svenskt Näringsliv] has carried out surveys in Sweden based on questionnaires with the aim of assessing the future trend for relocation of production. In 2005 a forecast<sup>36</sup> was published based on a questionnaire answered by about 5 000 of the organisation's member companies containing questions on how employment levels were affected by the relocation of production abroad. The results of the survey have been adjusted upwards to include all companies in the Swedish business sector.

<sup>36</sup> Svenskt Näringsliv (2005).

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Unlike Forrester's method, it appears that account has not been taken of activities or occupational categories that are not 'movable/offshorable'.

Twelve per cent of the respondents stated that, in way or another, they have relocated production abroad during the last five years. Just over half of these companies (7 per cent) state that this resulted in a lower number of employees as a direct consequence of the relocation and 4 per cent that they expect to increase the number of employees. These companies have also been asked about the size of the personnel cutbacks that this move has led to. The number of jobs affected in the companies surveyed does not appear from the report. On the other hand, upward adjustments have been made to include all member companies and Swedish business as a whole respectively. These calculations result in 44 000 jobs in member companies and 117 000 jobs in the business sector as a whole having been lost in the last five years as a direct effect of the transfer of production abroad (approx. 23 000 jobs per year).

In the questionnaire on recruitment questions were also asked about the future. Companies were asked how many jobs would disappear during the next five years on account of relocation of production. The results were that 18 per cent of all companies surveyed are considering relocating production abroad. Of these, 12 per cent expect to reduce and 3 per cent to increase employment levels. It is primarily companies that have hitherto relocated operations abroad that are considering continued relocation of production, for instance major companies in manufacturing industry.

Adjusted upwards to include all the Confederation of Swedish Enterprise's member companies, 119 000 jobs would disappear and, adjusted to include the entire Swedish business sector, a total of 346 000 jobs would disappear as a direct result of relocated production abroad during the next five years. As regards the indirect effect of this relocation, almost every third company that participated in the survey states that it expects to lose orders as a consequence of customers shifting production overseas. If one assumes that these companies are representative of businesses within Swedish business sector as a whole, then 180 000 jobs are expected to disappear over the next five years as an effect of loss of customers. All in all, this forecast shows that about half a million jobs in Sweden may be affected by relocation of production either directly or indirectly.

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## **6 Challenges in measuring the extent**

In chapter 2, reference was made to different types of international activities some of which may affect production and employment in Sweden. While some of these company operations may be measured using existing data others may not. To succeed in assessing the overall extent of relocation and outsourcing of production abroad is therefore a challenge. In this chapter there is a discussion of the possibilities and problems in measuring the extent of this with the aid of the methods that have been shown above.

### **6.1 Estimate of extent varies**

In order to illustrate the difficulty in assessing the extent of relocation and outsourcing abroad, results from a sample of methods are shown in table 6. The period for the calculations includes the twelve months of 2005. The first six months of 2005 appears in brackets.

According to Swedish Labour Market Administration [AMS], the total number of redundancy notices issued in Sweden's business sector affected a total of 43 229 (24 430) persons, of which number 1 980 (1 187) were due to companies relocating abroad. ITPS media review shows that 25 232 employees were affected by companies restructuring and 4 236 (2 722) jobs by relocation abroad. This may be compared with the press review carried out by European Restructuring Monitor [ERM] that points to 765 (314) jobs being affected by relocation and 150 (150) by outsourcing abroad. The Confederation of Swedish Enterprise's estimate concerning the trend deviates most from other estimates since the calculation shows that 69 200 (34 600 jobs) may have been transferred from Sweden to foreign countries.

Table 6 Number of jobs that are directly affected by relocation and outsourcing from Sweden to foreign countries January-December 2005. Figures for January-June 2005 are within brackets.

Source	Relocation	Outsourcing	Total
AMS notice statistics	1 980 (1 187)	-	1 980 (1 187)
ITPS media monitoring	4 236 (2 722)	0 (0)	4 236 (2 722)
ERM media monitoring	765 (314)	150 (150)	915 (464)
Confederation of Swedish Enterprise, questionnaire	69 200 (34 600)	-	69 200 (34 600)

*Note. According to AMS the total number of redundancy notices in the business sector affect 43 229 persons. As per Confederation of Swedish Enterprise calculations 346 000 jobs would disappear on account of relocated production over the next five years. Furthermore, indirect effects are expected to affect 180 000 jobs. The first figure has been converted to an average for one year and six months respectively.*

*Source: Swedish Labour Market Administration (AMS), Swedish Institute for Growth Policy Studies (ITPS), European Restructuring Monitoring (ERM), Confederation of Swedish Enterprise, Compiled by ITPS.*

No method shows the actual extent of the number of jobs that have been lost on account of relocation and outsourcing of production. On the other hand, statistics on redundancy and media review may be used as a starting point for follow-up. The difference in scope between ERM and ITPS media review is probably due to the difference in the number of media that are recorded and the fact that ERM has a minimum limit on the number of jobs<sup>37</sup> affected. It is a major challenge to use questionnaires to estimate the extent since it is hard to identify a population that is representative for the business sector as a whole.

## 6.2 Advantages and disadvantages of different methods

At present there is no perfect method to apply to measurement of the extent of relocation and outsourcing. On the other hand, the methods studied may contribute to increased understanding and provide an indication of the relative extent of relocation and outsourcing of production abroad. In the following section the advantages and disadvantages of the methods involved are discussed.

<sup>37</sup> Only announcements involving the reduction or creation of at least 100 jobs or affecting 10 per cent of workforce in sites employing 250 people or more are taken into account by ERM. According to ITPS, 75 per cent of recorded cases of job reduction due to relocation of production from Sweden to other countries regard less than 100 jobs.

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## 6.2.1 Statistics on international activities

Statistics on the activities of international enterprises (FATS)<sup>38</sup> are available in Sweden and a number of OECD countries. These statistics shows annual changes and the scope of the companies' international operations. On the other hand, the reasons for the changes or whether operations are relocated from one country to another are not evident.

Available statistics may nevertheless be combined with different assumptions with a view to coming closer to an understanding of the global focus of company operations.

Each year ITPS shows the extent of production of goods and services of Swedish subsidiaries abroad in accordance with the group's industry classification in Sweden. This is principally measured in terms of the number of employees. If the question relates to increased competition owing to wage levels, the statistics can show the extent and location of operations in labour intensive industries. In addition, certain sectors that are probably growing abroad for reasons linked to the market may be separated, for example security services, retailing, electricity supply and construction operations. Another possibility is to report changes in the number of employees in countries with lower labour costs than in Sweden. Finally, it is possible to report on those groups that grow overseas and at the same time reduce the number of their employees in Sweden.

Statistics on foreign trade may be used to increase knowledge about companies' international activities. In the EU, OECD and USA it is mainly the import of services that has been the subject of analysis, both the different types of services and where these imports come from. For example, the import of services to the USA has been compared with the export of services from India<sup>39</sup>. These trade statistics do not agree but even if India's increased exports are not confirmed through a corresponding increase in imports to the USA it is probable that India exports an increasing number of services to the USA. In academic studies the import of input goods has also been used to calculate how changes affect demand for labour in the home country. The results, however, are not unanimous *inter alia* on account of unclear definitions, low level of itemisation and problems with effect of raw material imports. In addition, these studies are based on a number of different assumptions, e.g. size of import of input goods. Moreover, there is no up-to-date information and analyses focus mainly on manufacturing industry.

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<sup>38</sup> Foreign Affiliate Statistics

<sup>39</sup> GAO (2005).

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## 6.2.2 Statistics on restructuring

In contrast with the above, redundancy notice statistics may provide more direct information on the number of jobs that could be affected by the relocation of production. Since reasons like relocation are only to be found since the end of 2005 in Sweden the time is too short, however, to generalise about the annual extent of the phenomenon in this report. A weakness concerning redundancy notice statistics is that information is lacking concerning the country to which production moves to. On the other hand, it is clear if the relocation takes place within the county, within Sweden, to the EU or outside the EU. Moreover, the extent of outsourcing is not clear.

Statistics on published restructuring activities that lead to jobs disappearing is a further method that provides current information on the direct extent of the phenomenon. Within the EU, ERM [European Restructuring Monitoring] compiles published information in the press about restructuring. This source provides good possibilities for up-to-date information on major changes in employment levels (at least 100 employees) per sector and country in the EU. Reasons for e.g. relocation and outsourcing are also documented. On the other hand no differentiation is made between outsourcing inside and outside a country<sup>40</sup>. The disadvantage is that this method does not record the effects of restructuring that are not notified in the press. Moreover, no differentiation is made between planned and implemented changes in the numbers of jobs. Also, the monitoring is based on only three newspapers in Sweden.

ITPS has, since 2004, its own media review of restructuring including the relocation and outsourcing of production. The information is collected on an daily basis from Affärsdata that includes about 800 media in Sweden. This media review, too, suffers from a certain unreliability regarding the total coverage of restructuring but it does provide an updated indication of the extent of relocation and outsourcing in relation to other restructuring. For Sweden, ITPS has better coverage than ERM due to the fact that more media are recorded as well as the fact that no minimum limit of jobs affected is used.

## 6.2.3 Sample surveys increase understanding

It is evident that the majority of the company activities that are associated with offshoring goods and services are hard to measure with available statistics. Until now the phenomenon has mostly been analysed through interviews or questionnaires with a selection of companies. Sample surveys are a good

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<sup>40</sup> ERM changed their definitions of some types of restructuring in 2005. For example, Offshoring/delocalisation in late 2005 includes both relocation and outsourcing outside the country. The types called outsourcing and relocation respectively regard only activities inside the country.

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method for procuring current information on reasons for, and consequences of, relocation and outsourcing. Analyses of future planning in a selection of international companies may also capture tendencies in their operations over the longer term. A negative feature with studies based on interviews or questionnaires is the difficulty of assessing the total extent of the relocation and outsourcing of production.

Normally, the results from a sample survey may be weighted with the aim of calculating the direct effect with a larger population. Through this, the extent of the relocation and outsourcing may be estimated e.g. for a specific region or an entire nation. This method has been used e.g. by the Confederation of Swedish Enterprise in order to calculate how the relocation of production abroad affects the number of employees in Sweden. One risk at the time of upward adjustment is that the background material used in the calculation is not representative of the business sector as a whole. If the contribution to knowledge is to be beneficial it is necessary for the companies studied to be representative of all companies in the Swedish business sector. The selection of population and how the upward adjustments are carried out through the results is consequently decisive for the information value. The treatment of non-responses is also a critical issue.

The evaluation of the future trend in offshoring is naturally even more speculative. Despite the difficulty in calculating the number of jobs that may in future be affected by the offshoring there are plenty of estimates published by consultancy companies and analysts. Forrester is one of the most quoted sources in the USA and bases its forecasts on interviews with a selection of companies and consultants in combination with labour market statistics. One advantage with these forecasts is that account is taken of those services that are deemed to be movable. The results for conceivable changes shown should equally be treated with great caution and, if anything, be regarded as tendencies.

### **6.3 Demand for new data and harmonisation of definitions**

The review of existing statistics and sample surveys shows that there are major difficulties in assessing the total extent of relocation and outsourcing abroad. A precondition for measuring the extent of this phenomenon is to harmonise different definitions in future analyses. Statistics need to be more internationally comparable which appears from the comparison between India and the trade statistics of other countries.

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This report has focused on the very concept of relocation and outsourcing of goods and services. On the other hand, what is meant by high and low labour cost countries, jobs with high and low qualifications as well as those types of operations (business functions) that are possible to relocate or outsource remain to be defined. In addition, the companies' reasons for different forms of international expansion should be surveyed in detail in order to be able to assess which activities affect employment and production in the home country.

Market-driven motives may imply that an expansion abroad has favourable effects for the home country i.e. the number of employees increases both abroad and in Sweden. These reasons seldom have any connection with offshoring goods or services. Cost-driven reasons may, at least in the short term, mean that production of goods and services declines in countries with high labour costs. A combination of cost- and competence-driven motives is common with outsourcing and relocation of production within labour intensive operations to so-called low labour cost countries. But market-driven motives, too, may predominate in the event of expansion in such countries and constitute the foundation for future profits.

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## 7 Conclusions

This report gives an overview of measuring relocation and outsourcing of production from Sweden. Thanks to the analysis, both available statistics and sample surveys of company plans to locate operations abroad have been analysed. It may be stated that at present we do not know if this type of operations leads to a net gain or loss for Sweden. There is no information on the net flow of offshoring, because relocation and outsourcing from other countries to Sweden is lacking. We possess even less knowledge of the long term effects on the Swedish economy. The conclusion that can be drawn is that the overall challenge lies in ensuring that the resources that are released through downsize or closure are reintroduced into more productive activities.

### 7.1 Definitions are the foundation for analyses

There is no generally accepted definition of what is meant by relocation and outsourcing of production<sup>41</sup>. In order to be able to analyse the extent of offshoring as well as the effects of this it is therefore important to clarify the stages that are measured.

Relocation may take place within a country as well as to and from abroad. In the event of relocation, the company has control of its operations and may regret its decision. Outsourcing may also take place inside or outside the country. Unlike relocation, operations are transferred to another company and the original company loses control and, in principle, is unable to change its mind. The latter does not apply to business operations where the control requirement is slight and there are a large number of suppliers, for example cleaning.

ITPS proposes that a change in geographical location is called relocation when it takes place within the same organisation and outsourcing when operations are transferred to an external or third-party supplier. Relocation and outsourcing within a country may take place without employment levels being affected in national terms; on the other hand a region may be affected by a company's change of location within a country in the same way as abroad where the relocation takes place outside the local labour market too far for commuters.

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<sup>41</sup> The definitions used in this report has, however, been adopted by the Globalisation Session at OECD in November 2005.

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It is also important to distinguish between expansion of business activities abroad, change in control due to acquisitions by new owners with a foreign nationality and offshoring goods and services. Expansion is a common reason for companies employing more people and this applies also when companies grow in other countries. Like other types of restructuring, changes in ownership may affect employment levels but it is less common for the location of production to be affected.

Finally, it should be noted that relocation and outsourcing of production seldom implies a direct movement abroad of jobs but rather that the labour market in the home country may be affected in the event of change in location of production. The effects are dependent on the capacity to manage the adjustment needed, i.e. that displaced jobs are replaced by new more productive ones.

## **7.2 Methods of measuring extent of phenomenon**

ITPS has studied different methods that are used to calculate the extent of the relocation and outsourcing of production from the home country to foreign countries. Despite the unreliability of different measurement methods it clearly appears that the extent of relocation/outsourcing to foreign countries has been of significantly less extent than other types of restructuring. A more common cause of reduction in personnel is the rationalisation and streamlining of operations. Furthermore, results indicate that relocation from Sweden to foreign countries (so-called low labour cost countries) has so far only comprised a small part compared to companies' total expansion abroad.

In summary, companies' imports of goods and, to a certain extent, imports of services are measurable as well as the scope and changes in direct investments abroad. On the other hand, information is lacking for measuring the total level of activities that lead to changes in production and employment in Sweden. It is, above all, through sample surveys that this phenomenon has been analysed. Such sample surveys may give indications of future changes as well as contribute to increasing understanding of the reasons behind, and consequences of, companies' international activities.

Companies that purchase goods and services abroad from external suppliers or from own subsidiaries (A and B in figure 2) instead of in Sweden are also hard to measure. Production abroad that substitutes export of goods and services (C in figure 2) has been studied, but reliable data is still lacking. The question is to what extent production abroad constitutes a complement to or substitute for Swedish exports. On the other hand, it appears from ITPS statistics on international enterprises that those holding a dominant position in the number

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of employees abroad also dominate in the export of goods from Sweden. The exports and imports of goods have both increased sharply. The exports and imports of goods have also increased sharply with those countries where the number of employees has increased.

It is too early to determine if redundancy notice statistics or media review offer sufficient information to assess the total extent of this phenomenon. In the longer term there is the potential for utilising redundancy notices in Sweden and other EU countries to obtain current information on the number of jobs and the industries that are affected by different types of restructuring. Both redundancy notice statistics and media review may indicate tendencies but they do require to be followed up after a period in order to enable the true results to be assessed.

Sample surveys are a good method for making in-depth analyses of cause and effects, i.e. to increase understanding. On the other hand, the use of sample surveys in order to measure the total extent of this phenomenon represents a major challenge.

### **7.3 Future analysis requirements**

This report shows that there is a need to further develop data and analyses in future. The positive effects of this phenomenon such as economic gains from low-cost production and movement of production to Sweden also need to be studied.

ITPS intends to continue to develop statistics and to carry out different analyses in order to better describe companies' activities in other countries. With the already existing statistics it is possible to carry out detailed analyses of which operations are located where. For example, the connection between changes in the number of employees abroad and in Sweden within the same group may be analysed. It should be possible to carry out an itemisation of so-called moveable operations and their market focus. There is also the possibility of studying small and medium-sized company operations in e.g. Eastern Europe and China.

It should be possible to combine ITPS statistics on international enterprises and redundancy notice statistics from Sweden's AMS [National Labour Market Administration] and ITPS press review respectively in order to enhance knowledge of the total extent and effects of relocation or outsourcing abroad. The relocation and outsourcing of operations from other countries to Sweden constitute an issue that needs to be analysed. The indirect effects of restructuring also require further analysis.

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An important area of analysis is also to investigate the regional effects within a country of restructuring and how adjustments may be handled in those regions affected.

One question that has received much attention is whether offshoring will extend to services and more highly skilled jobs. The forecasts in this regard vary sharply but it does appear as if the potential for this is considerable. More and more countries, including those with significantly lower salary levels, are able to offer well-educated personnel and perform work to at least the same standards as in Sweden and other high labour countries but at a lower cost. The ICT sector is an area where jobs from the USA and United Kingdom have been relocated to India. In their forecasts consultancy companies, too, point to the fact that the development of ICT services from telephone support to more advanced services may lead to increased offshoring. ITPS statistics on international enterprises also show that services are performed to an increasing extent outside the home country. There are, therefore, strong reasons for analysing the internationalisation of different types of services.

ITPS is planning to investigate the possibility of further developing statistics on international enterprises through including imports and exports of services as well as intra-group trading in goods and services. This work will take place in close cooperation with Eurostat and other EU countries.

Moreover, it would be possible to carry out case studies of the operations of Swedish companies in e.g. China, India and Eastern Europe. The aim here would be to understand if the character of operations is changed in the event of relocation and outsourcing of production, e.g. if the movement of jobs in labour intensive industry is followed by the relocation of more knowledge intensive employment. In 2006 ITPS published a report on the internationalisation of corporate R&D in order to analyse trends and challenges in this area.

More and more countries with an advantageous cost position are competing, to an increasing extent, in a global market. This means an increasing price pressure in many sectors and that national companies in high labour cost areas such as the EU and the USA are also exposed to more intense competition in their home country. In addition, labour from other countries may come to Sweden and compete with lower wages. There are, thus, important reasons why measurement methods and data to analyse the development must be enhanced.

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