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Executive Summary

This report does not look at the employment consequences of globalisation, but it examines one particular aspect of globalisation, which is offshoring. In Chapter 1, offshoring is defined as the total or partial transfer of an industrial activity (manufacturing or services) abroad, either to an existing or new affiliate, or through subcontracting to non-affiliated companies. The portion of the activity sent offshore that had been intended for the domestic market is then imported.

The main reasons that prompt firms to transfer activities abroad depend essentially on the nature of the activity concerned (production, research and development, decision centres, and so on). In the case of production of goods or services, the primary motivation emerging from opinion surveys is to cut costs, but not labour costs alone.

The report highlights the great complexity of the offshoring phenomenon and the many difficulties involved in measuring its consequences for employment. These can be negative or positive, depending on whether the frame of reference is short-term or medium-term, and whether the consequences are direct or indirect.

Skilled jobs are no longer safe from being sent offshore. Moreover, as offshoring is no longer limited to traditional sectors alone but is increasingly spreading to technology-intensive industries as well, including services, the emergence of two major Asian economies – China and India – that have partially closed their technology gaps and offer a large and increasingly skilled labour force increases the need for adjustment by more developed economies.

The authorities of some countries have launched initiatives to gauge the scope of the phenomenon, and, at the same time, universities and advisory institutes have conducted numerous evaluations. This research is done on the basis of either data at the firm level or macroeconomic aggregates using econometric techniques. Insofar, however, no country has yet instituted regular surveys in the area of offshoring.

The most relevant findings of this research show that all sectors are affected, but that the industrial sectors that have most downsized their workforce are not the ones that have most engaged in offshoring. Offshoring does not therefore emerge as a major cause of job losses. In most countries, only textiles, apparel and footwear would seem to be among the sectors that have both offshored the most and recorded the steepest job losses.

A substantial share of the jobs sent offshore is transferred to countries with lower labour costs. Here, offshoring is more commonplace in low-tech sectors that tend to employ relatively low-skilled labour. Gradually, however, it is also moving towards sectors ranked as medium or high-technology, especially in the case of services (software, computer services and other information technology services). Most of the offshoring to developed countries involves group restructuring and refocusing in capital-intensive sectors such as aerospace, pharmaceuticals or automobiles. Offshoring to developed countries also tends to be done through affiliated companies. In contrast, when the destination is a less developed country, subcontracting is then just as common a channel.

The Secretariat's calculations (Chapter 4) show that the offshoring of goods by the manufacturing sector is the most prevalent type of outsourcing abroad. What is faster-growing, however, is the offshoring of both goods and services by the service sector. As a rule, the short-term employment effects of offshoring are more important for manufacturing than for services. Thus, for a 1% increase in the proportion of imported intermediate manufactured goods, sectoral employment in the country of origin contracts by 0.15%, as opposed to roughly 0.08% in the case of services. However, the impact on employment could vary from a sector to another (Figure 4) and from country to country (table 8), as well as according to the reference period.

In the medium term, the effects of offshoring are positive for a country but fairly difficult to quantify in terms of jobs (from the macroeconomics point of view). Countries can benefit from higher consumer incomes because of the low prices of imported offshored goods (Section 4.7.1), the improved productivity of firms that engage in offshoring (Section 4.7.2), better control over inflation thanks to the impact of low import prices (Section 4.7.3) and enhanced export capacity (Section 4.7.4).

At the same time, the improved competitiveness of companies thanks to offshoring allows them to expand their market shares, profits and capital spending, which can feed through to new job creation in their home countries. The data available shows that in the service sector new job creation offsets job destruction from all causes combined, including offshoring. However, the manufacturing sector, which in the vast majority of OECD countries is losing workers primarily because of technological change, is a net creator of essentially skilled jobs. This phenomenon is even more pronounced in the sectors that resort most to offshoring. These sectors are net creators of skilled jobs.

Most of research to date shows that jobs lost to offshoring account for only a small percentage of aggregate job losses. According to the European Monitoring Centre on Change (EMCC) in Dublin, offshoring by European firms is responsible for less than 5% of total job losses in Europe – far behind bankruptcies, shut-downs and restructuring. It could then seem paradoxical that offshoring gives rise to so much discussion and fear. Chapter 5 of the report presents various explanations. It can be seen, first, that concerns are most acute in countries with high and long-term unemployment. A second explanation is that the research findings probably underestimate the employment effects of offshoring insofar as not all existing studies factor in indirect effects (Box 12, Section 5.1), including the impact of offshoring on firms that do not engage in it, on affiliates, on subcontractors and on suppliers.

Despite these problems, the importance attached to the negative consequences of offshoring stems from the fact that the job losses are known and visible immediately, whereas most of the benefits appear only after a certain time and are not perceived as direct consequences of offshoring. Annex 5 presents the results of a Secretariat questionnaire that was sent out to the national authorities of the member countries to ascertain whether they had an overall policy on offshoring and if measures were taken to try to prevent offshoring, foster innovation and re-invigorate the economy. Governments' responses to the questionnaire show that, in spite of certain proposals, no country has taken concrete coercive measures against offshoring.

This attitude may be explained by the fact that some of the measures under consideration run counter to international treaties signed by the countries. But there is also a risk, if measures to impede offshoring were put into effect, that the offshoring movement would gather pace, with firms feeling compelled to create all of their new jobs abroad, lest they become less competitive and more vulnerable in international competition.

It is probably necessary, then, to acknowledge that offshoring is a fact of life for businesses and that it would be counterproductive to throw up obstacles to prevent it. It should also be admitted that protectionism cannot be even a short-term response to the problem of offshoring.

Apart from the need for better measurement of offshoring's effects on employment and economic activity, so as to fine-tune policy action, it will be important to lay the groundwork for an economy that can adapt and specialise naturally in high-end, high-tech activities. This will entail, *inter alia*, substantial and ongoing research and development and innovation, as well as restoring the appeal of a science and technology culture.

Education and further training throughout workers' careers should be the main priority for governments and business enterprises. Without neglecting the need for social policy to help persons who lose their jobs because of offshoring, appropriate training would enable them to be hired for the new jobs created by the very companies that have shifted some of their activities offshore.

INTRODUCTION

The impact of offshoring on the labour market has become one of the major issues of concern to policymakers and public opinion. The phenomenon of offshoring as such is not really new, but it still arouses just as much debate and concern, essentially for three reasons.

Firstly, in many countries, offshoring had long affected only traditional sectors of the manufacturing industry, which would transfer the most low-skilled-labour-intensive portions of their production to countries having lower labour costs. This phenomenon sparked debate on the dangers of de-industrialisation and loss of know-how, especially on the technological level, yet the argument was often won by those pointing to the vitality of the service sector, and more specifically the role of exports in creating jobs in the sector. Today, one of the reasons that explains the new worries is the fact that offshoring is no longer confined to the manufacturing industry but also increasingly concerns services themselves. The rapid development of information technology means that different categories of services, and especially services to business, can now be imported.

Secondly, the jobs that used to be affected by traditional offshoring were in the main low-skilled jobs. On the other hand, the jobs affected by recent offshoring also involve more-highly skilled jobs.

Lastly, the third reason that causes anxiety concerns the emergence of the two great Asian economies, China and India, which have in part caught up technologically and which have a large and increasingly skilled workforce.

In this context, certain firms, including smaller ones, displace many activities to maintain their competitiveness. A short-term consequence of this displacement may be job losses in certain countries. In the medium term, however, enhanced competitiveness will enable many of these firms to create new activities and new jobs in higher-labour-cost countries as well.

Another cause that contributes to the revival of concerns is the lack of quantitative information and the poor quality of the data used in public debate to grasp the consequences of offshoring. Furthermore, the public debate is all the more confused because the term "offshoring" is used without a strict and agreed definition. Thus, the term is often attributed to a variety of cases which may have a negative impact on employment but which are not directly linked to the phenomenon of offshoring (Box 6).

Despite the weakness of data, many studies have been undertaken recently to measure, even indirectly, the impact of offshoring on employment (see the bibliography at the end of the document). All these studies, despite their imperfections, conclude that, for the time being, offshoring has little impact on employment in the compiling country. Moreover, some studies show that at present the decrease in employment because of offshoring is considerably greater in manufacturing than in the service sector, which, unlike manufacturing, is a net job creator.

The debate on offshoring has aroused numerous questions, some of which could be summarised as follows:

- How can offshoring be defined?
- What is the scale of the phenomenon?
- Has the pace of offshoring accelerated in recent times?
- How many jobs are affected by offshoring?
- What is the nature of the jobs affected by offshoring in terms of skills?
- What are the chief reasons for offshoring?
- What is the relative importance of offshoring of services compared with offshoring of goods?
- Which sectors (goods and services) offshore the most?
- Is there a predominant form of offshoring (direct investment or subcontracting) which characterises each sector?
- Could offshoring constitute a threat of de-industrialisation?
- What are the compiling countries* and countries of destination of offshoring by mode and sector concerned?
- Is there a difference as regards resort to offshoring between firms controlled by residents of a country and affiliates under foreign control?
- How can the benefits of offshoring be evaluated, especially in terms of jobs?
- How are the benefits of offshoring shared between the different economic actors?
- How many jobs are created or maintained thanks to offshoring?
- What is government policy on offshoring?
- How can public concerns be allayed and confidence restored?

This report can only answer some of the above questions. It should nevertheless be explained at the outset that this version of the report focuses its attention not on all cases of offshoring of an activity abroad, but only displacements accompanied by a reduction in activity in the compiling country, usually with loss of jobs.

The first chapter is dedicated to a definition of the concept of offshoring. It distinguishes between relocation through foreign affiliates and that resulting from international subcontracting. Particular attention is also paid to the terminology used.

The second chapter deals with the effects of offshoring on employment. The interaction between production, direct investment and international trade has an impact on employment which differs in the short and medium term. The chief motivations for offshoring are briefly presented in this chapter together with the latest developments in the theoretical debate concerning trade, offshoring and employment.

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* Reporting or origin countries.

The third chapter concerns measurement issues. It describes all the difficulties involved in the quantitative evaluation of jobs affected by offshoring, and the reasons why there are only indirect measurements. Various indicators are suggested in the chapter to measure the impact on employment and other approaches which have been adopted together with their limitations.

The fourth chapter presents some preliminary results based on sectoral data concerning a limited number of OECD countries. The limitations of available public data are also considered in this part, first to identify cases of offshoring and then to measure their impact on employment. Two brief monographs are presented concerning the United States and France. The choice of the United States was justified by the wealth of public data available, while France was chosen because its statistical services apply a method very similar to that suggested by the Secretariat to individual data by establishment. Indicators concerning several other countries are presented in annex. The last section of the chapter presents the main positive effects of offshoring

Finally, the last chapter sets out policies or regulatory measures to offshoring, while at the end of the chapter, a section analyses the cost of not moving offshore, and various measures which could contribute to reduce adjustment costs are proposed.

Chapter 1

DEFINING OFFSHORING

This chapter provides an in-depth definition of offshoring, outlining the many different ways that industrial activity—in either manufacturing or services—can be shifted abroad. For a given corporate group, distinction is made between the two major types of offshoring: *i)* relocation through the corporation's own affiliates; and *ii)* international subcontracting to non-affiliated enterprises. In both cases, the portion of the operations sent offshore that had previously been intended to satisfy domestic demand is subsequently imported.

Defining offshoring is a difficult but essential task in the present context where public debate is often muddled and refers to excessively broad notions which distort understanding of the phenomenon and prevent a proper evaluation of its consequences.

First of all, the term *outsourcing* is used to designate the use of goods and services produced outside the enterprise. Outsourcing can occur within the country where the enterprise is located (*domestic outsourcing*) or abroad (*outsourcing abroad*)

The term *offshoring* is used to designate outsourcing abroad. This term covers two situations:

- Production of goods or services effected or partially or totally transferred abroad within the same group of enterprises (offshore in-house sourcing). This means where an enterprise transfers some of its activities to its foreign affiliates. These affiliates may already exist or have been created from scratch (greenfield affiliates).
- The second form involves the partial or total transfer of the production of goods or services abroad to a non-affiliated enterprise (offshore outsourcing). This operation consists of subcontracting abroad. The non-affiliated foreign enterprise could be either *i)* a firm controlled by residents of the country, or *ii)* a foreign affiliate controlled by a third party, or *iii)* an affiliate of the outsourcing country controlled by another group. The following table summarises the different situations in which a good or service is produced within an enterprise (or a group of enterprises) in the same country or abroad.

Table 1. Production options for an enterprise (or group of enterprises)

Location	Internal production (*in-house*)	External production (*outsourcing*)
Within the country (*domestic*)	Production within the enterprise and the country (*domestic in-house*)	Production outside the enterprise but within the country (*domestic outsourcing*)
Abroad (*offshoring* or *cross-border*)	Production within the group to which the enterprise belongs but abroad (by its own affiliates) (*offshore in-house sourcing* in the sense of *relocation abroad*)	Production outside the enterprise (or the group) and outside the country by non-affiliated firms. This involves foreign subcontracting (*offshore outsourcing* or *subcontracting abroad*)

Source: US Government Accountability Office (GAO)/UNCTAD (2004), *World Investment Report* 2004; OECD (2004), *Information Technology Outlook*.

In other words, production abroad of an enterprise's activities could be carried on internally (*offshore in-house sourcing*), or externally (*offshore outsourcing*), which corresponds to *subcontracting abroad*. The case of transfer of production abroad to its own affiliates will be called "offshoring in the strict sense" and transfer of production abroad to non-affiliated firms will be called "offshoring in the broad sense".

1.1. Offshoring in the strict sense (offshore in-house sourcing)

This document concerns exclusively cases where there is a partial or total cessation of an activity within an enterprise in the compiling country involving the transfer of that activity to one of its existing foreign affiliates or one specially formed for the purpose (*relocation abroad*). This operation comprises three characteristics which are summarised in Box 1.

Box 1. Characteristics of offshoring in the strict sense (offshore in-house sourcing)

Offshoring through affiliates in the same group must satisfy the following characteristics:

- Total or partial closure of the enterprise's production units in the compiling country with workforce reductions.
- Opening of affiliates abroad (or production units) which produce the same goods and services. These goods and services could also be produced by existing affiliates.
- In the compiling country, the enterprise which has offshored its production imports goods and services from its own affiliates abroad which had previously been consumed in that country, while exports could decline due to the fact that they are partially or totally supplied from abroad and destined for the same markets as the exports from the compiling country.

In the case of offshoring in the strict sense (*offshore in-house sourcing*), the three preceding conditions are necessary and exclusively concern multinational firms to the extent that they involve direct investment. The multinational firms involved in this category of offshoring may be either *(a)* parent companies controlled in principle by residents of the compiling country, or *(b)* affiliates under foreign control. It will be seen later in the report whether foreign affiliates in a compiling country tend to offshore more than parent companies.

1.2. Offshoring in the broad sense (offshore outsourcing or subcontracting abroad)

Offshoring in the broad sense involves resort to international subcontracting without direct investment.

While subcontracting essentially concerns multinational firms, it may also concern SME which do not have activities abroad. Depending on the nature of the subcontracting, prime contractors may abolish jobs in the compiling country and only create jobs abroad, or else create jobs abroad without abolishing jobs in the compiling country. Subcontracting takes place between non-affiliated firms but often in a relationship of cooperation or partnership. When the production subcontracted abroad was previously undertaken within the enterprise in the compiling country, it implies a reduction in the number of employees responsible for that production. This project is exclusively concerned with subcontracting of a *permanent* and *regular* character. Ad hoc subcontracting can be justified either by a temporary lack of capacity to meet additional demand within the deadlines imposed by the order, or to accomplish an occasional task which requires skills not available within the enterprise and the compiling country.

Box 2. Subcontracting defined

Subcontracting occurs when one firm, the prime manufacturer or contractor ("principal"), contracts with another firm, the subcontractor or "supplier", for a given production cycle, one or more aspects of product design, processing or manufacture, or construction or maintenance work.

The output is generally incorporated into the principal's final products. Subcontracting can also involve services, particularly studies, accounting, engineering, R&D, advertising, computer services or legal advice. Most of these services are of the kind that can be subcontracted abroad (international subcontracting).

The "supplying" firm must adhere strictly to the "principal's" technical or commercial specifications for the products or services in question.

Source: OECD (2005), OECD Handbook on Economic Globalisation Indicators, Section 5.4.2, Chapter 5.

An important distinction concerns the difference between subcontracting and cooperation or partnership. To grasp the difference, it is useful to distinguish two categories of subcontracting. The *first* concerns relatively commonplace goods and services with a low technological content (*e.g.* call centres, accounting, spare parts, etc.). Goods and services in the second category have a high technological content and are generally the subject of constant innovation.

Relations between prime contractors and suppliers are not the same in the two categories. Prime contractors in the first category, having a wide choice, very often exert very strong pressure on prices and delivery times and can replace their subcontractors relatively easily.

On the other hand, suppliers in the second category are more closely associated with the design of the products and thus assume a partnership role. This type of subcontracting could be called *partnership subcontracting*.

As a typical example of this type of subcontracting, relations between automobile or aircraft manufactures and their respective parts suppliers might be mentioned, (providing landing gear, instrument panels, etc.).

Both these cases generally involve high tech goods for which the suppliers cannot be mere executing agents. They must also participate in the design of products and monitoring technological developments, sometimes even imposing certain innovations on the prime contractors. The latter are much more dependent on their subcontractors than prime contractors in the first category. It would be difficult, however, to liken these arrangements generally to cooperation agreements.

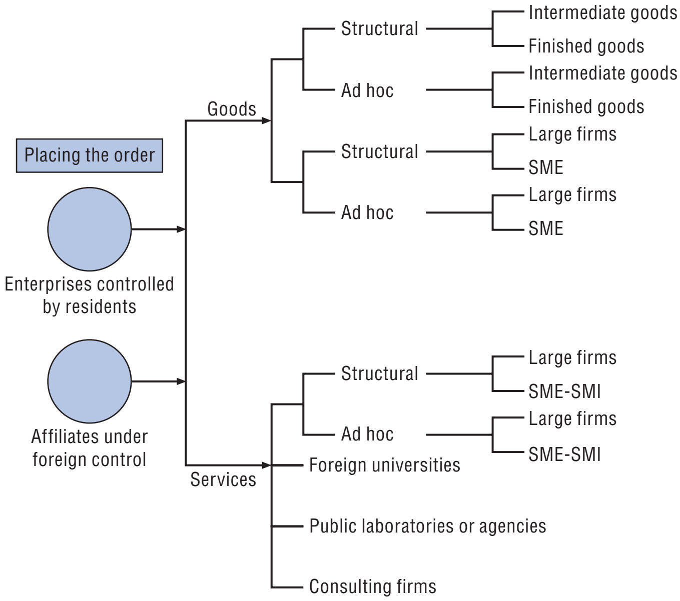
In cooperation agreements, the partners often establish financial links between them (mutual capital investment) and seek through their cooperation to share costs and risks, notably in research and development, or they undertake to jointly develop a new technology.

Figure 1 presents a classification of the different forms of international subcontracting.

The presentation in Figure 1 makes a distinction not only between ad hoc and permanent subcontracting, but also between goods and services. However, in the context of this document, it must be emphasised that both for goods and services, it is the permanent as opposed to the ad hoc character of subcontracting which is of interest. Furthermore, it must be considered even more restrictively to the extent that it must be associated with a reduction on production capacity in the compiling country. In other words, subcontracting in this report means the outsourcing abroad of an activity which previously was partially or totally integrated in the enterprise in the compiling country.

As in the case of relocation in the strict sense (Box 1), Box 3 summarises the three conditions which characterise relocation in the broad sense.

Figure 1. International subcontracting typology of a compiling country



Source: OECD (2005), *OECD Handbook of Economic Globalisation Indicators.*

Box 3. Characteristics of offshoring in the broad sense (offshore outsourcing)

This category of offshoring concerns non-affiliated firms (international subcontracting).

- Partial or total cessation of an activity of production of goods or services in the compiling country with a reduction in the workforce.
- The same activity which was partially or totally ceased is subcontracted on a regular basis with another non-affiliated firm or another institution abroad.
- The enterprise which gave the order and subcontracts goods and services abroad then imports these goods and services previously produced within the enterprise to satisfy domestic demand in the compiling country (country of the prime contractor).
- In the case of subcontracting abroad, it is possible that a firm may offshore some of its activities by means of a process of outsourcing on the domestic market. The domestic firm receiving the order to subcontract the activities in question may then subcontract abroad and itself import the subcontracted goods and services, subsequently delivering them to the firm which first gave the order.La même activité arrêtée partiellement ou totalement sera sous-traitée de manière régulière auprès d'une autre entreprise non affiliée ou d'une autre institution à l'étranger.

The conditions shown in Boxes 1 and 3 are of great importance because they can be used to define the scope of this analysis. They do not flow automatically from the terminology used. Thus, the term "*offshoring"* is used to indicate that a domestic activity is carried on abroad and that it is replaced by imports of goods and services produced abroad. However, neither the terms "*offshoring*" nor "*offshore in-house sourcing*" or "offshoring outsourcing" necessarily means a reduction in production in the compiling country whether or not accompanied by job losses. But if that were the case, it would be necessary to analyse much more broadly:

- The impact of direct investment on employment.
- The impact of international subcontracting on employment.

It is considered that in the present context where the closure of production units in many OECD countries is accompanied by job losses and these activities, for various reasons, are then shifted abroad, it would be a necessity, before expanding the analysis, to address this priority aspect of the problem first of all. It will be seen later that the majority of the studies devoted to offshoring do not simultaneously take account of all the conditions set out in Boxes 1 and 3. This could be explained by the extreme difficulty, not to say impossibility, of quantifying all the proposed conditions, even with access to individual firms' data.

1.3. Particular forms of offshoring

Certain forms of offshoring are of particular interest and are worth examining separately:

1.3.1. Offshoring abroad of research and development laboratories (R&D)

Bearing in mind the importance of R&D for technological innovation and competitiveness in enterprises, offshoring of research laboratories could have much greater effects on the economies of the compiling countries than mere loss of jobs. It would therefore be useful if the analysis of offshoring of research laboratories were not confined to counting the number of researchers and technicians affected by offshoring but took a broader approach to the question, measuring the consequences for the technological potential of the country concerned.

1.3.2. Offshoring of parent companies or decision making centres

As a particular case of offshoring in the strict sense, it would be interesting to examine the offshoring of parent companies or head offices of multinationals. As in the case of research laboratories, the jobs concerned are likely to represent only a very small percentage of the total employment involved in relocation. However, this phenomenon is more revealing of a country's power to attract decision-making centres than to maintain employment.

1.3.3. Migration abroad of scientific staff for an indefinite period

All the cases mentioned above concern offshoring relating to the activities of the enterprise.

The migration abroad of scientific staff is a very special form of offshoring which does not concern enterprises but personal choice. When the migration is temporary, it could be beneficial for the persons concerned and indirectly their compiling country, to the extent that such persons could acquire new knowledge and skills. If, on the other hand, it is permanent, it could have a relatively high social cost. This phenomenon, which is marginal to the problem of offshoring, is studied separately by “brain drain” specialists. It again shows the problem of attractiveness of countries for highly qualified persons.

1.3.4. Repatriation of activities to the compiling country

Repatriation of activities to the compiling country is the opposite phenomenon to offshoring. It is not particularly unusual for some activities which had been offshored to return to their compiling country. Most often, this occurs when offshoring has not delivered the expected returns to the enterprises concerned, or because the framework of conditions for the offshoring activities has considerably improved in the compiling country or deteriorated in the country of relocation. In almost all countries, governments seek the repatriation of offshoring activities, especially in the case of job creating activities or those with high added value. This question will be examined in the last part of this document.

1.4. Terminology issues

Before examining the impact on employment of activities carried on abroad, it is worth recalling the terms that will be used throughout the report. This is all the more necessary because often different terms are used to describe the same phenomenon.

If the title of the report reflects only certain aspects of activities carried on abroad (o*ffshoring*), that is because of the constraints set out in Boxes 1 and 3.

Externalisation abroad (*outsourcing abroad*) can be either through direct investment, *i.e.* in its own affiliates (*offshore in-house sourcing* or *cross-border outsourcing to its own affiliates*) or through foreign subcontracting (*offshore outsourcing* or *outsourcing abroad* or *subcontracting abroad* or *cross-border outsourcing to non-affiliates*). The first form of externalisation has been termed “offshoring in the strict sense” and the second “offshoring in the broad sense”. Table 2 summarises the terms used.

Table 2. Summary of terms used

• **Domestic outsourcing**	=	Externalisation within a country
• **Outsourcing abroad**	=	Externalisation abroad
• **Offshoring**	=	Activity carried on abroad, relocated abroad
• **Offshoring in the strict sense**	=	Offshore in-house sourcing or cross-border outsourcing to its own affiliates. (Partial or complete closure of production unit in the home country and relocation of the same production to its own affiliates abroad)
• **Offshoring in the broad sense**	=	Offshore outsourcing or outsourcing abroad or subcontracting abroad or cross-border outsourcing to non-affiliates. (Partial or complete closure of production unit in the home country and transfer of the same production to a subcontractor abroad)