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**Adaption of Data Collection and Analysis to Capture the Economic Activities of  
Multinational Enterprises and Other Enterprises Engaged in Global Production in the  
National Accounts in Israel**

Soli Peleg

For additional information please contact:

Name: Soli Peleg

Affiliation: Central Bureau of Statistics Israel

Email Address: soli@cbs.gov.il

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For additional information please contact:

Soli Peleg  
Macro Economics Department  
Central Bureau of Statistics  
Kanfey Nesharim 66, Corner Bachi st.,  
Jerusalem 95464  
Israel

E-Mail: [soli@cbs.gov.il](mailto:soli@cbs.gov.il)  
Fax: +972 2 6592 603  
Telephone: +972 2 6592 601

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## **Adaption of data collection and analysis to capture the economic activities of multinational enterprises and other enterprises engaged in global production in the national accounts in Israel**

As part of the increasing economic globalisation, economic activities of multinational enterprises and other enterprises engaged in global production have had a growing impact on the national economies in recent decades. But the measurement of this impact in national accounts and balance of payments has been difficult, and the impression is that important parts of the economic activities have not been captured in a satisfactory way. In the recent updates of the System of National Accounts (SNA 2008) and the Balance of Payments Manual (BPM6), the growing globalisation has been recognized, and recommendations have been changed in order to account for activities such as international merchanting, international outsourcing and production spread over a number of countries.

However, the implementation of the new recommendations may not be straight forward, and new kinds of information and statistical methods may be needed. In addition, while the new recommendations may improve the analysis of some of the international transactions, other types of analysis such as the analysis of the structure of production may be impaired.

Various solutions to these new problems of measurement and analysis have been sought within the national accounts and balance of payments of Israel, since such activities have a sizable impact on the economy.

On the basis of this experience, suggestions for new information sources or link and enhancement of existing data sources, as well as suggestions for analysis of economic activities of enterprises engaged in global production are presented below. The suggestions are illustrated with examples from the national accounts of Israel.

### **Background**

Globalisation is not a new phenomenon, and has existed for many centuries. Trade in silk and spices, wanderings of tribes, mass emigrations from Europe to America, and world wide post

services are expressions of globalisation in the past. In many senses the globalisation in the current era is a continuation of the past, but some characteristics are specific to the current globalisation. Communication and transport now take place in new ways – through air and space - and have become far quicker and cheaper than in the past. As a result day-to-day international cooperation has become much easier, and global production and outsourcing has become much more widespread. New kinds of co-production across borders have evolved, and on the one hand the share of multinational enterprises in the economies has grown fast, while on the other hand production has become more fragmented, allowing for production to take place in global simplified chains.

The multinational enterprises are also organized in different ways across countries. In the past there would often be a large head company with smaller subsidiaries in other countries, so that the measurement of the activities of the multinational was relatively straightforward. In recent years the organisation of multinationals is often more complicated: the ease of communication and transportation across borders allows organisation of the enterprises according to the countries' expertise, production efficiency, wage differentials, differences in tax regimes etc. in order to maximize profits. The head office may for example be a relatively small unit, while the development and design of the products may take place in one country, the manufacturing of the products in another country, the sales unit may be in a fourth country and so on.

Ownership may also be more complicated than in the past: enterprises may for example be owned by a consortium consisting of investors from many countries (as for example in the case of Airbus and other EU enterprises). Such arrangements may be more common, when smaller countries are involved, since the investment ability of investors from the individual countries may be limited due to the size of the local market. This means that the activities of such enterprises may be difficult to capture in statistics, if the criterion for inclusion is a certain threshold of ownership.

### **Multinational enterprises and global production in SNA 1993**

The System of National Accounts 1993 (SNA 1993) and the Balance of Payments Manual 5 (BPM5) did not mention globalisation explicitly, but multinationals and transactions between affiliates were taken into account and mentioned in some cases.

SNA 1993 recommended classifying non-financial corporations into sub-sectors, where one of the sub-sectors was: foreign controlled non-financial corporations (S.11003), which included subsidiaries of multinationals (par. 4.76).

BPM5 defined direct investment enterprises, a broader concept than foreign controlled corporations, and recommended detailed statistics on foreign direct investment.

Goods sent abroad to foreign affiliates were given a special treatment – a treatment that was one of the exceptions to the change of ownership principle generally used in the SNA. The reason for treating such cases in a special way was given in par. 14.59:

*“...Legally, the ownership of the goods may remain unchanged in such circumstances, but a de facto change of ownership is imputed between the exporting enterprise and the foreign branch or subsidiary whenever goods are shipped between affiliated enterprises. The rationale for this treatment is similar to that for financial leasing, namely that from an economic point of view ownership rights and responsibilities are effectively exercised by the enterprise which receives the goods. “*

Goods sent abroad for processing were also given a different treatment, and it was recommended to show them separately. The reason in this case was given in par. 14.63:

*“When goods are sent abroad temporarily to return in the same form as they left without change of ownership, their leaving the economy has no impact on the domestic economy and can, therefore, be ignored in the accounts. However, when the goods which return are different in form from those which left, the supply and disposition of goods or resources within the economy which sent the goods abroad for processing are changed and for this reason the export and import of the goods concerned cannot be ignored. Another relevant consideration is that it is often difficult to separate goods sent out for processing, and those returned after processing, from other movements of goods in records of international trade flows, so that the gross treatment required by the System is usually easier to implement in practice.”*

### **Problems with the recommendations in SNA 1993**

Although the treatment of international trade of multinationals recommended in the SNA 1993 helped the analysis of production processes, it required imputing values of trade, and created

gaps between data on financial transactions and foreign trade statistics, which grew as globalisation widened.

In addition, some activities were not taken into account and consequently might not be accounted for in a harmonized and satisfactory way.

Global production and international production chains were not envisaged, and it was not clear how global production involving many countries (and not just outsourcing, where goods are sent abroad for processing and then returned to the initial country) should be handled in the system.

The fact that multinationals often established small off-shore units for arranging finance or registering IP assets for their global activities was also not given much weight (par. 14.24. says: *“Offshore” units engaged in manufacturing processes...are residents of the economy in which they are located. This statement applies regardless of location in special “zones” of exemption from customs or other regulations or concessions, and also applies to non-manufacturing operations (i.e., trading and financial enterprises), including so-called special purpose units*). In many cases large sums pass in and out through borders to such off-shore units, although they have no significant production activity, so that the financial flows for the country, where the units are established, become inflated. Since there was no special treatment of such flows in the SNA 1993, the links between financial flows and other flows in the accounts might be difficult to understand.

### **Multinational enterprises and global production in SNA 2008**

In the updates of the national accounts system - SNA 2008 and the balance of payments manual - BPM6, the impact of globalisation has been recognized, and the issue of multinationals is discussed separately: SNA 2008 has a section in chapter 21 dedicated to relations between corporations in different economies, and BPM6 has an appendix concerning statistics on the activities of multinational enterprises. The updated version of the European System of Accounts (ESA 2010), which follows the SNA 2008, presents globalisation at the very beginning and brings up various measurements issues in connection with multinationals, such as new multinational corporation structures, transfer pricing, and use of intellectual property across borders.

The updated recommendations deal with many of the problems in SNA 1993 mentioned above. Goods for processing are now treated in a way that is in accordance with the ownership principle. When the ownership of the goods is not changed in connection with processing

abroad, then only the net amount of value added is registered as manufacturing services. This means that there is no need for imputations, and more consistency with business accounting.

Global manufacturing is also mentioned, and it is recommended to register transactions, connected with global manufacturing, in a sub-category of merchanting. This may not be the ideal solution to the problems, since the definition of merchanting - the purchase of a good by a resident (of the compiling economy) from a non-resident and the subsequent resale of the good to another nonresident, without the good entering the merchant's economy - does not seem to describe global manufacturing very well, but it is an improvement compared to SNA 1993. The registration of the transactions is gross, since there is a change of ownership, but since the global manufacturers are seen as merchants, the treatment is similar to treatment of commerce in the local market. According to paragraph A3.158: *“goods acquired by global manufacturers, wholesalers and retailers and those cases of commodity dealing being settled in the commodity should be recorded as negative exports on acquisition and positive exports on disposal. The difference between the two appears in exports of goods but appears as the production of a service in the merchant's economy, analogous to trade margins applied to domestically traded goods.”*

Less attention has been paid to other kinds of global production such as production of services and intellectual property products, but these subjects will be discussed in a new international task force on global production, so that recommendations of treatment in such case are expected to be forthcoming.

Special purpose entities are explicitly recognized, and details on the treatment have been added. A section in chapter 4 of SNA 2008 describes the characteristics of special purpose units, and classifies captive financial institutions separately, and in chapter 26 of SNA 2008 and in BPM6 the rules for registering special purpose units in connection with global activities, are explained in detail.

Rules for accounting for foreign direct investments and classification of foreign controlled enterprises have not changed, but recommendations are more explicit in SNA 2008 and BPM6.

### **Globalisation statistics developed in OECD**

It is worthwhile mentioning that methods for preparing specific statistics on globalisation including statistics on multinational enterprises have also been developed in the years between 1993 and 2008. OECD published a Handbook on Economic Globalisation Indicators in 2005, including guidelines for conducting surveys, and the organisation publishes statistics on activities of multinationals (see examples in tables 1.a. and 1.b. below). The recommended

statistics for multinational enterprises cover various aspects of production, R&D and foreign trade.

**Table 1.a. Inward activity of multinationals - Production, share in national total (manufacturing)**

Percents

	2002	2003	2004	2005	2006	2007
<b>Australia</b>	..	..	..	..	..	..
<b>Austria</b>	..	29.2	..	..	..	38.6
<b>Canada</b>	51.5	51.2	51.0	51.2	..	..
<b>Czech Republic</b>	46.0	48.4	53.2	53.4	56.1	64.7
<b>Denmark</b>	17.0	..	..	..	..	..
<b>Estonia</b>	..	49.2	52.1	51.8	52.6	52.3
<b>Finland</b>	..	..	..	17.9	18.5	20.4
<b>France</b>	..	..	..	..	..	..
<b>Germany</b>	..	..	..	..	..	37.5
<b>Hungary</b>	..	57.6	62.6	60.0	63.1	..
<b>Ireland</b>	80.4	80.0	81.1	81.7	79.9	79.0
<b>Israel</b>	19.6	..	17.7	17.5	18.2	17.8
<b>Italy</b>	18.5	19.3	19.1	17.9	18.4	18.6
<b>Japan</b>	..	..	..	..	..	..
<b>Luxembourg</b>	..	..	..	..	..	..
<b>Netherlands</b>	38.8	38.4	42.0	38.7	..	42.8
<b>Norway</b>	29.9	27.3	26.4	28.6	31.2	28.7
<b>Poland</b>	..	..	..	..	..	..
<b>Portugal</b>	..	23.5	23.7	24.5	25.6	27.5
<b>Slovak Republic</b>	..	63.7	69.3	70.8	71.0	78.5
<b>Slovenia</b>	..	24.8	25.9	27.3	26.5	26.8
<b>Spain</b>	26.1	25.8	25.3	24.9	28.7	29.6
<b>Sweden</b>	40.0	41.4	39.8	38.5	41.7	39.9
<b>Switzerland</b>	..	..	..	..	..	..
<b>Turkey</b>	..	..	..	..	..	..
<b>United Kingdom</b>	..	..	38.5	42.3	42.7	44.7
<b>United States</b>	..	..	..	..	..	..

**1.b. Outward activity of multinationals - Turnover, share in national total (manufacturing)**  
**Percents**

	2002	2003	2004	2005	2006	2007
<b>Australia</b>	10.6	..	..	..	..	..
<b>Austria</b>	17.2	19.2	23.1	24.3	28.5	30
<b>Czech Republic</b>	..	..	..	..	..	..
<b>Germany</b>	34	31.9	32.2	34.9	35.2	27.4
<b>Hungary</b>	..	..	3.5	3.4	..	81.6
<b>Italy</b>	..	..	..	..	..	13.2
<b>Japan</b>	14.3	15.6	16.4	17	18.4	19.7
<b>Luxembourg</b>	122.3	123.1	121.9	124.6	..	..
<b>Portugal</b>	1	1.1	1.6	2.2	..	..
<b>Slovak Republic</b>	..	..	..	1.1	0.9	2.3
<b>Switzerland</b>	..	..	..	..	..	..
<b>United States</b>	..	..	..	..	..	..

[http://stats.oecd.org/Index.aspx?DataSetCode=AFA\\_CALC\\_IN3](http://stats.oecd.org/Index.aspx?DataSetCode=AFA_CALC_IN3)

Extracted on 1.1.2012

**Implementation of the new recommendations of SNA 2008**

The implementation of the new recommendations is not easy, and changes in the collection of basic statistics, as well as new statistical methods are required.

At the Central Bureau of Statistics of Israel the adaption of the methods for measurement of production has begun some time ago, but further changes in methods are still necessary and will be made in the future. The data and methods already used or planned to be used in the future are described below.

**Global production**

To describe the data needed and the methods used to estimate national accounts data, it is useful to take a look at the types of arrangement for global production. Here global production is taken to mean: an interlinked process performed in more than one country, which leads to an output, where one entity, usually the principal, exerts a certain level of control over the process. The types of enterprises engaging in global production may be of many different types. At one extreme case, the global production is undertaken by one multinational enterprise engaging in all steps of production. At the opposite extreme case, chains of outsourcing are used, so that only the organisation of the outsourcing and the final sales are made by one enterprise (a so-called factory-less enterprise), which in such a case may be based in one country, and not necessarily be a multinational. But there are many combinations of types in between. The

arrangement of production will influence the prices recorded for international transactions: within a multinational enterprise the transactions will be at “transfer prices”, decided upon by in the multinational enterprise and not necessarily similar to market prices, while the prices for outsourcing to unaffiliated enterprises will mostly reflect market prices. The ownership of the multinational enterprise will also be of interest, since multinational enterprises with the parents company based in the reporting country (OUT) may have different activities from the affiliates to multinationals with the parent company abroad (IN).

It is also useful to distinguish between 3 categories of products: goods, intellectual property products (IPP), and services excluding IPP's, due to the differences in data collection and kinds of ownership.

Table 2 below presents the combinations of the main types of enterprises engaging in external trade by kinds of products.

**Table 2. Main types of enterprises engaged in external trade by products**

Products	Global producers				Global merchants	Domestic producers selling work in progress to abroad	Domestic producers not involved in global production
	Multi-national enterprises OUT	Multi-national enterprises IN	Domestic producers outsourcing part of the production to abroad	Factory-less enterprises			
Goods							
Services excluding IPP's							
IPPs							

The cross-border transactions taking place in connection with the global production can be of different types: exports or imports at market prices, exports or imports at transfer prices, goods for processing, transactions where the goods don't cross the border of the reporting economy – “global manufacturing” and “merchanting”.

Table 3 below combines the various types of transactions and producers.

**Table 3. Types of producers engaged in external trade by types of transactions**

Products	Global producers				Global Merchants	Domestic producers selling work in progress to abroad		Domestic producers not involved in global production
	Product enters the economy of the global producer before being sold		Product does not enter the economy of the global producer before being sold		Product does not enter the economy of the merchant before being sold	Work in progress is sent back to the global producer after processing	Work in progress is not sent back to the economy of the global producer after the processing	
	Multi-national enterprises	Domestic producers outsourcing part of the production to abroad	Multi-national enterprises	Factory-less enterprises				
<b>1. Goods</b>					Merchanting			Trade at market prices
<b>1.1 Intermediate materials for production owned by the global producer</b>	Goods for processing	Goods for processing	Goods for processing	Not relevant	Ownership of materials not relevant	Goods for processing	Special case of goods for processing	Ownership of materials not relevant
<b>1.2 Intermediate materials for production owned by the intermediate producer</b>	Trade at transfer prices	Trade at market prices	Global Manufacturing at transfer prices	Global Manufacturing at market prices		Trade at market prices	Trade at market prices	
<b>2. Services</b>	Trade at transfer prices	Trade at market prices	Global Manufacturing at transfer prices	Global Manufacturing at market prices	Merchanting	Trade at market prices	Trade at market prices	Trade at market prices
<b>3. IPPs</b>	Trade at transfer prices	Trade at market prices	Global Manufacturing at transfer prices	Global Manufacturing at market prices	Merchanting	Trade at market prices	Trade at market prices	Trade at market prices

The treatment of the different types of transactions vary, so that it is important be able to distinguish between the types in data collection. To be able to make such distinctions data about the type of enterprises engaging in the transactions, the type of product and the ownership of the products are needed.

In the following sections the methods of measurement chosen for different types of transactions and global production are described.

## **I. Global production of goods**

### **I.I Capturing global manufacturing**

Capturing the type of outsourcing of production of goods that is described as global manufacturing in SNA 2008 is difficult, since the flows in goods in connection with outsourcing of production do not cross the borders of Israel. In Israel the need to measure global production was recognized almost ten years ago, and various ways have been sought to capture such cases:

1. At the first stage lists of known global manufacturers were obtained through the manufacturers association. Financial reports of the enterprises on the list were examined in depth in order to derive the flows to be included in the national accounts and the balance of payment. But it was clear that such lists were not exhaustive.

Later other methods were added to identify cases of global manufacturing. These methods involved comparisons of data from different sources – comparisons that are feasible since the authorities in Israel use a single company identification number. The methods added:

2. Detailed banking data on transactions in foreign currency classified as exports of goods are compared with customs data on exports for individual enterprises. Whenever banking data on exports of goods for an enterprise are significantly higher than customs data, it may be suspected that there is a case of global manufacturing, and data from the financial report have to be examined. However, some of the banking data may have problems of classification, and the timing may be different.
3. Yet another method used to find cases of global manufacturing is the comparison of data for enterprises covered in business surveys with customs data. Data on exports of goods

are not obtained separately, so that the comparisons are less reliable, since exports of services are not covered in the customs authority files, but for most industries this comparison will be sufficient. The most important problem with this method is that currently data are only available for a sample of enterprises, and assuming that the sample is also representative for deriving global manufacturing may be problematic. However, since 2010 enterprises are obliged to report their financial reports on-line to the tax authorities, so that the frame for the business surveys may be improved very much, and parts of the information needed will be easy to obtain from the files of tax authorities.

4. A fourth method is the comparison of VAT data on exports with customs data on exports for individual enterprises. Whenever VAT data on exports for an enterprise are significantly higher than customs data, it may be suspected that there is a case of global manufacturing, and data from the financial report have to be examined. But since VAT data covers exports of both goods and services, the problem mentioned for business survey enterprises applies in this case too.

In the long run the intention is to capture global manufacturing in the framework of enterprise surveys. As a step in this direction the enterprise surveys on exports and imports of services are also used to capture data on global manufacturing, and from the 2009 survey all enterprises in the sample are questioned about outsourcing of production of goods across the border. A translation of the questionnaire is presented in the annex below. The questions on outsourcing add to the response burden in a questionnaire that is already quite heavy. But most of the enterprises in the sample have submitted responses. The preliminary results from the 2009 survey have revealed that the arrangements for production are even more complicated than foreseen, when the questionnaires were prepared. Many of the enterprises engage in more than one form of global production – exporting and importing in connection with processing abroad (where goods return to Israel), while also selling goods directly from a sub-contractor abroad or buying and selling finished goods abroad (merchanting activity). Some enterprises report that they pay sub-contractors, but don't report return of products or sales abroad – perhaps because the sales take place in other periods. Further investigations need to be made, before the results can be included in a useful manner in the balance of payments and the national accounts. During the collection of data from the enterprises it also became clear that the distinction between merchanting and global manufacturing is not very clear, and enterprises needed further guidance, so that the questionnaire needs to be refined in the future. It is also important to find

ways to improve the representativeness of the sample using the new administrative data obtained from the tax authorities from 2010. Tables 4 to 6 below present some preliminary results of the 2009 survey <sup>1</sup>.

**Table 4. Preliminary results of 2009 survey of importers and exporters of services - production by sub-contractors abroad, where the inventories of raw materials abroad are owned by the Israeli enterprise**

Thousands dollars

Industries (1)		Payments to sub-contractors	Sales abroad	Inventories of raw materials sent from Israel to abroad	Inventories of raw materials purchased abroad	Value of goods returned to Israel
Industry code	Name of Industry					
14-15	Manufacture of food, beverages and tobacco products	873		15,537	2,322	
17-18	Manufacture of textiles and wearing apparel	27,218	36,596	2,821	1,867	15
13 , 23-24	Chemicals and chemical products, refined petroleum, other mining and quarrying	6,820	49,378	10,682		98
31	Manufacture of electric motors and electric distribution apparatus	276	5,800		1,650	334
32	Manufacture of electronic components	6,093	7,490			
33	Manufacture of electronic communication equipment	5,628	7,526	3,508		1,080
34	Manufacture of industrial equipment for control and supervision, medical and scientific equipment	4,422	9,048	1,955		
72	Computer and related services	33,716				
73	Research and development	199,218	262,557	89	3,723	24
<b>Total</b>		<b>284,265</b>	<b>378,395</b>	<b>34,591</b>	<b>9,562</b>	<b>1,551</b>

(1) According to the Israeli Standard Classification of all Economic Activities 1993, which is harmonized with ISIC 1990

<sup>1</sup> The preliminary data have been prepared by Yaacov Maccabi-Cohen at the Central Bureau of Statistics, Israel

**Table 5. Preliminary results of 2009 survey of importers and exporters of services - production by sub-contractors abroad, where the inventories of raw materials abroad are not owned by the Israeli enterprise**

Thousands dollars

Industries (1)				
Industry code	Name of Industry	Payments to sub-contractors	Sales abroad	Value of goods imported to Israel
17-18	Manufacture of textiles and wearing apparel	191,145	271,201	997
21	Manufacture of paper and paper products	869	1,090	
22	Publishing and printing	763	1,079	
25	Manufacture of plastic and rubber products	18,820	25,228	
28	Manufacture of metal products	1,235	3,375	
31	Manufacture of electric motors and electric distribution apparatus	3,852	3,653	
32	Manufacture of electronic components	26,062	615	23,880
33	Manufacture of electronic communication equipment	21,399	20,642	527
34	Manufacture of industrial equipment for control and supervision, medical and scientific equipment	119,695	31,284	96,178
39	Manufacturing n.e.c.	354	678	
51	Wholesale trade (excl. motor vehicles and motorcycles)	1,897	2,905	156
73	Research and development	124,015	301,662	5,000
76	Business activities n.e.c.	3,789	8,499	28
<b>Total</b>		<b>513,896</b>	<b>671,911</b>	<b>126,766</b>

(1) According to the Israeli Standard Classification of all Economic Activities 1993, which is harmonized with ISIC 1990

**Table 6. Preliminary results of 2009 survey of importers and exporters of services - finished goods that were purchased by Israeli enterprises abroad and sold abroad without passing Israel's border**

Thousands dollars

Industries (1)		Value of purchases abroad	Value of sales abroad	Net income from sales abroad of finished goods purchased abroad
Industry code	Name of Industry			
14-16	Manufacture of food, beverages and tobacco products	4,447	6,313	1,865
17-18	Manufacture of textiles and wearing apparel	33,809	42,838	9,029
21	Manufacture of paper and paper products	96	140	43
23-24	Chemicals and chemical products and refined petroleum	422,127	427,135	5,008
25	Manufacture of plastic and rubber products	21,919	24,548	2,629
26	Manufacture of non-metallic mineral products	2,180	9,055	6,876
28	Manufacture of metal products	5,939	8,063	2,124
29	Manufacture of machinery and	85,886	88,888	3,002
31	Manufacture of electric motors and electric distribution apparatus	10,589	26,998	16,409
32	Manufacture of electronic components	708	1,116	408
33	Manufacture of electronic communication equipment	37,024	91,607	54,583
34	Manufacture of industrial equipment for control and supervision, medical and scientific equipment	2,358	3,909	1,551
35	Transport equipment	2,109	2,482	372
36	Furniture	1,373	2,512	1,139
51	Wholesale trade (excl. motor vehicles and motorcycles)	310,082	373,671	63,589
72	Computer and related services	29,280	38,766	9,486
73	Research and development	57,554	76,896	19,342
75	Security and cleaning activities	1,992	3,885	1,892
76	Business activities n.e.c.	33,552	47,823	14,271
<b>Total</b>		<b>1,063,023</b>	<b>1,276,642</b>	<b>213,619</b>

(1) According to the Israeli Standard Classification of all Economic Activities 1993, which is harmonized with ISIC 1990

The collection of data on global manufacturing in the framework of globalisation surveys is described in part IV below.

## **I.II Capturing processing of goods**

### **Changing collection from administrative sources**

The main parts of the trade in goods and the sources of data are shown in table 7 below. The principal source for data on external trade in goods in Israel with other countries, excluding the Palestinian Authority, is the customs authority. The value of goods crossing the border is registered even in cases, when there is no change in ownership, and if the goods are sent for processing, it will usually be indicated (although not always) in the files. Since the information on the value of goods for processing will be needed for various purposes, the intention is to continue receiving the data from the customs authority, but to make new aggregations of data with separate totals for goods for processing. Currently the new aggregation of data and improvement of indication of cases with no change of ownership is planned together with the customs authority.

The source for trade with the Palestinian Authority is data on invoices submitted for VAT refund, since Israel and the Palestinian Authority have an agreement on VAT refund for transactions between Israel and the Palestinian Authority. If no ownership is changed, there will not be an invoice with information on sales, so even now such activity is not covered. In the future improvements in data collection for this part of trade are planned, and then the need for separate data on goods for processing will be taken into account.

The data on defense imports and trade not passing through customs are obtained from financial reports, and currently only cases where there has been a change of ownership have been included.

Table 7. Distribution of external trade in goods in Israel 2010

Type of trade	Exports	Imports	Source of data
Trade crossing customs	90.7%	101.1%	Customs Authority
Trade with the Palestinian Authority	5.5%	0.8%	VAT data
Defense imports	-	3.7%	Financial reports of government
Other	3.8%	-5.6%	Financial reports, banking data etc.
Total	100.0%	100.0%	

## II. Global production of services

Global production of services has developed in many industries: for example global production of travel services, banking services, insurance services, and commerce may be found. Advances in call center technologies and a sharp decline in communication costs have also lead to a growth in outsourcing of services accompanying production in other industries such as technical support services, help desks and emergency centers.

### II.I Capturing outsourcing of service production

The main source for data on outsourcing of production of services in Israel is the survey on exports and imports of services mentioned above, which has been conducted since 2004. However, the need to separate cases of outsourcing of production of services has so far not been taken into account. But in the tables 4 to 6 shown above at least one can get an impression of the outsourcing of production in the service industries from the 2009 survey.

## III. Global production of IPP's

Outsourcing of IPP production has not been common in the past, probably because it may be difficult to protect the ownership of IPP's, if they are not kept close to the headquarter, especially if the ownership has not been registered through copy-rights or patents. But as mentioned above the structure of multinationals has been changing, and now placement of IPP production apart from the headquarter and in a foreign country has become more common, perhaps because IP legislation has developed and because IPP production has become more modular, making it easier to protect the IPP. Among the considerations for placing production of IPP's in a certain

country are: tax discounts, capable and innovative labour, cheap wages, good infrastructure for carrying out development of IPP's.

Since there are certain advantages in centralizing the IPP production, such as a common infrastructure, synergies between researchers and perhaps proximity to a major research institution, multinational enterprises will often concentrate IPP production in centralized units.

But in multinational enterprises the use of the IPP's in most cases will take place in production units placed in many other countries. This means that the multinational enterprises have to transfer the intellectual property between countries, and will seek to do so at minimum costs .

Since the IPP's are intangible, and need not pass through customs, it may be difficult to identify and track transactions involving IPP's, and such transactions may not be covered in administrative data in a satisfactory way .

Even when the transactions are covered in administrative data, there may be problems. Since many of the IPP's developed within the multinational enterprises are unique, and don't have a market price, the multinational enterprises will mostly register costs of production with the minimum margin allowed by the tax authorities in the relevant countries.

This means that the international flows of IPP's within the multinational enterprises may not be covered in statistics, and even if they are covered, the flows may be undervalued .

An additional difficulty is that due to variations in tax regulations or IP regulations, the multinational enterprises may choose to place the legal ownership of IPP in one country rather than another. A NBER paper from 2005 by Branstetter, Fisman and Foley found a considerable influence of the IP legislation on transfer of IPP's. And a 2009 paper by Dischinger and Riedel from the University of Munich, using panel data on European MNEs and controlling for unobserved time-constant heterogeneity between affiliates, found that the lower a subsidiary's tax rate relative to other affiliates of the multinational group the higher is its level of intangible asset investment. This means that even if an IPP is produced by the enterprise in country A, the ownership may be registered in country B, while the IPP is used in country C. The multinational enterprise may not register payments between the countries, so that it is necessary to consider how to account for the use of the IPP in the different countries.

Israel has attracted production of R&D of multinational enterprises, due to the high percentage of researchers in the population, a government policy of granting benefits for development of R&D, and tax benefits to foreign enterprises establishing affiliates in regions with relative large unemployment rates. Consequently production of R&D centers of multinationals contribute a

large share of R&D production and R&D exports in the country, and efforts have been made to develop separate estimates of production in R&D centers of multinationals.

Data on expenditure in such centers are collected in the framework of annual R&D surveys, and also in the framework of Globalisation surveys as described below. Less is known about the registration and use of the R&D produced in these centers, but work is under way to link between the data collected on exports of R&D and the data on production of R&D, and linking data on registration of patents (a database held at one of the universities) to enterprise data is also planned.

Table 7 below shows the findings on expenditure on R&D in R&D centers of multinationals located in Israel from the 2006-2009 R&D surveys.

**Table 7. Expenditure on R&D in R&D centers in Israel - affiliates of multinational enterprises**

NIS Million

<b>Industries (1)</b>		<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Industry code</b>	<b>Name of Industry</b>				
13, 24	<b>Manufacture of chemicals and chemical products</b>			35.7	44.3
29-30	<b>Manufacture of machinery and equipment, office machinery and computers</b>	249.7	279.6	279.3	305.1
32 -33	<b>Manufacture of electronic components, and manufacture of electronic communication equipment</b>	129.0	127.3	204.3	123.8
72	<b>Computer and related services</b>	3,029.8	3,904.8	4,602.8	5,457.6
73	<b>Research and development</b>	4,563.6	5,596.7	5,918.9	6,360.2
	<b>Total</b>	<b>7,972.1</b>	<b>9,908.5</b>	<b>11,041.1</b>	<b>12,291.0</b>

(1) According to the Israeli Standard Classification of all Economic Activities 1993, which is harmonized with ISIC 1990

#### **IV. Capturing global production by multinationals using the globalisation survey**

Global production – of all 3 types of products - by multinationals may be captured in the framework of the globalisation surveys. The coverage of their production in these surveys ensures that data on all the activities of the multinational enterprises are available, and that additional analysis of production can be prepared.

The data on parent companies collected in these surveys are especially useful, since they include data on affiliates abroad. But the data on domestic affiliates collected are of less use, since they do not cover activities of the parent companies abroad.

Another problem is that globalisation surveys cover ownership of over 50%. For statistics on foreign direct investments (for the balance of payments and international investment position), enterprises with 10% and over owned by foreigners need to be covered. Coverage of enterprises with a lower share of ownership is also relevant – as explained above, as globalisation has grown, smaller shares of ownership probably become more widespread.

The ICBS has collected data from multinational enterprises according to the guidelines in the OECD handbook for 2002 and onwards. The surveys cover multinational enterprises, where the parent enterprises are abroad (IN), and multinational enterprises with parent enterprises in Israel (OUT), and the variables included are relevant for the analysis of production of such enterprises. A translation of the questionnaire used in the survey is shown in the Annex below. The coverage of the survey will be expanded in the future, and enterprises with 10% to 50% ownership will be added.

### **The frames for the globalisation surveys**

Determining the frame for globalisation surveys is especially problematic, since the share of ownership by residence is needed in order to obtain a representative sample. Ownership may change much faster than other enterprise variables, such as employment or turnover. This means that the survey frame needs to be updated frequently, using administrative sources. But the administrative sources are not always updated on a continuous basis, and since changes in ownership may be of a large scale, the quality of the various sources needs to be assessed, and often different sources have to be combined.

Currently the following sources are used to build the frame for the surveys:

1. Administrative data on foreign direct investments collected from the banking system by the Bank of Israel. The Bank also collects data directly from enterprises on large foreign direct investments. However, after the liberalization of foreign currency transactions in Israel in the late 1990's flows of foreign currency are no longer controlled by the Central Bank, so that the banking data collected from the banks may not cover all transactions, and may be less reliable. Enterprises may choose to leave foreign currency abroad, so that only net flows are included, and classification of flows may be less reliable, since they are not needed for the control of

currency flows or other administrative purposes. Foreign direct investment performed through equity swaps may also not be covered in banking data.

2. Data purchased from commercial firms (such as Dun and Bradstreet) on ownership of enterprises in Israel. These data are based on a number of sources, and are usually relatively comprehensive and updated frequently.

3. Administrative data on ownership of enterprises reported to the tax authorities. The enterprises are obliged to report changes in ownership, but the emphasis is on reporting in connection with the financial reports, so that data may not be up-to-date.

4. Data on all enterprises from the business register administered by the Central Bureau of Statistics. So far the register does not include data on ownership. But the data from other sources are linked to the register. Data on revenue and employment etc. are obtained from the register.

For the 2010-11 survey the sample has been enlarged in order to increase coverage.

### **Combining data sources**

The questionnaire for the globalisation survey is long, and ways to minimize the response burden are sought. If the enterprise is also included in other ICBS surveys, the data collected in these surveys are used. In addition, all available administrative data such as data on imports and exports of goods are used. As mentioned above, such linkage between various data sources is relatively easy, since the various authorities use a single company identification number.

Tables 8-12 below show the findings on production, employment, external trade and sales through subsidiaries of multinational enterprises in Israel from the 2002 to 2009 surveys. The tables 13-14 show findings on R&D activity in multinational enterprises in Israel from the 2007-2009 surveys<sup>2</sup>.

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<sup>2</sup> The tables have been prepared by Amos Degani and Ziv Goroditsky, Central Bureau of Statistics, Israel

**Table 8. Output and employment of parent companies of multinationals in Israel (OUT)**

Industries (1)		Output - Million US	Share of output of OUT companies in output of total business sector (2)							Thousands employed persons	Share of employed persons in OUT companies in employed persons in total business sector				
Industry code	Name of Industry		2009	2002	2003	2004	2005	2006	2007		2008	2009	2002	2004	2006
14-16	Manufacture of food, beverages and tobacco products	2,390	18%	17%	21%	24%	28%	26%	18%	13.5	14%	16%	23%	20%	23%
17-18	Manufacture of textiles and wearing apparel	923	45%	53%	50%	55%	49%	47%	54%	4.7	28%	29%	30%	28%	20%
21-22	Manufacture of paper, publishing and printing products	592	14%	15%	15%	14%	11%	11%	15%	3.1	8%	10%	8%	8%	8%
13, 24	Manufacture of chemicals and chemical products	10,414	45%	41%	47%	41%	46%	45%	45%	23.0	41%	48%	58%	54%	58%
25	Manufacture of plastic and rubber products	1,557	42%	42%	41%	39%	41%	42%	49%	6.0	18%	24%	25%	26%	24%
27-29	products and machinery and equipment	2,189	27%	29%	27%	32%	26%	24%	17%	7.5	12%	15%	13%	9%	9%
31	Manufacture of electric motors and electric distribution apparatus	536	22%	32%	37%	48%	43%	36%	41%	2.9	10%	16%	30%	25%	25%
32	Manufacture of electronic components	797	34%	40%	38%	37%	38%	31%	27%	7.3	35%	28%	34%	22%	29%
33	Manufacture of electronic communication equipment	2,164	51%	65%	62%	63%	57%	55%	46%	10.0	34%	60%	59%	78%	74%
34-35	Manufacture of industrial equipment for control and supervision, medical and scientific equipment and transport equipment	9,379	77%	76%	77%	75%	71%	68%	81%	40.7	74%	75%	71%	59%	64%
	Other manufacture	632	17%	20%	19%	19%	13%	11%	12%	3.0	8%	4%	4%	4%	5%
<b>Total Manufacturing, Extraction and Quarrying</b>		<b>31,574</b>	<b>40%</b>	<b>41%</b>	<b>41%</b>	<b>41%</b>	<b>41%</b>	<b>39%</b>	<b>39%</b>	<b>121.7</b>	<b>25%</b>	<b>26%</b>	<b>29%</b>	<b>26%</b>	<b>27%</b>
45-46	Construction (building and civil engineering projects)	1,660	9%	7%	5%	5%	8%	7%	7%	3.5	2%	2%	3%	2%	2%
50-52	Wholesale trade, retail trade and maintenance of vehicles	3,364	4%	5%	4%	4%	11%	10%	10%	24.3	2%	2%	7%	6%	6%
60-66	Transport, storage and communications	4,832	26%	22%	22%	24%	24%	24%	25%	10.6	6%	7%	7%	7%	6%
72-73	Computer and related services and Research and development	3,929	24%	27%	26%	27%	30%	27%	26%	25.9	18%	19%	20%	25%	23%
<b>Total Services</b>		<b>8,761</b>	<b>26%</b>	<b>24%</b>	<b>24%</b>	<b>25%</b>	<b>26%</b>	<b>25%</b>	<b>26%</b>	<b>36.4</b>	<b>10%</b>	<b>11%</b>	<b>12%</b>	<b>9%</b>	<b>8%</b>
<b>Grand Total</b>		<b>45,358</b>	<b>26%</b>	<b>26%</b>	<b>26%</b>	<b>26%</b>	<b>27%</b>	<b>26%</b>	<b>26%</b>	<b>186.0</b>	<b>11%</b>	<b>11%</b>	<b>14%</b>	<b>13%</b>	<b>13%</b>

(1) According to the Israeli Standard Classification of all Economic Activities 1993, which is harmonized with ISIC 1990

(2) - Excluding companies belonging to diamonds industries, financial corporations, agriculture and 76-99 industries.

**Table 9. International trade of parent companies of multinationals in Israel (OUT) with foreign affiliates and other foreign residents (1)**

	2002		2004		2006		2007		2008		2009	
	Million US dollars	Percents										
<b>Exports of goods</b>	11,125	100.0%	13,553	100.0%	18,460	100.0%	21,183	100.0%	26,858	100.0%	22,429	100.0%
Exports to foreign subsidiaries	3,120	28.0%	4,277	31.6%	6,002	32.5%	6,252	29.5%	8,585	32.0%	7,720	34.4%
Exports to foreign parent group/other affiliates	1,950	17.5%	1,700	12.5%	2,513	13.6%	2,979	14.1%	3,167	11.8%	2,546	11.4%
Exports to other non-residents	6,055	54.4%	7,575	55.9%	9,945	53.9%	11,952	56.4%	15,106	56.2%	12,163	54.2%
<b>Exports of services</b>	3,719	100.0%	5,318	100.0%	5,931	100.0%	6,824	100.0%	8,583	100.0%	6,368	100.0%
Exports to foreign subsidiaries	341	9.2%	489	9.2%	540	9.1%	593	8.7%	535	6.2%	519	8.2%
Exports to foreign parent group/other affiliates	131	3.5%	193	3.6%	264	4.5%	279	4.1%	1,173	13.7%	944	14.8%
Exports to other non-residents	3,248	87.3%	4,636	87.2%	5,127	86.4%	5,951	87.2%	6,874	80.1%	4,905	77.0%
<b>Imports of goods</b>	5,504	100.0%	6,759	100.0%	8,219	100.0%	10,031	100.0%	11,553	100.0%	8,247	100.0%
Imports from foreign subsidiaries	346	6.3%	490	7.2%	524	6.4%	549	5.5%	699	6.1%	545	6.6%
Imports from foreign parent group/other affiliates	408	7.4%	481	7.1%	506	6.2%	584	5.8%	306	2.7%	201	2.4%
Imports from other non-residents	4,749	86.3%	5,788	85.6%	7,189	87.5%	8,897	88.7%	10,547	91.3%	7,501	91.0%
<b>Imports of services</b>	3,225	100.0%	4,052	100.0%	3,705	100.0%	4,567	100.0%	5,030	100.0%	4,378	100.0%
Imports from foreign subsidiaries	401	12.5%	438	10.8%	424	11.4%	577	12.6%	725	14.4%	926	21.1%
Imports from foreign parent group/other affiliates	187	5.8%	299	7.4%	191	5.2%	223	4.9%	140	2.8%	116	2.6%
Imports from other non-residents	2,636	81.7%	3,315	81.8%	3,090	83.4%	3,768	82.5%	4,166	82.8%	3,337	76.2%

(1) - Excluding companies belonging to diamonds' industries and financial corporations.

**Table 10. Sales of subsidiaries abroad of Israeli OUT companies by industries (1)**

Million US dollars

<b>Industries (2)</b>		2004	2005	2006	2007	2008	2009
Industry code	Name of Industry						
14-16	Manufacture of food, beverages and tobacco products	741	828	659	950	1,319	1,527
17-18	Manufacture of textiles and wearing apparel	856	988	964	984	967	836
21-22	Manufacture of paper, publishing and printing products	144	137	238	244	163	180
13, 24	Mining and quarrying and manufacture of chemicals and chemical products	9,740	10,866	11,368	12,549	15,317	17,589
25	Manufacture of plastic and rubber products	803	874	1,078	1,308	1,279	1,086
27-29	Manufacture of basic metal, metal products and machinery and equipment	2,631	2,813	3,009	2,043	707	541
31	Manufacture of electric motors and electric distribution apparatus	68	100	172	227	149	136
32	Manufacture of electronic components	1,245	1,247	1,112	214	235	236
33	Manufacture of electronic communication equipment	870	1,023	750	892	1,042	871
34-35	Manufacture of industrial equipment for control and supervision, medical and scientific equipment and transport equipment	1,919	2,263	2,172	2,415	2,906	3,354
	Other manufactures	385	478	446	438	308	306
<b>Total Manufacturing, Extraction and Quarrying</b>		<b>19,401</b>	<b>21,618</b>	<b>21,969</b>	<b>22,266</b>	<b>24,392</b>	<b>26,662</b>
50-52	Wholesale trade, retail trade and maintenance of vehicles	3,776	5,218	7,247	10,642	15,021	11,316
60-66	Transport, storage and communications	740	880	599	876	709	699
72	Computer and related services	1,443	1,478	1,346	1,366	2,733	2,554
73	Research and development	372	549	788	436	510	396
<b>Total Services</b>		<b>2,555</b>	<b>2,906</b>	<b>2,733</b>	<b>2,678</b>	<b>3,952</b>	<b>3,649</b>
<b>Other industry</b>		<b>1,002</b>	<b>1,809</b>	<b>1,692</b>	<b>2,110</b>	<b>2,805</b>	<b>2,576</b>
<b>Total sales</b>		<b>26,734</b>	<b>31,552</b>	<b>33,643</b>	<b>37,697</b>	<b>46,171</b>	<b>44,203</b>

(1) - According to the industry of the Israeli parent company.

(2) According to the Israeli Standard Classification of all Economic Activities 1993, which is harmonized with ISIC 1990

**Table 11. Output and employment of Israeli affiliates of foreign companies (IN) by industries**

Industries (1)		Output - Million US	Share of output of IN companies in output of total business sector (2)							Thousands employed persons	Share of employed persons in IN companies in employed persons in total business sector				
Industry code	Name of Industry		2009	2002	2003	2004	2005	2006	2007		2008	2009	2002	2004	2006
14-16	Manufacture of food, beverages and tobacco products	1,735	15%	13%	12%	12%	12%	12%	15%	6.8	11%	10%	12%	11%	11%
17-18	Manufacture of textiles and wearing apparel	225	7%	7%	7%	7%	11%	13%	11%	1.4	4%	4%	5%	7%	6%
21-22	Manufacture of paper, publishing and printing products	586	18%	17%	16%	14%	14%	14%	16%	2.3	8%	8%	7%	6%	6%
24	Manufacture of chemicals and chemical products	1,415	15%	14%	11%	10%	7%	7%	8%	6.0	20%	21%	18%	16%	16%
25	Manufacture of plastic and rubber products	285	9%	7%	8%	8%	9%	9%	7%	2.0	4%	5%	7%	7%	8%
26	Manufacture of non-metallic mineral products	623	23%	20%	21%	19%	22%	20%	26%	1.9	10%	11%	10%	13%	15%
27-29	Manufacture of basic metal, metal products and machinery and equipment	2,986	13%	14%	14%	17%	21%	23%	26%	9.9	6%	7%	12%	13%	11%
31	Manufacture of electric motors and electric distribution apparatus	577	14%	27%	29%	35%	28%	25%	36%	1.6	5%	8%	10%	12%	14%
32	Manufacture of electronic components	3,700	68%	75%	62%	53%	69%	66%	60%	9.8	44%	31%	39%	28%	39%
33	Manufacture of electronic communication equipment	1,939	56%	56%	51%	53%	51%	52%	46%	7.8	37%	45%	39%	65%	58%
34	Manufacture of industrial equipment for control and supervision, medical and scientific equipment	1,244	23%	25%	26%	26%	27%	24%	20%	4.1	16%	15%	16%	13%	12%
35	Manufacture of transport equipment	461	9%	10%	9%	11%	13%	11%	16%	2.2	7%	6%	7%	7%	8%
	Other manufacture	292	5%	6%	4%	3%	1%	1%	5%	1.1	3%	2%	1%	2%	2%
<b>Total Manufacturing, Extraction and Quarrying</b>		<b>16,068</b>	<b>20%</b>	<b>20%</b>	<b>18%</b>	<b>17%</b>	<b>18%</b>	<b>18%</b>	<b>18%</b>	<b>56.8</b>	<b>12%</b>	<b>11%</b>	<b>12%</b>	<b>12%</b>	<b>13%</b>
45-46	Construction (building and civil engineering projects)	263	2%	1%	1%	2%	1%	1%	1%	2.2	1%	1%	1%	1%	1%
50-52	Wholesale trade, retail trade and maintenance of vehicles	2,001	7%	6%	5%	5%	5%	5%	7%	19.5	3%	3%	4%	5%	5%
55	Hotels and accommodation services	464	11%	10%	10%	6%	6%	6%	7%	6.2	5%	4%	3%	5%	4%
60-66	Transport, storage and communications	2,136	3%	2%	1%	6%	10%	10%	10%	10.0	2%	1%	4%	6%	5%
72-73	Computer and related services and Research and development	8,280	41%	44%	42%	45%	46%	43%	45%	37.3	29%	32%	30%	33%	33%
<b>Total Services</b>		<b>10,880</b>	<b>17%</b>	<b>16%</b>	<b>15%</b>	<b>18%</b>	<b>21%</b>	<b>20%</b>	<b>21%</b>	<b>53.4</b>	<b>9%</b>	<b>9%</b>	<b>11%</b>	<b>13%</b>	<b>12%</b>
<b>Total</b>		<b>29,212</b>	<b>15%</b>	<b>14%</b>	<b>13%</b>	<b>14%</b>	<b>15%</b>	<b>14%</b>	<b>15%</b>	<b>131.9</b>	<b>7%</b>	<b>7%</b>	<b>9%</b>	<b>9%</b>	<b>9%</b>

(1) According to the Israeli Standard Classification of all Economic Activities 1993, which is harmonized with ISIC 1990

**Table 12. International trade of Israeli affiliates of foreign companies (IN) with foreign affiliates and other foreign residents(1)**

	2002		2004		2006		2007		2008		2009	
	Million US dollars	Percents										
<b>Exports of goods</b>	5,408	100.0%	6,020	100.0%	8,282	100.0%	9,305	100.0%	9,651	100.0%	10,111	100.0%
Exports to foreign parent group	2,758	51.0%	3,195	53.1%	3,799	45.9%	4,338	46.6%	3,887	40.3%	5,533	54.7%
Exports to foreign subsidiaries/other affiliates	691	12.8%	902	15.0%	1,674	20.2%	1,803	19.4%	2,655	27.5%	2,004	19.8%
Exports to other non-residents	1,959	36.2%	1,923	31.9%	2,809	33.9%	3,163	34.0%	3,108	32.2%	2,575	25.5%
<b>Exports of services</b>	3,217	100.0%	3,318	100.0%	5,142	100.0%	5,630	100.0%	6,573	100.0%	6,856	100.0%
Exports to foreign parent group	1,915	59.5%	1,643	49.5%	2,901	56.4%	4,126	73.3%	4,684	71.3%	5,071	74.0%
Exports to foreign subsidiaries/other affiliates	118	3.7%	134	4.1%	278	5.4%	324	5.8%	456	6.9%	473	6.9%
Exports to other non-residents	1,184	36.8%	1,541	46.4%	1,963	38.2%	1,180	21.0%	1,434	21.8%	1,313	19.1%
<b>Imports of goods</b>	3,625	100.0%	4,461	100.0%	5,287	100.0%	6,613	100.0%	7,281	100.0%	4,921	100.0%
Imports from foreign parent group	1,038	28.6%	1,225	27.5%	1,597	30.2%	1,934	29.2%	2,235	30.7%	1,963	39.9%
Imports from foreign subsidiaries/other affiliates	260	7.2%	324	7.3%	362	6.9%	376	5.7%	521	7.2%	258	5.2%
Imports from other non-residents	2,327	64.2%	2,912	65.3%	3,328	62.9%	4,303	65.1%	4,525	62.2%	2,700	54.9%
<b>Imports of services</b>	1,365	100.0%	1,559	100.0%	1,858	100.0%	1,738	100.0%	1,721	100.0%	1,655	100.0%
Imports from foreign parent group	366	26.8%	341	21.8%	470	25.3%	644	37.1%	897	52.1%	990	59.8%
Imports from foreign subsidiaries/other affiliates	422	31.0%	653	41.9%	734	39.5%	347	19.9%	192	11.2%	169	10.2%
Imports from other non-residents	576	42.2%	565	36.2%	654	35.2%	747	43.0%	632	36.7%	496	30.0%

(1) - Excluding companies belonging to diamonds' industries and financial corporations.

**Table 13. R&D activity of parent companies of multinationals in Israel**

Industries (1)		Expenditure on R&D (Million dollars)			Number of jobs of researchers			Exports of R&D (Million Dollars)			Imports of R&D (Million Dollars)			Expenditure of affiliates abroad (Million Dollars)		
Industry code	Name of Industry	2007	2008	2009	2007	2008	2009	2007	2008	2009	2007	2008	2009	2007	2008	2009
14-16	Manufacture of food, beverages and tobacco products	21	10	12	195	86	114	..	0	0	..	0	0	..	0	0
17-18	Manufacture of textiles and wearing apparel	14	11	11	248	281	315	..	2	2	..	2	3	..	13	15
24	Manufacture of chemicals and chemical products	508	567	564	1,730	1,643	1,676	54	13	5	285	1,408	228	341	678	702
25	Manufacture of plastic and rubber products	24	15	14	211	161	165	..	0	1	..	0	0	..	0	0
27-28	Manufacture of basic metal and metal products	40	7	6	485	81	83	..	0	0	..	0	0	..	1	0
29-30	Manufacture of machinery and equipment, office machinery and computers	40	32	60	448	300	536	..	3	4	..	1	0	..	0	0
31	Manufacture of electric motors and electric distribution apparatus	10	18	14	101	180	146	..	0	0	..	1	1	..	0	0
32	Manufacture of electronic components	90	71	56	786	653	773	0	0	0	0	1	1	..	10	5
33	Manufacture of electronic communication equipment	521	437	358	3,661	2,743	2,447	0	4	0	31	21	18	39	16	19
34	Manufacture of industrial equipment for control and supervision, medical and scientific equipment	516	467	388	4,670	3,531	3,501	7	12	11	16	11	9	44	106	115
..	Other manufactures	135	163	165	947	1,082	1,174	0	10	12	7	0	0	0	0	0
<b>Total Manufacturing, Extraction and Quarrying</b>		<b>1,919</b>	<b>1,799</b>	<b>1,647</b>	<b>13,482</b>	<b>10,741</b>	<b>10,930</b>	<b>61</b>	<b>44</b>	<b>36</b>	<b>338</b>	<b>1,444</b>	<b>260</b>	<b>423</b>	<b>825</b>	<b>857</b>
50-52	Wholesale and retail trade	12	51	60	69	174	223	0	0	0	0	2	4	0	1	1
72	Computer and related services	480	529	478	4,099	4,498	4,535	61	48	39	66	48	39	150	110	103
73	Research and development	276	336	329	1,908	1,948	2,136	3	58	84	13	8	7	36	47	28
	Other industries	54	32	29	373	241	252	0	0	0	7	2	2	10	1	2
<b>Total</b>		<b>2,740</b>	<b>2,747</b>	<b>2,543</b>	<b>19,932</b>	<b>17,601</b>	<b>18,076</b>	<b>125</b>	<b>150</b>	<b>160</b>	<b>424</b>	<b>1,504</b>	<b>312</b>	<b>619</b>	<b>984</b>	<b>991</b>

(1) According to the Israeli Standard Classification of all Economic Activities 1993, which is harmonized with ISIC 1990

**Table 14. R&D activity of foreign controlled enterprises in Israel**

Industries (1)		Expenditure on R&D (Million dollars)			Number of jobs of researchers			Exports of R&D (Million Dollars)			Imports of R&D (Million Dollars)		
Industry code	Name of Industry	2007	2008	2009	2007	2008	2009	2007	2008	2009	2007	2008	2009
14-16	Manufacture of food, beverages and tobacco products	8	6	5	102	47	47	..	0	0	..	0	0
17-18	Manufacture of textiles and wearing apparel	3	8	8	61	251	289	..	2	2	..	2	3
24	Manufacture of chemicals and chemical products	59	35	27	401	249	221	22	33	24	9	3	1
25	Manufacture of plastic and rubber products	3	5	5	55	37	44	..	0	1	..	0	0
27-28	Manufacture of basic metal and metal products	48	35	32	418	247	259	..	0	1	..	0	0
29-30	Manufacture of machinery and equipment, office machinery and computers	105	95	112	655	527	705	..	76	75	..	2	2
31	Manufacture of electric motors and electric distribution apparatus	7	8	6	99	104	108	..	8	4	..	1	1
32	Manufacture of electronic components	26	20	30	564	453	694	13	16	12	..	0	0
33	Manufacture of electronic communication equipment	334	304	253	2,088	1,791	1,655	22	3	0	29	63	100
34	Manufacture of industrial equipment for control and supervision, medical and scientific equipment	283	335	222	1,727	1,810	1,260	61	107	92	6	11	4
..	Other manufactures	17	7	12	83	101	82	69	13	16	3	0	0
<b>Total Manufacturing, Extraction and Quarrying</b>		<b>892</b>	<b>857</b>	<b>713</b>	<b>6,251</b>	<b>5,618</b>	<b>5,363</b>	<b>187</b>	<b>258</b>	<b>228</b>	<b>46</b>	<b>81</b>	<b>111</b>
50-52	Wholesale and retail trade	108	250	270	900	1,450	1,578	87	178	199	4	3	6
72	Computer and related services	1,116	1,484	1,354	8,952	10,279	10,429	696	1,081	1,020	50	30	27
73	Research and development	1,850	1,771	1,725	10,409	9,360	9,900	1,611	1,700	1,590	45	35	37
	Other industries	65	74	62	391	643	611	13	52	40	9	1	1
<b>Total</b>		<b>4,032</b>	<b>4,436</b>	<b>4,125</b>	<b>26,903</b>	<b>27,350</b>	<b>27,881</b>	<b>2,595</b>	<b>3,270</b>	<b>3,078</b>	<b>155</b>	<b>150</b>	<b>182</b>

(1) According to the Israeli Standard Classification of all Economic Activities 1993, which is harmonized with ISIC 1990

## **Analysis of global production in the updated national accounts and balance of payments**

The new recommendations of SNA 2008 and BPM6 improve the analysis of most of the international transactions, but some types of analysis such as the analysis of the structure of production may be impaired.

Paragraphs 14.42-43 explain this fact:

*“14.42 Measuring goods for processing by the processing fee instead of by the full value of the processed goods changes the nature of input-output coefficients. They no longer represent the technological structures of an industrial process but an economic process. Changes in coefficients may result not from changes in technology but from changes in the proportion of oil (in this case) processed on own account and processed on behalf of another unit. More extensive discussion on the treatment of goods for processing (and the similar but distinct case of merchanted goods) is given in chapter 26 but the consequences for supply and use tables and input-output tables are extremely significant and change many of the traditional perceptions about what information is conveyed in these tables.*

*14.43 Interpreting input-output coefficients as representing the technological structure of an industry does not recognize the role of other factors, such as whether fixed capital is rented or owned, the importance of ancillary activities or the consequences of a statistician balancing the tables. These factors still play an important part in determining input-output coefficients but where extensive processing of goods by third parties occurs, this may be the largest single factor contributing to change in the coefficients. ”*

It is important to bear in mind that input-output coefficients are used extensively in the production of current national accounts. Since it is easier to measure output and sales than inputs, the extrapolation of benchmark results is mostly made under the assumption that input-output coefficients at constant prices remain stable, and the coefficients are also used for various imputations. This means that it is important to know, which input-output coefficient is measured – whether part of the production is outsourced, whether the fixed capital and the materials are owned or not. Without refining the measurement of the coefficients, the quality of the current national accounts may be impaired, even if benchmarks are often updated.

## **Adapting the analysis to the changed recommendations**

This means that steps should be taken to be able to compute separate input-output coefficients for subgroups of industries. The SNA2008 recommends classifying the subsector of foreign controlled units in each sector. But it seems necessary to make further distinctions for input-

output purposes: input-output tables could be broadened to allow for the subdivision of some of the industries by type of producers – for example: fully domestic producers, producers outsourcing part of production to abroad, producers with full outsourcing (factory-less producers).

It could be useful to prepare separate input-output tables for multinational enterprises, which would cover cross-border activities for such enterprises. Such initiatives are currently under way in the framework of OECD and other international organisations.

## **Conclusion**

The most recent updates of the recommendations for national accounts and balance of payments – SNA 2008 and BPM6 recognized the importance of the increasing economic globalisation, and they included important changes in accounting rules for global production.

The implementation of the new recommendations involves changes in the collection of information and statistical methods, which may not be easy to introduce. The gradual introduction of such changes in measurement has begun some years ago in Israel, but is still under way.

The changes include collection of data in new enterprise surveys, comparisons of administrative data, and collaboration with authorities to change collection of information, such as the information needed to separate cases of goods sent abroad for processing.

The development of new enterprise surveys is especially difficult, and involves the construction of special frames for sampling, since updated information on share of ownership of the enterprises by residence is needed. In Israel such frames are developed using a combination of administrative data from different sources, linked with the help of a single company identification number.

The questionnaires for the surveys have been developed over time, and still need further development, since survey results have revealed that the arrangements for production are even more complicated than foreseen, when the questionnaires were prepared.

The conduction of the surveys is not easy, since the questionnaires are relatively heavy, and enterprises need to provide data that are usually not presented in financial reports. But over time relationship with the enterprises have been established, response rates have been satisfactory,

and parts of the results of the surveys have already been incorporated in latest update of the balance of payments. The update of the national accounts according to the new recommendations will take place in the coming months, using the new information available, and will be published in mid-2013.

Together with the implementation of the new recommendations ways to improve analysis will be sought – subdividing production accounts for some industries to distinguish between types of producers according to their engagement in global production and foreign control.

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## **Annex. Survey questionnaires**

Company ID

CBS number

## Survey on exports and imports of services ( In year 2010 )

The Central Bureau of Statistics (CBS), an autonomous unit within the Prime Ministry, conducts the "Survey on Exports and Imports of Services 2010" in order to obtain data on Israel's international trade in services for the year 2010. Those data enable the CBS to develop detailed statistics on the amount of international trade in services in general, by types of services traded and by countries engaging in trade with Israel.

The outcome of the survey and the statistics produced by the CBS will serve government offices for decisions on policy on the subject, various research institutions and the general public.

Your company was chosen to be included in the survey.

A data collector from the Central Bureau of Statistics will contact you shortly in order to make an appointment with you for filling out the questionnaire.

We emphasize that you are requested to give the data according to paragraphs 11 and 13 in the Statistics Ordinance (New Version), 5732 - 1972, by which the Central Bureau of Statistics operates.

**The Statistics Ordinance requires that the recipient of the questionnaire respond to it and that the CBS keeps all the data collected by it confidential.** The Ordinance prohibits the publication of data that enable the identification of an enterprise or any data about the enterprise.

We hope to have your full cooperation and thank you in advance for your response to our request.

With regards,

Signed by the Government Statistician



**For further questions and clarifications .....**

**Address for sending the questionnaire by mail....**

**Clarifications for filling out the questionnaire**

1. In the survey on exports of services: Even if the supplier of a service does not leave Israel, a transaction may be considered exports of services. What is important is the source of the payment and its purpose. When a sum of money is transferred from abroad to Israel for the supply of services, it is considered exports of services, and affects the balance of payment, even if the supplier of the service did not leave Israel.
2. In the survey on imports of services: Even if the supplier of the service did not enter Israel, a transaction may be considered imports of services. What matters is the source of the payments and its destination. When a sum of money is transferred from Israel to abroad for the supply of services, it is considered imports of services, and affects the balance of payment, even if the supplier of the service did not enter Israel.
3. The data should be reported on the basis of the financial reports for 2010 and not on the basis of reports on actual cash flow.
4. The data should be divided according to countries: The countries from which the relevant service is imported or the countries to which the relevant service is exported.
5. Type of currency: Please, indicate in the heading of each column in which currency the data in the column are given. If the sums were converted from one currency to another, please provide the currency and sums after conversion. The original currency should not be indicated in the heading, if the sums in the column are after conversion, since the currency indicated in the heading should fit the sums in the column. If various kinds of currency are reported, please make sure that in the summarizing column (column 7) the sums are converted to one single currency.
6. **Affiliated companies abroad are:**
  - Parent companies abroad, subsidiaries abroad or sister-companies abroad.
  - Companies held abroad by an Israeli company with a share of 10% to 50% of the held company's capital.
  - Filials or non-incorporated businesses of Israeli companies abroad.
7. **The item "services and management fees that are transferred between affiliated companies"**

This item includes payments that are transferred between affiliated companies, for services that can not be classified under other items in the questionnaire, such as management fees that are paid to affiliated companies abroad for general management or as overhead. Sometimes the activity of the subsidiary in Israel/abroad is provision of services to the parent company in Israel/abroad and it has no own income from sales of goods or services that it produces. In such cases, the value of the services is decided upon according to the subsidiary's costs, paid by the parent company and will be registered as imports/exports of services in the item "services and management fees that are transferred between affiliated companies".
8. **The item "computing services"**

Exports and imports of computer software are considered as exports and imports of services.

Please, keep a copy of the filled out questionnaire in your company!

## Survey on exports of services 2010

<b>A</b>	Total income from sales of goods and services abroad in 2010 (sum of items B to D )		Currency
<b>B</b>	Total income from abroad in 2010 from sales of goods that were sent from Israel		Currency

<b>No'</b>	<b>Services</b>	<b>Definition</b>	
<b>1</b>	Construction services including installation and assembling of machinery and equipment	Income received from abroad for construction services: construction, destruction and renovation of buildings, storerooms, hothouses etc. In addition income from abroad for installation and assembling of machinery and equipment should be included (income from construction project continuing more than a year should not be included).	<b>1</b>
<b>2</b>	Renting of light or heavy equipment (including operating leasing)	Income from abroad in the framework of rent of light or heavy equipment. Light equipment is office equipment, computers, communication appliances etc. Heavy equipment is boring equipment, bulldozers, steamrollers, vehicles etc. In addition, income from use of rented communication channels (The income of operators of heavy equipment and machinery, and income from financial leasing or renting real estate should not be included).	<b>2</b>
<b>3</b>	Architecture, engineering and technical services	Income from abroad for advisory services, planning and supervision supplied by architects, engineers and technicians. Income from abroad for architectural or engineering plans supplied by the professionals without them leaving the country should be included (income from services of software/hardware engineers should not be included, since these services are included in the item computer services).	<b>3</b>
<b>4</b>	Sale of software	Income from abroad in the framework of sales of software; "over the counter software"; "tailormade software"	<b>4</b>
<b>5</b>	Software licenses	Income from abroad in the framework of sales of licenses to use software	<b>5</b>
<b>6</b>	Computer services	Income from abroad for supply of computer services, such as data processing, maintenance of computers, technical support, installing software and hardware and training and consultancy in the area of computing.	<b>6</b>
<b>7</b>	Sales of patents	Income from abroad in the framework of sales of patents. Patents are exclusive rights granted by governments to inventors in order to prevent illegal use of their inventions by others.	<b>7</b>
<b>8</b>	Sales of knowledge	Income from abroad in the framework of sales of confidential knowledge connected to inventions, production processes, methods, accumulated experience and proficiencies that are not protected by patents.	<b>8</b>
<b>9</b>	Sales of trademarks, designs and models	Income from abroad in the framework of sales of trademarks, designs and models. Trademarks are commercial symbols of businesses	<b>9</b>
<b>10</b>	Royalties and license fees	Income from abroad from royalties or license fees for permission to use patents, knowledge, trademarks, designs, models, copyrights, and industrial planning. In addition, income from abroad for granting franchise or production and distribution rights.	<b>10</b>
<b>11</b>	Business consultation and public relations	Income from abroad for business consulting and public relations (not including income for consultation in the areas of law, software, communication, education and design, since this income is registered under other items in the questionnaire).	<b>11</b>
<b>12</b>	Advertisement services including participation in exhibitions and fairs	Income from abroad for advertisements: Organisation of advertisement campaigns, television and radio advertisements, billboards, newspaper advertisements etc. Including income from the participation of foreign companies in exhibitions and	<b>12</b>

		fairs in Israel, such as income for the use of space in a trade fair and income for design and preparation of a stand (payment for hotel and flight tickets should not be included).	
<b>13</b>	Commission for real estate transactions and management of real estate	Income from abroad of real estate agents in Israel for the assistance of purchase/sale/renting of apartments, storerooms, industrial buildings etc. (Only income paid to the suppliers of the services should be included and not the price of the assets bought or sold). Commission received from abroad for rental of buildings, offices, storerooms, industrial buildings etc. should be included.	<b>13</b>
<b>14</b>	Agents' commission	Income from abroad of agents/ promoters for services in the connection with sales. Including income computed on the basis of commissions, percents of sales or basic wage (should refer only to agents/promoters of sales who work on the basis of commissions/percentage/wage without purchasing the goods, not to distributors who purchase the goods and sell them later on).	<b>14</b>
<b>15</b>	Research and development	Income from abroad of research institutions, academic institutions, private companies, private persons or others in the framework of sale of research and development (research and development is considered as systematic and scientific research leading to progress in trade and science through new products and processes and improvements in existing products and processes.).	<b>15</b>
<b>16</b>	Scientific services	Income from abroad for the use of information bases in Israel, such as data bases on registered patents, information on scientific and economic subjects, or any other information base, where the use entails a fee.	<b>16</b>
<b>17</b>	Survey services	Income from abroad of survey institutions or performers of surveys for performance of various surveys: public opinion surveys, market and consumption surveys etc.	<b>17</b>
<b>18</b>	Legal services	Income from abroad of suppliers of legal services: lawyers, legal consultants, legal offices for registration and protection of patents etc. (only income for supply of legal services, and not income that was transferred from abroad as a result of court rulings). Income covering other legal expenses, such as court fees or fees for registration and protection of patents should be included.	<b>18</b>
<b>19</b>	Accounting services	Income from abroad of suppliers of accounting services: accountants, tax consultants, bookkeepers for supply of services such as: bookkeeping, financial reporting, preparation of documents and consultancy on the subject of taxes, registration of business accounts, review and audition of accounts or any other service linked to accounting or taxation.	<b>19</b>
<b>20</b>	Education and professional training	Income from abroad for training of employees or private training, income from abroad of lecturers/teachers for lectures or lessons linked to training of employees and enrichment of knowledge. Includes income from abroad for sale of training systems or development of courses (income from payments for secondary or university education in Israel should not be included).	<b>20</b>
<b>21</b>	Services and management fees between affiliated companies	Income from abroad received from affiliated companies (parent companies/subsidiaries/sister companies) for management fees and covering other expenses, which can not be classified elsewhere in the questionnaire.	<b>21</b>
<b>22</b>	Services in connection with sales, supplied to affiliated companies	Income from abroad received from affiliated companies for services in connection with sales and marketing (including income from "cost +" agreements).	<b>22</b>
<b>23</b>	Audiovisual and related services	Income from abroad received for permissions to broadcast or disseminate films, radio and television programs, as well as royalties received for	<b>23</b>

		permission to play works of music created by Israelis on radio and television abroad. In addition, income from abroad for work of actors, directors, and producers in the area of cinema, theatre, radio and television	
<b>24</b>	Health, cultural and recreational services	Income from abroad received for health, cultural and recreational services: health services – services of medical staff, laboratory services etc. Cultural and recreational services – services of entertainment staff, expenditure on museum visits, libraries etc.	<b>24</b>
<b>25</b>	Insurance services	Income from abroad received for insurance premiums such as premiums of life insurance, accident insurance, health insurance, property insurance, cargo insurance and insurance against other risks.	<b>25</b>
<b>26</b>	Communication services	Income from abroad received for communication services: services from switchboards, “roaming” services, cellular phone services etc..	<b>26</b>
<b>27</b>	Standardization services	Income from abroad received for certification of standards, quality checks and permits for dissemination.	<b>27</b>
<b>28</b>	Other services	Income from abroad received for other services that could not be classified elsewhere in the questionnaire.	<b>28</b>
<b>Total income from exports of services</b>			

!

Please, indicate the way data are reported:  
 In millions  In thousands  In whole numbers

\* Please, report accrued income as registered in financial reports and not income on a cash basis.  
 \*\* Please, supply details according to the table on international trade in services given on the back of the questionnaire.

<b>C</b>	Total income from abroad in 2010* from sales of goods that did not pass through the borders of Israel **		Currency
<b>D</b>	Total income from abroad in 2010* from sales of services only**		Currency

	Country	Country	Country	Country	Income from exports of services		
	Currency	Currency	Currency	Currency	Currency	Thereof:	
	(1)	(2)	(3)	(4)		Income from affiliated companies	Income from other companies or non-residents
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							

	Country	Country	Country	Country	Income from exports of services		
	Currency	Currency	Currency	Currency	Total	Thereof:	
	(1)	(2)	(3)	(4)		Income from affiliated companies	Income from other companies or non-residents
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

## Survey on imports of services 2010

<b>A</b>	Total expenditure on purchases of goods and services from abroad in 2010 (sum of items B to D )		Currency
<b>B</b>	Total expenditure in 2010 on purchases of goods and raw materials from abroad		Currency

No'	Services	Definition	
<b>1</b>	Construction services including installation and assembling of machinery and equipment	Expenditure paid abroad for construction services: construction, destruction and renovation of buildings, storerooms, hothouses etc. In addition expenditure abroad for installation and assembling of machinery and equipment should be included (expenditure on construction projects continuing more than a year should not be included).	<b>1</b>
<b>2</b>	Renting of light or heavy equipment (including operating leasing)	Expenditure abroad on rent of light or heavy equipment. Light equipment is office equipment, computers, communication appliances etc. Heavy equipment is boring equipment, bulldozers, steamrollers, vehicles etc. In addition, expenditure on use of rented communication channels (The expenditure on operators of heavy equipment and machinery, and expenditure on financial leasing or renting real estate should not be included).	<b>2</b>
<b>3</b>	Architecture, engineering and technical services	Expenditure abroad on advisory services, planning and supervision supplied by architects, engineers and technicians. Expenditure abroad on architectural or engineering plans supplied by the professionals without them leaving the country should be included (expenditure on services of software/hardware engineers should not be included, since these services are included in the item computer services).	<b>3</b>
<b>4</b>	Purchase of software	Expenditure abroad on purchases of software; "over the counter software"; "tailormade software"	<b>4</b>
<b>5</b>	Software licenses	Expenditure abroad on licenses to use software	<b>5</b>
<b>6</b>	Computer services	Expenditure abroad on computer services, such as data processing, maintenance of computers, technical support, installing software and hardware and training and consultancy in the area of computing.	<b>6</b>
<b>7</b>	Purchases of patents	Expenditure abroad on purchases of patents. Patents are exclusive rights granted by governments to inventors in order to prevent illegal use of their inventions by others.	<b>7</b>
<b>8</b>	Purchases of knowledge	Expenditure abroad on purchases of confidential knowledge connected to inventions, production processes, methods, accumulated experience and proficiencies that are not protected by patents.	<b>8</b>
<b>9</b>	Purchases of trademarks, designs and models	Expenditure abroad on purchases of trademarks, designs and models. Trademarks are commercial symbols of businesses	<b>9</b>
<b>10</b>	Royalties and license fees	Expenditure abroad on royalties or license fees for permission to use patents, knowledge, trademarks, designs, models, copyrights, and industrial planning. In addition, expenditure abroad on franchise or production and distribution rights.	<b>10</b>
<b>11</b>	Business consultation and public relations	Expenditure abroad on business consulting and public relations (not including expenditure on consultation in the areas of law, software, communication, education and design, since this expenditure is registered under other items in the questionnaire.	<b>11</b>
<b>12</b>	Advertisement services including participation in exhibitions and fairs	Expenditure abroad on advertisements: Organisation of advertisement campaigns, television and radio advertisements, billboards, newspaper advertisements etc. Including expenditure on the participation of Israeli companies in exhibitions and	<b>12</b>

		fairs abroad, such as expenditure on the use of space in a trade fair and expenditure on design and preparation of a stand (payment for hotel and flight tickets should not be included).	
<b>13</b>	Commission for real estate transactions and management of real estate	Expenditure on services of real estate agents abroad for the assistance of purchase/sale/renting of apartments, storerooms, industrial buildings etc. (Only expenditure paid to the suppliers of the services should be included and not the price of the assets bought or sold). Commission paid abroad for rental of buildings, offices, storerooms, industrial buildings etc. should be included.	<b>13</b>
<b>14</b>	Agents' commission	Payments abroad to agents/ promoters for services in connection with sales. Including expenditure computed on the basis of commissions, percents of sales or basic wage (should refer only to agents/promoters of sales who work on the basis of commissions/percentage/wage without purchasing the goods, not to distributors who purchase the goods and sell them later on).	<b>14</b>
<b>15</b>	Research and development	Payments abroad to research institutions, academic institutions, private companies, private persons or others in the framework of purchase of research and development (research and development is considered as systematic and scientific research leading to progress in trade and science through new products and processes and improvements in existing products and processes.).	<b>15</b>
<b>16</b>	Scientific services	Expenditure abroad for the use of information bases abroad, such as data bases on registered patents, information on scientific and economic subjects, or any other information base, where the use entails a fee.	<b>16</b>
<b>17</b>	Survey services	Payments abroad to survey institutions or performers of surveys for performance of various surveys: public opinion surveys, market and consumption surveys etc.	<b>17</b>
<b>18</b>	Legal services	Payments abroad to suppliers of legal services: lawyers, legal consultants, legal offices for registration and protection of patents etc. (only payments for supply of legal services, and not expenditure that was transferred to abroad as a result of court rulings). Expenditure covering other legal expenses, such as court fees or fees for registration and protection of patents should be included.	<b>18</b>
<b>19</b>	Accounting services	Payments abroad to suppliers of accounting services: accountants, tax consultants, bookkeepers for supply of services such as: bookkeeping, financial reporting, preparation of documents and consultancy on the subject of taxes, registration of business accounts, review and audition of accounts or any other service linked to accounting or taxation.	<b>19</b>
<b>20</b>	Education and professional training	Expenditure abroad on training of employees or private training, payments abroad to lecturers/teachers for lectures or lessons linked to training of employees and enrichment of knowledge. Includes expenditure abroad on sale of training systems or development of courses (expenditure on secondary or university education abroad should not be included).	<b>20</b>
<b>21</b>	Services and management fees between affiliated companies	Payments abroad to affiliated companies (parent companies/subsidiaries/sister companies) for management fees and covering other expenses, which can not be classified elsewhere in the questionnaire.	<b>21</b>
<b>22</b>	Services in connection with sales, supplied to affiliated companies	Payments abroad to affiliated companies for services in connection with sales and marketing (including expenditure in the framework of "cost +" agreements).	<b>22</b>
<b>23</b>	Audiovisual and related services	Expenditure abroad on permissions to broadcast or disseminate films, radio and television programs, as	<b>23</b>

		well as royalties received for permission to play works of music created by foreign residents on radio and television abroad. In addition, payments abroad for work of actors, directors, and producers in the area of cinema, theatre, radio and television	
<b>24</b>	Health, cultural and recreational services	Expenditure abroad on health, cultural and recreational services: health services – services of medical staff, laboratory services etc. Cultural and recreational services – services of entertainment staff, expenditure on museum visits, libraries etc.	<b>24</b>
<b>25</b>	Insurance services	Expenditure abroad on insurance premiums such as premiums of life insurance, accident insurance, health insurance, property insurance, cargo insurance and insurance against other risks.	<b>25</b>
<b>26</b>	Communication services	Expenditure abroad on communication services: services from switchboards, “roaming” services, cellular phone services etc..	<b>26</b>
<b>27</b>	Standardization services	Expenditure abroad on certification of standards, quality checks and permits for dissemination.	<b>27</b>
<b>28</b>	Other services	Expenditure abroad on other services that could not be classified elsewhere in the questionnaire.	<b>28</b>
<b>Total expenditure on imports of services</b>			

!

Please, indicate the way data are reported:  
 In millions  In thousands  In whole numbers

\* Please, report accrued expenditure as registered in financial reports and not expenditure on a cash basis.

\*\* Please, supply details according to the table on international trade in services given on the back of the questionnaire.

<b>C</b>	Total expenditure abroad in 2010* on purchases of goods that did not pass through the borders of Israel **		Currency
<b>D</b>	Total expenditure abroad in 2010* on purchases of services only**		Currency

	Country	Country	Country	Country	Expenditure on imports of services		
	Currency	Currency	Currency	Currency	Total	Thereof:	
	(1)	(2)	(3)	(4)		Payments to affiliated companies	Payments to other companies or non-residents
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							

	Country	Country	Country	Country	Income from exports of services		
	Currency	Currency	Currency	Currency	Total	Thereof:	
	(1)	(2)	(3)	(4)		Payments to affiliated companies	Payments to other companies or non-residents
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

## International trade in goods:

If your company purchases goods abroad and sells them after that to abroad, without the goods passing the border of Israel, please provide the following data:

### Cost of the goods abroad:

	Country:	Country:	Country:	Country:	Country:	Country:	Total cost of goods abroad (equals item C in questionnaire on imports of services)
	Currency:	Currency:	Currency:	Currency:	Currency:	Currency:	
<b>Cost of goods abroad</b>							

### Income from sales of the goods that were sold abroad:

	Country:	Country:	Country:	Country:	Country:	Country:	Total income from sales of goods abroad (equals item C in questionnaire on exports of services)
	Currency:	Currency:	Currency:	Currency:	Currency:	Currency:	
<b>Income from sales of goods abroad</b>							

## Israeli companies producing goods through sub-contractors abroad

Israeli companies producing goods through sub-contractors abroad are companies, which engage in development of products, design, technical specification, marketing etc., while the production processes are performed by sub-contractors abroad (including intermediate production processes).

If your company produced goods through sub-contractors abroad in 2010 please provide the following data:

**Cost of the production of the goods abroad:**

	<u>Country:</u>	<u>Country:</u>	Total	Thereof:	
	<u>Currency:</u>	<u>Currency:</u>		Payments to affiliated companies	Payments to non-affiliated companies
Total cost of production of the goods abroad (the total sum that was transferred to the sub-contractor abroad for the production of the goods)					
Total cost of the goods that were sent from Israel to the subcontractor for production					
Total cost of the goods that were purchased abroad and sent to the subcontractor for production, without passing the borders of Israel					

**Income from sales of the goods that were produced abroad:**

	<u>Country:</u>	<u>Country:</u>	Total	Thereof:	
	<u>Currency:</u>	<u>Currency:</u>		Payments to affiliated companies	Payments to non-affiliated companies
Total income from sales of goods that were produced abroad by a sub-contractor and sold abroad without passing the border of Israel					
The value of the goods that were produced by sub-contractors abroad in 2010 and were returned to Israel after production					

\* Does your company produce any goods (not through sub-contractors)? Yes  No

\* Are the stocks of raw materials or work in progress in connection with the production by sub-contractors abroad registered in the financial reports of your company? Yes  No

Company ID

--	--	--	--	--	--	--	--	--	--

CBS number

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## Survey on activities of multi-national enterprises 2010-2011 (Globalisation survey)

The Central Bureau of Statistics (CBS), an autonomous unit within the Prime Ministry, prepares statistics in the field of indicators for globalisation, in order to evaluate the characteristics of the activity of multi-national companies in Israel, according to the international guidelines on this subject.

In order to complete the aforementioned statistics, CBS requires your annual statistics in the following areas: the principal income statement, investments, equity, imports and exports, sale of merchandise and services provided by foreign subsidiaries (if the company controls foreign subsidiaries) and activity in the field of R&D. The description of the required data is provided in accordance with the questionnaire and its instructions.

We emphasize that you are requested to give the data according to paragraphs 11 and 13 in the Statistics Ordinance (New Version), 5732 - 1972, by which the Central Bureau of Statistics operates.

**The Statistics Ordinance requires that the recipient of the questionnaire respond to it and that the CBS keeps all the data collected by it confidential.** The Ordinance prohibits the publication of data that enable the identification of an enterprise or any data about the enterprise.

We ask that you fill in the information specified in the questionnaire and return it to us promptly, in the attached envelope (which does not require postage), or deliver it to us according to the information that appears on the back of the questionnaire.

Thank you in advance for your cooperation.

With regards,

Signed by the Government Statistician

## **Section A – General Information of the Company**

**Name of Company:** \_\_\_\_\_

**Number of Company:** \_\_\_\_\_ **Number of deduction file at National Insurance Institution:** \_\_\_\_\_

**Address of Company:** \_\_\_\_\_

Street

No'

Town/locality

Zipcode

Telephone no.

If your company has an office at a different location, please write:

**Address of Office:** \_\_\_\_\_

Street

No'

Town/locality

Zipcode

Telephone no.

- 1.1 Describe the company's activity (List the main activities in which your company was engaged in 2010-2011, i.e. the manufacture of electronic components and circuits, provision of consultation services in accounting, software development).

## **Section B – Definitions, clarifications and instructions for completing the questionnaire**

2.1 Instructions and clarifications for completing the questionnaire

2.1.1 **The survey questionnaire relates to two groups of companies:**

- **Companies that control foreign companies (companies holding over 50% of the shares of foreign companies).**
- **Companies that are under the control of a foreign resident or company (companies where over 50% of the shares are held by a person or a company from abroad).**

2.1.2 Please report data from the company's financial statements for 2010 and 2011 that relate to the company's solo data and to its consolidated data (do not relate to the cash flow statement in this survey).

2.1.3 **Type of currency and way of reporting** – In the appropriate places, indicate the type of currency in which the data are reported and the way of reporting: in whole numbers, in thousands or millions.

2.1.4 In case that no data are available on a certain subject, please indicate N A (not available)

**Please attach the following financial statements to the survey questionnaire: balance sheet, profit and loss statement, note no.1 (general data about the company) and the list of companies in the group from the solo statements and consolidated statements for the years 2010 and 2011.**

## 2.2 **Definitions: Related Companies**

2.2.1 **A company that controls foreign companies** – A company that owns more than 50% of the share capital of at least one listed company abroad.

2.2.2 **A company owned by a foreign resident** – An Israeli company in which over 50% of its share capital or the share capital of its Israeli parent company is controlled by a foreign resident (either a company or a private person).

2.2.3 **The Parent Company Group** – The parent company with the addition of all the companies in Israel and overseas, which it controls (over 50%).

2.2.4 **Foreign Subsidiaries** – Companies registered overseas, in which 50% of their share capital is held by Israeli companies.

2.2.5 **Other Foreign Related Companies** – Foreign companies that hold the reporting company's shares at a rate that does not exceed 50% of its share capital or foreign companies that are held by the reporting company at a rate that does not exceed 50% of their share capital.

2.2.6. **Second-Tier Subsidiary** – Companies in which over 50% of their share capital is held by companies defined as subsidiaries.

2.2.7 **Ultimate Control Parent** – Ultimate Control Parent of a company is the company or person heading the chain of companies linked by control (holding more than 50% of the shares), without being controlled by another company or person.

2.2.8 **Special Purpose Enterprise SPE** – A company, where the main activities and purposes are: holding companies in other countries, financing the parent company or other companies in the group, making financial investments for the parent company and for the other companies in the group.

## 2.3 **Definitions: Financial Statements**

2.3.1 **Principal data from the financial statements** – data that are expressed in the company's financial statements (solo or consolidated).

2.3.2 **The sale of goods and services** – The sum of all the company's sales in the reported period, not including VAT, discounts, refunds, income from other financial operations, capital gains and subsidies.

2.3.3 **Income from another financial operation** – Income that originates from the rental of buildings and equipment, balance cancellation etc.

2.3.4 **Investments in fixed assets** – Investments in assets that are designed to serve the company for a period of over a year. Include the cost of transfer, installation and production of assets for own use.

2.3.5 **Other Income/(Expenditure)** - One-time income/(expenses) that are not operational or that are in respect to previous years.

2.3.6 **Capital gain/(Loss)** – gain/(loss) that originates from the realization of securities or other property.

2.3.7 **Salary and wages** – Compensation for work in the reported period, including additional expenses paid for by the employer.

**Section C – The nature of the relations between your company and foreign companies and the types of international trade**

In this section of the questionnaire, please specify:

- o whether your company controlled foreign subsidiaries holding over 50% of their share capital, or whether your company held between 10% to 50% of the share capital in foreign companies.
- o Whether your company was controlled by foreign companies or persons who held over 50% of its, or whether foreign stakeholders held between 10% to 50% of its share capital.

3.1 Direct investments abroad (please mark ✓ in the appropriate places):

			Yes			No
			The Entire Reporting Period (2010-2011)	From a date within the period	To a date within the period	
3.1.1	111	Did your company have control of foreign companies in 2010-2011 (possession of over 50% of their share capital)				

3.2 Direct investments in Israel by foreign companies or persons (please mark ✓ in the appropriate places):

			Yes			No
			The Entire Reporting Period (2010-2011)	From a date within the period	To a date within the period	
3.2.1	112	Was your company controlled by a foreign company or person in 2010-2011 (possession of over 50% of your share capital)				

**If your company controlled companies abroad (par. 3.1.1) or if your company was controlled by companies abroad (par. 3.2.1) you should fill out the questionnaire. If your company does not control other companies abroad and is not controlled by foreign companies or persons you should respond to question 3.3 only and finish the questionnaire by filling out the details on the reporting persons on the last page of the questionnaire.**

3.3 Companies that are stakeholders (please mark ✓ in the appropriate places):

			Yes			No
			The Entire Reporting Period (2010-2011)	From a date within the period	To a date within the period	
3.3.1	121	Was your company a stakeholder in foreign companies in 2010-2011 (possession of between 10% to 50% of their share capital)				
3.3.2	122	Did your company have foreign stakeholders in foreign companies in 2010-2011 (possession of between 10% to 50% of your share capital)				

3.4 Types of international trade conducted by your company in 2010-2011 (please mark ✓ in the appropriate places):

			2011		2010	
			Goods	Services	Goods	Services
3.4.1	131	Did your company export?				
3.4.2	132	Did your company import?				

3.5 Type of activities of your company (please mark ✓ in the appropriate places):

3.5.1	141	Is your company a financing company?	
3.5.2	142	Is your company a holding company ?	
3.5.3	143	Is your company an investment company ?	
3.5.4	144	Did your company produce products abroad, partly or entirely, through sub-contractors in the years 2010-2011 ?	

## **Section D – Israeli Subsidiaries**

This section of the questionnaire relates to Israeli subsidiaries, during the years 2010-2011, for which your company held over 50% of their share capital.

4.1 Did your company have Israeli subsidiaries in 2010-2011?

211	Yes <input type="checkbox"/>	No <input type="checkbox"/>	(go to section E)
-----	------------------------------	-----------------------------	-------------------

4.2 Please specify their names, company tax codes, percentage ownership and time of foundation or purchase by your company:

No.	For office use	Company name	Company tax code	Ownership percentage	Time of purchase or foundation (month & year)
1	221				
2	221				
3	221				
4	221				
5	221				
6	221				
7	221				
8	221				
9	221				
10	221				
11	221				
12	221				
13	221				

### **Section E – Financial Data**

In this section, please relate to the company's financial data, from the company's solo reports and its consolidated statements.

Please, indicate the way data are reported:

Others   
  euros   
  In US \$   
  In NIS   

---

## 5.1 Company revenues

			2011		2010	
			Solo	Consolidated	Solo	Consolidated
5.1.1	311	Revenues from the sale of goods				
5.1.2	312	Revenues from the sale of services				
5.1.3	313	Revenues from other financial				
5.1.4	314	Total Income				
5.1.5	315	Total exports from Israel (from 5.1.4)				

## 5.2 Exports from Israel by your company and its subsidiaries registered in Israel

Exports			2011		2010	
			Goods	Services	Goods	Services
5.2.1	321	Exports to companies that belong to the parent company group abroad				
5.2.2	322	Exports to foreign subsidiaries				
5.2.3	323	Exports to other affiliated companies abroad				
5.2.4	324	Exports to non-affiliated companies abroad				
5.2.5	325	Total exports				

5.3 Imports to Israel by your company and your company's subsidiaries registered in Israel:

Imports			2011		2010	
			Goods	Services	Goods	Services
5.3.1	331	Imports from companies that belong to the parent company group abroad				
5.3.2	332	Imports from foreign subsidiaries				
5.3.3	333	Imports from other affiliated companies overseas				
5.3.4	334	Imports from non-affiliated companies overseas				
5.3.5	335	Total imports				

5.4 Assets and Equity:

			2011		2010	
			Solo	Consolidated	Solo	Consolidated
5.4.1	341	Total Assets (a) – opening balance				
5.4.2	342	Total Assets (a) – closing balance				
5.4.3	343	Equity – opening balance				
5.4.4	344	Equity – closing balance				
5.4.5	345	Fixed assets, depreciated costs – opening balance				
5.4.6	346	Fixed assets, depreciated costs – closing balance				
5.4.7	347	Investments as stakeholders (b) in companies abroad – closing balance				
5.4.8	348	Loans to owners as stakeholders (b) in companies abroad – closing balance				

(a) Total active

(b) Where your company holds between 10% to 50% of the foreign company's shares

5.5 Data on profit and loss:

			Indicate in each row whether income/ expenditure or profit/loss	2011		2010	
				Solo	Consolidated	Solo	Consolidated
5.5.1	361	Number of employees in the company (a)					
5.5.2	362	Total salaries and wages					
5.5.3	363	Depreciation					
5.5.4	364	Income/expenditure from royalties					
5.5.5	365	Income/expenditure from current operations					
5.5.6	366	Income/expenditure from financing					
5.5.7	367	Capital gains/losses					
5.5.8	368	Profits/losses from companies held					
5.5.9	369	Other income/expenditure (b)					
5.5.10	370	Profit/loss before tax					
5.5.11	371	Tax on income					
5.5.12	372	Profit/loss after tax					

(a) Annual average

(b) All income and expenditure not included above

**Section F Data on the principal activities of the foreign subsidiaries**

In this section, relate to the principal activity data of the foreign subsidiaries (including subsidiaries that they control).

6.1 Investments in foreign subsidiaries – In the table below, please list the balances of the investment and owners' loans made by your company in each of the foreign subsidiaries.

			2011	2010	2009
6.1.1	511	Investment in subsidiaries abroad (closing balance)			
6.1.2	512	Owners' loans to subsidiaries abroad (closing balance)			
6.1.3	513	Dividends received from subsidiaries abroad			
6.1.4	514	Interest on owners' loans to subsidiaries abroad			

6.2 Data on activity of foreign subsidiaries

			2011	2010
6.2.1	521	Revenues from the sale of goods		
6.2.2	522	Revenues from the sale of services		

6.2.3	523	Revenues from other business activity		
6.2.4	524	Total revenues of Foreign Subsidiaries		
6.2.5	525	Total no. of employee in the foreign subsidiaries (a)		
6.2.6	526	Profit / (Loss) from Foreign Subsidiaries (b)		
6.2.7	527	Total salary and wages		

Comments for completing the table: (a) Add up the number of employees in all the foreign subsidiaries (average number of employees each year).  
(b) Of the profit before tax in Israel.

6.3 Foreign subsidiaries – List the following information regarding your company's foreign subsidiaries:

		Name of Subsidiary (a)	Country where the subsidiary is registered	Subsidiary's activity	Subsidiary's Industry Code (c)
6.3.1	531				
6.3.2	531				
6.3.3	531				
6.3.4	531				
6.3.5	531				
6.3.6	531				

Comments for completing the table: (a) In order to add subsidiaries, please photocopy this form. (b) Production, marketing etc. (c) Mark the subsidiary's industry code according to the classification table on page 20.

6.4 Sale of Merchandise and Services by Foreign Subsidiaries According to Countries (a)

List the sales of foreign subsidiaries (goods and services) according to the specifications in the table, from the consolidated statements of the foreign subsidiaries (b). If there no such statement exists, report data from your company's existing statements. Please list the countries in which the goods or services are sold, and not the countries in which the subsidiaries selling the goods and services are registered.

		2011		2010	
		Sales to affiliated companies in the group (c)	Sales to non-affiliated companies	Sales to affiliated companies in the group (c)	Sales to non-affiliated companies
541					
541					
541					

541					
541					
541					
541					
542	Total sales				

Comments for completing the table:

- (a) To add countries photocopy this form.
- (b) Includes sales for 2<sup>nd</sup> Tier Foreign Subsidiaries (2<sup>nd</sup> Tier Foreign Subsidiaries are subsidiaries of foreign subsidiaries).
- (c) Sales within the companies' group, such as sales of a subsidiary to your company, sales of a subsidiary to other companies in the group.

### **Section G – Parent company, ultimate control parent, owners’ loans and characteristics of the company**

Ultimate Control Parent of a company is the company or person heading the chain of companies linked by control (holding more than 50% of the shares), without being controlled by another company or person.

7.1 Please provide details of your company’s parent company abroad

7.1.1	611	Name of parent company abroad	
7.1.2	612	Country where parent company registered	
7.1.3	613	Percent ownership of reporting company	
7.1.4	614	Main activity of the parent company	
7.1.5	615	Industry code of the parent company (a)	
7.1.6	616	Time of purchase (month, year) (b)	
7.1.7	617	Time of establishment (month, year) ©	
7.1.8	618	Time of merging (month year) (d)	

- (a) Provide code of industry according to the classification table on page 20.
- (b) The time the reporting company was purchased by the parent company
- (c) The time the reporting company was established by the parent company
- (d) The time the reporting company was merged with the parent company

7.2 Is the parent company abroad the ultimate control parent of your company? (as defined above)

621	<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> (go to question 7.4)
-----	---

7.3 Please provide details on the chain of ownership of your company (by increasing order from the direct owner abroad controlling your company to the ultimate control parent)

		Name of company	Country
7.3.1	631	Reporting company	
7.3.2	632	First controlling owner (a)	
7.3.3	633	Second controlling owner	
7.3.4	634	Third controlling owner	
7.3.4	634	Fourth controlling owner	

(a) Direct control

7.4 Please indicate the total owners' loans given to your company (if such loans were given) and interest and dividends paid:

			2011	2010	2009
7.4.1	643	Total owners' loans from parent company (closing balance)			
7.4.2	644	Interest on owners' loans from parent company			
7.4.3	645	Dividends paid by to the parent company			

## Part H: Research and Development

Research and Development (R&D) is defined as systematic and original activity intended to create new scientific or technological knowledge, or to develop a new application of existing scientific or technological knowledge. It does not include: Purchases of patents, market surveys, quality control, repair or renovation of a product, consultancy and supply of services to buyers of knowledge or products, systematic and standard collection of data not intended for a specified research, adjustment of a certain product to the demands of a certain customer etc.

### 8.1 R&D and purchase of R&D

8.1.1 Did your company or any of the company's subsidiaries registered in Israel perform research and development in the years 2010 to 2011?

711	Yes <input type="checkbox"/>	No <input type="checkbox"/>	(go to question 8.2)
-----	------------------------------	-----------------------------	----------------------

8.1.2

company a research center of an affiliated company abroad in 2010 to 2011?

Was your

712	Yes <input type="checkbox"/>	No <input type="checkbox"/>
-----	------------------------------	-----------------------------

8.1.3 Purpose of the R&D – please provide data on the distribution of the activities of R&D performed in your company (solo) according to the purposes presented in the table below.

Purpose of R&D activity performed in the company			In percents
8.1.3.1	721	Own use by the company	
8.1.3.2	722	R&D for affiliated entities (including R&D ordered by cost plus agreements)	
8.1.3.3	723	R&D ordered by non-affiliated entities	
8.1.3.4	724	R&D for sale to non-affiliated entities (not ordered in advance)	
8.1.3.5	725	Total	

8.1.3 Expenditure on R&D and investment in R&D – please indicate the expenditure on R&D and investment in R&D made in your company and its subsidiaries registered in Israel in 2010-2011.

			2011		2010	
			Solo	Company with its Israeli subsidiaries (a)	Solo	Company with its Israeli subsidiaries (a)
8.1.4.1	731	Compensation of employees in connection with the R&D activity only (not including overhead)				
8.1.4.2	732	Expenditure on intermediate consumption (on raw materials etc.) in connection with the R&D activity only				
8.1.4.3	733	Purchase of R&D services in Israel				
8.1.4.4	734	Purchase of R&D services abroad				
8.1.4.5	735	Other expenditure on performance R&D (including overhead)				
8.1.4.6	736	Total expenditures on R&D (sum of 8.1.4.1 to 8.1.4.5)				
8.1.4.7	737	Investment in fixed assets used for R&D				
8.1.4.8	738	Purchase of company producing R&D				

(a) Please sum up total R&D expenditure of your company (solo) and total R&D expenditure in its subsidiaries (solo) registered in Israel

## 8.2 Purchase of R&D abroad

- Purchase of R&D including purchase of R&D services, the development itself and their prototypes
- Purchase of R&D should be recorded also if the payment is in the framework of cost plus agreements with affiliated companies and non-affiliated companies
- Purchase of R&D does not include purchase of new products or significantly improved products, which are a direct outcome of R&D activity.

8.2.1 – Did your company or any of your company's subsidies registered in Israel purchase R&D abroad or finance R&D activity abroad in the years 2010 to 2011?

741	Yes <input type="checkbox"/>	No <input type="checkbox"/>	(go to question 8.3)
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8.2.2 Please provide data on the expenditure of your company and its subsidiaries registered in Israel, on R&D purchased from abroad or sums transferred as finance of R&D performed abroad in the years 2010-11 (expenditure according to cost plus agreements should be included)

			2011		2010	
			Solo	Company with its Israeli subsidiaries (a)	Solo	Company with its Israeli subsidiaries (a)
8.2.2.1	751	R&D purchased from the parent company's group abroad or the total sum transferred to the group for				
8.2.2.2	752	R&D purchased from the subsidiaries abroad or the total sum transferred to the subsidiaries for finance of R&D				
8.2.2.3	753	R&D purchased from non-affiliated entities abroad				
8.2.2.4	754	Total expenditure on purchases of R&D abroad or sums transferred to abroad for finance of R&D				

(a) Please sum up total R&D expenditure abroad of your company (solo) and its subsidiaries (solo) registered in Israel

8.2.3 Please indicate the countries of the R&D activity and the relative share, in percents, of each country in total expenditure on R&D abroad (that was provided in 8.2.2.4)

The country where the R&D activity took place			Relative share of of each country in total expenditure on R&D abroad (a)
8.2.3.1	761		
8.2.3.2	761		
8.2.3.3	761		
8.2.3.4	761		
8.2.3.5	762	Total	

(a) Please provide the relative share **for 2011 only** out of the **expenditure of your company with its Israeli subsidiaries**. If these data are not available please provide the share out of the data for the company solo.

### 8.3 Sales of R&D to abroad

- Sales of R&D include sale of R&D services, the development itself and their prototypes
- Sales of R&D should be recorded also if the payment is in the framework of cost plus agreements with affiliated companies and non-affiliated companies
- Sales of R&D do not include sales of new products or significantly improved products, which are a direct outcome of R&D activity.

8.3.1 – Did your company or any of your company’s subsidiaries registered in Israel sell R&D to abroad or receive finance of R&D activity from abroad in the years 2010 to 2011? (including finance received in the framework of cost plus agreements)

771	Yes <input type="checkbox"/>	No <input type="checkbox"/>	(go to question 8.4)
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8.3.2 Please provide data on the income of your company and its subsidiaries registered in Israel, from sales of R&D to abroad or from finance received from abroad for R&D in the years 2010-11 (finance received in the framework of cost plus agreements should be included)

			2011		2010	
			Solo	Company with its Israeli subsidiaries (a)	Solo	Company with its Israeli subsidiaries (a)
8.3.2.1	791	R&D sold to the parent company’s group abroad or the total sum received from the group for finance of R&D				
8.3.2.2	792	R&D sold to subsidiaries abroad or the total sum received from the subsidiaries for finance of R&D				
8.3.2.3	793	R&D sold to non-affiliated entities abroad				
8.3.2.4	794	Total income from sales of R&D to abroad or sums received from abroad for finance of R&D				

(a) Please sum up total income received from abroad from sales of R&D of your company (solo) and its subsidiaries (solo) registered in Israel

8.3.3 Please indicate the countries where the entities purchasing the R&D are registered and the relative share, in percents, of each country in total income from sales of R&D to abroad in 2011 only (that was provided in 8.3.2.4)

The country where the R&D activity took place			Relative share of of each country in total expenditure on R&D abroad (a)
8.3.3.1	801		
8.3.3.2	801		
8.3.3.3	801		
8.3.3.4	802	Total	

(a) Please provide the relative share **for 2011 only** out of the **income of your company with its Israeli subsidiaries**. If these data are not available please provide the share out of the data for the company solo.

#### 8.4 Employed persons in research and development

R&D workers are the persons employed directly in R&D activity or other employed persons supplying services to the R&D departments, such as engineers, R&D managers and administration personnel. R&D workers do not include employed persons who supply indirect services to the R&D department, such as

data security personnel, accountants, managers, even if part of their wages are included in the overhead charged to the department.

			2011		2010	
			Solo	Company with its Israeli subsidiaries (a)	Solo	Company with its Israeli subsidiaries (a)
8.4.1	821	The number of persons employed in R&D in the months December 2010 and December 2011				
8.4.1	822	Number of full time equivalent positions of these employed persons devoted to R&D activity in the months December 2010 and December 2011 (b)				

- (a) Please sum up total number of employed persons of your company (solo) and its subsidiaries (solo) registered in Israel
- (b) Please sum up to one full time position, for example 6 half time positions of researchers equal 3 full time positions.

#### 8.5 Expenditure on R&D of subsidiaries abroad

8.5.1 – Did your company's subsidiaries abroad perform R&D in the years 2010 to 2011?

831	Yes <input type="checkbox"/> No <input type="checkbox"/> (go to question 8.4)
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8.5.2 Please provide the total sum of expenditure on R&D of your company's subsidiaries abroad

			2011	2010
8.5.2.1	841	Total R&D expenditure of subsidiaries abroad		
8.5.2.2	842	How much of this expenditure was ordered by your company or intended for it (including orders paid according to cost plus agreements)		

8.5.3 Please provide the names of the countries, where your subsidiaries, which performed R&D, are registered, and the relative share of each country in the total expenditures on R&D of the subsidiaries abroad (which were provided in 8.5.2.1)

The country where the subsidiaries performing R&D were registered			Relative share of each country in total expenditure of subsidiaries abroad on R&D (a)
8.5.3.1	851		%
8.5.3.2	851		%
8.5.3.3	851		%
8.5.3.4	852	Total	

(a) Please provide the relative share for 2011 only

### 8.6 Patents and knowledge

Patents are exclusive rights of use granted by the state to the owners of inventions for the use of the invention for a limited time. Knowledge is an intangible asset held by companies or private persons. Knowledge is used in production, development and improvement of products and processes. Knowledge is tradable similar to other assets and may be transferred between companies in connection with a sale or a purchase.

8.6.1 – Did your company or its subsidiaries registered in Israel purchase patents or knowledge in the years 2010 to 2011?

861	Yes <input type="checkbox"/> No <input type="checkbox"/> (go to question 8.6.3)
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8.6.2 Please provide data on the total expenditure on purchase of knowledge and patents

			2011		2010	
			Solo	Company with its Israeli subsidiaries (a)	Solo	Company with its Israeli subsidiaries (a)
8.6.2.1	871	Knowledge and patents purchased from the parent company group abroad				
8.6.2.2	872	Knowledge and patents purchased from subsidiaries abroad				
8.6.2.3	873	Knowledge and patents purchased from non-affiliated entities abroad				
8.6.2.4	874	Knowledge and patents purchased in Israel				
8.6.2.5	875	Total expenditure on purchases of knowledge and patents in Israel and abroad				

(a) Please sum up total expenditure on purchase of knowledge and patents of your company (solo) and its subsidiaries (solo) registered in Israel

8.6.3 Did your company or its subsidiaries registered in Israel sell patents or knowledge in the years 2010 to 2011?

881	Yes <input type="checkbox"/> No <input type="checkbox"/> (go to question 8.6.5)
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8.6.4 Please provide data on the total income from sale of knowledge and patents

			2011		2010	
			Solo	Company with its Israeli subsidiaries (a)	Solo	Company with its Israeli subsidiaries (a)
8.6.4.1	891	Knowledge and patents sold to the parent company group abroad				
8.6.4.2	892	Knowledge and patents sold to subsidiaries abroad				
8.6.4.3	893	Knowledge and patents sold to non-affiliated entities abroad				
8.6.4.4	894	Knowledge and patents sold in Israel				
8.6.4.5	895	Total income from sale of knowledge and patents in Israel and abroad				

(a) Please sum up total income from sale of knowledge and patents of your company (solo) and its subsidiaries (solo) registered in Israel

8.6.5 Did your company or its subsidiaries registered in Israel pay royalties or licences to use patents or knowledge in the years 2010 to 2011?

901	Yes <input type="checkbox"/> No <input type="checkbox"/> (go to question 8.6.7)
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8.6.6 Please provide data on the total expenditure on royalties or licences to use knowledge and patents

			2011		2010	
			Solo	Company with its Israeli subsidiaries (a)	Solo	Company with its Israeli subsidiaries (a)
8.6.6.1	911	Expenditure on royalties or licences to use knowledge and patents of the parent company group abroad				
8.6.6.2	912	Expenditure on royalties or licences to use knowledge and patents of subsidiaries abroad				
8.6.6.3	913	Expenditure on royalties or licences to use knowledge and patents of non-affiliated entities				
8.6.6.4	914	Expenditure on royalties or licences to use knowledge and patents in Israel				

8.6.6.5	915	Total expenditure on royalties and licences to use knowledge and patents in Israel and abroad				
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(a) Please sum up total expenditure of your company (solo) and its subsidiaries (solo) registered in Israel on royalties and licences to use knowledge and patents

8.6.7 Did your company or its subsidiaries registered in Israel receive income from royalties or licences to use patents or knowledge in the years 2010 to 2011?

921	Yes <input type="checkbox"/>	No <input type="checkbox"/>	(go to question 9)
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8.6.8 Please provide data on the total income from royalties or licences to use knowledge and patents

			2011		2010	
			Solo	Company with its Israeli subsidiaries (a)	Solo	Company with its Israeli subsidiaries (a)
8.6.8.1	931	Income from royalties or licences to use knowledge and patents of the parent company group abroad				
8.6.8.2	932	Income from royalties or licences to use knowledge and patents of subsidiaries abroad				
8.6.8.3	933	Income from royalties or licences to use knowledge and patents of non-affiliated entities abroad				
8.6.8.4	934	Expenditure on royalties or licences to use knowledge and patents in Israel				
8.6.8.5	935	Total expenditure on royalties and licences to use knowledge and patents in Israel and abroad				

(9) Please sum up total income of your company (solo) and its subsidiaries (solo) registered in Israel from royalties and licences to use knowledge and patents

### **Classification of Industries**

Code	Name of Industry	Code	Name of industry
A	Agriculture	D	Construction

<b>B1</b>	Mining and Quarrying	<b>E1</b>	Wholesale trade
<b>B2</b>	Manufacture of food, beverages and tobacco products	<b>E2</b>	Retail trade
<b>B3</b>	Manufacture of textiles, wearing apparel and footwear	<b>F</b>	Accommodation services and restaurants
<b>B4</b>	Manufacture of wood and wood products, paper and paper products, publishing and printing	<b>G1</b>	Transportation services
<b>B5</b>	Manufacture of chemicals and chemical products and refined petroleum	<b>G2</b>	Communication services
<b>B6</b>	Manufacture of plastic and rubber products	<b>H 1</b>	Banking, Insurance and other financial services
<b>B7</b>	Manufacture of non-metallic mineral products	<b>H 2</b>	Holding companies
<b>B8</b>	Manufacture of metal products, machinery and equipment	<b>I 1</b>	Computer and related services
<b>B9</b>	Manufacture of electric motors and electric distribution equipment	<b>I 2</b>	Research and Development
<b>B10</b>	Manufacture of electronic components	<b>I 3</b>	Various business activities
<b>B11</b>	Manufacture of electronic communication equipment	<b>K</b>	Education
<b>B12</b>	Manufacture of industrial equipment for control and supervision, medical and scientific equipment	<b>L</b>	Health services, welfare and social work
<b>B13</b>	Manufacture of transport equipment	<b>T</b>	Other services
<b>B14</b>	Manufacture of diamonds		
<b>B15</b>	Other manufacture		

The list is derived from the Israeli Standard Classification of all Economic Activities 1993, Central Bureau of Statistics, (second edition, Jerusalem 2003)

