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## Annex I

### CLASSIFICATION OF MANUFACTURING INDUSTRIES BASED ON TECHNOLOGY

Annex Table 1.1 presents manufacturing industries classified according to technology intensity using the ISIC Rev. 3 breakdown of activity.

Technological effort is a critical determinant of productivity growth and international competitiveness. However, since it is not spread evenly across the economy, analyses of industry performance and structural change attach much importance to technological criteria. Methodological work carried out at the OECD is used to determine these criteria.

In the past, a technology classification based on ISIC Rev. 2 industry classifications was widely used. The methodology uses three indicators of technology intensity reflecting, to different degrees, “technology-producer” and “technology-user” aspects: *i*) R&D expenditures divided by value added; *ii*) R&D expenditures divided by production; and *iii*) R&D expenditures plus technology embodied in intermediate and investment goods divided by production. These indicators were evaluated for 1990 and for the aggregate of the ten OECD countries for which a measure of embodied technology was available, using 1990 USD purchasing power parities (see T. Hatzichronoglou, “Revision of the High-Technology Sector and Product Classification”, *STI Working Paper 1997/2*).

Following the adoption of ISIC Rev. 3 (NACE Rev. 1 in Europe) for collecting and presenting data on industrial activity both in national accounts (in the context of SNA93/ESA95) and industrial surveys, the 2001 Scoreboard used ISIC Rev. 3 R&D expenditure and output data to develop an updated technology classification based on an evaluation of R&D intensities for 13 OECD countries for the period 1991-97. In the absence of updated ISIC Rev. 3 input-output tables (required for estimating embodied technology), only the first two indicators could be calculated. This edition extends the analysis to cover the period 1991-99, although for only 12 OECD countries.

The division of manufacturing industries into high-technology, medium-high-technology, medium-low-technology and low-technology groups was made after ranking the industries according to their average over 1991-99 against aggregate OECD R&D intensities. Industries classified to higher categories have a higher average intensity for both indicators than industries in lower categories. Also considered were: *i*) temporal stability: for adjacent years, industries classified to higher categories have a higher average intensity than those in lower categories (see Annex Table 1.2); and *ii*) country median stability: industries classified to the higher categories have a higher median intensity than those in lower categories.

Points to note:

- This classification confirms that of the 2001 *Scoreboard* and also confirms the classification of “Medical, precision and optical instruments” (ISIC Rev. 3, Division 33) as a high-technology industry. This sector’s R&D intensity continues to rise, and its inclusion complements the definition of the ICT sector (see *Measuring the Information Economy*, OECD, 2002) which includes some of its sub-divisions (notably 3312 and 3313).
- The cut-off points are clear except possibly the distinction between the medium-low- and low-technology groups.
- The low-technology group consists of relatively aggregate sectors, owing to limited detailed R&D expenditure data across countries. The few cases in which R&D intensities are available for more detailed (2-digit) breakdowns confirm the allocation of these industries to low technology.
- The classification concerns the OECD area as a whole. For individual countries, allocation to the technology groups may differ. Also, at national level, finer technology classifications may be generated from more detailed underlying data.

Annex 1.1. Classification of manufacturing industries based on technology<sup>1</sup>

ISIC Rev. 3	1999				1991				
	R&D divided by production		R&D divided by value added		R&D divided by production		R&D divided by value added		
	Aggregate intensity <sup>2</sup>	Median intensity	Aggregate intensity <sup>2</sup>	Median intensity	Aggregate intensity <sup>2</sup>	Median intensity	Aggregate intensity <sup>2</sup>	Median intensity	
<b>High-technology industries</b>									
Aircraft and spacecraft	353	10.3	10.4	29.1	27.5	13.9	12.9	34.7	32.1
Pharmaceuticals	2423	10.5	10.1	22.3	25.8	9.4	8.7	20.6	19.7
Office, accounting and computing machinery	30	7.2	4.6	25.8	15.1	10.9	6.4	29.4	15.2
Radio, TV and communications equipment	32	7.4	7.6	17.9	22.4	7.9	8.2	17.0	21.5
Medical, precision and optical instruments	33	9.7	5.6	24.6	11.9	6.6	6.1	15.6	12.5
<b>Medium-high-technology industries</b>									
Electrical machinery and apparatus, n.e.c.	31	3.6	2.3	9.1	6.7	4.2	2.6	9.3	5.9
Motor vehicles, trailers and semi-trailers	34	3.5	2.8	13.3	11.7	3.7	3.0	14.3	11.9
Chemicals excluding pharmaceuticals	24 excl. 2423	2.9	2.2	8.3	7.1	3.4	2.8	9.8	8.0
Railroad equipment and transport equipment, n.e.c.	352 + 359	3.1	2.8	8.7	7.9	2.9	2.1	7.6	5.4
Machinery and equipment, n.e.c.	29	2.2	2.1	5.8	5.3	1.9	2.0	4.6	4.7
<b>Medium-low-technology industries</b>									
Building and repairing of ships and boats	351	1.0	1.0	3.1	2.9	0.9	0.9	2.8	2.6
Rubber and plastics products	25	1.0	1.1	2.7	3.0	1.0	0.6	2.6	1.5
Coke, refined petroleum products and nuclear fuel	23	0.4	0.3	1.9	2.7	1.2	0.7	5.4	3.8
Other non-metallic mineral products	26	0.8	0.6	1.9	1.3	1.0	0.6	2.4	1.5
Basic metals and fabricated metal products	27-28	0.6	0.5	1.6	1.4	0.7	0.6	2.0	1.6
<b>Low-technology industries</b>									
Manufacturing, n.e.c.; Recycling	36-37	0.5	0.5	1.3	1.2	0.5	0.4	1.2	0.9
Wood, pulp, paper, paper products, printing and publishing	20-22	0.4	0.1	1.0	0.3	0.3	0.1	0.8	0.3
Food products, beverages and tobacco	15-16	0.3	0.3	1.1	1.0	0.3	0.3	1.1	1.1
Textiles, textile products, leather and footwear	17-19	0.3	0.4	0.8	1.0	0.2	0.3	0.7	0.7
<b>Total manufacturing</b>	15-37	2.6	2.2	7.2	6.5	2.5	2.0	7.0	5.7

1. Based on data for 12 OECD countries: United States, Canada, Japan, Denmark, Finland, France, Germany, Ireland, Italy, Spain, Sweden, United Kingdom

2. Aggregate R&D intensities calculated after converting countries' R&D expenditures, value added and production using GDP PPPs

Source: OECD: ANBERD and STAN databases, May 2003

Annex 1.2. R&D intensity<sup>1</sup> for aggregate of 12 OECD countries, 1991-1999

	ISIC Rev.3	1991	1992	1993	1994	1995	1996	1997	1998	1999	mean intensity 1991-1999
Aircraft and spacecraft	353	13.9	13.9	13.5	13.9	16.2	14.8	12.8	10.7	10.3	13.3
Pharmaceuticals	2423	9.4	10.1	10.8	10.9	10.6	10.3	11.0	11.1	10.5	10.5
Office, accounting and computing machinery	30	10.9	10.4	9.3	8.8	7.5	9.1	10.4	8.9	7.2	9.2
Radio, TV and communications equipment	32	7.9	8.3	7.9	7.8	7.7	8.2	8.0	8.6	7.4	8.0
Medical, precision and optical instruments	33	6.6	6.8	7.1	7.7	7.7	7.4	8.0	8.0	9.7	7.7
Electrical machinery and apparatus, n.e.c.	31	4.2	4.0	4.0	3.8	4.0	3.9	3.9	4.0	3.6	3.9
Motor vehicles, trailers and semi-trailers	34	3.7	3.4	3.5	3.4	3.5	3.7	3.5	3.3	3.5	3.5
Chemicals excluding pharmaceuticals	24 excl. 24	3.4	3.3	3.4	3.1	2.8	3.1	2.7	3.1	2.9	3.1
Railroad equipment and transport equipment, n.e.c.	352 + 359	2.9	2.4	2.4	2.7	2.6	3.2	3.5	3.0	3.1	2.9
Machinery and equipment, n.e.c.	29	1.9	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.2	2.1
Building and repairing of ships and boats	351	0.9	1.0	1.0	0.9	0.9	1.0	0.8	1.0	1.0	1.0
Rubber and plastics products	25	1.0	1.0	0.9	1.0	0.8	0.9	0.9	0.9	1.0	0.9
Coke, refined petroleum products and nuclear fuel	23	1.2	1.2	1.1	1.0	0.9	0.8	0.7	0.9	0.4	0.9
Other non-metallic mineral products	26	1.0	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.8	0.9
Basic metals and fabricated metal products	27-28	0.7	0.7	0.7	0.6	0.6	0.7	0.7	0.6	0.6	0.6
Manufacturing, n.e.c.; Recycling	36-37	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.6	0.5	0.5
Wood, pulp, paper, paper products, printing and publishing	20-22	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.3
Food products, beverages and tobacco	15-16	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3
Textiles, textile products, leather and footwear	17-19	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
<b>Total manufacturing</b>	<b>15-37</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.5</b>
<b>High-technology industries</b>		<b>9.4</b>	<b>9.5</b>	<b>9.3</b>	<b>9.3</b>	<b>9.2</b>	<b>9.3</b>	<b>9.5</b>	<b>9.3</b>	<b>8.7</b>	<b>9.3</b>
<b>Medium-high-technology industries</b>		<b>3.1</b>	<b>3.0</b>	<b>3.1</b>	<b>3.0</b>	<b>2.9</b>	<b>3.1</b>	<b>2.9</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>
<b>Medium-low-technology industries</b>		<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>0.7</b>	<b>0.8</b>
<b>Low-technology industries</b>		<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.3</b>

1. R&D intensity defined as direct R&D expenditures as a percentage of production (gross output), calculated after converting countries' R&D expenditures and production using GDP PPPs

Source: OECD: ANBERD and STAN databases, May 2003

## Annex II

### MAIN OECD DATABASES USED

#### Industrial structure and performance

**STAN:** The database for **Industrial Analysis** includes annual measures of output, labour input, investment and international trade which allow users to construct a wide range of indicators focused on areas such as productivity growth, competitiveness and general structural change. The industry list provides sufficient details to enable users to highlight high-technology sectors and is compatible with those used in related OECD databases. STAN is primarily based on member countries' annual National Accounts by activity tables and uses data from other sources, such as national industrial surveys/censuses, to estimate any missing detail. Since many of the data points in STAN are estimated, they do not represent the official member country submissions.

The latest version of STAN is based on the International Standard Industrial Classification (ISIC) Rev. 3 and has been expanded to cover all activities (including services) and a wider range of variables – it has effectively been merged with the OECD's International Sectoral Database (ISDB) which is no longer updated. Further details on STAN are available on the Internet at: [www.oecd.org/sti/stan](http://www.oecd.org/sti/stan).

*Publication:* STAN is available on line on SourceOECD ([www.sourceoecd.org](http://www.sourceoecd.org)). It is updated on a "rolling" basis (*i.e.* new tables are posted as soon as they are ready) rather than published as an annual "snapshot", in order to improve timeliness.

#### Science and technology

**R&D and TBP:** The **R&D** database contains the full results of the OECD surveys on **R&D expenditure and personnel** from the 1960s. The **TBP** database presents information on the **technology balance of payments**. These databases serve, *inter alia*, as the raw material for both the ANBERD and MSTI databases.

*Publication:* OECD (2003), *Basic Science and Technology Statistics: 2002 Edition*. Annual on CD-ROM (a printed edition is also available every two years).

**MSTI:** The **Main Science and Technology Indicators** database provides a selection of the most frequently used annual data on the scientific and technological performance of OECD member countries and seven non-member economies (China, Israel, Romania, Russian Federation, Singapore, Slovenia, Chinese Taipei). The indicators, expressed in the form of ratios, percentages, growth rates, cover resources devoted to R&D, patent families, technology balance of payments and international trade in highly R&D-intensive industries.

*Publication:* OECD (2003), *Main Science and Technology Indicators 2003/1*. Biannual. Also available on CD-ROM.

**ANBERD:** The **Analytical Business Enterprise Research and Development** database is an estimated database constructed with a view to creating a consistent data set that overcomes the problems of international comparability and time discontinuity associated with the official business enterprise R&D data provided to the OECD by its member countries. ANBERD contains R&D expenditures for the period 1987-2000, by industry (ISIC Rev. 3), for 19 OECD countries.

*Publication:* OECD (2002), *Research and Development Expenditure in Industry, 1987-2000*. Annual. Also available on diskette.

**Patent database:** This database contains patents filed at the largest national patent offices – European Patent Office (EPO); US Patent and Trademark Office (USPTO); Japanese Patent Office (JPO) – and other national or regional offices. Each patent is referenced by: patent numbers and dates (publication, application and priority); names and countries of residence of the applicants and of the inventors; and technological categories, using the national patent classification as well as the International Patent Classification (IPC). The compiled indicators mainly refer to single patent counts in a selected patent office, as well as counts of "triadic" patent families (patents filed at the EPO, the USPTO and the JPO to protect a single invention).

The series are published on a regular basis in OECD, *Main Science and Technology Indicators*.

### Globalisation and international trade

**AFA:** The **Activities of Foreign Affiliates** database presents detailed data on the performance of foreign affiliates in the manufacturing industry of OECD countries (inward and outward investment). The data indicate the increasing importance of foreign affiliates in the economies of host countries, particularly in production, employment, value added, research and development, exports, wages and salaries. AFA contains 18 variables broken down by country of origin and by industrial sector (based on ISIC Rev. 3) for 18 OECD countries.

*Publication:* OECD, *Measuring Globalisation: The Role of Multinationals in OECD Economies*, 2001 Edition. Vol. I: Manufacturing. Biennial.

**FATS:** This database gives detailed data on the **activities of foreign affiliates** in the **services** sector of OECD countries (inward and outward investment). The data indicate the increasing importance of foreign affiliates in the economies of host countries and of affiliates of national firms implanted abroad. FATS contains five variables (production, employment, value added, imports and exports) broken down by country of origin (inward investments) or implantation (outward investments) and by industrial sector (based on ISIC Rev. 3) for 19 OECD countries.

*Publication:* OECD, *Measuring Globalisation: The Role of Multinationals in OECD Economies*, 2001 Edition. Vol. II: Services. Biennial.

**Bilateral Trade (BTD):** This database for industrial analysis includes detailed trade flows by manufacturing industry between a set of OECD *declaring* countries and a selection of *partner* countries and geographical regions. Data are presented in thousands of USD at current prices, and cover the period 1988-2000. The data have been derived from the OECD database *International Trade by Commodities Statistics* (ITCS – formerly *Foreign Trade Statistics* or FTS). Imports and exports are grouped according to the country of origin and the country of destination of the goods. The data have been converted from product classification schemes to an activity classification scheme based on ISIC Rev.3, that matches the classification currently used for the OECD' s STAN, Input-Output tables and ANBERD databases.

*Publication:* OECD (2003), *Bilateral Trade Database*, 2002. Only available on diskette.

### Information and communication technology (ICT)

**Telecommunications:** This database is produced in association with the biennial *Communications Outlook*. It provides time-series data covering all OECD countries, where available, for the period 1980-2002. It contains both telecommunication and economic indicators.

*Publication:* OECD (2003), *Telecommunications Database 2003*. Only available on diskette and CD-ROM.

**ICT:** Work is under way to develop a database on ICT supply and ICT usage statistics. Statistics on employment, value added, production, wages and salaries, number of enterprises, R&D, imports and exports for the ICT sector are being collected following the OECD ICT sector definition.

*Publication:* OECD (2002), *Measuring the Information Economy*, 2002. Freely available as a Web book with “clickable” access to the data used at: [www.oecd.org/sti/measuring-infoeconomy](http://www.oecd.org/sti/measuring-infoeconomy).

## Current country coverage of main DSTI databases used in this publication

	Industry	Science and technology					Globalisation			ICT
	STAN	R&D	TBP	MSTI	ANBERD	Patents	AFA	FATS	BTD	Telecom.
Australia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Austria	✓	✓	✓	✓	✓	✓		✓	✓	✓
Belgium	✓	✓	✓	✓	✓	✓		✓	✓	✓
Canada	✓	✓	✓	✓	✓	✓	✓		✓	✓
Czech Republic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Denmark	✓	✓	✓	✓	✓	✓			✓	✓
Finland	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
France	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Germany	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Greece	✓	✓		✓		✓	✓	✓	✓	✓
Hungary	✓	✓	✓	✓		✓	✓	✓	✓	✓
Iceland		✓		✓		✓			✓	✓
Ireland		✓	✓	✓	✓	✓	✓	✓	✓	✓
Italy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Japan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Korea	✓	✓	✓	✓	✓	✓			✓	✓
Luxembourg	✓			✓		✓	✓	✓	✓	✓
Mexico	✓	✓	✓	✓		✓	✓		✓	✓
Netherlands	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
New Zealand	✓	✓	✓	✓	✓	✓			✓	✓
Norway	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Poland	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Portugal	✓	✓	✓	✓		✓	✓	✓	✓	✓
Slovak Republic	✓	✓	✓	✓	✓	✓	✓		✓	✓
Spain	✓	✓	✓	✓	✓	✓	✓		✓	✓
Sweden	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Switzerland		✓	✓	✓		✓			✓	✓
Turkey		✓		✓		✓	✓	✓	✓	✓
United Kingdom	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
United States	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

## Other OECD databases

**ADB:** Analytical DataBase (Economics Department).

**ANA:** Annual National Accounts (Statistics Directorate).

**Education database** (Directorate for Education, Employment, Labour and Social Affairs).

**ITCS:** International Trade in Commodities Statistics (Statistics Directorate).

**International Direct Investment** (Directorate for Financial, Fiscal and Enterprise Affairs).

**LFS:** Labour Force Statistics (Statistics Directorate).

**SSIS:** Structural Statistics for Industry and Services (Statistics Directorate).

**Services:** Value Added and Employment (Statistics Directorate).

Further details on OECD statistics are available on the Internet at: [www.oecd.org/statistics/](http://www.oecd.org/statistics/)

## **STATISTICAL ANNEX**



Table A.2.1. **Gross domestic expenditure on R&D (GERD)**  
As a percentage of GDP

	1981	1985	1991	1995	1996	1997	1998	1999	2000	2001	2002
Canada	1.24	1.44	1.60 <sup>8</sup>	1.72	1.68	1.68	1.79	1.81	1.87	1.94	1.85
Mexico <sup>1</sup>	..	..	0.22	0.31	0.31	0.34	0.38	0.43	..	..	..
United States	2.34	2.76	2.72	2.51	2.55	2.58	2.60	2.65	2.72	2.82	2.82
Australia <sup>2</sup>	0.95	1.24	1.52	..	1.66	..	1.51	..	1.53	..	..
Japan <sup>3</sup>	2.11	2.54	2.75	2.69	2.77 <sup>8</sup>	2.83	2.94	2.94	2.98	3.09	..
Korea	..	..	1.92	2.50	2.60	2.69	2.55	2.47	2.65	2.96	..
New Zealand	0.99	..	0.98	0.96 <sup>8</sup>	..	1.11	..	1.03	..	..	..
Austria	1.13	1.24	1.47	1.56 <sup>8</sup>	1.60	1.71	1.78	1.85	1.84	1.90	1.94
Belgium	..	1.62 <sup>8</sup>	1.62 <sup>8</sup>	1.72 <sup>8</sup>	1.80	1.87	1.90	1.96	..	..	..
Czech Republic	..	..	2.02	1.01 <sup>8</sup>	1.04	1.16	1.24	1.24	1.33	1.30	..
Denmark	1.06	1.21	1.64 <sup>8</sup>	1.84	1.85	1.94	2.06	2.19	..	..	..
Finland	1.17	1.55	2.03 <sup>8</sup>	2.28	2.54	2.71	2.88	3.23	3.40	3.40	..
France	1.93	2.22	2.37	2.31	2.30	2.22 <sup>8</sup>	2.17	2.18	2.18 <sup>8</sup>	2.20	..
Germany <sup>4</sup>	2.43	2.68	2.53 <sup>8</sup>	2.26 <sup>8</sup>	2.26	2.29	2.31	2.44	..	2.49	2.50
Greece <sup>5</sup>	0.17	0.27	0.36 <sup>8</sup>	0.49 <sup>8</sup>	..	0.51	..	0.67	..	..	..
Hungary	..	..	1.06	0.73 <sup>8</sup>	0.65	0.72	0.68	0.69	0.80	0.95	..
Iceland	0.64	0.74	1.18	1.57	..	1.88	2.07	2.39	2.77	3.06	3.04
Ireland	0.68	0.77	0.93	1.28	1.32	1.29	1.25	1.22	1.15	1.17	..
Italy	0.88	1.12	1.23 <sup>8</sup>	1.00	1.01	1.05 <sup>8</sup>	1.07	1.04	1.07	..	..
Netherlands	1.79	1.99 <sup>8</sup>	1.97 <sup>8</sup>	1.99 <sup>8</sup>	2.01 <sup>8</sup>	2.04	1.94	2.02	1.94	..	..
Norway	1.17	1.48 <sup>8</sup>	1.64	1.70 <sup>8</sup>	..	1.64	..	1.65	..	1.62	..
Poland	..	..	..	0.69 <sup>8</sup>	0.71	0.71	0.72	0.75	0.70	0.67	..
Portugal <sup>6</sup>	0.30	0.38	0.61	0.57 <sup>8</sup>	..	0.62	0.69	0.75	0.79	0.83	0.78
Slovak Republic	..	..	2.16	0.94 <sup>8</sup>	0.94	1.09 <sup>8</sup>	0.79	0.66	0.67	0.65	..
Spain	0.41	0.53	0.84	0.81 <sup>8</sup>	0.83	0.82	0.89	0.88	0.94	0.96	..
Sweden	2.17	2.71	2.70	3.35 <sup>8</sup>	..	3.54	..	3.65	..	4.27	..
Switzerland <sup>2</sup>	2.18	2.82 <sup>8</sup>	2.66 <sup>8</sup>	..	2.73	..	..	..	2.63	..	..
Turkey	..	..	0.53	0.38	0.45	0.49	0.50	0.63	0.64	..	..
United Kingdom	2.38	2.24 <sup>8</sup>	2.07	1.95 <sup>8</sup>	1.88	1.81	1.80	1.88	1.85	1.90	..
European Union	1.69	1.86	1.90 <sup>8</sup>	1.80 <sup>8</sup>	1.80	1.80	1.81	1.86	1.89	1.93	..
Total OECD <sup>7</sup>	1.95	2.26	2.23 <sup>8</sup>	2.10 <sup>8</sup>	2.13	2.15	2.17	2.20	2.25	2.33	..

1. 1993 instead of 1991.

2. 1986 instead of 1985; 1992 instead of 1991.

3. Adjusted by OECD up to 1995.

4. Figures for Germany from 1991 onwards refer to unified Germany.

5. 1986 instead of 1985.

6. 1982 instead of 1981; 1986 instead of 1985; 1992 instead of 1991.

7. Includes Mexico and Korea from 1991, and Czech Republic, Hungary, Poland and Slovak Republic from 1995.

8. Break in series from previous year for which data are available.

Source: OECD, MSTI database, May 2003.

Table A.2.2. **Gross domestic expenditure on R&D (GERD)**

	Millions of 1995 PPP dollars										Average annual growth rate (1995-2001)	
	1981	1985	1991	1995	1996	1997	1998	1999	2000	2001		
Canada	6 041.0	7 768.4	9 689.8 <sup>8</sup>	11 630.7	11 501.2	12 045.8	13 293.3	14 198.8	15 353.8	16 122.4		5.6
Mexico <sup>1</sup>	..	..	1 395.4	1 923.1	2 024.8	2 404.6	2 766.1	3 262.8	..	..	1995-1999	14.1
United States	114 529.7	153 685.9	176 602.8	184 077.1	194 022.5	204 648.1	215 528.3	228 604.2	243 258.1	252 938.5		5.4
Australia <sup>2</sup>	2 418.6	3 628.0	5 265.2	..	6 728.0	..	6 733.7	..	7 229.1	..	1996-2000	1.8
Japan <sup>3</sup>	39 655.3	54 613.5	77 592.3	78 668.4	83 979.6 <sup>8</sup>	87 457.3	89 725.2	90 211.8	93 700.5	96 532.3	1996-2001	2.8
Korea	..	..	7 565.3	12 923.4	14 334.0	15 567.4	13 784.7	14 797.4	17 380.2	19 950.3		7.5
New Zealand	460.7	..	524.5	606.2 <sup>8</sup>	..	736.5	..	720.0	..	..	1995-1999	4.4
Austria	1 386.6	1 648.8	2 368.2	2 685.3	2 823.9	3 060.1	3 315.6	3 541.8	3 634.9	3 787.6		5.9
Belgium	..	2 860.7 <sup>8</sup>	3 392.1 <sup>8</sup>	3 807.4 <sup>8</sup>	4 054.3	4 346.4	4 507.6	4 801.1	..	..	1995-1999	6.0
Czech Republic	..	..	2 391.1	1 293.3 <sup>8</sup>	1 382.8	1 532.8	1 626.6	1 633.9	1 811.1	1 822.6		5.9
Denmark	964.9	1 239.9	1 809.0	2 203.1	2 278.9	2 456.4	2 672.4	2 913.1	..	..	1995-1999	7.2
Finland	878.6	1 314.7	1 902.2 <sup>8</sup>	2 203.6	2 547.3	2 897.7	3 228.5	3 745.4	4 151.3	4 185.2		11.3
France	17 406.6	21 520.6	27 235.8	27 722.6	27 860.3	27 427.8 <sup>8</sup>	27 724.2	28 752.7	29 916.5 <sup>8</sup>	30 703.9	1997-1999	2.4
Germany <sup>4</sup>	27 786.8	32 522.7	42 019.0 <sup>8</sup>	39 451.5 <sup>8</sup>	39 728.4	40 894.2	42 134.5	45 253.1	47 653.3	47 827.0		3.3
Greece <sup>5</sup>	199.3	322.2	469.8 <sup>8</sup>	652.0 <sup>8</sup>	..	720.2	..	1 026.1	..	..	1995-1999	12.0
Hungary	..	..	976.0	680.4 <sup>8</sup>	611.8	710.4	700.8	736.5	904.7	1 111.7		8.5
Iceland	29.0	36.4	67.4	91.7	..	120.7	140.3	168.3	205.6	235.2		17.0
Ireland	254.5	316.1	494.0	833.9	929.6	1 006.5	1 067.6	1 157.6	1 197.6	1 287.2		7.5
Italy	7 668.3	10 548.5	13 449.5	11 522.8	11 735.8	12 500.4 <sup>8</sup>	12 909.2	12 798.7	13 556.5	..	1997-2000	2.7
Netherlands	4 220.3	5 007.0 <sup>8</sup>	5 963.1 <sup>8</sup>	6 528.9 <sup>8</sup>	6 816.2 <sup>8</sup>	7 170.4	7 112.9	7 712.4	7 647.3	..	1996-2000	2.9
Norway	923.5	1 312.0 <sup>8</sup>	1 490.0	1 739.6 <sup>8</sup>	..	1 910.6	..	2 025.6	..	2 255.8		4.4
Poland	..	..	..	1 875.6 <sup>8</sup>	2 045.5	2 183.7	2 328.0	2 498.5	2 437.4	2 367.7		4.0
Portugal <sup>6</sup>	279.9	373.2	804.4	774.6	..	908.5	1 055.8	1 199.3	1 305.2	1 382.8		10.1
Slovak Republic	..	..	967.0	451.7 <sup>8</sup>	475.5	584.3 <sup>8</sup>	441.4	374.2	385.5	388.7	1997-2001	-9.7
Spain	1 694.1	2 362.3	4 774.9	4 838.7 <sup>8</sup>	5 072.3	5 197.1	5 925.0	6 110.0	6 760.1	7 066.8		6.5
Sweden	3 072.0	4 224.4	4 710.7	6 095.4 <sup>8</sup>	..	6 692.0	..	7 472.2	..	9 232.7		7.2
Switzerland <sup>2</sup>	3 283.7	4 553.8 <sup>8</sup>	4 770.9 <sup>8</sup>	..	4 949.7	..	..	..	5 203.1	..	1996-2000	1.3
Turkey	..	..	1 582.8	1 321.3	1 680.0	1 966.3	2 055.8	2 482.3	2 703.1	..	1995-2000	15.4
United Kingdom	18 174.6	19 211.2 <sup>8</sup>	20 576.7	21 460.8 <sup>8</sup>	21 228.3	21 098.1	21 609.7	23 084.2	23 416.5	24 558.1		2.3
European Union	86 654.5	103 448.7	129 898.2 <sup>8</sup>	130 823.8 <sup>8</sup>	132 999.7	136 375.7	141 187.4	149 535.0	157 060.0	162 813.3		3.7
Total OECD <sup>7</sup>	254 843.8	329 650.9	415 725.2 <sup>8</sup>	439 619.0 <sup>8</sup>	459 299.1	479 952.3	497 903.8	523 127.0	554 856.0	578 749.4		4.7

- 1993 instead of 1991.
- 1986 instead of 1985; 1992 instead of 1991.
- Adjusted by OECD up to 1995.
- Figures for Germany from 1991 onwards refer to unified Germany.
- 1986 instead of 1985.
- 1982 instead of 1981; 1986 instead of 1985; 1992 instead of 1991..
- Includes Mexico and Korea from 1991, and Czech Republic, Hungary, Poland and Slovak Republic from 1995.
- Break in series from previous year for which data are available.

Source: OECD, MSTI database, May 2003.

Table A.3.1. R&D expenditure by source of funds  
Percentages

	Business enterprise						Government						Other national sources						Abroad					
	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001
Canada	38.2	45.7	48.1	44.3	42.3	41.9	45.7	35.9	32.0	31.5	30.8	31.3	6.7	6.9	7.7	8.6	8.8	9.0	9.4	11.6	12.3	15.6	18.1	17.8
Mexico	..	17.6	16.9	23.6	..	..	..	66.2	71.1	61.3	..	..	..	9.5	9.5	9.8	..	..	..	6.7	2.5	5.3	..	..
United States	57.2 <sup>b</sup>	60.2 <sup>b</sup>	64.0 <sup>b</sup>	66.9 <sup>b</sup>	69.3 <sup>b</sup>	68.3 <sup>b</sup>	38.9 <sup>b</sup>	35.4 <sup>b</sup>	31.5 <sup>b</sup>	28.5 <sup>b</sup>	26.0 <sup>b</sup>	26.9 <sup>b</sup>	3.9 <sup>b</sup>	4.4 <sup>b</sup>	4.4 <sup>b</sup>	4.6 <sup>b</sup>	4.7 <sup>b</sup>	4.8 <sup>b</sup>	..	..	..	..	..	..
Australia <sup>1</sup>	..	47.8	45.7	..	45.9	..	..	45.8	47.1	..	46.1	..	..	4.4	4.7	..	4.7	..	..	2.1	..	2.5	3.3	..
Japan <sup>2</sup>	77.4 <sup>7</sup>	72.3 <sup>7</sup>	74.0 <sup>9</sup>	72.2	72.4	73.0	16.4 <sup>b</sup>	20.9 <sup>b</sup>	18.2 <sup>9</sup>	19.6	19.6	18.5	6.1 <sup>b</sup>	6.7 <sup>b</sup>	7.5 <sup>9</sup>	7.8	7.6	8.1	0.1 <sup>b</sup>	0.1 <sup>b</sup>	0.3 <sup>9</sup>	0.4	0.4	0.4
Korea	..	76.3 <sup>b</sup>	72.5 <sup>b</sup>	70.0 <sup>b</sup>	72.4 <sup>b</sup>	72.5 <sup>b</sup>	..	19.0 <sup>b</sup>	22.9 <sup>b</sup>	24.9 <sup>b</sup>	23.9 <sup>b</sup>	25.0 <sup>b</sup>	..	4.7 <sup>b</sup>	4.5 <sup>b</sup>	5.1 <sup>b</sup>	3.6 <sup>b</sup>	2.1 <sup>b</sup>	..	0.0 <sup>b</sup>	0.1 <sup>b</sup>	0.1 <sup>b</sup>	0.1 <sup>b</sup>	0.5 <sup>b</sup>
New Zealand	27.4	33.7 <sup>9</sup>	30.5	34.1	..	..	61.8	52.3 <sup>9</sup>	52.3	50.6	..	..	8.2	10.1 <sup>9</sup>	12.0	11.0	..	..	2.5	3.9 <sup>9</sup>	5.2	4.3	..	..
Austria	50.3	45.3	43.3	40.3	40.2	39.4	46.5	47.3	41.0	39.7	39.9	41.3	0.3	0.4	0.4	0.4	0.4	0.3	3.0	7.1	15.3	19.7	19.6	18.9
Belgium	64.8	67.1 <sup>9</sup>	67.6	66.2	..	..	31.3	23.1 <sup>9</sup>	22.2	23.2	..	..	1.0	2.3 <sup>9</sup>	3.4	3.3	..	..	3.0	7.5 <sup>9</sup>	6.8	7.3	..	..
Czech Republic	..	63.1	59.8	52.6	51.2	52.5	..	32.3 <sup>b</sup>	30.8 <sup>b</sup>	42.6 <sup>9</sup>	44.5	43.6	..	1.3 <sup>7</sup>	7.5 <sup>7</sup>	0.8 <sup>9</sup>	1.1	1.7	..	3.3	1.9	4.0	3.1	2.2
Denmark	51.4	45.2	53.4	59.0	..	..	39.7	39.6	36.1	31.2	..	..	4.6	4.3	4.1	3.3	..	..	4.4	11.0	6.4	5.4	..	..
Finland	56.3	59.5	62.9	67.0 <sup>9</sup>	70.3	70.8	40.9	35.1	30.9	29.2	26.2	25.5	1.5	1.0	0.9	0.9	0.9	1.2	1.3	4.5	5.4	3.0 <sup>9</sup>	2.7	2.5
France	42.5	48.4 <sup>9</sup>	51.6 <sup>9</sup>	54.1	52.5 <sup>9</sup>	..	48.8	41.9 <sup>9</sup>	38.8 <sup>9</sup>	36.9	38.7 <sup>9</sup>	..	0.7	1.7 <sup>9</sup>	1.6 <sup>9</sup>	1.9	1.6 <sup>9</sup>	..	8.0	8.0	7.9 <sup>9</sup>	7.0	7.2 <sup>9</sup>	..
Germany <sup>3</sup>	61.9	61.1 <sup>9</sup>	61.4	65.0	65.8	66.0	35.7	36.8 <sup>9</sup>	35.9	32.6	31.6	31.5	0.5	0.3 <sup>9</sup>	0.3	0.4	0.4	0.4	1.9	1.8 <sup>9</sup>	2.4	2.1	2.2	2.1
Greece	21.8	25.5 <sup>9</sup>	21.6	24.2	..	..	57.7	53.9 <sup>9</sup>	54.2	48.7	..	..	0.7	2.5 <sup>9</sup>	1.6	2.5	..	..	19.9	18.2 <sup>9</sup>	22.6	24.7	..	..
Hungary	56.0	38.4 <sup>9</sup>	36.6	38.5	37.8	34.8	40.0	53.1 <sup>9</sup>	54.8	53.2	49.5	53.6	0.1	0.5 <sup>9</sup>	0.5	0.3	0.3	0.4	1.8	4.9 <sup>9</sup>	4.3	5.6	10.6	9.2
Iceland	24.5	34.6	42.0	43.4	..	46.2	69.7	57.3	50.9	41.2	..	34.0	1.7	3.7	0.9	1.5	..	1.6	4.1	4.4	6.2	13.9	..	18.3
Ireland	60.6	72.3	67.3	62.7	66.0	..	27.9	22.5	24.3	23.6	22.6	..	2.2	1.9	1.7	2.1	2.6 <sup>c</sup>	..	9.4	8.5	6.7	11.7	8.9	..
Italy	44.4	41.7	43.0	..	..	..	49.6	53.0	50.8	..	..	..	..	..	..	..	..	..	6.1	5.3	6.2	..	..	..
Netherlands	47.8	46.0 <sup>9</sup>	45.6 <sup>9</sup>	49.7	50.1	..	48.6	42.2 <sup>9</sup>	39.1 <sup>9</sup>	35.8	35.9	..	1.8	2.6 <sup>9</sup>	2.6 <sup>9</sup>	3.4	2.6	..	1.9	9.3 <sup>9</sup>	12.8 <sup>9</sup>	11.2	11.4	..
Norway	44.5	49.9 <sup>9</sup>	49.4	49.5	..	51.7	49.5	44.0 <sup>9</sup>	42.9	42.6	..	39.8	1.3	1.2 <sup>9</sup>	1.2	1.6	..	1.4	4.6	4.9 <sup>9</sup>	6.5	6.4	..	7.1
Poland	..	36.0 <sup>9</sup>	35.1	38.1	32.6	30.8	..	60.2 <sup>9</sup>	61.7	58.5	63.4	64.8	..	2.1 <sup>9</sup>	1.6	1.7	2.1	2.0	..	1.7 <sup>9</sup>	1.6	1.7	1.8	2.4
Portugal <sup>4</sup>	20.2	19.5	21.2	21.3	27.5	32.4	59.4	65.3 <sup>9</sup>	68.2 <sup>9</sup>	69.7	65.0	61.2	5.4	3.3	4.4	3.7	2.8	2.1	15.0	11.9 <sup>9</sup>	6.1 <sup>9</sup>	5.3	4.8	4.4
Slovak Republic	68.3	60.4 <sup>9</sup>	63.6 <sup>7,9</sup>	49.9 <sup>7</sup>	54.4 <sup>7</sup>	56.1 <sup>7</sup>	31.7	37.8 <sup>9</sup>	34.5 <sup>9</sup>	47.9	42.6	41.3	..	0.1 <sup>9</sup>	0.1 <sup>7,9</sup>	0.0 <sup>7</sup>	0.7 <sup>7</sup>	0.8 <sup>7</sup>	..	1.6 <sup>9</sup>	1.9 <sup>7,9</sup>	2.3 <sup>7</sup>	2.3 <sup>7</sup>	1.9 <sup>7</sup>
Spain	48.1	44.5 <sup>9</sup>	44.7	48.9	49.7	47.2	45.7	43.6 <sup>9</sup>	43.6	40.8	38.6	39.9	0.6	5.2 <sup>9</sup>	4.9	4.7	6.8	5.3	5.6	6.7 <sup>9</sup>	6.7	5.6	4.9	7.7
Sweden	61.9	65.5 <sup>9</sup>	67.9	67.8	..	71.9	34.0	28.8 <sup>9</sup>	25.8 <sup>9</sup>	24.5	..	21.0	2.7	2.2 <sup>9</sup>	2.8 <sup>9</sup>	4.2	..	3.8	1.5	3.4 <sup>9</sup>	3.5	3.5	..	3.4
Switzerland <sup>5</sup>	67.4	67.5	..	..	69.1	..	28.4	26.9	..	..	23.2	..	2.3	2.5	..	..	3.4	..	1.9	3.1	..	..	4.3	..
Turkey	28.5	32.9	41.8	43.3	42.9	..	70.1	62.4	53.7	47.7	50.6	..	1.3	2.7	2.7	4.2	5.3	..	0.2	2.0	1.8	4.8	1.2	..
United Kingdom	49.6	48.2 <sup>9</sup>	50.0	48.5	49.3	46.2	35.0	32.8 <sup>9</sup>	30.7	29.2	28.9	30.2	3.5	4.5 <sup>9</sup>	4.8	5.0	5.5	5.7	11.9	14.5 <sup>9</sup>	14.6	17.3	16.3	18.0
European Union	51.9	52.6 <sup>9</sup>	53.8	55.5	56.2	..	41.2	38.8 <sup>9</sup>	37.1	35.0	34.5	..	1.3	1.8 <sup>9</sup>	2.0	2.2	2.2	1.5	5.7	6.8 <sup>9</sup>	7.2	7.3	7.1	..
Total OCDE <sup>6</sup>	58.8	59.7 <sup>9</sup>	62.0	63.0	64.3	63.6	35.6	33.8 <sup>9</sup>	31.1	29.7	28.4	28.9	3.5	4.1 <sup>9</sup>	4.4	4.5	4.5	4.6	..	..	..	..	..	..

1. 1996 instead of 1995; 1998 instead of 1997.

2. Adjusted by OECD up to 1995.

3. Figures for Germany and zone totals refer to unified Germany.

4. 1992 instead of 1991.

5. 1992 instead of 1991; 1996 instead of 1995.

6. Includes Czech Republic, Hungary, Poland and Slovak Republic from 1995.

7. Overestimated.

8. Underestimated.

9. Break in series from previous year for which data are available.

Source: OECD, MSTI database, May 2003.

Table A.3.2. Financing of expenditures on R&amp;D by source as a percentage of GDP

	Business enterprise						Government						Other national sources						Abroad					
	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001
Canada	0.61	0.79	0.81	0.80	0.79	0.81	0.73	0.62	0.54	0.57	0.58	0.61	0.11	0.12	0.13	0.16	0.16	0.17	0.15	0.20	0.21	0.28	0.34	0.35
Mexico	0.10 <sup>8</sup>	0.05 <sup>10</sup>	0.06	0.10	..	..	0.21 <sup>9</sup>	0.20 <sup>10</sup>	0.25	0.26	..	..	..	0.03	0.03	0.04	..	..	..	0.02	0.01	0.02	..	..
United States	1.56 <sup>9</sup>	1.51 <sup>9</sup>	1.65 <sup>9</sup>	1.77 <sup>9</sup>	1.88 <sup>9</sup>	1.92 <sup>9</sup>	1.06 <sup>9</sup>	0.89 <sup>9</sup>	0.81 <sup>9</sup>	0.76 <sup>9</sup>	0.71 <sup>9</sup>	0.76 <sup>9</sup>	0.11 <sup>9</sup>	0.11 <sup>9</sup>	0.11 <sup>9</sup>	0.12 <sup>9</sup>	0.13 <sup>9</sup>	0.14 <sup>9</sup>	0.00	0.00	0.00	0.00	0.00	0.00
Australia <sup>1</sup>	0.67	0.79	0.69	..	0.70	..	0.76	0.76	0.71	..	0.71	..	0.06	0.07	0.07	..	0.07	..	0.03	0.03	0.04	..	0.05	..
Japan <sup>2</sup>	2.13 <sup>8</sup>	1.94 <sup>8</sup>	2.10 <sup>10</sup>	2.12	2.16	2.25	0.45	0.56	0.52 <sup>10</sup>	0.58	0.58	0.57	0.17 <sup>8</sup>	0.18	0.21 <sup>10</sup>	0.23	0.23	0.25	0.00	0.00	0.01	0.01	0.01	0.01
Korea	..	1.91 <sup>9</sup>	1.95 <sup>9</sup>	1.73 <sup>9</sup>	1.92 <sup>9</sup>	2.14 <sup>9</sup>	..	0.48 <sup>9</sup>	0.62 <sup>9</sup>	0.61 <sup>9</sup>	0.64 <sup>9</sup>	0.74 <sup>9</sup>	..	0.12 <sup>9</sup>	0.12 <sup>9</sup>	0.13 <sup>9</sup>	0.10 <sup>9</sup>	0.06 <sup>9</sup>	0.00 <sup>9</sup>	0.00 <sup>9</sup>	0.00 <sup>9</sup>	0.00 <sup>9</sup>	0.01 <sup>9</sup>	
New Zealand	0.27	0.32	0.34	0.35	..	..	0.61	0.50 <sup>10</sup>	0.58	0.52	..	..	0.08	0.10	0.13	0.11	..	..	0.02	0.04	0.06	0.04	..	..
Austria	0.74	0.70 <sup>10</sup>	0.74	0.75	0.74	0.75	0.68	0.74 <sup>10</sup>	0.70	0.74	0.73	0.79	0.00	0.01	0.01	0.01	0.01	0.01	0.04	0.11	0.26	0.36	0.36	0.36
Belgium	1.05	1.15 <sup>10</sup>	1.26	1.30	..	..	0.51	0.40 <sup>10</sup>	0.41	0.45	..	..	0.02	0.04 <sup>10</sup>	0.06	0.07	..	..	0.05	0.13 <sup>10</sup>	0.13	0.14	..	..
Czech Republic	..	0.64	0.69	0.65	0.68	0.68	0.59 <sup>9</sup>	0.33 <sup>9,10</sup>	0.36 <sup>9</sup>	0.53 <sup>10</sup>	0.59	0.57	..	0.01 <sup>8</sup>	0.09 <sup>8</sup>	0.01 <sup>10</sup>	0.02	0.02	..	0.03	0.02	0.05	0.04	0.03
Denmark	0.84	0.83	1.04	1.29	..	..	0.65	0.73	0.70	0.68	..	..	0.08	0.08	0.08	0.07	..	..	0.07	0.20	0.12	0.12	..	..
Finland	1.14	1.36	1.71	2.16 <sup>10</sup>	2.39	2.41	0.83	0.80	0.84	0.94	0.89	0.87	0.03	0.02	0.02	0.03	0.03	0.04	0.03	0.10	0.15	0.10 <sup>10</sup>	0.09	0.08
France	1.01	1.12 <sup>10</sup>	1.15 <sup>10</sup>	1.18	1.15 <sup>10</sup>	..	1.16	0.97 <sup>10</sup>	0.86 <sup>10</sup>	0.80	0.84 <sup>10</sup>	..	0.02	0.04	0.04	0.04	0.04 <sup>10</sup>	..	0.19	0.19	0.18	0.15	0.16 <sup>10</sup>	..
Germany <sup>3</sup>	1.57	1.38	1.41	1.58	1.64	1.64	0.90	0.83 <sup>10</sup>	0.82	0.79	0.79	0.78	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.04 <sup>10</sup>	0.06	0.05	0.05	0.05
Greece	0.08	0.12 <sup>10</sup>	0.11	0.16	..	..	0.21	0.26 <sup>10</sup>	0.27	0.33	..	..	0.00	0.01	0.01	0.02	..	..	0.07	0.09	0.11	0.17	..	..
Hungary	0.59	0.28 <sup>10</sup>	0.26	0.26	0.30	0.33	0.42	0.39 <sup>10</sup>	0.40	0.37	0.40	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.03	0.04	0.09	0.09
Iceland	0.29	0.54	0.79	1.04	..	1.41	0.82	0.90	0.96	0.99	..	1.04	0.02	0.06	0.02	0.04	..	0.05	0.05	0.07	0.12	0.33	..	0.56
Ireland	0.56	0.92	0.86	0.77	0.76	..	0.26	0.29	0.31	0.29	0.26	..	0.02	0.02	0.02	0.03	0.03	..	0.09	0.11	0.09	0.14	0.10	..
Italy <sup>4</sup>	0.54	0.42	0.43	..	..	..	0.61	0.53	0.51	..	..	..	..	..	..	..	..	..	0.07	0.05	0.06	..	..	..
Netherlands	0.94	0.91 <sup>10</sup>	0.93 <sup>10</sup>	1.00	0.97	..	0.96	0.84 <sup>10</sup>	0.80	0.72	0.70	..	0.03	0.05	0.05	0.07	0.05	..	0.04	0.19	0.26	0.23	0.22	..
Norway	0.73	0.85 <sup>10</sup>	0.81	0.82	..	0.84	0.81	0.75	0.70	0.70	..	0.64	0.02	0.02	0.02	0.03	..	0.02	0.08	0.08	0.11	0.10	..	0.12
Poland	..	0.25	0.25	0.28	0.23	0.21	..	0.42 <sup>10</sup>	0.44	0.44	0.44	0.44	..	0.01	0.01	0.01	0.01	0.01	..	0.01	0.01	0.01	0.01	0.02
Portugal <sup>5</sup>	0.12	0.11 <sup>10</sup>	0.13	0.16	0.22	0.27	0.36	0.37 <sup>10</sup>	0.42 <sup>10</sup>	0.53	0.51	0.50	0.03	0.02	0.03	0.03	0.02	0.02	0.09	0.07 <sup>10</sup>	0.04 <sup>10</sup>	0.04	0.04	0.04
Slovak Republic	1.48	0.57 <sup>10</sup>	0.69	0.33	0.36	0.37	0.68	0.36 <sup>10</sup>	0.38 <sup>9,10</sup>	0.32 <sup>9</sup>	0.29 <sup>9</sup>	0.27 <sup>9</sup>	..	0.00	0.00	0.00	0.00	0.01	..	0.02	0.02	0.01	0.02	0.01
Spain	0.40	0.36 <sup>10</sup>	0.37	0.43	0.47	0.45	0.38	0.35 <sup>10</sup>	0.36	0.36	0.38	0.38	0.01	0.04	0.04	0.04	0.06	0.05	0.05	0.05	0.06	0.05	0.05	0.07
Sweden	1.67 <sup>9</sup>	2.19 <sup>9,10</sup>	2.40 <sup>9</sup>	2.47 <sup>9</sup>	..	3.07 <sup>9</sup>	0.92 <sup>9</sup>	0.96 <sup>9,10</sup>	0.91 <sup>9,10</sup>	0.89 <sup>9</sup>	..	0.90 <sup>9</sup>	0.07 <sup>9</sup>	0.07 <sup>9</sup>	0.10 <sup>9</sup>	0.15 <sup>9</sup>	..	0.16 <sup>9</sup>	0.04 <sup>9</sup>	0.11 <sup>9,10</sup>	0.12 <sup>9</sup>	0.13 <sup>9</sup>	..	0.14 <sup>9</sup>
Switzerland <sup>6</sup>	1.79	1.84	..	..	1.82	..	0.75	0.74	..	..	0.61	..	0.06	0.07	..	..	0.09	..	0.05	0.08	..	..	0.11	..
Turkey	0.15	0.13	0.21	0.27	0.28	..	0.37	0.24	0.26	0.30	0.32	..	0.01	0.01	0.01	0.03	0.03	..	0.00	0.01	0.01	0.03	0.01	..
United Kingdom	1.03	0.94 <sup>10</sup>	0.90	0.91	0.91	0.88	0.72	0.64 <sup>10</sup>	0.55	0.55	0.53	0.57	0.07	0.09	0.09	0.09	0.10	0.11	0.25	0.28 <sup>10</sup>	0.26	0.32	0.30	0.34
European Union	0.99	0.95 <sup>10</sup>	0.97	1.03	1.06	..	0.78	0.70 <sup>10</sup>	0.67	0.65	0.65	..	0.01	0.01 <sup>10</sup>	0.01	0.01	0.01	..	0.11	0.12 <sup>10</sup>	0.13	0.14	0.13	..
Total OECD <sup>7</sup>	1.31	1.25 <sup>10</sup>	1.33	1.39	1.44	1.48	0.79	0.71 <sup>10</sup>	0.67	0.65	0.64	0.67	0.05	0.06 <sup>10</sup>	0.07	0.07	0.07	0.06	..	..	..	..	..	..

1. 1992 instead of 1991; 1996 instead of 1995; 1998 instead of 1997.

2. Adjusted by OECD up to 1995.

3. Figures for Germany and zone totals refer to unified Germany.

4. 1996 instead of 1995.

5. 1992 instead of 1991.

6. 1992 instead of 1991; 1996 instead of 1995.

Source: OECD, MSTI database, May 2003.

7. Includes Czech Republic, Hungary, Poland and Slovak Republic from 1995.

8. Overestimated.

9. Underestimated.

10. Break in series from previous year for which data are available.

Table A.3.3. R&amp;D expenditures by main sectors of performance

	Percentages																							
	Business enterprise						Higher education						Government						Private non-profit					
	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001
Canada	49.7	58.1	59.7	58.6	58.3	57.5	30.6	26.8	26.5	29.1	29.5	30.3	18.7	14.4	13.2	12.0	11.9	11.9	1.0	0.7	0.6	0.4	0.3	0.3
Mexico	..	20.8	19.7	25.5	..	..	..	45.8	39.9	26.3	..	..	..	33.0	38.8	45.0	..	..	..	0.4	1.6	3.1	..	..
United States	72.5 <sup>9</sup>	71.8 <sup>9</sup>	74.1 <sup>9</sup>	74.9 <sup>9</sup>	75.3 <sup>9</sup>	74.4 <sup>9</sup>	14.5 <sup>9</sup>	15.2 <sup>9</sup>	14.3 <sup>9</sup>	13.9 <sup>9</sup>	13.9 <sup>9</sup>	14.2 <sup>9</sup>	9.8 <sup>9</sup>	9.4 <sup>9</sup>	8.2 <sup>9</sup>	7.5 <sup>9</sup>	6.8 <sup>9</sup>	7.0 <sup>9</sup>	3.3 <sup>9</sup>	3.6 <sup>9</sup>	3.5 <sup>9</sup>	3.8 <sup>9</sup>	4.1 <sup>9</sup>	4.5
Australia <sup>1</sup>	44.2	48.2	45.8	..	47.1	..	26.2	26.3	28.6	..	27.1	..	28.1	23.5	23.2	..	23.1	..	1.6	2.1	2.5	..	2.8	..
Japan <sup>2</sup>	75.4 <sup>8</sup>	70.3	72.0 <sup>10</sup>	70.7	71.0	73.7	12.1 <sup>9</sup>	14.5 <sup>9</sup>	14.3 <sup>10</sup>	14.8	14.5	14.5	8.1 <sup>9</sup>	10.4 <sup>9</sup>	8.8 <sup>10</sup>	9.9	9.9	9.5	4.4 <sup>9</sup>	4.8 <sup>9</sup>	4.9 <sup>10</sup>	4.6	4.6	2.3
Korea	..	73.7 <sup>9</sup>	72.6 <sup>9</sup>	71.4 <sup>9</sup>	74.1 <sup>9</sup>	76.2 <sup>9</sup>	..	8.2 <sup>9</sup>	10.4 <sup>9</sup>	12.0 <sup>9</sup>	11.3 <sup>9</sup>	10.4 <sup>9</sup>	..	17.0 <sup>9</sup>	15.8 <sup>9</sup>	14.5 <sup>9</sup>	13.3 <sup>9</sup>	12.4 <sup>9</sup>	..	1.2 <sup>9</sup>	1.2 <sup>9</sup>	2.2 <sup>9</sup>	1.4 <sup>9</sup>	1.1
New Zealand	26.8	27.0 <sup>10</sup>	28.2	29.7	..	..	28.6	30.7 <sup>10</sup>	36.4	34.3	..	..	44.6	42.2 <sup>10</sup>	35.3	36.0	..	..	..	..	..	..	..	..
Austria <sup>3</sup>	55.9	..	63.6	..	..	..	35.0	..	29.7	..	..	..	8.9	..	6.4	..	..	..	0.3	..	0.3	..	..	..
Belgium	66.5	71.3 <sup>10</sup>	71.6	71.6	..	..	26.2	23.9 <sup>10</sup>	23.8	23.9	..	..	6.1	3.5 <sup>10</sup>	3.3	3.3	..	..	1.2	1.4 <sup>10</sup>	1.3	1.2	..	..
Czech Republic	69.4	65.1 <sup>10</sup>	62.8	62.9	60.0	60.2	1.6	8.5 <sup>10</sup>	9.1	12.3	14.2	15.7	29.0	26.5 <sup>10</sup>	26.6	24.3	25.3	23.7	..	0.1	1.4	0.6	0.5	0.5
Denmark	58.5	57.4	61.5	64.9	..	..	22.6	24.5	22.2	19.4	..	..	17.7	17.0	15.4	14.5	..	..	1.2	1.1	1.0	1.1	..	..
Finland	57.0	63.2	66.0	68.2	70.9	71.1	22.1	19.5	20.0 <sup>10</sup>	19.7	17.9	18.1	20.2	16.7 <sup>10</sup>	13.6	11.4	10.6	10.2	0.7	0.6	0.5	0.7	0.7	0.6
France	61.5	61.0 <sup>10</sup>	62.5 <sup>10</sup>	63.2	62.5 <sup>10</sup>	62.4	15.1	16.7	17.4 <sup>10</sup>	17.2	18.8 <sup>10</sup>	18.5	22.7	21.0 <sup>10</sup>	18.7 <sup>10</sup>	18.1	17.3 <sup>10</sup>	17.7	0.8	1.3 <sup>10</sup>	1.4 <sup>10</sup>	1.5	1.4 <sup>10</sup>	1.4
Germany <sup>4</sup>	69.5	66.4 <sup>10</sup>	67.5	69.8	70.3	70.5	16.2	18.2 <sup>10</sup>	17.9	16.5	16.1	16.0	14.0	15.4 <sup>10</sup>	14.6	13.8	13.6	13.4	0.4	..	..	..	..	..
Greece	26.1	29.5 <sup>10</sup>	25.6	28.5	..	..	33.8	44.3 <sup>10</sup>	50.6	49.5	..	..	40.1	25.5 <sup>10</sup>	23.4	21.7	..	..	..	0.7 <sup>10</sup>	0.4	0.3	..	..
Hungary	41.4	43.4 <sup>10</sup>	41.5	40.2	44.3	40.1	20.3	24.8 <sup>10</sup>	23.0	22.4	24.0	25.7	24.5	25.6 <sup>10</sup>	25.1	32.3	26.1	25.9	..	..	..	..	..	..
Iceland	21.8	31.9	40.6	46.7	56.4	58.9	29.4	27.5	28.3	20.9	16.2	18.8	44.5	37.5	29.8	30.2	25.5	20.1	4.4	3.2	1.3	2.2	1.9	2.3
Ireland	63.6	70.0	71.0	71.4	71.9	68.5	23.2	20.4	20.7	22.7	20.1	..	11.6	9.0 <sup>10</sup>	7.6	5.8	8.1	9.5	1.7	0.8	0.7	..	..	..
Italy	55.8	53.4	49.8 <sup>10</sup>	49.3	50.1	..	21.5	25.5	30.8 <sup>10</sup>	31.5	31.0	..	22.7	21.1	19.4 <sup>10</sup>	19.2	18.9	..	..	..	..	..	..	..
Netherlands	49.7	52.1 <sup>10</sup>	54.6 <sup>10</sup>	56.4	57.1	..	29.7	28.8 <sup>10</sup>	27.3 <sup>10</sup>	26.2	29.2 <sup>10</sup>	..	18.3	18.1 <sup>10</sup>	17.1 <sup>10</sup>	16.5	13.0 <sup>10</sup>	..	2.3	1.0 <sup>10</sup>	1.0 <sup>10</sup>	0.9	0.8	..
Norway	54.6	56.7 <sup>10</sup>	56.9	56.0	..	59.7	26.7	26.0 <sup>10</sup>	26.6	28.6	..	25.7	18.8	17.3 <sup>10</sup>	16.4	15.4	..	14.6	..	..	..	..	..	..
Poland	..	38.7 <sup>10</sup>	39.4	41.3	36.1	35.8	..	26.3 <sup>10</sup>	28.6	27.8	31.5	32.7	..	35.0 <sup>10</sup>	32.0	30.8	32.3	31.3	..	0.1	..	0.1	0.1	0.2
Portugal <sup>5</sup>	21.7	20.9 <sup>10</sup>	22.5	22.7	28.2	32.6	43.0	37.1 <sup>10</sup>	40.0	38.6	37.2	36.1	22.1	27.0	24.2	27.9	24.3	21.4	13.2	15.0 <sup>10</sup>	13.3	10.8	10.3	10.0
Slovak Republic	74.6	53.9 <sup>10</sup>	75.6 <sup>8,10</sup>	62.6 <sup>8</sup>	65.8 <sup>8</sup>	67.3 <sup>8</sup>	3.9	5.9 <sup>10</sup>	6.7 <sup>8,10</sup>	9.9 <sup>8</sup>	9.5 <sup>8</sup>	9.0 <sup>8</sup>	21.5	40.2 <sup>10</sup>	17.7 <sup>8,10</sup>	27.5 <sup>8</sup>	24.7 <sup>8</sup>	23.7 <sup>8</sup>	..	..	0.0 <sup>10</sup>	0.0	0.0	0.0
Spain	56.0	48.2 <sup>10</sup>	48.8	52.0	53.7	52.4	22.2	32.0 <sup>10</sup>	32.7	30.1	29.6	30.9	21.3	18.6 <sup>10</sup>	17.4	16.9	15.8	15.9	0.5	1.1 <sup>10</sup>	1.1	1.0	0.9	0.8
Sweden	68.5	74.3 <sup>10</sup>	74.9	75.1	..	77.6	27.4 <sup>8</sup>	21.9 <sup>10</sup>	21.4 <sup>8,10</sup>	21.4 <sup>8</sup>	..	19.4 <sup>8</sup>	4.1 <sup>8,9</sup>	3.7 <sup>10</sup>	3.5 <sup>8,9</sup>	3.4 <sup>8,9</sup>	..	2.8 <sup>8,9</sup>	0.1 <sup>8,9</sup>	0.2 <sup>8,10</sup>	0.1 <sup>8</sup>	0.1 <sup>8</sup>	..	0.1
Switzerland <sup>6</sup>	70.1	70.7	..	..	73.9	..	25.0	24.3	..	..	22.9	..	3.7	2.5	..	..	1.3 <sup>9,10</sup>	..	1.2	2.5	..	..	1.9	..
Turkey	21.1	23.6	32.3	38.1	33.4	..	71.1	69.0	57.2	55.3	60.4	..	7.9	7.4	10.5	6.7	6.2	..	..	..	..	..	..	..
United Kingdom	67.1	65.0 <sup>10</sup>	65.2	66.8	65.6	67.4 <sup>10</sup>	16.7	19.2 <sup>10</sup>	19.7	19.6	20.8	21.4	14.5	14.6 <sup>10</sup>	13.8	12.2	12.2	9.7 <sup>10</sup>	1.8	1.3 <sup>10</sup>	1.3	1.4	1.5	1.4
European Union	63.5	62.2 <sup>10</sup>	62.9	64.2	64.5	64.5	18.7	20.8 <sup>10</sup>	21.5	20.9	21.2	..	17.0	16.2 <sup>10</sup>	14.8	14.1	13.5	13.1	0.9	0.9 <sup>10</sup>	0.9	0.9	0.9	0.8
Total OECD <sup>7</sup>	68.9	67.3 <sup>10</sup>	68.9	69.3	69.6	69.6	16.2	17.5 <sup>10</sup>	17.2	17.1	17.1	17.3	12.4	12.5 <sup>10</sup>	11.2	10.8	10.4	10.4	2.6	2.8 <sup>10</sup>	2.8	2.8	2.9	2.7

1. 1992 instead of 1991; 1996 instead of 1995; 1998 instead of 1997.

2. Adjusted by OECD up to 1995.

3. 1993 instead of 1991; 1998 instead of 1997.

4. Figures for Germany and zone totals refer to unified Germany.

5. 1992 instead of 1991.

6. 1992 instead of 1991; 1996 instead of 1995.

7. Includes Czech Republic, Hungary, Poland and Slovak Republic from 1995.

Source: OECD, MSTI database, May 2003.

8. Overestimated.

9. Underestimated.

10. Break in series from previous year for which data are available.

Table A.4.1.1. Business enterprise expenditure on R&amp;D (BERD)

	Millions of 1995 PPP dollars						As a percentage of OECD total						Average annual growth rate (1995-2000)	
	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001		
Canada	4 817.9	6 757.4	7 195.1	8 315.2	8 953.1	9 268.0 <sup>6</sup>	1.6	2.3	2.2	2.2	2.2	2.2		5.4
Mexico	539.9	399.1 <sup>6</sup>	474.5	833.3	..	..	0.2	0.1	0.1	0.2	..	..	1995-1999	20.2
United States	127 943.8	132 103.0	151 557.2	171 134.9	183 043.8	188 122.8	45.8	44.7	45.7	47.4	47.4	46.7		6.1
Australia	1 942.0	3 384.9	3 183.2	3 014.1	3 402.7	..	0.7	1.1	0.9	0.8	0.9	..	1995-2000	0.1
Japan	58 495.2	55 288.9	63 008.6 <sup>6</sup>	63 792.1	66 491.1	71 119.1	19.8	18.7	19.0	17.0	16.6	17.0	1996-2001	3.6
Korea	..	9 528.1	11 299.9	10 564.2	12 869.8	15 198.9	..	3.2	3.4	2.9	3.3	3.8		8.1
New Zealand	140.7	163.8	207.9	213.9	..	..	0.0	0.1	0.1	0.1	..	..	1995-1999	6.9
Austria <sup>1</sup>	..	..	2 107.2	..	..	..	..	..	0.6	..	..	..	1993-1998	9.2
Belgium	2 255.5	2 713.3 <sup>6</sup>	3 112.5	3 438.2	3 701.5	..	0.7	0.9	0.9	0.9	0.9	..	1995-2000	6.4
Czech Republic	1 659.7	841.6 <sup>6</sup>	962.6	1 026.9	1 086.0	1 096.8	0.5	0.3	0.3	0.3	0.3	0.3		4.5
Denmark	1 059.0	1 264.3	1 509.4	1 891.4	..	..	0.4	0.4	0.5	0.5	..	..	1995-1999	10.6
Finland	1 084.3	1 393.1	1 912.0	2 553.0	2 943.5	2 975.6	0.4	0.5	0.6	0.7	0.8	0.7		13.5
France	16 744.9	16 905.5 <sup>6</sup>	17 151.8 <sup>6</sup>	18 165.1	18 700.2	19 171.1	6.0	5.7	5.1	5.0	4.9	4.9	1997-2001	2.8
Germany <sup>2</sup>	29 197.1	26 212.6	27 584.6	31 573.0	33 514.2	33 732.0	9.7	8.9	8.4	8.9	9.0	8.5		4.3
Greece	122.6	192.2	184.0	292.3	..	..	0.0	0.1	0.1	0.1	..	..	1995-1999	11.0
Hungary	404.0	295.5	294.8	296.3	400.9	445.7	0.1	0.1	0.1	0.1	0.1	0.1		7.1
Iceland	14.7	29.2	49.0	78.5	115.9	138.5	0.0	0.0	0.0	0.0	0.0	0.0		29.6
Ireland	314.0	583.3	714.7	826.9	860.5	881.6	0.1	0.2	0.2	0.2	0.2	0.2		7.1
Italy	7 505.5	6 154.1	6 229.4	6 312.7	6 787.9	7 275.2	2.6	2.1	1.9	1.8	1.8	1.9		2.8
Netherlands	2 961.5	3 402.8 <sup>6</sup>	3 912.4 <sup>6</sup>	4 347.1	4 363.1	4 318.9	1.0	1.2	1.2	1.2	1.1	1.1	1996-2001	3.8
Norway	813.1	986.6 <sup>6</sup>	1 087.5	1 133.4	..	1 347.3	0.3	0.3	0.3	0.3	..	0.4		5.3
Poland	..	726.5 <sup>6</sup>	860.9	1 032.6	879.6	848.4	..	0.2	0.2	0.3	0.2	0.2		2.6
Portugal <sup>3</sup>	174.6	162.0 <sup>6</sup>	204.1	272.0	367.5	450.2	0.1	0.1	0.1	0.1	0.1	0.1		18.6
Slovak Republic	721.6	243.5 <sup>6</sup>	441.7 <sup>6</sup>	234.1	253.7	261.7	0.2	0.1	0.1	0.1	0.1	0.1	1997-2001	-12.3
Spain	2 673.8	2 333.7	2 536.0	3 176.6	3 627.7	3 700.7	1.0	0.8	0.8	0.9	1.0	1.0		8.0
Sweden	3 225.9	4 526.0 <sup>6</sup>	5 015.1	5 613.4	..	7 166.8	1.1	1.5	1.5	1.5	..	1.7		8.0
Switzerland <sup>4</sup>	3 343.3	3 498.0	..	..	3 845.7	..	1.1	1.1	..	..	1.0	..	1996-2000	2.4
Turkey	333.8	311.9	634.6	944.5	903.9	..	0.1	0.1	0.2	0.2	0.2	..	1995-2000	23.7
United Kingdom	13 797.5	13 940.7 <sup>6</sup>	13 755.2	15 411.4	15 362.2	16 553.0 <sup>6</sup>	5.0	4.7	4.4	4.5	4.2	4.4	1995-2000	2.0
European Union	82 467.0	81 353.4 <sup>6</sup>	85 701.3	96 085.0	101 289.5	105 121.2	28.5	27.5	26.2	27.0	26.9	26.7		4.4
Total OECD <sup>5</sup>	286 111.2	295 831.9 <sup>6</sup>	330 512.9	362 431.2	386 216.1	403 243.6	100.0	100.0	100.0	100.0	100.0	100.0		5.3

1. 1998 instead of 1997.

2. Figures for Germany refer to unified Germany.

3. 1992 instead of 1991.

4. 1992 instead of 1991; 1996 instead of 1995.

5. Includes Czech Republic, Hungary, Poland and Slovak Republic from 1995.

6. Break in series from previous year for which data are available.

Source: OECD, MSTI database, May 2003.

Table A.4.1.2. **Business enterprise expenditure on R&D (BERD) as a percentage of value added in industry**

	1981	1985	1991	1995	1996	1997	1998	1999	2000	2001
Canada	0.8	1.0	1.1	1.4	1.3	1.4	1.5	1.4	1.5	1.5
Mexico	..	..	0.1	0.1 <sup>6</sup>	0.1	0.1	0.2	0.2	..	..
United States	2.3	2.8	2.8	2.6	2.6	2.7	2.7	2.7	2.8	2.9
Australia	0.3	0.5	0.8	1.2	1.1	1.0	0.9	0.9	1.0	..
Japan	1.8	2.5	2.8	2.7	2.8 <sup>6</sup>	2.9	3.0	3.0	3.1	3.3
Korea	..	..	..	2.2	2.3	2.4	2.2	2.2	2.4	2.8
New Zealand	0.3	..	0.4	0.3	..	0.4	..	0.4	..	..
Austria	0.9	1.0	..	..	..	..	1.6	..	..	..
Belgium	1.5	1.7	1.6	1.8 <sup>6</sup>	1.9	2.0	2.0	2.1	2.2	..
Czech Republic	..	..	1.8	0.9 <sup>6</sup>	0.8	1.0	1.1	1.0	1.1	1.0
Denmark	0.9	1.1	1.5	1.7	1.8	1.9	2.2	2.3	..	..
Finland	0.9	1.3	1.8	2.2	2.5	2.7	2.9	3.3	3.5	3.5
France	1.6	1.9	2.1	2.1	2.1	2.1 <sup>6</sup>	2.0	2.1	2.0	2.0
Germany <sup>1</sup>	2.3	2.7	2.5 <sup>6</sup>	2.1 <sup>6</sup>	2.1	2.2	2.2	2.4	2.5	2.5
Greece <sup>2</sup>	0.0	0.1	0.1	0.2	0.2	0.2	..	0.3	..	..
Hungary	..	..	0.6	0.5 <sup>6</sup>	0.4	0.4	0.4	0.4	0.5	0.6
Iceland	0.1	0.2	0.4	0.8	..	1.2	1.2	1.8	2.5	2.8
Ireland	0.4	0.5	0.8	1.3	1.3	1.3	1.2	1.2	1.1	1.1
Italy	0.6	0.8	1.0 <sup>6</sup>	0.7 <sup>6</sup>	0.8	0.7	0.7	0.7	0.8	0.8
Netherlands	1.4	1.6	1.4	1.5 <sup>6</sup>	1.6 <sup>6</sup>	1.6	1.5	1.7	1.6	1.6
Norway	0.9	1.3 <sup>6</sup>	1.3	1.5 <sup>6</sup>	..	1.4	..	1.4	..	1.4
Poland	..	..	..	0.4 <sup>6</sup>	0.4	0.4	0.4	0.4	0.4	0.3
Portugal <sup>3</sup>	0.1	0.1	0.2	0.2 <sup>6</sup>	..	0.2	0.2	0.3	0.4	0.4
Slovak Republic	..	..	..	0.7 <sup>6</sup>	0.7	1.1 <sup>6</sup>	0.7	0.6	0.6	0.6
Spain	0.2	0.4	0.6	0.5	0.6	0.6	0.7	0.7	0.7	0.7
Sweden	2.2	2.9	3.0	3.8 <sup>6</sup>	..	4.1	..	4.3	..	5.2
Switzerland <sup>4</sup>	1.6	2.6 <sup>6</sup>	2.9 <sup>6</sup>	..	3.1	..	..	..	3.1	..
Turkey	..	..	0.1	0.1	0.1	0.2	0.2	0.3	0.3	..
United Kingdom	2.1	2.0	2.0 <sup>6</sup>	1.8 <sup>6</sup>	1.8	1.7	1.7	1.8	1.8	1.9 <sup>6</sup>
European Union	1.4	1.7	1.7 <sup>6</sup>	1.6 <sup>6</sup>	1.6	1.6	1.6	1.7	1.8	1.8
Total OECD <sup>5</sup>	1.7	2.1	2.2 <sup>6</sup>	2.0 <sup>6</sup>	2.1	2.1	2.1	2.2	2.2	2.3

1. Figures for Germany from 1991 onwards refer to unified Germany.

2. 1986 instead of 1985.

3. 1982 instead of 1981; 1986 instead of 1985; 1992 instead of 1991.

4. 1986 instead of 1985; 1992 instead of 1991.

5. Includes Mexico and Korea from 1991 and Czech Republic, Hungary, Poland and Slovak Republic from 1995.

6. Break in series from previous year for which data are available.

Source: OECD, MSTI database, May 2003.

Table A.5.1. R&amp;D expenditures by main sectors of performance as a percentage of GDP

	Business enterprise							Higher education						Government							
	1991	1995	1997	1998	1999	2000	2001	1991	1995	1997	1998	1999	2000	2001	1991	1995	1997	1998	1999	2000	2001
Canada	0.79	1.00	1.01	1.07	1.06	1.09	1.11	0.49	0.46	0.45	0.49	0.53	0.55	0.59	0.30	0.25	0.22	0.22	0.22	0.22	0.23
Mexico	0.09 <sup>7</sup>	0.06 <sup>9</sup>	0.07	0.11	0.11	..	..	..	0.14	0.14	0.12	0.11	..	..	0.15 <sup>8</sup>	0.10 <sup>9</sup>	0.13	0.14	0.19	..	..
United States	1.97 <sup>8</sup>	1.80 <sup>8</sup>	1.91 <sup>8</sup>	1.94 <sup>8</sup>	1.98 <sup>8</sup>	2.04 <sup>8</sup>	2.10 <sup>8</sup>	0.39 <sup>8</sup>	0.38 <sup>8</sup>	0.37 <sup>8</sup>	0.36 <sup>8</sup>	0.37 <sup>8</sup>	0.38 <sup>8</sup>	0.40 <sup>8</sup>	0.27 <sup>8</sup>	0.24 <sup>8</sup>	0.21 <sup>8</sup>	0.20 <sup>8</sup>	0.20 <sup>8</sup>	0.18 <sup>8</sup>	0.20 <sup>8</sup>
Australia <sup>1</sup>	0.67	0.8	0.75	0.69	0.65	0.72	..	0.40	0.44	..	0.43	..	0.41	..	0.43	0.39	..	0.35	..	0.35	..
Japan <sup>2</sup>	2.08 <sup>7</sup>	1.89 <sup>7</sup>	2.04 <sup>9</sup>	2.09	2.08	2.11	2.28	0.33	0.39	0.40 <sup>9</sup>	0.44	0.44	0.43	0.45	0.22	0.28	0.25	0.27	0.29	0.29	0.29
Korea	..	1.84	1.95	1.79	1.76	1.96	2.25	..	0.20 <sup>8</sup>	0.28 <sup>8</sup>	0.28 <sup>8</sup>	0.30 <sup>8</sup>	0.30 <sup>8</sup>	0.31 <sup>8</sup>	..	0.42 <sup>8</sup>	0.42 <sup>8</sup>	0.45 <sup>8</sup>	0.36 <sup>8</sup>	0.35 <sup>8</sup>	0.37 <sup>8</sup>
New Zealand	0.26	0.26	0.31	..	0.31	..	..	0.28	0.29 <sup>9</sup>	0.40	..	0.35	..	..	0.44	0.41	0.39	..	0.37	..	..
Austria <sup>3</sup>	0.82	..	..	1.13	..	..	..	0.51	..	..	0.53	..	..	..	0.13 <sup>9</sup>	..	..	0.11	..	..	..
Belgium	1.08	1.22 <sup>9</sup>	1.34	1.35	1.40	1.46	..	0.43	0.41 <sup>9</sup>	0.44	0.46	0.47	..	..	0.10	0.06 <sup>9</sup>	0.06	0.07	0.06	..	..
Czech Republic	1.40	0.66 <sup>9</sup>	0.73	0.80	0.78	0.80	0.78	0.03	0.09 <sup>9</sup>	0.11	0.12	0.15	0.19	0.20	0.58	0.27 <sup>9</sup>	0.31	0.32	0.30	0.34	0.31
Denmark	0.96	1.05	1.19	1.33	1.42	..	..	0.37	0.45	0.43	0.41	0.43	0.45	..	0.29	0.31	0.30	0.30	0.32	0.29	..
Finland	1.16	1.44	1.79	1.94	2.20	2.41	2.42	0.45	0.45	0.54 <sup>9</sup>	0.57	0.64	0.61	0.61	0.41	0.38 <sup>9</sup>	0.37	0.36	0.37	0.36	0.35
France	1.46	1.41 <sup>9</sup>	1.39 <sup>9</sup>	1.35	1.38	1.37	1.37	0.36	0.39	0.39 <sup>9</sup>	0.38	0.37	0.41 <sup>9</sup>	0.41	0.54	0.48 <sup>9</sup>	0.41 <sup>9</sup>	0.40	0.40	0.38 <sup>9</sup>	0.39
Germany <sup>4</sup>	1.76	1.50	1.54	1.57	1.70	1.75	1.76	0.41	0.41	0.41	0.40	0.40	0.40	0.40	0.35	0.35 <sup>7</sup>	0.34 <sup>7</sup>	0.34 <sup>7</sup>	0.34 <sup>7</sup>	0.34 <sup>7</sup>	0.33 <sup>7</sup>
Greece	0.09	0.14 <sup>9</sup>	0.13	..	0.19	..	..	0.12	0.22 <sup>9</sup>	0.26	..	0.33	..	..	0.15	0.12 <sup>9</sup>	0.12	..	0.15	..	..
Hungary	0.44	0.32 <sup>9</sup>	0.30	0.26	0.28	0.36	0.38	0.22	0.18 <sup>9</sup>	0.17	0.17	0.15	0.19	0.24	0.26	0.19 <sup>9</sup>	0.18	0.21	0.22	0.21	0.25
Iceland	0.26	0.50	0.76	0.76	1.12	1.56	1.80	0.35	0.43	0.53	0.52	0.50	0.45	0.58	0.52	0.59	0.56	0.77	0.72	0.71	0.61
Ireland	0.59	0.89	0.91	0.90	0.87	0.83	0.80	0.22	0.26	0.27	0.26	0.28	0.23	..	0.11	0.11 <sup>9</sup>	0.10	0.09	0.07	0.09	0.11
Italy	0.68	0.53	0.52	0.52	0.51	0.53	0.56	0.26	0.25	0.32 <sup>9</sup>	0.34	0.33	0.33	..	0.28	0.21	0.20	0.22	0.20	0.20	0.22
Netherlands	0.98	1.04 <sup>9</sup>	1.11 <sup>9</sup>	1.05	1.14	1.11	1.08	0.58	0.57 <sup>9</sup>	0.56	0.53	0.53	0.57 <sup>9</sup>	..	0.36	0.36 <sup>9</sup>	0.35	0.34	0.33	0.25 <sup>9</sup>	0.26
Norway	0.89	0.96 <sup>9</sup>	0.93	..	0.92	..	0.97	0.44	0.44	0.44	..	0.47	..	0.42	0.31	0.29	0.27	..	0.25	..	0.24
Poland	..	0.27 <sup>9</sup>	0.28	0.30	0.31	0.25	0.24	..	0.18	0.20	0.20	0.21	0.22	0.22	..	0.24 <sup>9</sup>	0.23	0.22	0.23	0.23	0.21
Portugal <sup>5</sup>	0.13	0.12 <sup>9</sup>	0.14	0.16	0.17	0.22	0.27	0.26	0.21 <sup>9</sup>	0.25	0.27	0.29	0.29	0.30	0.13	0.15 <sup>9</sup>	0.15	0.18	0.21	0.19	0.18
Slovak Republic	1.61	0.51 <sup>9</sup>	0.83 <sup>9</sup>	0.52	0.42	0.44	0.44	0.08	0.06 <sup>9</sup>	0.07	0.07	0.07	0.06	0.06	0.46	0.38 <sup>9</sup>	0.19 <sup>9</sup>	0.20	0.18	0.17	0.15
Spain	0.47	0.39 <sup>9</sup>	0.40	0.47	0.46	0.50	0.50	0.19	0.26 <sup>9</sup>	0.27	0.27	0.27	0.28	0.30	0.18	0.15 <sup>9</sup>	0.14	0.15	0.15	0.15	0.15
Sweden	1.85 <sup>8</sup>	2.48 <sup>8,9</sup>	2.65 <sup>8</sup>	..	2.74 <sup>8</sup>	..	3.31 <sup>8</sup>	0.74	0.73 <sup>8,9</sup>	0.76 <sup>9</sup>	..	0.78	..	0.83	0.11 <sup>8</sup>	0.12 <sup>9</sup>	0.13 <sup>8</sup>	..	0.12 <sup>8</sup>	..	0.12 <sup>8</sup>
Switzerland <sup>1</sup>	1.86	1.93	..	..	..	1.95	..	0.66	0.66	..	0.63	..	0.60	..	0.10	0.07	..	0.05 <sup>8</sup>	..	0.03 <sup>8,9</sup>	..
Turkey	0.11	0.09	0.16	0.16	0.24	0.21	..	0.38	0.26	0.28	0.30	0.35	0.39	..	0.04	0.03	0.05	0.04	0.04	0.04	..
United Kingdom	1.39	1.27 <sup>9</sup>	1.18	1.18	1.25	1.21	1.28 <sup>9</sup>	0.34	0.37 <sup>9</sup>	0.36	0.35	0.37	0.38	0.41	0.30	0.28	0.25	0.24	0.23	0.22	0.18 <sup>9</sup>
European Union	1.21	1.12 <sup>9</sup>	1.13	1.14	1.19	1.22	1.24	0.36	0.37 <sup>9</sup>	0.39	0.39	0.39	0.40	..	0.32	0.29 <sup>9</sup>	0.27	0.27	0.26	0.26	0.25
Total OECD <sup>6</sup>	1.53	1.41 <sup>9</sup>	1.48	1.49	1.53	1.56	1.62	0.36	0.37 <sup>9</sup>	0.37	0.37	0.38	0.38	0.40	0.28	0.26 <sup>9</sup>	0.24	0.24	0.24	0.23	0.24

1. 1992 instead of 1991; 1996 instead of 1995.

2. Adjusted by OECD up to 1995.

3. 1993 instead of 1991.

4. Figures for Germany and zone totals refer to unified Germany.

5. 1992 instead of 1991.

6. Includes Czech Republic, Hungary and Poland from 1995.

7. Overestimated.

8. Underestimated.

9. Break in series from previous year for which data are available.

Source: OECD, MSTI database, May 2003.



Table A.5.2. Researchers<sup>1</sup> per 10 000 labour force by sector of employment

	Business enterprise						Government						Higher education					
	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001	1991	1995	1997	1999	2000	2001
Canada	20.9	33.1	33.9	31.4	..	..	5.8	5.2	4.8	4.7	..	..	19.9	20.8	22.3	21.1	..	..
Mexico <sup>2</sup>	0.3	0.6	0.7	0.9	..	..	1.7	1.8	1.7	2.0	..	..	2.4	3.3	3.4	2.8	..	..
United States	60.4	58.9	66.7	72.1	72.9	..	4.5 <sup>10</sup>	4.0 <sup>10</sup>	3.6 <sup>10</sup>	3.4 <sup>10</sup>	..	..	10.8	13.5 <sup>11</sup>	13.0	13.2	..	..
Australia <sup>3</sup>	16.2	16.7	15.8	16.4	16.3	..	11.2	9.9	9.4	..	9.2	..	32.5	38.8	40.9	..	40.7	..
Japan <sup>4</sup>	52.4 <sup>9</sup>	57.6 <sup>9</sup>	59.6 <sup>11</sup>	64.0	62.3	63.8	4.6	4.6	4.5	4.6	4.6	5.0	16.5	18.2 <sup>9</sup>	25.7 <sup>11</sup>	26.3	26.5	29.7
Korea	..	32.2	32.3	30.3	32.8	45.2	..	6.1 <sup>10</sup>	5.7 <sup>10</sup>	5.4 <sup>10</sup>	5.3 <sup>10</sup>	5.4 <sup>10</sup>	..	9.3 <sup>10</sup>	9.0 <sup>10</sup>	10.0 <sup>10</sup>	10.8 <sup>10</sup>	10.4 <sup>10</sup>
New Zealand	8.3	8.8	9.1	11.3	..	..	9.3	8.4	9.4	8.6	..	..	11.4	16.9 <sup>11</sup>	25.7	26.5	..	..
Austria <sup>5</sup>	18.7	..	30.1	..	..	..	2.4	..	2.5	..	..	..	13.0	..	15.3	..	..	..
Belgium	20.8	28.2 <sup>11</sup>	31.9	37.7	41.2	..	1.9	2.3 <sup>11</sup>	2.6	2.8	..	..	20.0	23.2 <sup>11</sup>	23.7	27.9	..	..
Czech Republic	..	9.5	9.9	11.1	10.7	11.1	..	8.3	8.9	8.2	8.5	9.4	..	5.2	5.5	6.5	7.3	8.2
Denmark	17.7	23.9	26.3	31.7	..	..	8.8	12.8	12.9	13.7	12.7	..	14.2	19.7	21.5	20.0	20.4	..
France	23.9	26.3 <sup>11</sup>	27.9 <sup>11</sup>	28.6	30.5	..	10.4	10.7 <sup>11</sup>	9.4 <sup>11</sup>	9.6	9.8 <sup>11</sup>	..	16.9	21.2	21.3 <sup>11</sup>	21.5	23.2 <sup>11</sup>	..
Germany <sup>6</sup>	35.6	32.9	33.3	37.4	38.2	38.4	9.4	9.5	9.4	9.4	9.4	9.3	15.7 <sup>11</sup>	16.4	16.5	16.6	16.7	17.0
Greece	2.6	3.7	4.2	5.0	..	..	4.9	4.7	4.6	4.5	..	..	8.3	14.3 <sup>11</sup>	16.6	23.5	..	..
Hungary <sup>7</sup>	8.2	7.1	7.6	8.0	9.5	9.9	8.5	8.6	9.8	11.1	11.3	11.4	10.5	9.9	10.5	11.6	14.2	14.5
Iceland	11.9	24.1	32.1	40.0	..	52.4	20.6	21.7	26.4	26.9	..	26.1	15.3	25.5	31.2	30.6	..	31.6
Ireland	15.7	23.2	28.1	31.3	32.3	33.5	2.6	1.9 <sup>11</sup>	2.0	1.8	4.2 <sup>11</sup>	4.3	18.3	13.1 <sup>11</sup>	14.6	13.5	12.3	..
Italy	12.0	11.9	12.0	11.1	11.0	..	5.1	6.1	5.9	5.8	6.0	..	13.4	15.1	10.6 <sup>11</sup>	10.7	10.8	..
Netherlands <sup>2</sup>	16.0	17.9 <sup>11</sup>	22.5 <sup>11</sup>	24.4	24.8	27.2	10.2	10.6 <sup>11</sup>	10.2	10.1	7.4 <sup>11</sup>	8.0	17.9	16.8	16.2	15.7	19.4 <sup>11</sup>	..
Norway	..	..	40.9	41.7	..	46.5	..	..	13.3	13.0	..	13.1	19.5	22.8	22.3	23.7	..	24.0
Poland	..	6.5	6.4	6.0	5.6	5.5	..	6.5	6.8	6.3	6.4	6.1	..	16.3	19.1	20.4	19.7	21.1
Portugal <sup>7</sup>	2.1	2.3 <sup>11</sup>	2.5	4.0	4.6	5.2	4.2	5.8 <sup>11</sup>	6.0	6.8	7.0	7.1	11.3	12.3 <sup>11</sup>	15.4	16.3	16.7	17.0
Slovak Republic	..	8.5	13.4 <sup>11</sup>	9.8	9.3	8.5	..	14.8 <sup>11</sup>	9.8 <sup>11</sup>	9.4	9.7	9.2	..	16.0	16.4	16.5	19.2	18.4
Spain	7.3	6.6	7.1	8.7	11.6	10.6	5.1	5.1	6.2	6.9	7.1	7.5	13.1	16.9	18.2	19.4	23.4	26.3
Sweden	29.3 <sup>10</sup>	43.4 <sup>11</sup>	47.9	52.1	..	62.5	3.8 <sup>10</sup>	6.2 <sup>11</sup>	5.6	5.5	..	5.1	25.2	27.0 <sup>11</sup>	30.9	33.4	..	35.5
Switzerland <sup>3</sup>	24.8	31.6	..	..	40.3	..	1.6 <sup>10</sup>	1.4	1.1 <sup>10</sup>	..	1.0 <sup>10,11</sup>	..	18.4	21.7	22.5	..	22.7	..
Turkey	0.6	1.0	1.4	1.4	1.6	..	0.9	0.8	1.0	0.9	1.1	..	4.1	5.4	6.0	6.2	7.5	..
United Kingdom	27.8	28.8 <sup>11</sup>	28.7	31.6	29.2	31.6 <sup>11</sup>	5.2	4.8 <sup>11</sup>	4.3	5.1	5.1	3.4 <sup>11</sup>	10.1	16.5 <sup>11</sup>	16.5	..	..	..
European Union	22.1	23.1 <sup>11</sup>	24.5	26.8	27.6	14.6	7.1	7.4 <sup>11</sup>	7.2 <sup>11</sup>	7.4	7.4	3.9	14.4 <sup>11</sup>	17.4	17.4 <sup>11</sup>	18.3	..	9.9
Total OECD <sup>8</sup>	35.0	34.5 <sup>11</sup>	37.3	39.9	40.2	8.1	5.3	5.4 <sup>11</sup>	5.2	5.2	..	1.9	12.9 <sup>11</sup>	15.0 <sup>11</sup>	16.0	16.5	..	4.6

1. Or university graduates.

2. 1993 instead of 1991.

3. 1992 instead of 1991; 1996 instead of 1995; 1998 instead of 1997.

4. Adjusted by OECD up to 1995.

5. 1993 instead of 1991; 1998 instead of 1997.

6. Figures for Germany and zone totals refer to unified Germany.

7. 1992 instead of 1991.

8. Includes Czech Republic, Hungary, Korea, Poland and Slovak Republic from 1995.

9. Overestimated.

10. Underestimated

11. Break in series from previous year for which data are available.

Source: OECD, MSTI database, May 2003.

Table A.6.3.1. **Basic research as a percentage of total R&D activities and as a percentage of GDP<sup>1</sup>**

	As a percentage of all R&D activities							As a percentage of GDP						
	1991	1995	1997	1998	1999	2000	2001	1991	1995	1997	1998	1999	2000	2001
Mexico	..	35.8	23.2	..	..	..	..	..	0.09	0.07	..	..	..	..
United States	16.9	16.1	17.3	18.6	19.2	20.5	20.9	0.46	0.40	0.44	0.48	0.51	0.56	0.59
Australia <sup>2</sup>	28.4	25.8	..	26.7	..	25.9	..	0.43	0.43	..	0.40	..	0.40	..
Japan	12.3	14.2	12.0 <sup>9</sup>	12.0	12.3	12.4	12.2	0.36	0.41	0.34 <sup>9</sup>	0.35	0.36	0.37	0.38
Korea	..	12.5	13.3	14.0	13.6	12.6	12.6	..	0.31	0.36	0.36	0.34	0.33	0.37
Austria <sup>3</sup>	21.3	..	..	17.0 <sup>9</sup>	..	..	..	0.31	..	..	0.27 <sup>9</sup>	..	..	..
Czech Republic	..	17.0	18.0	17.7	20.5	36.6	40.3	..	0.17	0.21	0.22	0.25	0.49	0.53
Denmark	..	..	..	..	22.1	..	..	..	..	..	..	0.43	..	..
France	20.3	22.2	22.0 <sup>9</sup>	25.1	24.4	23.6 <sup>9</sup>	..	0.48	0.51	0.49 <sup>9</sup>	0.54	0.53	0.52 <sup>9</sup>	..
Germany <sup>4,5</sup>	20.9	20.7	..	..	..	..	..	0.47	0.44	..	..	..	..	..
Hungary <sup>6</sup>	25.0	27.9 <sup>9</sup>	27.6	29.9	29.9	29.3	30.3	0.23	0.18 <sup>9</sup>	0.17	0.17	0.17	0.19	0.24
Iceland	24.9	24.4	21.4	..	17.8	..	15.2	0.29	0.38	0.40	..	0.43	..	0.47
Ireland <sup>4</sup>	10.5	12.0	..	..	..	..	..	0.08	0.12	..	..	..	..	..
Italy <sup>7</sup>	20.3	22.1	22.2	..	..	..	..	0.25	0.22	0.22	..	..	..	..
Netherlands	14.0	9.6 <sup>9</sup>	..	..	..	..	..	0.28	0.19 <sup>9</sup>	..	..	..	..	..
Norway	14.8	16.1	16.3	..	16.6	..	16.6	0.22	0.25	0.24	..	0.25	..	0.25
Poland	..	36.4 <sup>9</sup>	33.9	34.5	36.2	38.5	37.9	..	0.22 <sup>9</sup>	0.20	0.20	0.22	0.22	0.20
Portugal <sup>6</sup>	23.8	24.9 <sup>9</sup>	29.6 <sup>9</sup>	28.6	27.8	..	..	0.15	0.14 <sup>9</sup>	0.16 <sup>9</sup>	0.17	0.18	..	..
Slovak Republic	..	24.3	19.5 <sup>9</sup>	24.8	28.8	24.9	25.7	..	0.20	0.19 <sup>9</sup>	0.17	0.17	0.15	0.16
Spain	18.3	25.3 <sup>9</sup>	22.8	..	22.0	20.5	20.2	0.13	0.17 <sup>9</sup>	0.15	..	0.16	0.16	0.15
Switzerland <sup>8</sup>	..	30.1	..	..	..	28.0	..	..	0.82	..	..	..	0.74	..

1. No corresponding data are available during the 1990s for Belgium, Canada, Finland, Greece, New Zealand, Sweden, Turkey and United Kingdom.

2. 1992 instead of 1991; 1996 instead of 1995.

3. 1993 instead of 1991.

4. 1993 instead of 1995.

5. Figures for Germany refer to unified Germany.

6. 1992 instead of 1991.

7. 1996 instead of 1997.

8. 1996 instead of 1995.

9. Break in series from previous year for which data are available.

Source: OECD, R&D database, May 2003.

Table A.6.3.2. **Basic research by main sectors of performance**  
As a percentage of GDP

	Business enterprise				Government				Higher education				Private non-profit			
	1995	1997	1999	2001	1995	1997	1999	2001	1995	1997	1999	2001	1995	1997	1999	2001
Mexico	0.00	0.00	0.00	..	0.04	0.03			0.05	0.04	0.05	..	0.00	0.00	0.01	..
United States	0.08	0.13	0.17	0.20	0.04 <sup>7</sup>	0.03 <sup>7</sup>	0.04 <sup>7</sup>	0.04 <sup>7</sup>	0.24	0.24	0.26	0.28	0.04	0.04	0.05	0.06
Australia <sup>1</sup>	0.04	0.02	0.05	..	0.11	0.10	0.10	..	0.26	0.25	0.23	..	0.02	0.02	0.03	..
Japan	0.13	0.13 <sup>9</sup>	0.12	0.13	0.06	0.05	0.07	0.08	0.21 <sup>8</sup>	0.14 <sup>9</sup>	0.15	0.15	0.02	0.02	0.02	0.01
Korea <sup>2</sup>	0.15	0.16	0.13	0.17	0.07	0.09	0.09	0.08	0.11	0.11	0.10	0.12	0.01	0.01	0.01	0.00
Austria <sup>3</sup>	..	0.04 <sup>9</sup>	..	..	..	0.02 <sup>7,9</sup>	..	..	..	0.21 <sup>9</sup>	..	..	..	0.00 <sup>9</sup>	..	..
Czech Republic	0.01	0.01	0.01	0.22	0.13	0.15	0.15 <sup>8</sup>	0.20	0.04	0.05	0.09	0.10	..	0.00	0.00	0.00
Denmark <sup>4</sup>	..	..	0.06 <sup>9</sup>	..	0.08	0.08 <sup>9</sup>	0.10	0.06	0.25	0.27 <sup>9</sup>	0.27	0.28	0.01	0.01 <sup>9</sup>	0.01	0.01
France <sup>4</sup>	0.06	0.06 <sup>9</sup>	0.06	0.06	0.11	0.08 <sup>9</sup>	0.13	0.09 <sup>9</sup>	0.33	0.33	0.32	0.36 <sup>9</sup>	0.01	0.01	0.01	0.01
Germany <sup>5</sup>	0.07	0.08	0.08	..	..	..	..	..	..	..	..	..	..	..	..	..
Hungary	0.01	0.01	0.00	0.01	0.10	0.09	0.11	0.11	0.07	0.07	0.06	0.11	..	..	..	..
Iceland	..	..	0.00	0.00	0.12	0.12	0.16	0.15	0.24	0.27	0.24	0.27	0.02	0.01	0.03	0.05
Ireland	..	0.03	0.05	0.04	..	..	..	..	..	0.11	0.10	..	..	..	..	..
Italy <sup>6</sup>	0.02	0.01	0.02	0.03	0.08	0.08	0.08	0.06	0.13	0.13	..	..	..	..	..	..
Norway	0.02	0.02	0.02	0.03	0.04	0.04	0.03	0.04	0.19	0.18	0.19	0.18	..	..	..	..
Poland	0.01 <sup>8</sup>	0.01 <sup>8</sup>	0.01 <sup>8</sup>	0.01 <sup>8</sup>	0.11 <sup>8</sup>	0.10 <sup>8</sup>	0.11 <sup>8</sup>	0.09 <sup>8</sup>	0.10 <sup>8</sup>	0.09 <sup>8</sup>	0.10 <sup>8</sup>	0.10 <sup>8</sup>	..	0.00	0.00	0.00
Portugal	0.00	0.00 <sup>9</sup>	0.00	0.01	0.01	0.01 <sup>9</sup>	0.01	..	0.10	0.12 <sup>9</sup>	0.13	..	0.03	0.02 <sup>9</sup>	0.03	..
Slovak Republic	0.03	0.03 <sup>9</sup>	0.03	0.03	0.13	0.10 <sup>9</sup>	0.09	0.08	0.04	0.06	0.05	0.05	..	..	..	..
Spain	0.02	0.02	0.03	0.02	0.03	0.03	0.03	0.03	0.11	0.10	0.10	0.10	0.00	0.00	0.00	0.00
Sweden	..	..	..	..	0.08 <sup>7</sup>	0.07	0.07 <sup>7</sup>	0.09 <sup>7</sup>	..	..	..	..	..	..	..	..
Switzerland <sup>1</sup>	0.19	..	0.21	..	0.00	0.00	0.00	..	0.57	0.53	0.49	..	0.06	..	0.04	..
Turkey <sup>3</sup>	0.01	0.01	0.01	..	0.00	0.01	0.01	..	..	..	..	..	..	..	..	..
United Kingdom	0.05	0.05	0.06	0.05 <sup>9</sup>	0.04	0.03	0.03	0.03 <sup>9</sup>	..	..	..	..	..	..	..	..

1. 1996 instead of 1995; 1998 instead of 1997; 2000 instead of 1999.
2. 1996 instead of 1995.
3. 1998 instead of 1997.
4. 2000 instead of 2001
5. Figures for Germany and zone totals refer to unified Germany.
6. 1996 instead of 1997.
7. Underestimated.
8. Overestimated.
9. Break in series from previous year for which data are available.

Source: OECD, R&D database, May 2003.

Table A.9.2.1. Researchers<sup>1</sup> per thousand total employment

	1991	1995	1997	1998	1999	2000	2001
Canada	5.1	6.5	6.6	6.2	6.1	..	..
Mexico <sup>2</sup>	0.4	0.6	0.6	0.5	0.6	..	..
United States	7.7	7.6 <sup>8</sup>	8.2	..	8.6	..	..
Australia <sup>3</sup>	6.8	7.2	..	7.2	..	7.2	..
Japan <sup>4</sup>	7.5	8.3	9.2 <sup>8</sup>	9.7	9.9	9.7	10.2
Korea	..	4.9	4.9	4.6	5.0	5.2	6.4
New Zealand	5.0	5.7 <sup>8</sup>	7.5	..	7.6	..	..
Austria <sup>2</sup>	3.3	..	..	4.7	..	..	..
Belgium	4.8	6.1 <sup>8</sup>	6.6	7.1	7.5	..	..
Czech Republic	..	..	..	..	..	..	..
Denmark	4.6	6.1	6.5	..	6.8	..	..
Finland	6.0	8.2	12.3 <sup>8</sup>	13.9	14.5	15.1	15.8
France	5.7	6.7	6.8 <sup>8</sup>	6.7	6.8	7.1 <sup>8</sup>	..
Germany <sup>5</sup>	6.3	6.2	6.3	6.3	6.7	6.7	6.7
Greece	1.7	2.5 <sup>8</sup>	2.9	..	3.7	..	..
Hungary	3.2	2.9	3.1	3.2	3.3	3.8	3.8
Ireland	4.4	4.5	5.0	5.1	4.9	5.0 <sup>8</sup>	..
Italy	3.3	3.4	3.0 <sup>8</sup>	2.9	2.9	2.9	..
Netherlands <sup>2</sup>	4.6	4.8 <sup>8</sup>	5.0 <sup>8</sup>	5.1	5.1	5.2	..
Norway	6.6	7.5 <sup>8</sup>	7.9	..	8.0	..	8.5
Poland	..	3.4	3.6	3.6	3.7	3.7	3.8
Portugal <sup>6</sup>	2.1	2.6 <sup>8</sup>	3.0	3.1	3.3	3.4	3.5
Slovak Republic	..	4.5	4.6 <sup>8</sup>	4.6	4.3	4.7	4.5
Spain	2.9	3.5	3.8	4.1	4.1	4.9	5.0
Sweden	5.9	8.2 <sup>8</sup>	9.2	..	9.6	..	10.6
Turkey	0.6	0.8	0.9	0.9	0.9	1.1	..
United Kingdom	4.6	5.3 <sup>8</sup>	5.2	5.5	..	..	..
European Union	4.7	5.2 <sup>8</sup>	5.3 <sup>8</sup>	5.5	5.6	5.8	..
Total OECD <sup>7</sup>	5.6	5.8 <sup>8</sup>	6.1	6.3	6.4	6.5	..

1. Or university graduates.

2. 1993 instead of 1991.

3. 1992 instead of 1991; 1996 instead of 1995.

4. Adjusted by OECD up to 1995.

5. Figures for Germany from 1991 onwards refer to unified Germany.

6. 1992 instead of 1991.

7. Includes Mexico from 1991, and Czech Republic, Hungary, Korea, Poland, Czech Republic and Slovak Republic from 1995.

8. Break in series from previous year for which data are available.

Source: OECD, MSTI database, May 2003.

Table A.9.2.2. Estimates of the share of OECD gross domestic expenditure on R&D (GERD) and of total number of researchers<sup>1</sup> by OECD country/zone

	Percentage											
	Share of GERD <sup>2</sup>						Share of researchers <sup>2</sup>					
	1991	1995	1997	1999	2000	2001	1991	1995	1997	1998	1999	2000
Canada	2.3	2.6	2.5	2.6	2.7	2.7	2.8	3.1	3.0	2.8	2.8	..
Mexico	..	0.4	0.5	0.6	..	..	..	0.7	0.7	0.7	0.7	..
United States	43.5	41.9	42.5	43.8	43.9	43.7	41.0	36.8 <sup>10</sup>	37.8		38.3	..
Australia <sup>3</sup>	1.2	1.4	1.3	..	1.3	..	2.1	2.1	..	2.0		2.0
Japan <sup>4</sup>	18.0	17.9	18.1 <sup>10</sup>	16.7	16.3	16.1	20.5	19.6	20.4 <sup>10</sup>	20.5	20.0	19.2
Korea	1.9	2.9	3.2	2.8	3.1	3.4		3.6	3.3	2.9	3.0	3.2
New Zealand	0.1	0.1 <sup>10</sup>	0.2	0.1	..	..	0.2	0.2 <sup>10</sup>	0.3		0.3	..
Austria	0.6	0.6	0.7	0.7	0.7	0.7	..	..	..	0.6	..	..
Belgium	0.8	0.9 <sup>10</sup>	0.9	0.9	0.9	0.9	0.8	0.8 <sup>10</sup>	0.8	0.9	0.9	..
Czech Republic	0.5	0.3 <sup>10</sup>	0.3	0.3	0.3	0.3	..	0.4 <sup>10</sup>	0.4	0.4	0.4	0.4
Denmark	0.4	0.5	0.5	0.6	..	..	0.5	0.6	0.6		0.6	..
Finland	0.4	0.5	0.6	0.7	0.7	0.7	0.6	0.6	0.9 <sup>10</sup>	1.0	1.0	1.0
France	6.8	6.3	5.6 <sup>10</sup>	5.4	5.4 <sup>10</sup>	5.4	5.4	5.4	5.0 <sup>10</sup>	4.9	4.9	5.1 <sup>10</sup>
Germany <sup>5</sup>	9.6	9.0 <sup>10</sup>	8.6	8.8	8.9	8.4	10.1	8.2	7.7	7.5	7.7	7.7
Greece	0.1	0.1 <sup>10</sup>	0.1	0.2	..	..	0.3	0.3 <sup>10</sup>	0.4	..	0.4	..
Hungary	0.2	0.2 <sup>10</sup>	0.1	0.1	0.2	0.2	0.6	0.4	0.4	0.4	0.4	0.4
Iceland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	..
Ireland	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3 <sup>10</sup>
Italy	3.3	2.6	2.6 <sup>10</sup>	2.6	2.6	..	3.1	2.7	2.1 <sup>10</sup>	2.1	2.0	2.0
Netherlands	1.4	1.5 <sup>10</sup>	1.5 <sup>10</sup>	1.5	1.4	..	..	1.2 <sup>10</sup>	1.2 <sup>10</sup>	1.2	1.2	1.2
Norway	0.4	0.4 <sup>10</sup>	0.4	0.4	..	0.4	0.6	0.6 <sup>10</sup>	0.6		0.6	..
Poland	..	0.4 <sup>10</sup>	0.4	0.5	0.4	0.4	..	1.8	1.8	1.8	1.7	1.6
Portugal <sup>6</sup>	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4 <sup>10</sup>	0.4	0.5	0.5	0.5
Slovak Republic	0.2	0.1 <sup>10</sup>	0.1 <sup>10</sup>	0.1	0.1	0.1	..	0.3	0.3 <sup>10</sup>	0.3	0.3	0.3
Spain	1.2	1.1	1.1	1.2	1.3	1.3	1.7	1.7	1.8	1.9	1.9	2.3
Sweden	1.1	1.4 <sup>10</sup>	1.4	1.4	..	1.5	1.1	1.2 <sup>10</sup>	1.2		1.2	..
Switzerland <sup>7</sup>	1.1	1.0	..	..	0.9	..	0.7	0.7 <sup>10</sup>	..	..	..	0.8
Turkey	0.4	0.3	0.4	0.4	0.4	..	0.5	0.6	0.6	0.6	0.6	0.7
United Kingdom	5.1	4.9 <sup>10</sup>	4.7	4.7	4.5	4.6	5.3	5.2 <sup>10</sup>	4.7	5.0	..	..
European Union	30.9	29.8 <sup>10</sup>	28.7	29.2	29.1	28.9	31.1	29.0 <sup>10</sup>	27.6 <sup>10</sup>	27.8	28.1	28.8
Total OECD <sup>8,9</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1. Or university graduates.

2. Based on OECD estimates for missing data.

3. 1992 instead of 1999; 1996 instead of 1995; 1997 instead of 1998.

4. Adjusted by OECD up to 1995.

5. Figures for Germany from 1991 onwards refer to unified Germany.

6. 1992 instead of 1991.

7. 1992 instead of 1991; 1996 instead of 1995.

8. Korea included in expenditures from 1991 and in researchers from 1995.

9. Includes Mexico from 1991, and Czech Republic, Hungary, Poland and Slovak Republic from 1995.

10. Break in series from previous year for which data are available.

Source: OECD, MSTI database, May 2003.

Table A.11.1. EPO<sup>1</sup> patent applications by priority year and by inventor's country of residence

	1991	1995	1999	Average annual growth rate 1991-99	Share in OECD applications to the EPO			Number of EPO patent applications per million population		
					1991	1995	1999	1991	1995	1999
Canada	548	805	1,493	13.3	0.93	1.19	1.50	19.6	27.4	48.9
Mexico	14	24	40	14.1	0.02	0.04	0.04	0.2	0.3	0.4
United States	17,401	21,005	28,109	6.2	29.45	30.98	28.32	68.7	78.9	100.7
Australia	399	487	885	10.5	0.67	0.72	0.89	22.9	26.8	46.4
Japan	11,804	12,191	17,454	5.0	19.98	17.98	17.58	95.3	97.1	137.8
Korea	168	453	972	24.6	0.28	0.67	0.98	3.9	10.0	20.9
New Zealand	44	64	135	15.2	0.07	0.09	0.14	12.5	17.5	35.5
Austria	655	670	1,043	6.0	1.11	0.99	1.05	83.9	83.2	128.9
Belgium	596	803	1,277	10.0	1.01	1.18	1.29	59.6	79.3	124.9
Czech Republic	28	19	60	9.9	0.05	0.03	0.06	2.7	1.8	5.8
Denmark	364	486	802	10.4	0.62	0.72	0.81	70.7	92.9	150.7
Finland	417	698	1,367	16.0	0.71	1.03	1.38	83.1	136.6	264.6
France	4,961	5,115	7,050	4.5	8.40	7.54	7.10	84.9	86.1	116.9
Germany	11,285	12,953	20,397	7.7	19.10	19.10	20.55	141.1	158.6	248.5
Greece	25	27	48	8.7	0.04	0.04	0.05	2.4	2.5	4.4
Hungary	56	54	107	8.4	0.09	0.08	0.11	5.4	5.3	10.5
Iceland	10	10	35	16.5	0.02	0.01	0.04	39.7	38.0	125.6
Ireland	64	96	216	16.5	0.11	0.14	0.22	18.1	26.6	57.5
Italy	2,285	2,468	3,638	6.0	3.87	3.64	3.67	40.3	43.1	63.1
Luxembourg	30	32	60	9.0	0.05	0.05	0.06	77.4	79.0	138.5
Netherlands	1,439	1,724	2,873	9.0	2.43	2.54	2.89	95.5	111.5	181.7
Norway	173	235	356	9.4	0.29	0.35	0.36	40.6	54.0	79.7
Poland	19	13	32	6.4	0.03	0.02	0.03	0.5	0.3	0.8
Portugal	10	14	36	16.7	0.02	0.02	0.04	1.1	1.4	3.5
Slovak Republic	0	7	15	..	0.00	0.01	0.02	0.0	1.3	2.9
Spain	322	386	714	10.5	0.55	0.57	0.72	8.3	9.9	18.0
Sweden	923	1,514	2,119	11.0	1.56	2.23	2.13	107.1	171.5	239.2
Switzerland	1,593	1,679	2,424	5.4	2.70	2.48	2.44	234.3	238.5	339.2
Turkey	4	5	22	22.8	0.01	0.01	0.02	0.1	0.1	0.3
United Kingdom	3,452	3,769	5,492	6.0	5.84	5.56	5.53	60.1	65.0	93.8
European Union	26,827	30,755	47,130	7.3	45.40	45.36	47.48	73.0	82.4	125.0
OECD Total	59,089	67,806	99,268	6.7	100.00	100.00	100.00	56.0	62.2	88.4
World	60,020	68,993	101,731	6.8						

1. European Patent Office.

Source: OECD, Patent database, May 2003.

Table A.11.2. "Triadic"<sup>1</sup> patent families by priority year and by inventor's country of residence

	1991	1995	1998	Average annual growth rate 1991-98	Share in OECD's "triadic" patent families			Number of patents in "triadic" patent families per million population		
					1991	1995	1998	1991	1995	1998
					Canada	294	379	511	8.2	0.97
Mexico	6	11	12	10.5	0.02	0.03	0.03	0.1	0.1	0.1
United States	10,692	12,070	14,401	4.3	35.20	34.75	35.69	42.2	45.3	52.2
Australia	165	222	271	7.4	0.54	0.64	0.67	9.5	12.2	14.4
Japan	8,924	9,326	10,230	2.0	29.38	26.85	25.35	72.0	74.3	80.9
Korea	90	326	355	21.6	0.30	0.94	0.88	2.1	7.2	7.7
New Zealand	20	21	37	9.4	0.06	0.06	0.09	5.6	5.8	9.7
Austria	179	214	260	5.5	0.59	0.62	0.64	22.9	26.6	32.2
Belgium	239	366	380	6.9	0.79	1.05	0.94	23.9	36.1	37.2
Czech Republic	10	3	10	-0.4	0.03	0.01	0.02	1.0	0.3	0.9
Denmark	113	184	220	10.0	0.37	0.53	0.54	21.9	35.1	41.4
Finland	170	314	386	12.4	0.56	0.90	0.96	33.9	61.4	74.9
France	1,793	1,923	2,044	1.9	5.90	5.54	5.07	30.7	32.4	34.0
Germany	3,742	4,757	5,736	6.3	12.32	13.69	14.21	46.8	58.3	69.9
Greece	6	1	11	9.2	0.02	0.00	0.03	0.6	0.1	1.0
Hungary	21	24	24	1.9	0.07	0.07	0.06	2.0	2.3	2.3
Iceland	3	5	11	20.4	0.01	0.01	0.03	11.6	18.7	40.2
Ireland	28	33	43	6.5	0.09	0.09	0.11	7.9	9.1	11.7
Italy	670	598	713	0.9	2.21	1.72	1.77	11.8	10.4	12.4
Luxembourg	9	13	19	11.0	0.03	0.04	0.05	23.4	31.7	44.3
Netherlands	589	736	782	4.1	1.94	2.12	1.94	39.1	47.6	49.8
Norway	61	88	117	9.7	0.20	0.25	0.29	14.3	20.3	26.4
Poland	10	3	10	0.5	0.03	0.01	0.02	0.3	0.1	0.3
Portugal	4	2	6	6.0	0.01	0.01	0.02	0.4	0.2	0.6
Slovak Republic		2	5	..	0.00	0.01	0.01	0.0	0.4	0.9
Spain	75	87	105	5.1	0.25	0.25	0.26	1.9	2.2	2.7
Sweden	411	734	951	12.7	1.35	2.11	2.36	47.7	83.1	107.4
Switzerland	730	745	848	2.2	2.40	2.15	2.10	107.4	105.8	119.2
Turkey	1	2	4	40.2	0.00	0.01	0.01	0.0	0.0	0.1
United Kingdom	1,321	1,548	1,851	4.9	4.35	4.46	4.59	23.0	26.7	31.7
European Union	9,349	11,511	13,507	5.4	30.78	33.13	33.47	25.4	30.9	35.9
OECD Total	30,376	34,740	40,353	4.1	100.00	100.00	100.00	28.8	31.9	36.2
World	30,677	35,161	40,977	4.2						

1. Patents filed all together to the European Patent Office (EPO), the US Patent and Trademark Office (USPTO) and the Japanese Patent Office (JPO).

Source: OECD, Patent database, May 2003.

Table C.2.1. Trade-to-GDP ratio<sup>1</sup>

Percentages

	Goods				Services									Goods and services							
	1990	1995	2000	2001	Average annual growth			1990	1995	2000	2001	Average annual growth			1990	1995	2000	2001	Average annual growth		
					1990-95	1995-2001	1990-2001					1990-95	1995-2001	1990-2001					1990-95	1995-2001	1990-2001
Canada	21.9	31.0	37.6	35.6	7.2	2.3	4.5	4.1	5.1	5.8	5.7	4.4	1.7	2.9	26.0	36.1	43.4	41.3	6.8	2.2	4.3
Mexico	15.7	26.6	29.4	26.5	11.1	0.0	4.9	3.5	3.4	2.7	2.4	-0.6	-5.5	-3.3	19.2	30.0	32.1	28.9	9.3	-0.6	3.8
United States	7.7	9.0	10.2	9.3	3.2	0.5	1.7	2.3	2.4	2.6	2.4	1.3	-0.1	0.5	10.0	11.5	12.8	11.7	2.8	0.4	1.5
Australia	12.7	14.8	17.1	17.0	3.2	2.3	2.7	3.9	4.5	4.7	4.5	2.9	0.1	1.4	16.6	19.3	21.8	21.5	3.1	1.8	2.4
Japan	8.1	6.9	8.4	8.4	-3.3	3.5	0.3	2.1	1.8	2.0	2.1	-2.9	2.7	0.1	10.2	8.6	10.4	10.5	-3.2	3.3	0.3
Korea	25.7	25.9	36.3	34.2	0.2	4.7	2.6	3.9	5.0	6.9	7.3	4.8	6.7	5.8	29.6	30.9	43.2	41.6	0.8	5.1	3.1
New Zealand	20.1	21.5	26.8	26.1	1.3	3.3	2.4	6.7	7.5	8.7	8.5	2.5	1.9	2.2	26.8	29.0	35.5	34.6	1.6	2.9	2.3
Austria	27.1	26.0	34.6	35.6	-0.9	5.4	2.5	11.6	12.7	16.0	17.0	1.9	4.9	3.5	38.7	38.7	50.6	52.6	0.0	5.3	2.8
Belgium-Luxembourg	52.5	51.0	66.1	65.5	-0.6	4.2	2.0	13.2	11.6	18.5	19.0	-2.5	8.5	3.3	65.7	62.7	84.6	84.5	-0.9	5.1	2.3
Czech Republic	..	44.8	59.4	61.1	..	5.3	..	..	11.2	11.9	11.1	..	-0.1	..	..	56.0	71.4	72.2	..	4.3	..
Denmark	25.2	26.1	29.9	29.6	0.7	2.1	1.5	8.6	8.1	14.7	15.9	-1.2	11.8	5.7	33.9	34.3	44.6	45.4	0.2	4.8	2.7
Finland	19.1	26.6	32.4	30.2	6.8	2.1	4.2	4.5	6.6	6.1	5.7	7.9	-2.3	2.3	23.6	33.1	38.5	35.9	7.0	1.3	3.9
France	17.7	17.6	22.6	22.1	-0.2	3.9	2.0	5.7	4.8	5.5	5.5	-3.1	2.0	-0.3	23.4	22.4	28.1	27.6	-0.8	3.5	1.5
Germany	22.5	20.0	27.9	28.4	-2.4	6.0	2.1	4.3	4.3	5.9	6.1	-0.4	6.2	3.2	26.9	24.2	33.8	34.5	-2.1	6.0	2.3
Greece	13.7	11.2	17.9	17.2	-4.0	7.5	2.1	5.7	5.9	13.5	13.2	0.9	14.3	8.0	19.4	17.1	31.4	30.5	-2.5	10.1	4.2
Hungary	..	31.5	57.1	56.2	..	10.1	..	..	9.8	11.5	12.8	..	4.5	..	..	41.4	68.6	69.0	..	8.9	..
Iceland	24.6	24.6	25.5	26.9	0.0	1.4	0.8	8.9	9.6	13.2	14.2	1.6	6.7	4.3	33.5	34.3	38.7	41.0	0.4	3.0	1.9
Ireland	45.2	56.6	64.0	61.9	4.6	1.5	2.9	9.1	12.3	24.0	26.9	6.1	13.9	10.3	54.3	68.9	88.1	88.7	4.9	4.3	4.6
Italy	15.5	19.6	21.9	21.5	4.7	1.6	3.0	4.4	5.3	5.2	5.3	4.0	-0.2	1.7	19.9	24.9	27.1	26.7	4.6	1.2	2.7
Netherlands	42.1	44.3	52.7	50.5	1.0	2.2	1.7	10.0	11.2	14.2	14.1	2.2	3.9	3.1	52.2	55.5	67.0	64.6	1.2	2.6	2.0
Norway	26.1	25.7	28.5	27.6	-0.3	1.2	0.5	10.8	9.1	9.5	9.8	-3.4	1.3	-0.9	36.9	34.8	38.1	37.5	-1.2	1.2	0.1
Poland	23.8	20.4	26.7	25.8	-3.1	4.0	0.7	5.1	7.0	6.1	5.3	6.5	-4.5	0.3	28.9	27.4	32.8	31.1	-1.1	2.2	0.7
Portugal	27.7	26.6	30.2	29.0	-0.8	1.5	0.4	6.4	6.9	7.1	6.9	1.7	-0.1	0.7	34.1	33.5	37.3	35.9	-0.4	1.2	0.5
Slovak Republic	..	45.5	62.5	..	..	..	..	..	11.0	10.2	..	..	..	..	..	56.5	72.8	..	..	..	..
Spain	13.8	17.6	23.8	22.9	5.0	4.5	4.7	4.3	5.3	7.6	7.8	4.1	6.8	5.6	18.1	22.9	31.4	30.7	4.8	5.0	4.9
Sweden	22.4	28.9	33.3	31.6	5.2	1.5	3.2	6.3	6.6	9.1	10.3	1.1	7.6	4.6	28.7	35.6	42.4	41.8	4.4	2.7	3.5
Switzerland	35.7	31.1	39.1	38.7	-2.7	3.7	0.7	6.6	6.7	9.3	8.7	0.3	4.6	2.6	42.3	37.8	48.3	47.4	-2.3	3.9	1.0
Turkey	11.8	16.9	21.0	25.2	7.4	6.9	7.1	3.7	5.8	7.4	7.9	9.5	5.3	7.2	15.5	22.7	28.4	33.1	7.9	6.5	7.1
United Kingdom	20.1	22.2	21.4	20.9	2.0	-1.0	0.3	5.3	6.4	7.5	7.3	3.6	2.3	2.9	25.4	28.5	28.9	28.1	2.3	-0.2	0.9
European Union	21.5	22.7	27.8	27.5	1.1	3.2	2.2	5.6	6.0	7.8	8.0	1.2	4.9	3.2	27.1	28.7	35.6	35.4	1.1	3.6	2.5
Total OECD <sup>2</sup>	14.7	15.4	18.0	17.4	0.8	2.1	1.5	3.8	3.9	4.5	4.5	0.4	2.5	1.5	18.6	19.3	22.5	22.0	0.7	2.2	1.5

1. Average of imports and exports as a share of nominal GDP.

2. Excludes the Czech Republic, Hungary and the Slovak Republic in 1990 and in growth rates, as well as the Slovak Republic in 2001.

Source: IMF, Balance of Payments Statistics and OECD ANA database, July 2003.



Table C.2.2.1. Export ratio by industry<sup>1</sup>

	Total manufacturing		High-technology industries												Medium-high-technology industries											
			Total		Aircraft and spacecraft		Pharmaceuticals		Office, accounting and computing machinery		Radio, television and communication equipment		Medical, precision and optical instruments		Total		Electrical machinery and apparatus, n.e.c.		Motor vehicles, trailers and semi-trailers		Chemicals excluding pharmaceuticals		Railroad equipment and transport equipment, n.e.c.		Machinery and equipment, n.e.c.	
Canada <sup>2</sup>	38	55	58	79	83	89	8	29	108	137	41	56	..	..	57	75	31	81	77	82	34	54	36	44	40	73
United States	12	16	23	31	33	46	8	12	44	43	21	32	14	24	19	21	22	32	17	16	17	21	11	10	23	25
Japan <sup>3</sup>	12	16	25	29	13	27	4	5	31	35	25	27	42	65	18	25	15	23	23	28	13	20	..	..	17	24
Australia	16	21	29	41	38	40	13	26	162	116	13	25	33	67	12	20	11	25	10	17	11	18	6	5	17	26
Austria	45	60	56	89	..	..	55	91	1082	235	35	61	74	94	71	92	83	90	93	125	56	77	26	66	70	80
Denmark <sup>4</sup>	55	63	100	103	..	..	87	80	238	273	88	118	96	98	73	76	54	65	111	115	60	75	180	217	72	71
Finland	34	46	57	55	7	10	36	50	72	88	60	53	69	64	43	58	43	83	97	156	36	47	16	20	40	47
France	28	37	42	57	70	58	22	42	60	110	40	66	28	37	41	49	35	49	41	43	47	58	33	41	39	52
Germany	32	42	54	85	103	119	45	72	46	111	53	85	49	67	41	50	24	34	46	51	46	56	49	30	43	53
Italy	22	32	29	45	48	68	11	31	78	77	24	48	30	46	33	45	18	25	40	49	21	32	30	39	43	57
Norway	38	40	65	64	35	156	65	51	191	136	57	67	53	42	52	62	28	38	98	77	67	86	10	28	45	52
Portugal	27	38	40	62	..	..	10	23	159	128	48	75	59	60	35	66	54	94	53	85	21	34	29	27	31	51
Spain	18	29	26	48	117	83	11	28	48	65	24	66	20	37	33	48	21	37	48	61	19	35	7	40	31	43
Sweden	38	51	63	69	48	82	61	74	91	113	62	69	59	50	48	60	44	90	51	52	41	68	14	33	51	62
United Kingdom	31	37	59	76	78	71	42	61	70	101	50	80	50	59	45	50	34	46	45	48	46	53	20	20	50	52
EU <sup>5</sup> (excl. intra-EU)	11	16	21	31	47	42	15	26	15	30	17	29	20	29	15	20	10	18	11	15	16	22	14	12	20	27
EU <sup>6</sup>	29	39	48	68	77	76	29	52	60	103	44	70	43	55	40	50	26	40	43	50	40	51	31	36	44	55
OECD <sup>7</sup>	20	26	32	43	46	57	17	28	46	57	28	40	28	41	29	36	22	34	32	35	26	34	33	32	31	38

1. Exports as a percentage of production. Values greater than 100 can occur when exports exceed production because of the inclusion of re-exports - products that are imported and then re-exported without any further transformation.

2. Medical, precision and optical instruments is included in Manufacturing, n.e.c. and recycling.

3. Railroad equipment and transport equipment, n.e.c. is included in Motor vehicles.

4. Aircraft and spacecraft is included in Railroad equipment and transport equipment, n.e.c.

5. Excludes intra-EU trade. European Union includes Austria, Denmark, Finland, France, Germany, Italy, Portugal, Spain, Sweden and United Kingdom.

6. Includes intra-EU trade. European Union includes Austria, Denmark, Finland, France, Germany, Italy, Portugal, Spain, Sweden and United Kingdom.

7. Calculated with the above countries.

Source: OECD, STAN and Bilateral Trade database, May 2003.

Table C.2.2.1. Export ratio by industry<sup>1</sup> (cont.)

	Medium-low-technology industries												Low-technology industries													
	Total		Coke, refined petroleum products and nuclear fuel		Rubber and plastic products		Other non-metallic mineral products		Building and repairing of ships and boats		Basic metals		Fabricated metal products, except machinery and equipment		Total		Manufacturing, n.e.c. and recycling		Wood and products of wood and cork		Pulp, paper, paper products, printing and publishing		Food products, beverages and tobacco		Textiles, textile products, leather and footwear	
	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999
Canada <sup>2</sup>	29	39	22	25	24	43	15	34	8	67	53	52	13	29	26	40	19	56	54	68	42	43	12	22	9	39
United States	6	7	5	5	7	10	6	6	8	8	10	10	4	6	6	7	8	13	6	4	5	6	5	6	7	12
Japan <sup>3</sup>	6	8	1	1	14	16	5	6	54	58	6	9	4	5	3	3	5	8	0	0	2	2	1	1	6	8
Australia	19	23	17	26	4	7	2	4	14	49	40	46	5	4	13	16	8	12	10	10	3	4	17	22	15	26
Austria	38	42	5	14	62	64	25	23	35	393	55	59	35	36	30	43	32	48	37	40	43	49	8	21	62	88
Denmark <sup>4</sup>	40	43	38	35	53	56	29	26	40	68	54	71	34	34	49	55	58	58	40	41	19	17	53	59	81	150
Finland	31	37	24	37	29	32	12	23	51	63	47	51	18	21	29	39	19	26	41	47	48	53	4	9	33	44
France	20	23	15	14	25	31	16	19	16	17	42	39	11	14	19	25	18	23	12	17	12	16	19	24	30	45
Germany	23	28	14	22	26	34	17	19	36	53	36	44	15	19	20	24	27	30	10	13	16	20	13	16	46	70
Italy	16	21	13	14	22	29	17	23	15	51	22	24	11	15	18	26	33	45	5	8	9	13	9	15	29	39
Norway	55	44	62	82	34	32	13	10	55	26	81	76	26	20	19	23	21	25	17	18	23	24	17	23	34	43
Portugal	16	24	18	18	14	33	18	19	8	10	15	47	17	26	28	31	25	21	41	39	20	24	9	12	47	53
Spain	16	21	24	17	17	29	10	18	38	46	26	29	9	12	9	18	10	21	6	10	8	13	7	15	14	28
Sweden	35	42	43	51	42	52	14	27	39	26	49	56	23	27	26	36	32	42	26	44	39	45	6	13	53	102
United Kingdom	21	23	24	26	21	22	16	16	15	22	34	41	12	14	15	17	25	22	3	6	11	11	13	15	29	38
EU <sup>5</sup> (excl. intra-EU)	7	10	8	10	7	11	6	9	18	30	11	14	4	7	6	9	10	14	3	6	5	6	5	6	11	18
EU <sup>6</sup>	21	26	18	20	25	33	16	20	26	38	34	39	13	17	19	25	26	32	13	19	16	20	14	19	32	46
OECD <sup>7</sup>	14	16	9	10	18	21	11	13	29	34	18	22	9	11	12	15	13	19	11	14	10	12	9	11	20	29

1. Exports as a percentage of production. Values greater than 100 can occur when exports exceed production because of the inclusion of re-exports - products that are imported and then re-exported without any further transformation.

2. Medical, precision and optical instruments is included in Manufacturing, n.e.c. and recycling.

3. Railroad equipment and transport equipment, n.e.c. is included in Motor vehicles.

4. Aircraft and spacecraft is included in Railroad equipment and transport equipment, n.e.c.

5. Excludes intra-EU trade. European Union includes Austria, Denmark, Finland, France, Germany, Italy, Portugal, Spain, Sweden and United Kingdom.

6. Includes intra-EU trade. European Union includes Austria, Denmark, Finland, France, Germany, Italy, Portugal, Spain, Sweden and United Kingdom.

7. Calculated with the above countries.

Source: OECD, STAN and Bilateral Trade database, May 2003.

Table C.2.2.2. Import penetration by industry<sup>1</sup>

	Total manufacturing		High-technology industries												Medium-high-technology industries											
			Total		Aircraft and spacecraft		Pharmaceuticals		Office, accounting and computing machinery		Radio, television and communication equipment		Medical, precision and optical instruments		Total		Electrical machinery and apparatus, n.e.c.		Motor vehicles, trailers and semi-trailers		Chemicals excluding pharmaceuticals		Railroad equipment and transport equipment, n.e.c.		Machinery and equipment, n.e.c.	
			1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999
Canada <sup>2</sup>	40	55	71	86	80	87	27	57	104	114	55	67	..	..	62	76	58	91	76	77	37	61	34	37	65	84
United States	15	21	21	32	13	25	7	15	48	56	31	35	12	21	21	26	25	40	31	30	10	17	18	19	19	24
Japan <sup>3</sup>	7	10	9	18	47	52	7	9	9	25	5	12	22	52	4	7	4	10	3	4	8	11	..	..	4	7
Australia	24	34	66	75	78	76	32	49	110	103	48	70	68	85	35	49	36	54	30	46	29	40	36	44	48	63
Austria	48	62	68	93	..	..	61	93	146	125	42	66	81	96	75	92	78	89	96	123	67	83	30	55	70	77
Denmark <sup>4</sup>	54	62	100	104	..	..	76	58	131	133	89	116	95	97	76	79	59	65	105	105	75	81	126	171	65	65
Finland	29	35	69	47	60	75	56	72	86	93	64	31	74	58	50	59	42	81	98	124	47	53	27	40	41	40
France	29	35	43	54	61	44	18	37	70	107	47	63	32	41	39	46	30	44	35	37	44	54	38	47	43	52
Germany	29	36	57	85	103	120	36	60	59	105	59	85	40	57	29	35	17	28	35	34	36	48	45	40	25	33
Italy	21	28	40	55	51	69	17	33	83	89	43	61	42	54	31	41	15	21	48	58	36	44	23	30	24	34
Norway	45	47	83	82	68	108	74	63	118	108	76	83	74	58	65	75	50	54	99	94	63	82	37	73	66	71
Portugal	35	47	68	82	..	..	34	57	105	102	64	82	89	87	63	79	58	93	79	91	45	62	60	54	67	75
Spain	24	34	52	68	106	91	18	42	73	83	52	81	58	66	40	54	32	41	41	61	34	46	30	40	50	57
Sweden	35	44	62	59	51	83	43	52	95	103	57	50	59	48	45	56	49	90	40	43	52	77	25	38	45	52
United Kingdom	33	41	58	76	69	67	30	55	74	101	56	81	49	58	44	52	35	48	49	58	43	49	32	43	47	50
EU <sup>5</sup> (excl. intra-EU)	10	14	27	35	46	44	11	15	37	51	29	36	23	31	9	13	8	17	6	10	11	13	19	22	10	15
EU <sup>6</sup>	29	37	52	69	75	73	25	46	71	102	53	70	43	55	35	45	23	37	39	47	40	50	35	41	34	44
OECD <sup>7</sup>	19	26	30	43	37	49	16	27	48	65	28	38	26	38	25	32	20	33	28	34	24	31	30	31	24	31

1. Imports as a percentage of domestic demand (estimated as production minus exports plus imports). Values greater than 100 can occur when exports exceed production because of the inclusion of re-exports - products that are imported and then re-exported without any further transformation.

2. Medical, precision and optical instruments is included in Manufacturing, n.e.c. and recycling.

3. Railroad equipment and transport equipment, n.e.c. is included in Motor vehicles.

4. Aircraft and spacecraft is included in Railroad equipment and transport equipment, n.e.c.

5. Excludes intra-EU trade. European Union includes Austria, Denmark, Finland, France, Germany, Italy, Portugal, Spain, Sweden and United Kingdom.

6. Includes intra-EU trade. European Union includes Austria, Denmark, Finland, France, Germany, Italy, Portugal, Spain, Sweden and United Kingdom.

7. Calculated with the above countries.

Source: OECD, STAN and Bilateral Trade database, May 2003.

Table C.2.2.2. Import penetration by industry<sup>1</sup> (cont.)

	Medium-low-technology industries												Low-technology industries														
	Total		Coke, refined petroleum products and nuclear fuel		Rubber and plastic products		Other non-metallic mineral products		Building and repairing of ships and boats		Basic metals		Fabricated metal products, except machinery and equipment		Total		Manufacturing, n.e.c. and recycling		Wood and products of wood and cork		Pulp, paper, paper products, printing and publishing		Food products, beverages and tobacco		Textiles, textile products, leather and footwear		
	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991	1999	1991
Canada <sup>2</sup>	25	36	10	13	34	46	27	41	12	53	35	42	23	36	20	30	32	57	15	19	20	25	12	19	37	58	
United States	10	12	10	11	9	11	10	12	2	6	15	19	6	8	11	15	26	35	8	12	4	5	5	6	27	38	
Japan <sup>3</sup>	6	6	12	9	4	4	3	4	7	3	7	7	2	3	8	11	6	8	16	23	2	3	9	10	13	28	
Australia	14	20	16	15	22	29	10	12	22	50	14	23	10	13	14	19	25	36	13	12	14	16	7	9	30	48	
Austria	37	43	26	34	59	66	21	26	40	418	50	53	34	37	31	42	39	53	20	23	33	38	11	23	70	91	
Denmark <sup>4</sup>	45	45	49	41	51	55	25	27	40	41	77	81	31	33	38	49	36	46	48	50	28	29	30	40	85	135	
Finland	26	26	26	28	37	34	15	19	27	11	33	34	19	17	13	18	29	33	6	8	8	9	6	15	55	66	
France	22	23	22	17	26	30	16	18	11	14	43	41	11	13	22	26	27	31	17	21	18	20	16	19	38	54	
Germany	22	24	29	28	22	27	17	17	18	32	37	42	12	14	27	29	31	36	20	19	17	17	16	18	62	79	
Italy	16	17	18	16	15	19	7	8	15	19	36	38	5	6	14	18	11	16	14	17	11	15	16	18	13	21	
Norway	53	40	39	55	60	61	26	23	54	25	74	67	46	38	24	28	48	48	17	25	20	23	10	14	80	85	
Portugal	27	36	29	28	31	51	10	14	8	14	62	79	23	33	21	28	33	32	9	18	17	25	16	24	28	38	
Spain	17	20	28	16	19	31	8	10	13	29	26	35	12	14	13	20	15	22	13	18	14	17	10	16	19	30	
Sweden	35	37	45	45	49	53	24	32	66	14	39	49	20	21	21	28	38	41	7	13	12	15	13	22	81	101	
United Kingdom	23	24	20	20	24	25	17	17	15	8	40	48	14	15	24	27	35	34	29	31	18	16	18	21	44	58	
EU <sup>5</sup> (excl. intra-EU)	7	8	11	9	5	8	3	4	10	13	14	16	3	5	8	11	12	16	8	10	4	4	5	5	17	28	
EU <sup>6</sup>	21	24	25	21	23	29	13	15	19	19	38	42	11	14	21	26	25	31	18	20	16	18	16	20	36	49	
OECD <sup>7</sup>	14	16	16	14	17	20	10	13	16	14	20	24	8	11	15	19	18	26	14	17	9	10	11	13	30	42	

1. Imports as a percentage of domestic demand (estimated as production minus exports plus imports). Values greater than 100 can occur when exports exceed production because of the inclusion of re-exports - products that are imported and then re-exported without any further transformation.

2. Medical, precision and optical instruments is included in Manufacturing, n.e.c. and recycling.

3. Railroad equipment and transport equipment, n.e.c. is included in Motor vehicles.

4. Aircraft and spacecraft is included in Railroad equipment and transport equipment, n.e.c.

5. Excludes intra-EU trade. European Union includes Austria, Denmark, Finland, France, Germany, Italy, Portugal, Spain, Sweden and United Kingdom.

6. Includes intra-EU trade. European Union includes Austria, Denmark, Finland, France, Germany, Italy, Portugal, Spain, Sweden and United Kingdom.

7. Calculated with the above countries.

Source: OECD, STAN and Bilateral Trade database, May 2003.

Table C.3.1. Outward and inward foreign direct investment flows  
Billion USD

	Outward flows											Inward flows												
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Australia	1.0	1.2	5.1	1.9	2.8	3.3	7.1	6.4	3.4	-3.0	5.1	11.6	8.1	4.3	5.7	4.3	5.0	12.0	6.2	7.6	6.0	5.7	11.5	4.4
Austria	1.7	1.3	1.7	1.2	1.3	1.1	1.8	2.0	2.8	3.3	5.6	3.0	0.7	0.4	1.4	1.1	2.1	1.9	4.5	2.6	4.7	3.0	8.5	5.9
Belgium-Luxembourg	6.3	6.3	11.4	4.9	1.4	11.6	8.0	7.3	28.8	121.7	229.4	66.4	8.0	9.4	11.3	10.8	8.5	10.7	14.1	12.0	22.7	133.1	234.8	50.5
Canada	5.2	5.8	3.5	5.7	9.3	11.5	13.1	23.1	34.1	15.6	47.3	35.6	7.6	2.9	4.8	4.7	8.2	9.3	9.6	11.5	22.7	24.5	66.0	27.4
Czech Republic	..	..	..	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.0	0.1	..	..	..	0.7	0.9	2.6	1.4	1.3	3.7	6.3	5.0	4.9
Denmark	1.5	1.9	2.2	1.4	4.2	3.0	2.5	4.4	4.2	17.0	27.7	9.6	1.1	1.6	1.0	1.7	5.0	4.1	0.8	2.8	6.7	16.1	35.5	7.2
Finland	2.8	-0.1	-0.8	1.4	4.4	1.5	3.6	5.3	18.7	6.7	23.9	8.4	0.8	-0.2	0.4	0.9	1.5	1.0	1.1	2.1	12.0	4.6	9.1	3.4
France	34.8	23.9	31.3	20.6	24.4	15.8	30.4	35.5	45.7	119.5	169.5	83.2	13.2	15.2	21.8	20.8	15.8	23.7	22.0	23.0	29.5	46.6	43.2	52.5
Germany	24.2	23.7	19.7	15.3	17.3	39.1	50.8	42.7	89.9	109.4	53.0	42.7	2.5	4.1	2.6	1.9	1.9	12.0	6.4	12.8	23.6	54.6	207.7	31.5
Greece	..	..	..	..	..	..	..	..	..	0.5	2.1	0.6	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.0	..	0.6	1.1	1.6
Hungary	..	..	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.3	0.5	0.3	..	1.5	1.5	2.3	1.1	4.5	2.3	2.2	2.0	2.0	1.6	2.4
Iceland	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.4	..	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	..
Ireland	0.4	0.2	0.2	0.2	0.4	0.8	0.7	1.0	5.0	6.1	4.0	5.4	0.6	1.4	1.4	1.1	0.8	1.4	2.6	2.7	11.0	18.6	22.8	9.9
Italy	7.4	7.5	4.1	7.3	5.2	7.0	8.7	10.4	12.4	6.7	12.1	21.8	6.4	2.4	3.1	3.7	2.2	4.8	3.5	3.7	2.6	6.9	13.2	14.9
Japan	50.5	31.6	17.4	13.8	18.1	22.5	23.4	26.1	24.6	22.3	31.5	38.5	1.8	1.3	2.8	0.1	0.9	0.0	0.2	3.2	3.3	12.3	8.2	6.2
Korea	1.1	1.5	1.2	1.3	2.5	3.6	4.7	4.4	4.7	4.2	5.0	2.6	0.8	1.2	0.7	0.6	0.8	1.8	2.3	2.8	5.4	9.3	9.3	3.2
Mexico	..	..	..	..	..	..	..	..	..	..	..	3.7	2.6	4.8	4.4	4.4	11.0	9.5	9.2	12.8	11.9	12.5	14.2	24.7
Netherlands	13.7	12.8	12.8	10.0	17.6	20.0	31.7	24.0	36.8	57.0	69.5	39.7	10.7	5.6	6.2	6.4	7.1	12.2	16.6	11.1	37.6	41.2	57.4	51.2
New Zealand	1.6	0.7	-0.8	1.3	1.7	-0.3	-1.5	0.0	0.9	0.8	0.9	0.3	1.7	1.3	2.1	2.3	2.5	3.7	2.2	2.6	1.2	1.4	3.3	1.7
Norway	1.5	1.8	-0.1	0.7	2.2	2.9	5.9	5.0	3.2	6.0	8.5	-1.1	1.0	-0.4	-0.7	1.0	2.7	2.4	3.2	3.9	4.4	8.1	5.8	2.2
Poland	..	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	-0.1	0.1	0.3	0.7	1.7	1.9	3.7	4.5	4.9	6.4	7.3	9.3	5.7
Portugal	0.2	0.5	0.7	0.1	0.3	0.7	1.0	2.2	3.9	3.0	7.7	7.9	2.6	2.4	1.9	1.5	1.3	0.7	1.7	2.5	3.2	1.2	6.5	5.9
Slovak Republic	..	..	..	0.1	0.0	0.0	0.0	0.1	0.1	-0.4	0.0	..	..	..	..	0.2	0.3	0.2	0.4	0.2	0.6	0.4	2.1	..
Spain	3.5	4.4	2.2	3.2	4.1	4.2	5.6	12.4	19.1	41.8	53.9	27.7	14.0	12.5	13.3	9.7	9.2	6.3	6.8	6.4	11.9	15.5	36.9	21.5
Sweden	14.6	7.3	0.4	1.5	6.7	11.4	5.1	12.1	22.7	19.6	40.0	7.0	2.0	6.4	0.0	3.7	6.3	14.9	5.5	10.3	19.4	59.4	22.1	13.1
Switzerland	7.2	6.5	6.1	8.8	10.8	12.2	16.2	17.7	18.8	33.3	42.7	11.1	6.0	3.2	1.2	0.9	4.1	3.6	4.4	7.3	9.6	12.3	20.0	8.6
Turkey	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.3	0.4	0.6	0.9	0.5	0.7	0.8	0.8	0.6	0.6	0.9	0.7	0.8	0.9	0.8	1.0	3.3
United Kingdom	20.1	16.8	19.7	27.3	34.9	45.3	34.8	62.4	122.1	201.6	266.2	34.2	33.5	16.5	16.6	16.5	10.7	21.7	27.4	37.4	74.7	89.5	119.9	63.1
United States	37.2	37.9	48.3	84.0	80.2	98.8	91.9	104.8	142.6	188.9	178.3	127.8	48.5	23.2	19.8	51.4	46.1	57.8	86.5	105.6	179.0	289.4	307.7	130.8
European Union <sup>1</sup>	131.2	106.4	105.6	94.3	122.0	161.5	184.7	221.7	412.0	714.0	964.5	357.6	97.2	78.6	82.2	80.8	73.5	116.7	114.1	130.4	259.6	491.0	818.7	332.3
OECD Total <sup>1</sup>	236.4	193.5	186.4	212.0	249.8	316.1	345.7	410.1	645.9	982.8	1285.8	588.5	176.1	122.8	126.0	156.2	159.7	228.7	247.3	297.4	517.0	883.3	1284.0	557.9

1. Excluding missing countries.

Source: IMF, Balance of Payments Statistics.

Table C.4.1. Share of affiliates under foreign control in manufacturing employment and turnover<sup>1</sup>

	Employment								Turnover <sup>1</sup>							
	Share of affiliates							Average annual growth rate 1995-00	Share of affiliates							Average annual growth rate 1995-00
	1995	1996	1997	1998	1999	2000	2001		1995	1996	1997	1998	1999	2000	2001	
Canada <sup>2</sup>	..	..	..	..	..	..	..	..	51.2	50.9	49.6	50.3	51.4	..	..	4.1
United States	12.3	12.4	12.0	13.5	14.0	14.3	..	3.1	16.4	16.8	17.6	21.1	22.2	23.0	..	9.9
Japan <sup>2</sup>	0.7	0.8	..	..	..	..	..	..	1.3	1.2	1.6	1.8	2.5	..	..	17.9
Austria	17.9	..	19.0	18.6	..	19.6	..	1.1	23.3	..	26.3	26.1	..	27.1	..	6.7
Belgium	..	18.1	19.1	..	..	..	..	..	..	46.2	47.5	..	..	..	..	..
Czech Republic <sup>3</sup>	..	..	10.7	13.2	16.2	24.9	..	12.1	..	..	17.8	21.7	27.1	39.5	..	9.5
Denmark	..	..	..	11.4	10.2	..	..	..	..	..	..	11.7	12.0	..	..	..
Finland <sup>4</sup>	9.7	11.3	12.4	13.8	15.9	15.9	17.2	10.4	10.1	12.7	13.7	14.3	16.2	14.4	16.2	12.7
France <sup>3</sup>	25.1	25.8	27.4	27.8	29.5	..	..	5.4	31.0	31.2	32.0	31.7	33.3	..	..	7.8
Germany	7.2	7.0	6.7	6.0	6.2	4.2	..	-11.4	13.1	12.8	12.5	10.8	10.1	5.9	..	-11.1
Hungary	37.4	35.6	41.2	45.0	46.5	47.2	..	5.8	56.6	62.4	66.1	70.1	73.0	73.7	..	23.6
Ireland	47.1	47.0	47.8	47.5	49.1	48.1	..	3.4	65.2	66.4	69.2	72.3	75.9	78.2	..	16.2
Italy <sup>2</sup>	12.3	..	13.4	..	13.8	..	..	2.9	20.6	..	21.8	..	22.4	..	..	3.5
Luxembourg <sup>2</sup>	41.2	41.8	42.7	46.3	41.4	..	..	-0.1	46.5	48.4	49.4	52.4	52.9	..	..	3.1
Netherlands <sup>2</sup>	20.1	19.0	19.7	21.9	18.9	..	..	0.0	30.3	29.7	30.4	32.1	30.8	..	..	3.1
Norway <sup>2</sup>	15.0	14.3	14.2	17.4	19.9	..	..	12.9	19.5	18.9	19.9	23.9	27.5	..	..	18.2
Poland <sup>3</sup>	..	..	12.5	14.8	18.6	20.9	..	9.7	..	..	19.4	26.1	33.8	34.7	..	21.9
Portugal <sup>5</sup>	..	7.9	8.3	8.8	8.9	10.1	..	3.5	..	15.0	15.4	16.4	15.9	17.4	..	3.3
Spain	..	..	..	..	16.5	16.8	..	..	..	..	..	..	29.9	29.7	..	..
Sweden	19.9	19.9	19.0	21.1	24.1	29.1	..	11.0	21.6	20.8	19.6	21.9	29.0	34.3	..	16.9
Turkey	5.6	5.6	5.3	5.5	5.9	5.7	..	3.4	12.4	12.8	12.3	11.6	13.2	14.0	..	4.7
United Kingdom <sup>2</sup>	16.3	19.2	17.8	..	20.4	..	..	4.5	30.6	33.2	31.4	..	36.1	..	..	11.6

1. Production instead of turnover for Canada and Ireland. National currency, 1995 prices.

2. 1995-99.

3. 1997-00.

4. 1996-01.

5. 1996-00.

Source: OECD, AFA and FATS databases, May 2003.

Table C.5.4. Technology balance of payments

	Million USD						As a percentage of GDP						Receipts/payments ratio (%)	
	Receipts		Payments		Balance		Receipts		Payments		Balance			
	1990	2001	1990	2001	1990	2001	1990	2001	1990	2001	1990	2001	1990	2001
Canada <sup>1</sup>	845.8	2 583.7	846.6	1 299.6	- 0.9	1 284.1	0.15	0.37	0.15	0.18	0.00	0.18	100	199
Mexico	74.7	40.8	386.8	418.5	- 312.1	- 377.7	0.03	0.01	0.15	0.07	-0.12	-0.06	19	10
United States	16 634.0	38 668.0	3 135.0	16 359.0	13 499.0	22 309.0	0.29	0.39	0.05	0.16	0.23	0.22	531	236
Australia <sup>2</sup>	104.6	103.0	292.0	224.9	- 187.4	- 121.9	0.03	0.03	0.09	0.06	-0.06	-0.03	36	46
Japan <sup>1</sup>	2 343.7	9 816.3	2 568.6	4 113.5	- 224.8	5 702.8	0.08	0.21	0.09	0.09	-0.01	0.12	91	239
Korea <sup>3</sup>	21.8	193.0	1 087.0	2 686.0	- 1 065.2	- 2 493.0	0.01	0.05	0.43	0.66	-0.42	-0.61	2	7
New Zealand <sup>3</sup>	21.5	7.9	20.3	3.7	1.2	4.2	0.05	0.01	0.05	0.01	0.00	0.01	106	214
Austria <sup>1,4</sup>	89.9	2 429.5	284.8	2 425.8	- 194.9	3.7	0.06	1.29	0.18	1.29	-0.12	0.00	32	100
Belgium-Luxembourg	1 885.4	5 632.2	2 522.5	4 466.2	- 637.1	1 166.0	0.96	2.45	1.28	1.95	-0.32	0.51	75	126
Czech Republic	..	172.2	..	92.9	..	79.2	..	0.30	..	0.16	..	0.14	..	185
Denmark <sup>3</sup>	..	1 657.3	..	1 055.3	..	602.0	..	0.95	..	0.61	..	0.35	..	157
Finland	49.9	572.7	315.4	526.2	- 265.4	46.5	0.04	0.47	0.23	0.43	-0.19	0.04	16	109
France	1 896.1	3 196.4	2 507.4	2 695.3	- 611.4	501.1	0.16	0.24	0.21	0.21	-0.05	0.04	76	119
Germany	6 334.8	13 896.2	6 941.2	20 606.7	- 606.4	- 6 710.5	0.42	0.75	0.46	1.11	-0.04	-0.36	91	67
Greece	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hungary <sup>3</sup>	..	216.1	..	503.7	..	- 287.6	..	0.45	..	1.05	..	-0.60	..	43
Iceland	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ireland	..	343.6	..	8 766.9	..	- 8 423.3	..	0.33	..	8.49	..	-8.15	..	4
Italy <sup>4</sup>	705.5	2 683.7	1 226.1	3 439.8	- 520.6	- 756.2	0.06	0.25	0.11	0.32	-0.05	-0.07	58	78
Netherlands	4 209.2	..	4 057.1	..	152.1	..	1.48	..	1.43	..	0.05	..	104	..
Norway <sup>1</sup>	450.6	1 057.1	545.0	1 283.8	- 94.4	- 226.8	0.39	0.64	0.47	0.77	-0.08	-0.14	83	82
Poland <sup>1</sup>	..	136.0	..	813.4	..	- 677.4	..	0.09	..	0.52	..	-0.43	..	17
Portugal	..	272.9	..	580.8	..	- 307.8	..	0.25	..	0.53	..	-0.28	..	47
Slovak Republic	..	30.4	..	64.9	..	- 34.4	..	0.15	..	0.32	..	-0.17	..	47
Spain <sup>2,4</sup>	400.1	190.4	2 176.4	1 025.7	- 1 776.3	- 835.3	0.08	0.03	0.44	0.17	-0.36	-0.14	18	19
Sweden	208.1	..	75.3	..	132.8	..	0.19	..	0.07	..	0.12	..	276	..
Switzerland	1 867.5	3 263.8	733.6	1 956.6	1 133.9	1 307.2	0.82	1.32	0.32	0.79	0.50	0.53	255	167
Turkey	..	..	..	..	..	..	..	..	..	..	..	..	..	..
United Kingdom <sup>4</sup>	2 063.9	16 375.4	2 728.2	7 862.4	- 664.3	8 513.0	0.21	1.15	0.28	0.55	-0.07	0.60	76	208
European Union <sup>1,5</sup>	27 747.6	53 992.6	30 314.1	58 634.1	- 2 566.5	- 4 641.5	0.43	0.71	0.61	0.77	-0.18	-0.06	92	92
OECD Total <sup>1,5,6</sup>	50 111.6	110 262.1	39 929.1	87 089.5	10 182.6	23 172.6	0.29	0.45	0.31	0.35	-0.01	0.09	126	127

1. 2000 instead of 2001.

2. 1998 instead of 2001.

3. 1999 instead of 2001.

4. Break in series between the two years shown.

5. Including intra-zone flows. Excluding Denmark and Greece. Data partially estimated.

6. Excluding Czech Republic, Hungary, Iceland, Poland, Slovak Republic and Turkey.

Source: OECD, TBP database, May 2003.

Table D.1. Breakdown of GDP<sup>1</sup> per capita into its components, 2002

	GDP per capita (US = 100)	Effect of (%)					GDP per hour worked (US = 100)	GDP per person employed (US = 100)
		Working-age population (15-64 years to total population)	Labour force to working-age population	Unemployment	Working hours	Total effect of labour force participation		
	(1)	(2)	(3)	(4)	(5)	(6) (2) + (3) + (4) + (5)	(7) (1) - (6)	(8) (1) - (2) - (3) - (4)
Canada	85	3	2	-2	-2	1	84	82
Mexico	26	-2	-5	1	1	-5	31	32
United States	100	0	0	0	0	0	100	100
Australia	76	0	0	0	0	0	76	77
Japan	74	1	2	0	-1	2	72	72
Korea	48	3	-6	1	12	11	37	49
New Zealand	61	-1	1	0	0	0	61	61
Austria	80	2	-4	1	-15	-16	96	81
Belgium	78	-1	-12	-4	-16	-33	111	95
Czech Republic	44	2	-2	-1	4	3	41	44
Denmark	83	0	4	1	-16	-12	95	78
Finland	75	0	0	-3	-6	-9	84	78
France <sup>2</sup>	77	-2	-6	-3	-15	-27	103	88
Germany	75	1	-4	-2	-21	-26	101	80
Greece	49	1	-12	-3	4	-10	59	63
Hungary	40	1	-11	0	-1	-11	51	50
Iceland	79	-2	10	2	0	10	69	69
Ireland	89	1	-9	2	-8	-14	103	94
Italy	75	1	-16	-3	-11	-30	105	94
Luxembourg	141	1	31	4	-11	26	116	105
Netherlands	82	1	0	2	-28	-24	106	78
Norway	103	-2	6	2	-34	-29	131	97
Poland	29	1	-5	-6	.	-10	.	39
Portugal	50	1	1	0	-3	-1	51	48
Slovak Republic	36	2	-3	-6	4	-4	39	43
Spain	62	2	-9	-4	0	-12	74	73
Sweden	74	-2	2	0	-11	-11	85	74
Switzerland <sup>3</sup>	82	1	10	2	-12	1	81	68
Turkey <sup>3</sup>	17	0	-8	-1	.	-10	.	27
United Kingdom	74	-1	0	1	-5	-6	79	74
European Union	73	0	-6	-2	-11	-19	91	80
Total OECD <sup>4</sup>	75	0	-3	0	-2	-6	81	78

1. GDP converted to common currency by 2002 OECD purchasing power parities (PPP).

2. Includes overseas departments.

3. GDP estimates for Switzerland and Turkey are based on the SNA68.

4. Excludes Poland and Turkey.

Source: OECD, GDP from National Accounts database; population, working-age population, labour force and employment from Labour Force database; hours worked from OECD Employment Outlook.



Table D.2. Income and productivity levels in the OECD, 1950-2002

	GDP per capita, United States = 100						GDP per hour worked, United States = 100					
	1950	1973	1980	1990	1995	2002	1950	1973	1980	1990	1995	2002
Canada	81	86	91	85	82	85	85	86	88	85	86	84
Mexico	27	31	35	28	25	26	31	42	..	37	32	31
United States	100	100	100	100	100	100	100	100	100	100	100	100
Australia	77	76	75	70	74	76	72	69	72	71	73	76
Japan	20	67	71	81	81	74	15	47	55	68	72	72
Korea	9	15	20	33	42	48	7	10	16	26	32	37
New Zealand	94	79	68	61	61	61		81	71	65	63	61
Austria	42	73	81	80	81	80						96
Belgium	60	76	81	79	79	78	59	85	102	110	113	111
Czech Republic	50	57	58	50	45	44	..	..	..	..	39	41
Denmark	80	91	87	82	84	83	60	81	89	94	97	95
Finland	46	69	74	77	69	75	35	60	64	74	80	84
France <sup>1</sup>	55	78	82	80	78	77	46	77	88	103	106	103
Germany	42	74	78	78	80	75	39	76	88	94	104	101
Greece	24	56	57	47	46	49	..	..	..	56	55	59
Hungary	39	51	43	42	35	40	..	..	..	..	48	51
Iceland	..	72	87	82	75	79	..	59	74	73	67	69
Ireland	38	43	49	54	63	89	..	46	58	74	83	103
Italy	41	70	78	78	78	75	43	83	97	104	115	105
Luxembourg	..	98	92	115	123	141	..	..	..	..	..	116
Netherlands	67	83	84	80	81	82	59	92	106	112	113	106
Norway	63	74	91	91	101	103	57	79	101	115	128	131
Poland	29	36	35	25	26	29	..	..	..	..	..	..
Portugal	22	44	43	47	48	50	19	40	..	44	50	51
Slovak Republic	38	43	44	38	32	36	..	..	..	..	34	39
Spain	28	57	56	58	59	62	25	56	69	82	87	74
Sweden	69	78	78	75	71	74	58	79	83	81	84	85
Switzerland <sup>2</sup>	100	114	106	99	89	82	86	96	101	95	86	81
Turkey <sup>2</sup>	15	17	17	18	18	17	..	..	..	..	..	..
United Kingdom	72	72	69	71	73	74	61	64	70	74	80	79

1. Includes overseas departments.

2. GDP estimates for Switzerland and Turkey are based on the SNA68.

Source: 2002 levels from Annex Table D.1; GDP, employment and productivity from OECD productivity database; hours worked from *OECD Employment Outlook*, various issues; population from OECD Labour Force Statistics, earlier years based on Angus Maddison (2001), *The World Economy: A Millennial Perspective*, Development Centre Studies, OECD, Paris.

Table D.6.1. Share of value added in total gross value added<sup>1</sup>, current prices

		Percentages							
		Technology and knowledge-based industries							
		High technology manufactures	Medium-high technology manufactures	Post and telecommunications services	Finance and insurance services	Business activities (excluding real estate activities) <sup>2</sup>	Total with 'market' services	Education and health	Total
ISIC Rev.3		2423, 30, 32, 33, 353	24less2423, 29, 31, 34, 352, 359	64	65-67	71-74		80, 85	
Canada	1999	2.1	5.8	2.8	6.9	6.9	24.4	11.1	35.5
Mexico	2000	2.4	5.6	1.7	2.3	6.5	18.4	8.9	27.3
United States	2000	3.7	4.2	3.5	8.8	10.3	30.4	11.5	41.9
Australia	2000	3.3 <sup>3</sup>	→	3.1	7.1	11.5	25.0	10.9	35.9
Japan	2000	3.9	6.0	1.6	6.4	7.8	25.7	..	..
Korea	2000	7.0	7.0	2.1	6.6	4.0	26.8	7.6	34.4
Austria	2000	2.1	5.4	2.0	6.8	7.9	24.2	9.8	34.0
Belgium	2000	2.2	5.9	1.6	5.9	..	..	12.9	..
Czech Republic	2000	1.7	8.3	4.3	4.5	6.9	25.7	7.1	32.8
Denmark	2000	2.3	3.9	2.4	5.0	8.1	21.7	15.2	36.9
Finland	2000	6.1	5.0	3.2	3.8	6.1	24.3	12.2	36.5
France	2000	2.4	5.1	2.2	5.0	13.4	28.0	11.4	39.4
Germany	2000	2.4	9.3	2.3	4.5	13.2	31.7	10.2	41.9
Greece	2000	0.5	1.2	3.3	5.0	7.0	17.1	10.1	27.2
Hungary	2000	11.8 <sup>3,4</sup>	→	3.8	3.9	8.6	28.1	9.2	37.3
Iceland	1999	2.3 <sup>3,4</sup>	→	..	6.5	..	..	13.3	..
Ireland	1999	8.6	10.4	..	4.5	..	..	8.3	..
Italy	2000	1.9	5.6	2.3	6.2	9.1	25.0	9.7	34.7
Luxembourg	2000	2.1 <sup>3,4</sup>	→	..	25.6	8.6	36.3 <sup>5</sup>	7.2	43.5 <sup>5</sup>
Netherlands	2000	6.0 <sup>3,4</sup>	→	2.4	6.4	12.0	26.8	11.5	38.3
Norway	1999	1.0	2.4	2.2	3.9	9.4	19.0	13.6	32.6
Poland	1999	6.4 <sup>3,4</sup>	→	2.1	2.2	..	..	8.4	..
Portugal	1999	1.1	2.8	2.9	6.4	..	..	12.7	..
Slovak Republic	1999	7.7 <sup>3,4</sup>	→	2.7	3.6	6.0	20.0	7.4	27.5
Spain	2000	1.2	4.8	2.6	5.2	5.9	19.8	10.2	29.9
Sweden	2000	3.7	7.1	2.8	3.8	10.0	27.4	14.8	42.2
Switzerland	2000	9.3 <sup>3,4</sup>	→	3.0	16.1	8.5	37.0	5.8	42.8
United Kingdom	2000	3.0	4.3	2.9	5.2	12.7	28.2	12.1	40.2
European Union	2000	2.3	6.0	2.4	5.3	11.0	27.0	11.0	38.0
Total OECD <sup>6</sup>	2000	3.2	5.2	2.7	6.7	9.6	27.4	..	..

1. Value added measured at basic prices except for United States, Japan, Korea and Iceland - estimated at factor costs

2. Business services includes renting of machinery and equipment (71); computer-related services (72); research and development (73); and other services (74) such as legal, accounting, market research and management consultancy activities, architectural, engineering and other technical activities.

3. Includes medium-high technology manufactures

4. Includes "Shipbuilding" (ISIC 351)

5. Not including "Post and telecommunications" (64)

6. OECD does not include Poland and Turkey

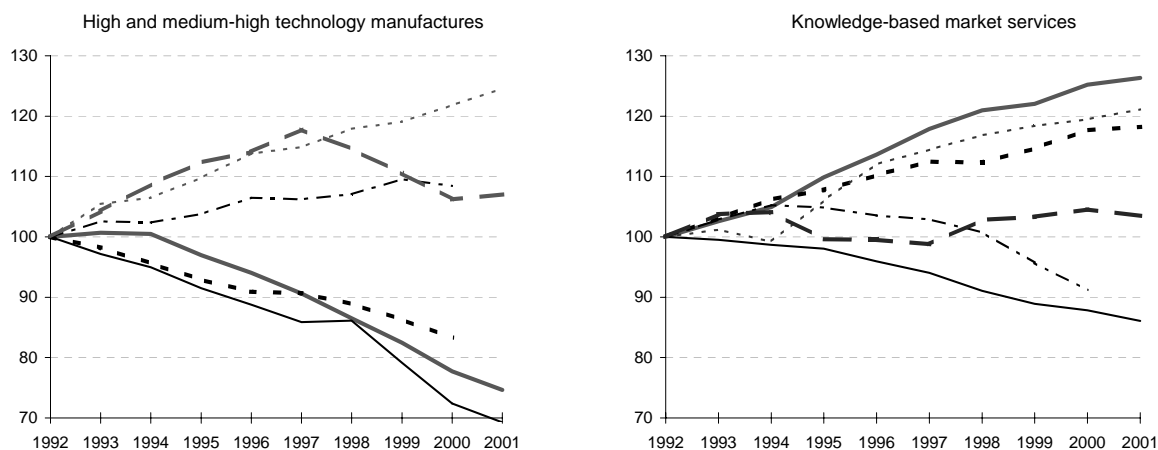
Sources: OECD, STAN database, 2003; National Accounts of OECD countries Vol. II, 2003; Secretariat estimates

Table D.6.2. Real value added in knowledge-based industries  
 1995=100

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Real value added</b>										
High and Medium-high technology manufactures										
United States <sup>1</sup>	79.2	83.1	91.4	100.0	105.9	116.6	127.6	136.5	151.0	145.7
Japan <sup>2</sup>	97.6	93.4	92.2	100.0	107.1	113.4	108.3	116.7	128.7	122.4
Germany <sup>2</sup>	109.7	96.0	99.1	100.0	98.1	102.0	105.7	102.9	108.2	..
France <sup>3</sup>	87.1	83.2	90.9	100.0	101.6	111.2	119.6	128.6	136.8	..
Italy <sup>2</sup>	93.1	86.8	92.6	100.0	99.4	104.3	105.6	108.1	111.9	109.7
United Kingdom <sup>2</sup>	89.4	90.8	96.8	100.0	103.0	104.9	108.7	112.3	118.1	115.1
Knowledge-based market services										
United States <sup>1</sup>	89.3	93.2	95.7	100.0	104.7	113.2	121.8	129.4	138.8	144.1
Japan <sup>2</sup>	87.3	90.5	94.9	100.0	106.1	112.4	118.2	120.2	125.1	132.9
Germany <sup>2</sup>	90.9	95.3	96.1	100.0	104.6	110.4	117.3	129.5	139.5	..
France <sup>3</sup>	100.8	100.7	100.0	100.0	103.4	104.4	107.7	114.1	121.4	124.0
Italy <sup>2</sup>	91.8	96.7	97.4	100.0	104.7	110.0	114.2	120.4	131.5	136.1
United Kingdom <sup>2</sup>	84.0	86.8	93.2	100.0	107.4	118.0	128.3	135.4	145.7	155.9
<b>Implicit deflators</b>										
High and Medium-high technology manufactures										
United States <sup>4</sup>	103.1	103.8	103.6	100.0	97.0	93.4	89.2	85.0	80.1	77.0
Japan <sup>4</sup>	109.3	106.2	103.8	100.0	97.0	93.9	94.1	86.5	79.2	75.7
Germany	96.3	98.8	98.6	100.0	102.6	102.4	103.2	105.6	104.5	..
France <sup>4</sup>	107.6	105.7	102.9	100.0	97.8	97.6	95.7	92.9	89.6	..
Italy	91.1	96.0	97.0	100.0	103.7	104.6	107.4	108.4	110.9	113.4
United Kingdom	89.1	92.8	96.8	100.0	101.6	104.9	102.0	98.5	94.6	95.3
Knowledge-based market services										
United States	91.0	93.4	95.5	100.0	103.4	107.3	110.1	111.1	114.0	115.0
Japan	102.0	101.5	100.6	100.0	97.8	95.9	92.9	90.7	89.6	87.8
Germany	95.4	98.1	100.4	100.0	98.8	98.2	96.1	91.3	87.0	..
France	92.8	95.7	98.6	100.0	102.3	104.3	104.2	106.4	109.2	109.7
Italy	94.3	95.5	93.6	100.0	105.7	108.0	110.2	111.7	112.7	114.3
United Kingdom	100.4	104.2	104.5	100.0	99.9	99.2	103.3	103.7	105.0	103.9

1. Based on annually re-weighted chained Fisher volumes.
2. Based on fixed-weight Laspeyres volumes with 1995 base year.
3. Based on annually re-weighted chained Laspeyres volumes
4. Quality adjusted (or hedonic) prices used for certain ICT goods

## Implicit value added deflators (1991 = 100)



Source: OECD STAN database, May 2003.

Table D.7. Share of value added in total gross value added<sup>1</sup>, current prices

Percentages

		Aggregate sectors									
		Agriculture, hunting, forestry and fishing	Mining and quarrying	Total manufacturing	Electricity, gas and water	Construction	Wholesale and retail trade; hotels and restaurants	Transport, storage and communication	Finance, insurance, real estate and business services	Community, social and personal services	
ISIC Rev. 3		01-05	10-14	15-37	40-41	45	50-55	60-64	65-74	75-99	
Canada	1999	2.5	3.8	19.7	2.9	5.2	13.8	7.0	25.4	19.8	
Mexico	2000	4.0	1.4	20.1	1.1	5.0	21.2	11.0	18.3	17.8	
United States	2000	1.6	1.3	15.8	1.9	4.9	16.0	6.7	29.4	22.5	
Australia	1999/2000 <sup>2</sup>	3.5	4.6	12.4	2.5	6.7	13.8	8.5	28.7	19.4	
Japan <sup>3</sup>	2000	1.4	0.1	19.5	3.5	7.3	12.8	6.0	26.9	22.5	
Korea	2000	5.1	0.4	29.8	2.8	8.1	12.3	7.0	18.3	16.2	
New Zealand	1998/1999 <sup>4</sup>	6.7	1.2	16.2	2.7	4.3	15.4	7.7	28.0	17.8	
Austria	2000	2.2	0.4	20.7	2.3	7.8	16.9	6.9	22.9	20.0	
Belgium	2000	1.4	0.2	19.0	2.6	5.0	13.1	6.8	28.1	23.8	
Czech Republic	2000	4.3	1.4	26.9	3.9	7.1	16.5	8.1	16.6	15.1	
Denmark	2000	2.7	2.9	15.9	1.9	5.2	13.8	8.1	23.8	25.6	
Finland	2000	3.6	0.2	25.8	1.7	5.6	11.0	10.3	21.2	20.6	
France	2000	2.8	0.2	17.8	2.0	4.6	13.0	6.2	30.3	23.1	
Germany	2000	1.2	0.3	22.2	1.8	5.1	12.6	5.9	29.7	21.3	
Greece	2000	7.3	0.6	11.3	1.9	7.2	21.4	7.9	22.5	19.9	
Hungary	2000	4.2	0.3	24.8	3.6	4.6	12.7	9.6	20.8	19.3	
Iceland	1999	9.5	0.1	13.2	3.4	8.2	14.7	7.7	19.9	23.4	
Ireland	2000	3.8	0.7	33.3	1.2	7.3	12.6	5.1	20.5	15.5	
Italy	2000	2.8	0.5	20.6	2.1	4.8	16.7	7.2	26.1	19.1	
Luxembourg	2000	0.7	0.1	10.8	1.1	5.7	11.9	10.3	43.8	15.5	
Netherlands	2000	2.7	2.6	16.3	1.5	5.7	15.2	7.1	26.4	22.5	
Norway	2000	2.0	24.8	10.2	2.2	4.2	10.8	8.1	17.6	20.0	
Poland	2000	3.8	2.8	20.6	3.3	8.3	22.1	6.8	14.8	17.5	
Portugal	1999	3.9	0.4	19.1	3.0	7.8	18.0	6.8	15.1	25.8	
Slovak Republic	2000	4.7	0.9	22.8	4.0	5.4	16.7	10.9	19.9	14.9	
Spain	2000	3.5	0.4	18.1	2.2	8.4	19.4	8.1	19.3	20.6	
Sweden	2000	1.9	0.2	22.2	2.4	4.0	12.1	8.3	24.6	24.3	
Switzerland	2000	1.2	0.2	17.8	2.4	5.2	15.2	5.9	31.5	20.7	
Turkey	2000	14.2	1.2	19.3	3.0	5.2	20.1	14.3	12.1	10.6	
United Kingdom	2000	1.0	2.9	17.5	1.8	5.0	14.9	7.9	27.4	21.6	
European Union	2000	2.2	0.9	19.5	2.0	5.4	14.8	7.0	26.8	21.4	
Total OECD	2000	2.3	1.2	18.3	2.3	5.6	15.3	7.0	26.7	21.3	

1. Value added measured at basic prices except for Japan, Korea and United States -- measured at factor costs; and Turkey -- measured at producer's prices.

2. Fiscal year 1st July 1999 to 30th June 2000.

3. For Japan, Hotels and restaurants (ISIC 55) is included in Community, social and personal services (ISIC 75-99)

4. Fiscal year 1st April 1998 to 31st March 1999.

Source: OECD STAN and Annual National Accounts databases, May 2003

Table D.9.1. Manufacturing trade<sup>1</sup> by industry, total OECD<sup>2</sup>

ISIC Rev.3	Share in total manufacturing <sup>3</sup>											Average annual growth			
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	1992-1996	1996-2000	2000-2001	1992-2001	
<b>High-technology industries</b>	19.7	20.6	20.9	21.2	21.6	22.7	23.9	25.1	26.9	26.1	9.8	10.6	-5.4	8.3	
Aircraft and spacecraft	353	3.3	3.0	2.6	2.2	2.4	2.9	3.4	3.4	3.3	3.3	10.2	10.4	6.3	
Pharmaceuticals	2423	2.1	2.2	2.2	2.3	2.4	2.5	2.7	2.9	2.8	10.2	12.5	20.3	11.2	
Office, accounting and computing machinery	30	5.1	5.5	5.6	5.8	5.9	6.3	6.4	6.6	6.2	11.0	2.8	-9.6	7.2	
Radio, TV and communications equipment	32	5.6	6.3	6.9	7.3	7.3	7.5	7.7	8.5	10.2	12.7	7.0	-16.9	10.2	
Medical, precision and optical instruments	33	3.6	3.6	3.6	3.5	3.6	3.7	3.7	3.8	4.0	7.0	5.9	-0.1	6.5	
<b>Medium-high-technology industries</b>	38.9	38.4	38.9	39.1	39.4	39.2	39.2	39.2	38.1	38.3	6.7	2.6	-2.2	4.9	
Electrical machinery and apparatus, n.e.c.	31	4.1	4.3	4.4	4.5	4.7	4.7	4.8	4.9	5.0	9.6	3.6	-5.9	6.9	
Motor vehicles, trailers and semi-trailers	34	13.7	13.4	13.5	13.1	13.5	13.5	13.9	14.5	13.8	6.3	4.0	-1.3	5.3	
Chemicals excluding pharmaceuticals	24 excl. 2423	9.2	9.1	9.3	9.7	9.4	9.3	8.9	8.8	8.6	6.8	1.9	-0.6	4.6	
Railroad equipment and transport equipment, n.e.c.	352 + 359	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	4.5	5.0	-2.3	4.7	
Machinery and equipment, n.e.c.	29	11.3	10.9	11.0	11.1	11.4	11.1	11.0	10.5	10.2	6.1	0.8	-2.8	3.7	
<b>Medium-low-technology industries</b>	16.5	16.2	15.8	16.0	15.6	15.4	14.8	14.1	14.7	14.7	5.0	2.0	-2.6	3.7	
Building and repairing of ships and boats	351	0.6	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	2.8	4.5	5.8	3.6	
Rubber and plastics products	25	2.9	2.8	2.8	2.8	2.8	2.8	2.9	2.8	2.7	6.2	2.8	-0.1	4.7	
Coke, refined petroleum products and nuclear fuel	23	2.6	2.6	2.2	1.9	2.2	2.2	1.6	1.8	2.5	3.0	8.2	0.5	5.3	
Other non-metallic mineral products	26	1.8	1.7	1.7	1.7	1.6	1.6	1.6	1.5	1.4	4.4	0.7	-1.4	2.7	
Basic metals	27	5.9	5.8	5.9	6.4	5.7	5.6	5.6	4.8	5.0	5.3	-1.0	-7.3	2.5	
Fabricated metal products	28	2.8	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.5	5.4	2.2	-1.8	4.0	
<b>Low-technology industries</b>	24.9	24.7	24.3	23.6	23.3	22.6	22.0	21.5	20.3	20.8	4.5	1.1	-0.2	3.0	
Manufacturing, n.e.c.; Recycling	36-37	3.5	3.6	3.5	3.3	3.4	3.4	3.4	3.5	3.5	5.9	4.1	-1.6	5.1	
Pulp, paper, paper products, printing and publishing	21-22	4.1	3.9	3.9	4.3	3.9	3.6	3.6	3.5	3.4	4.2	1.2	-4.6	2.9	
Food products, beverages and tobacco	15-16	7.9	7.8	7.7	7.3	7.2	6.9	6.6	6.3	5.7	3.7	0.0	4.1	2.0	
Textiles, textile products, leather and footwear	17-19	8.1	7.9	7.7	7.3	7.4	7.3	7.2	6.8	6.5	4.4	0.9	0.3	2.8	
Wood and products of wood and cork	20	1.4	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.2	7.2	-1.1	-6.2	3.4	
<b>Total manufacturing</b>	<b>15-37</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	6.5	3.2	-2.7	5.0	

1. Average value of exports and imports.

2. Total OECD excludes Czech Republic, Korea, Luxembourg and Slovak Republic.

3. Total may not add to 100% because of residual category.

Source: OECD STAN database, May 2003.

Table D.9.2. Export shares<sup>1</sup>

	Total manufacturing		High-technology industries												Medium-high-technology industries												
			Total		Aircraft and spacecraft		Pharmaceuticals		Office, accounting and computing machinery		Radio, television and communication equipment		Medical, precision and optical instruments		Total		Electrical machinery and apparatus, n.e.c.		Motor vehicles, trailers and semi-trailers		Chemicals excluding pharmaceuticals		Railroad equipment and transport equipment, n.e.c.		Machinery and equipment, n.e.c.		
																											1992
Canada	100.0	100.0	11.3	14.3	3.1	5.4	0.4	0.7	2.8	2.2	3.9	4.3	1.1	1.6	43.0	43.5	1.8	2.4	29.5	27.9	6.3	6.2	0.5	0.4	4.9	6.6	
Mexico	100.0	100.0	21.2	29.9	0.6	0.5	0.7	0.8	3.3	9.4	14.1	15.6	2.5	3.6	50.1	46.7	16.0	14.0	19.9	22.0	7.3	3.6	0.2	0.4	6.7	6.6	
United States	100.0	100.0	32.4	37.9	11.4	8.7	1.7	2.7	7.3	7.5	6.7	12.3	5.4	6.8	39.1	37.1	4.3	5.0	11.1	10.0	10.6	9.7	0.4	0.4	12.8	12.1	
Australia	100.0	100.0	9.9	13.5	2.0	1.4	1.6	3.6	2.9	2.7	1.5	2.3	1.9	3.5	15.2	19.8	1.7	2.1	3.9	7.3	4.5	4.8	0.1	0.2	4.9	5.2	
Japan	100.0	100.0	30.1	30.8	0.2	0.7	0.6	1.0	9.2	7.4	15.3	15.6	4.8	6.2	51.9	52.2	5.5	6.5	23.8	21.5	6.8	8.4	1.6	1.7	14.2	14.1	
Korea	..	100.0	..	32.4	..	0.4	..	0.4	..	9.0	..	21.2	..	1.3	..	29.4	..	2.6	..	10.4	..	8.9	..	0.2	..	7.3	..
New Zealand	100.0	100.0	2.1	3.0	0.2	0.2	0.6	0.7	0.1	0.3	0.5	0.9	0.7	0.9	8.8	13.0	1.2	2.1	0.5	0.8	3.7	6.3	0.0	0.0	3.3	3.9	
Austria	100.0	100.0	9.8	15.6	0.2	1.6	2.2	3.1	1.6	1.8	3.3	6.6	2.4	2.5	41.2	40.5	7.0	6.0	11.5	14.2	5.7	5.2	0.9	1.2	16.1	13.8	
Belgium	100.0	100.0	8.3	15.0	0.9	0.6	2.6	6.3	1.2	2.4	2.5	3.9	1.1	1.7	40.0	42.0	2.7	2.5	17.9	16.3	12.9	15.6	0.3	0.5	6.2	7.1	
Czech Republic	..	100.0	..	12.1	..	0.5	..	0.9	..	3.2	..	6.0	..	1.5	..	45.0	..	9.4	..	17.1	..	5.3	..	1.0	..	12.2	..
Denmark	100.0	100.0	13.4	20.6	0.0	0.0	4.3	7.8	1.9	2.2	3.2	5.8	4.0	4.9	26.6	29.0	2.7	6.4	3.1	2.9	5.0	5.4	1.0	0.9	14.8	13.4	
Finland	100.0	100.0	9.7	24.4	0.1	0.4	0.9	0.8	2.4	0.8	4.2	19.5	2.1	2.7	25.4	25.4	3.7	4.9	5.1	3.9	5.2	5.0	0.1	0.1	11.1	11.5	
France	100.0	100.0	18.3	25.4	6.5	7.8	2.6	5.0	3.2	3.0	3.3	6.6	2.7	3.0	40.2	39.8	4.4	4.7	14.1	14.6	11.5	11.0	0.6	0.4	9.6	9.1	
Germany	100.0	100.0	14.7	20.6	3.0	4.3	2.2	3.6	2.4	2.9	3.3	5.7	3.9	4.2	52.3	51.1	4.9	5.3	18.5	20.4	10.9	9.7	0.6	0.4	17.3	15.3	
Greece	100.0	100.0	2.0	9.0	0.3	0.5	0.5	3.7	0.2	0.9	0.6	3.1	0.4	0.8	8.9	15.1	2.1	2.9	0.7	1.5	4.2	6.0	0.0	0.2	1.8	4.4	
Hungary	100.0	100.0	8.1	28.3	0.7	0.0	2.9	1.8	0.3	8.7	2.9	16.0	1.3	1.7	28.6	40.5	6.0	9.7	6.3	19.0	8.9	4.5	0.2	0.5	7.1	6.7	
Iceland	100.0	100.0	0.3	3.4	0.0	0.0	0.0	1.9	0.0	0.1	0.0	0.0	0.2	1.4	0.8	3.7	0.0	0.1	0.0	0.1	0.0	0.7	0.0	0.0	0.7	2.8	..
Ireland	100.0	100.0	32.7	58.2	0.7	0.6	8.0	11.3	16.6	28.4	3.2	13.1	4.2	4.9	21.7	23.9	2.6	2.8	0.7	0.8	13.8	17.9	0.0	0.1	4.6	2.3	
Italy	100.0	100.0	10.6	11.8	2.1	1.5	1.7	3.4	2.4	1.3	2.3	3.3	2.1	2.4	37.4	38.8	3.5	3.6	7.6	8.0	5.3	5.8	0.9	1.0	20.1	20.6	
Netherlands	100.0	100.0	16.6	29.8	2.3	0.8	1.8	3.6	6.4	15.8	3.2	4.8	2.9	4.8	30.1	29.0	2.8	2.9	4.3	5.5	14.7	14.0	0.4	0.5	7.9	6.1	
Norway	100.0	100.0	8.6	12.0	1.1	2.1	2.1	2.3	1.7	1.5	1.9	3.4	1.8	2.6	24.5	25.8	2.2	2.9	2.3	2.6	12.6	12.3	0.2	0.1	7.2	7.8	
Poland	100.0	100.0	3.7	6.8	0.5	0.7	1.4	0.6	0.2	0.3	0.7	4.5	0.9	0.6	27.0	33.3	4.7	6.2	4.8	13.7	8.8	5.5	0.7	0.8	8.1	7.0	
Portugal	100.0	100.0	6.3	11.2	0.4	1.1	0.6	1.4	0.4	1.1	4.1	6.8	0.7	0.9	20.9	31.6	5.0	5.6	7.2	16.4	4.0	3.9	0.3	0.4	4.4	5.4	
Slovak Republic	..	100.0	..	6.0	..	0.2	..	1.0	..	0.8	..	3.3	..	0.8	..	42.7	..	5.9	..	19.1	..	6.9	..	1.3	..	9.4	..
Spain	100.0	100.0	9.3	10.2	2.0	1.4	1.6	2.5	2.1	1.5	2.3	3.5	1.3	1.4	46.9	46.8	3.8	4.0	27.1	26.0	7.1	8.4	0.5	0.8	8.4	7.6	
Sweden	100.0	100.0	17.6	23.5	1.5	1.9	4.2	6.0	2.4	1.2	5.7	10.7	3.7	3.6	36.1	36.3	3.5	4.4	13.5	12.9	4.7	5.1	0.3	0.4	14.0	13.5	
Switzerland	100.0	100.0	28.3	37.1	0.9	0.9	10.4	18.5	1.1	1.5	1.5	2.0	14.3	14.3	42.7	38.0	5.2	5.3	1.4	1.3	14.4	12.7	0.3	0.3	21.5	18.4	
Turkey	100.0	100.0	2.8	6.6	0.0	2.1	0.5	0.6	0.1	0.2	1.9	3.5	0.2	0.3	13.8	22.5	2.6	3.6	2.4	9.3	6.2	4.0	0.0	0.1	2.6	5.5	
United Kingdom	100.0	100.0	25.7	40.3	7.0	11.2	3.5	5.5	6.4	7.7	4.5	11.5	4.2	4.5	38.4	33.3	3.8	4.1	10.3	9.0	12.0	10.3	0.2	0.2	12.1	9.7	
European Union	100.0	100.0	15.5	23.5	3.3	4.0	2.5	4.5	3.4	4.9	3.3	6.6	3.0	3.4	41.1	40.2	4.0	4.3	13.3	13.6	10.1	10.0	0.5	0.5	13.2	11.8	
Total OECD <sup>2</sup>	100.0	100.0	20.0	26.4	3.9	4.3	2.2	3.6	4.6	5.5	5.5	8.6	3.8	4.4	41.8	40.7	4.3	5.0	14.5	14.5	9.5	9.2	0.6	0.6	12.8	11.5	

1. Share of industries in total manufacturing exports.

2. Total OECD excludes Korea, Luxembourg, Czech Republic and Slovak Republic.

Source: OECD, STAN database, May 2003.

Table D.9.2. Export shares<sup>1</sup> (cont.)

	Medium-low-technology industries											Low-technology industries													
	Total		Coke, refined petroleum products and nuclear fuel		Rubber and plastic products		Other non-metallic mineral products		Building and repairing of ships and boats		Basic metals and fabricated metal products		Total		Manufacturing, n.e.c. and recycling		Wood and products of wood and cork		Pulp, paper, paper products, printing and publishing		Food products, beverages and tobacco		Textiles, textile products, leather and footwear		
	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992
Canada	18.4	16.6	2.8	3.3	2.3	3.3	0.9	1.0	0.2	0.3	12.3	8.8	27.2	25.6	1.8	3.1	6.6	6.0	12.2	8.9	5.4	5.7	1.2	2.0	
Mexico	13.4	8.1	1.7	0.1	2.5	1.9	2.2	1.5	0.0	0.0	7.0	4.7	15.4	15.3	3.2	3.5	0.9	0.3	1.9	1.0	3.6	3.0	5.8	7.6	
United States	11.1	10.6	2.0	1.5	2.3	2.9	1.0	1.0	0.4	0.3	5.5	5.0	17.3	14.3	2.1	2.7	1.2	0.6	4.3	3.3	6.9	4.9	2.8	2.8	
Australia	40.7	32.5	4.6	5.7	1.0	1.1	0.7	0.7	1.3	0.7	33.1	24.4	34.2	34.2	1.5	1.5	1.5	1.2	1.7	1.9	23.5	25.6	6.0	4.0	
Japan	11.7	11.4	0.5	0.4	1.2	1.2	1.2	1.2	2.4	2.2	6.5	6.4	6.2	5.6	2.6	2.6	0.0	0.0	0.9	0.7	0.5	0.7	2.2	1.6	
Korea	..	22.9	..	5.3	..	2.5	..	0.7	..	6.5	..	7.9	..	15.4	..	1.6	..	0.1	..	1.4	..	1.3	..	11.0	
New Zealand	12.6	10.9	0.7	0.2	1.5	1.7	0.4	0.4	0.3	0.7	9.8	8.0	76.6	73.1	1.1	0.8	4.8	5.8	5.4	4.2	55.5	56.2	9.7	6.0	
Austria	22.0	18.3	0.4	0.7	5.1	3.8	3.3	1.9	0.0	0.2	13.3	11.7	27.0	25.7	3.7	3.6	3.9	3.5	7.7	7.4	2.8	5.0	8.9	6.2	
Belgium	22.3	18.3	4.1	4.4	3.7	3.3	2.6	1.8	0.1	0.0	11.8	8.7	29.3	24.8	5.5	5.2	1.0	1.0	3.2	2.9	11.0	8.5	8.5	7.2	
Czech Republic	..	23.5	..	1.3	..	4.7	..	4.6	..	0.0	..	12.7	..	19.5	..	4.2	..	1.8	..	3.4	..	3.3	..	6.8	
Denmark	15.7	12.9	1.8	1.8	3.6	3.5	1.9	1.5	2.5	0.8	5.9	5.4	44.3	37.4	5.8	4.9	1.7	1.4	3.0	2.5	27.3	22.0	6.6	6.7	
Finland	21.1	18.9	3.2	3.1	2.1	1.8	1.3	1.2	2.3	3.7	12.2	9.0	43.9	31.4	1.3	0.9	6.8	5.1	30.9	21.9	2.2	1.8	2.7	1.6	
France	17.0	14.7	2.1	2.0	3.3	3.0	2.1	1.7	0.7	0.9	8.9	7.1	24.4	19.7	2.2	2.0	0.6	0.6	3.3	2.9	11.8	8.9	6.5	5.3	
Germany	15.9	14.6	1.1	1.3	3.5	3.4	1.7	1.4	0.6	0.6	9.0	7.9	17.0	13.7	2.3	1.9	0.5	0.6	3.4	3.1	5.0	4.2	5.9	3.8	
Greece	26.6	34.8	6.0	12.5	1.8	3.3	5.4	3.8	0.5	0.6	12.9	14.6	62.5	41.1	0.8	1.2	0.6	0.4	1.1	1.8	24.0	16.6	35.9	21.2	
Hungary	19.4	11.3	3.5	1.7	2.4	2.7	2.5	1.4	0.1	0.0	10.9	5.6	43.5	20.0	2.2	3.7	1.7	1.0	1.6	1.6	17.7	6.0	20.3	7.6	
Iceland	14.0	27.0	0.1	0.2	0.2	0.4	0.1	0.1	0.7	1.8	13.0	24.5	84.9	66.0	0.0	0.1	0.0	0.0	0.1	0.3	82.8	64.4	1.9	1.2	
Ireland	7.4	3.0	0.4	0.3	2.5	1.0	1.1	0.5	0.1	0.0	3.3	1.2	38.2	15.0	1.6	0.6	0.5	0.3	6.1	4.8	25.8	8.3	4.2	1.0	
Italy	18.5	18.0	2.0	1.9	3.5	3.6	4.2	3.6	0.3	0.9	8.5	8.0	33.5	31.3	6.8	6.7	0.5	0.6	2.2	2.3	5.7	5.3	18.4	16.5	
Netherlands	20.0	17.3	6.7	8.0	3.4	2.4	1.4	0.8	0.6	0.5	7.9	5.6	33.3	23.9	2.0	2.1	0.6	0.3	4.5	3.4	20.7	14.4	5.4	3.7	
Norway	43.6	39.3	9.3	10.9	1.4	1.2	1.0	0.9	12.5	7.6	19.4	18.7	23.3	22.9	1.6	2.0	2.0	1.3	7.2	6.9	11.0	11.6	1.5	1.1	
Poland	35.6	27.1	3.5	2.4	1.4	4.1	3.4	2.6	4.3	5.6	22.9	12.4	33.7	32.8	4.5	8.1	5.0	3.2	2.1	3.9	11.8	7.7	10.3	9.9	
Portugal	13.2	13.3	2.9	1.6	1.4	2.7	4.6	3.6	0.9	0.2	3.4	5.1	59.6	43.8	2.1	2.4	5.4	4.6	5.3	5.0	6.9	6.2	40.0	25.8	
Slovak Republic	..	29.3	..	6.2	..	3.9	..	3.1	..	0.4	..	15.8	..	22.1	..	3.2	..	2.0	..	5.4	..	3.0	..	8.4	
Spain	21.9	19.2	3.1	2.9	3.2	3.8	3.7	3.7	1.9	0.7	9.9	8.0	22.0	23.8	2.3	2.6	0.8	0.8	3.2	3.4	8.5	9.6	7.1	7.4	
Sweden	19.5	17.4	3.4	3.2	2.8	2.6	1.1	0.9	0.8	0.5	11.4	10.2	26.9	22.8	2.4	2.3	4.7	3.7	15.7	12.2	1.9	2.6	2.2	2.0	
Switzerland	11.8	12.0	0.1	0.3	2.7	2.5	0.9	0.8	0.0	0.0	8.0	8.4	17.2	12.9	6.0	4.2	0.5	0.5	2.9	2.8	3.0	2.5	4.8	2.9	
Turkey	24.1	23.1	1.9	1.4	2.1	3.2	4.4	4.6	1.1	1.1	14.6	12.7	59.3	47.8	0.6	2.5	0.3	0.4	0.7	1.0	10.7	6.9	47.1	37.1	
United Kingdom	15.6	11.9	3.0	2.6	2.9	2.3	1.5	1.1	0.3	0.3	7.9	5.7	19.4	13.8	2.4	2.2	0.2	0.2	3.8	3.0	7.8	5.0	5.3	3.5	
European Union	17.7	15.3	2.5	2.6	3.3	3.0	2.2	1.7	0.6	0.6	9.0	7.3	25.7	20.8	3.1	2.9	1.0	0.9	4.4	3.9	9.1	7.0	8.1	6.1	
Total OECD <sup>2</sup>	16.2	14.2	2.1	2.1	2.8	2.7	1.8	1.5	0.9	0.8	8.6	7.1	22.0	18.6	2.9	2.9	1.2	1.0	4.1	3.6	7.6	6.0	6.3	5.1	

1. Share of industries in total manufacturing exports.

2. Total OECD excludes Korea, Luxembourg, Czech Republic and Slovak Republic.

Source: OECD, STAN database, May 2003.

Table D.9.3. Contribution to the manufacturing trade balance<sup>1</sup>

	Total manufacturing		High-technology industries												Medium-high-technology industries											
			Total		Aircraft and spacecraft		Pharmaceuticals		Office, accounting and computing machinery		Radio, television and communication equipment		Medical, precision and optical instruments		Total		Electrical machinery and apparatus, n.e.c.		Motor vehicles, trailers and semi-trailers		Chemicals excluding pharmaceuticals		Railroad equipment and transport equipment, n.e.c.		Machinery and equipment, n.e.c.	
			1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001
Canada	0.0	0.0	-4.5	-3.9	0.1	0.9	-0.5	-0.8	-1.5	-1.6	-1.5	-1.3	-1.1	-1.2	-2.4	-1.8	-1.4	-1.3	2.7	3.1	-0.3	-0.8	0.0	-0.1	-3.4	-2.6
Mexico	0.0	0.0	1.0	2.0	-0.3	0.1	-0.2	-0.2	0.2	2.1	1.8	-0.3	-0.3	0.3	5.3	2.5	3.2	2.1	7.5	4.5	-0.8	-2.2	-0.1	0.1	-4.4	-2.1
United States	0.0	0.0	3.8	5.4	4.2	2.6	0.3	0.2	-0.3	-0.1	-1.4	1.1	1.0	1.5	1.9	0.6	0.0	0.1	-3.1	-3.2	2.6	1.7	-0.1	-0.1	2.4	2.1
Australia	0.0	0.0	-6.8	-6.6	-1.0	-0.7	-0.6	-0.6	-2.2	-2.2	-1.6	-2.5	-1.3	-0.6	-10.3	-8.6	-1.2	-1.0	-3.4	-2.9	-1.9	-1.3	-0.2	-0.2	-3.6	-3.2
Japan	0.0	0.0	5.3	0.2	-1.0	-0.4	-0.9	-0.7	2.3	-0.8	4.6	1.9	0.4	0.2	13.9	14.9	1.2	1.0	8.6	8.6	-0.3	0.6	0.6	0.6	3.9	4.1
Korea	..	0.0	..	-0.7	..	-0.2	..	-0.4	..	1.8	..	0.2	..	-2.1	..	-0.2	..	-1.3	..	4.0	..	-1.5	..	-0.1	..	-1.4
New Zealand	0.0	0.0	-10.5	-9.0	-3.0	-1.6	-1.4	-1.2	-2.6	-2.5	-2.2	-2.4	-1.3	-1.2	-13.9	-12.7	-1.1	-0.5	-4.8	-6.0	-3.6	-2.4	-0.2	-0.2	-4.2	-3.5
Austria	0.0	0.0	-2.4	-1.6	-0.3	-0.1	-0.2	-0.3	-1.1	-0.9	-0.5	0.1	-0.4	-0.4	-0.7	0.5	1.2	0.4	-1.7	-0.1	-1.3	-0.9	0.0	0.2	1.1	1.0
Belgium	0.0	0.0	-1.2	-1.6	0.0	0.0	0.1	-0.3	-0.7	-0.5	-0.1	-0.3	-0.6	-0.5	-1.1	0.1	-0.2	-0.3	1.5	0.3	-0.1	0.6	-0.1	-0.1	-2.2	-0.4
Czech Republic	..	0.0	..	-3.8	..	-0.1	..	-0.9	..	-1.0	..	-1.0	..	-0.7	..	2.2	..	0.6	..	3.6	..	-1.6	..	0.2	..	-0.6
Denmark	0.0	0.0	-0.7	0.8	0.0	0.0	1.0	2.4	-1.7	-1.6	-0.5	-1.0	0.6	0.9	-3.6	-2.1	-0.4	0.8	-1.9	-2.1	-2.7	-1.2	-0.4	-0.9	1.7	1.4
Finland	0.0	0.0	-4.2	-1.2	-0.4	-0.5	-1.0	-1.1	-1.3	-2.0	-0.8	2.6	-0.7	-0.3	-7.2	-5.9	-0.6	-0.9	-1.7	-2.4	-3.1	-2.3	-0.2	-0.2	-1.7	-0.2
France	0.0	0.0	0.1	0.8	1.4	1.8	0.3	0.4	-0.9	-1.2	-0.5	0.1	-0.3	-0.3	2.1	1.7	0.6	0.4	1.5	1.3	0.5	0.5	0.0	-0.1	-0.4	-0.5
Germany	0.0	0.0	-2.0	-2.7	-0.5	-0.2	0.3	0.4	-1.4	-1.9	-0.7	-1.2	0.4	0.3	9.0	7.1	0.6	0.0	3.2	4.1	1.2	0.0	0.0	-0.1	4.0	3.2
Greece	0.0	0.0	-3.5	-3.6	-0.4	-0.4	-0.8	-0.6	-0.6	-0.8	-0.8	-0.9	-0.9	-0.9	-11.3	-7.2	-0.1	0.1	-5.4	-2.8	-2.0	-1.4	-0.2	-1.0	-3.6	-2.0
Hungary	0.0	0.0	-4.5	-0.4	-0.1	0.0	-0.2	-0.2	-2.0	1.1	-1.1	-1.0	-1.2	-0.3	-4.7	0.5	0.8	1.1	-0.6	3.3	-1.9	-1.5	-0.1	0.1	-2.9	-2.4
Iceland	0.0	0.0	-5.6	-6.8	-0.4	-1.8	-1.1	-0.6	-1.3	-1.8	-1.6	-1.8	-1.2	-0.8	-13.4	-12.1	-2.8	-3.1	-3.6	-3.0	-2.9	-3.0	-0.1	-0.1	-4.0	-2.9
Ireland	0.0	0.0	3.7	4.6	-0.6	-1.0	2.2	3.1	2.8	3.9	-1.3	-1.9	0.7	0.4	-4.5	-0.2	-1.1	-0.6	-2.3	-2.6	1.5	4.8	-0.1	-0.1	-2.6	-1.8
Italy	0.0	0.0	-3.5	-3.7	0.0	-0.3	-0.5	-0.3	-0.8	-1.3	-1.3	-1.2	-0.8	-0.6	-0.5	-0.1	0.2	0.0	-3.3	-2.9	-3.3	-2.8	0.1	0.1	5.7	5.5
Netherlands	0.0	0.0	-1.3	-2.5	0.0	-0.2	-0.1	-0.2	-0.5	-0.1	-0.5	-2.1	-0.2	0.0	-1.9	-0.4	-0.4	-0.4	-2.1	-1.6	1.8	2.1	-0.3	-0.1	-0.9	-0.3
Norway	0.0	0.0	-3.7	-4.3	-0.7	-1.1	0.0	-0.2	-1.4	-2.0	-0.8	-0.8	-0.7	-0.2	-4.1	-3.4	-1.2	-0.7	-2.1	-3.2	2.6	2.6	-0.2	-0.3	-3.3	-1.9
Poland	0.0	0.0	-7.1	-5.5	0.1	0.1	-1.4	-1.9	-1.9	-1.7	-2.4	-1.2	-1.4	-0.8	-7.1	-3.3	0.6	0.8	-0.8	1.4	-2.0	-2.7	0.1	0.2	-5.1	-3.0
Portugal	0.0	0.0	-3.2	-3.1	-0.1	-0.3	-0.6	-0.9	-1.3	-1.1	-0.4	0.0	-0.9	-0.8	-11.1	-3.3	0.5	0.8	-5.0	0.2	-2.5	-2.1	-0.3	-0.1	-3.8	-2.1
Slovak Republic	..	0.0	..	-4.3	..	0.0	..	-1.2	..	-1.1	..	-1.0	..	-1.0	..	-0.9	..	-0.3	..	2.3	..	-0.7	..	0.2	..	-2.3
Spain	0.0	0.0	-3.7	-3.7	0.0	-0.1	-0.3	-0.6	-1.1	-1.0	-1.1	-1.1	-1.2	-0.8	1.6	1.1	-0.1	0.0	5.4	3.0	-1.6	-0.6	-0.3	0.1	-1.8	-1.5
Sweden	0.0	0.0	-0.9	-0.2	-0.3	-0.2	1.0	1.6	-1.7	-2.0	0.4	0.8	-0.2	-0.3	0.3	-1.1	-0.8	-0.6	2.2	0.6	-2.0	-1.9	-0.1	-0.1	1.0	0.9
Switzerland	0.0	0.0	5.4	5.3	-0.4	-0.4	3.5	3.8	-1.8	-1.9	-0.8	-1.0	4.9	4.8	3.9	3.3	0.6	0.7	-3.9	-3.6	1.9	1.7	-0.3	-0.1	5.6	4.6
Turkey	0.0	0.0	-6.8	-5.1	-1.9	0.3	-0.8	-1.9	-1.3	-1.0	-1.2	-1.2	-1.5	-1.3	-17.4	-8.7	-1.0	0.0	-2.7	1.4	-5.5	-5.5	-0.2	-0.1	-8.1	-4.5
United Kingdom	0.0	0.0	2.0	3.6	1.6	1.1	0.8	0.9	-0.5	0.0	-0.3	1.4	0.4	0.3	2.1	0.4	0.1	0.3	-0.5	-2.0	1.5	1.4	-0.1	-0.1	1.2	0.9
European Union	0.0	0.0	-1.2	-1.0	0.2	0.1	0.2	0.3	-0.9	-0.9	-0.6	-0.4	-0.1	-0.1	2.2	1.9	0.2	0.1	0.6	0.4	0.0	0.1	-0.1	-0.1	1.5	1.4
Total OECD <sup>2</sup>	0.0	0.0	0.3	0.3	0.6	0.5	0.1	0.2	-0.5	-0.7	-0.1	0.0	0.2	0.3	2.9	2.3	0.2	0.1	0.9	0.5	0.4	0.4	0.0	0.0	1.5	1.3

1. Observed trade balance of industry minus theoretical trade balance, expressed in hundreds of manufacturing trade (see box in text).

2. Total OECD excludes Korea, Luxembourg, Czech Republic and Slovak Republic.

Source: OECD, STAN database, May 2003.



Table D.9.3. Contribution to the manufacturing trade balance<sup>1</sup> (cont.)

	Medium-low-technology industries												Low-technology industries														
	Total		Coke, refined petroleum products and nuclear fuel		Rubber and plastic products		Other non-metallic mineral products		Building and repairing of ships and boats		Basic metals		Fabricated metal products, except machinery and equipment		Total		Manufacturing, n.e.c. and recycling		Wood and products of wood and cork		Pulp, paper, paper products, printing and publishing		Food products, beverages and tobacco		Textiles, textile products, leather and footwear		
	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992	2001	1992
Canada	2.4	1.3	0.8	1.1	-0.5	-0.1	-0.4	-0.2	0.0	0.0	3.2	1.1	-0.7	-0.4	4.5	4.4	-0.7	-0.1	2.9	2.6	4.0	2.5	0.3	0.6	-2.1	-1.2	
Mexico	-3.9	-4.4	-0.6	-0.4	-1.7	-2.0	0.4	0.2	0.0	0.0	-0.7	-1.2	-1.3	-0.9	-2.5	-0.2	0.4	0.8	-0.1	-0.1	-1.2	-1.1	-1.6	-0.5	0.0	0.7	
United States	-1.2	-1.5	-0.6	-1.4	0.0	0.4	-0.2	-0.1	0.2	0.1	-0.6	-0.4	-0.1	0.0	-4.5	-4.4	-1.9	-1.7	-0.2	-0.4	0.8	0.5	1.1	0.7	-4.3	-3.4	
Australia	11.7	8.5	0.9	1.8	-1.3	-1.2	-0.5	-0.3	0.6	0.1	12.4	8.8	-0.4	-0.6	5.4	6.6	-0.9	-1.0	0.0	0.1	-1.8	-0.9	8.9	9.7	-0.8	-1.2	
Japan	-3.1	-0.8	-2.9	-2.2	0.3	0.4	0.0	0.0	1.0	1.0	-1.6	0.1	0.2	0.0	-16.1	-14.4	-1.5	-1.4	-1.8	-1.5	-0.7	-0.6	-7.7	-5.9	-4.5	-4.9	
Korea	..	1.1	..	-0.3	..	0.5	..	-0.4	..	3.0	..	-1.9	..	0.3	..	-0.2	..	0.2	..	-0.4	..	-0.5	..	-2.2	..	2.7	
New Zealand	-2.1	-2.9	-0.6	-1.9	-1.2	-1.0	-0.6	-0.6	-0.5	0.1	1.4	1.0	-0.7	-0.4	26.5	24.6	-0.8	-1.0	2.2	2.6	-0.6	-0.6	24.7	24.2	0.9	-0.6	
Austria	2.0	-0.3	-0.5	-0.9	0.6	-0.1	0.5	0.0	0.0	0.0	0.9	0.8	0.5	-0.1	1.0	1.3	-0.2	-0.2	1.1	1.0	1.5	1.5	-0.5	0.0	-0.9	-1.0	
Belgium	1.8	1.1	0.5	0.3	0.0	0.0	0.3	0.2	0.0	0.0	1.2	0.8	-0.2	-0.2	0.5	0.4	0.0	-0.2	-0.1	0.0	-0.6	-0.3	1.1	0.6	0.1	0.4	
Czech Republic	..	0.2	..	-0.9	..	-0.5	..	1.3	..	0.0	..	-0.9	..	1.3	..	1.1	..	0.5	..	-0.3	..	-0.3	..	-0.3	..	0.3	
Denmark	-1.6	-2.5	-0.4	-0.5	-0.1	-0.1	0.1	-0.2	0.8	-0.1	-2.3	-1.4	0.1	-0.2	5.9	3.9	1.6	0.9	-0.5	-0.5	-1.5	-1.1	7.7	5.9	-1.4	-1.3	
Finland	0.0	0.6	-0.7	-0.2	-0.7	-0.6	-0.3	-0.1	0.5	1.4	1.6	0.3	-0.4	-0.3	11.4	6.6	-0.6	-0.7	2.9	2.0	13.2	8.9	-1.3	-1.6	-2.8	-2.0	
France	-0.5	-0.7	-0.7	-0.3	0.0	-0.1	0.0	-0.1	0.2	0.2	0.0	-0.4	0.0	-0.1	-1.6	-2.0	-0.7	-0.6	-0.1	-0.2	-0.7	-0.5	1.4	0.8	-1.5	-1.5	
Germany	-1.0	-0.6	-0.8	-0.6	0.1	0.2	-0.2	-0.1	0.2	0.1	-0.6	-0.5	0.2	0.2	-6.0	-3.9	-0.6	-0.5	-0.5	-0.2	-0.3	-0.2	-1.4	-0.9	-3.2	-2.2	
Greece	3.1	5.8	1.4	3.9	-0.3	0.3	1.3	0.8	-1.3	-1.7	2.5	2.6	-0.4	-0.1	11.7	5.0	-0.6	-0.5	-0.3	-0.3	-0.9	-0.9	4.0	2.2	9.5	4.6	
Hungary	1.2	-2.2	0.5	0.2	-0.3	-0.9	0.3	-0.2	0.0	0.0	0.6	-0.8	0.1	-0.6	7.9	2.1	-0.4	1.0	0.2	0.1	-1.7	-0.8	6.3	1.6	3.4	0.3	
Iceland	-8.5	-1.3	-4.1	-4.2	-1.9	-1.6	-0.9	-0.9	-3.3	-0.7	3.6	8.5	-1.9	-2.4	27.4	20.1	-2.0	-1.9	-1.4	-1.0	-2.7	-1.7	36.9	27.3	-3.5	-2.6	
Ireland	-4.0	-3.4	-1.3	-1.0	-0.8	-0.7	-0.4	-0.3	0.0	0.0	-0.9	-0.7	-0.6	-0.6	4.8	-1.0	-0.3	-0.5	-0.3	-0.3	0.1	0.8	7.6	0.8	-2.3	-1.7	
Italy	0.0	0.4	-0.5	-0.1	0.6	0.6	1.2	1.1	0.0	0.2	-2.5	-2.5	1.2	1.0	4.0	3.5	2.5	2.3	-0.6	-0.5	-0.5	-0.6	-2.6	-1.5	5.2	3.6	
Netherlands	1.3	1.6	2.4	2.4	-0.4	-0.3	-0.3	-0.2	0.2	0.2	-0.2	-0.3	-0.2	-0.2	1.8	1.3	-0.7	-0.5	-0.6	-0.4	-0.3	-0.1	5.3	3.3	-1.9	-1.1	
Norway	8.4	7.3	3.5	4.0	-1.1	-0.9	-0.3	-0.4	3.5	1.4	3.4	4.0	-0.7	-0.8	-0.6	0.3	-1.0	-0.9	0.2	-0.4	0.9	1.3	3.0	3.1	-3.8	-2.7	
Poland	8.9	3.1	-0.5	0.2	-1.4	-0.4	0.6	0.1	2.1	1.9	7.1	0.5	0.9	0.8	5.3	5.7	1.0	2.9	2.3	1.1	-1.5	-0.2	0.8	1.3	2.7	0.6	
Portugal	-1.0	-1.9	0.1	-0.6	-0.8	-0.4	1.5	0.9	0.3	0.1	-2.1	-1.9	0.0	0.1	15.3	8.2	-0.2	0.0	2.3	1.7	1.0	0.7	-1.1	-1.7	13.3	7.6	
Slovak Republic	..	4.6	..	2.1	..	-0.6	..	0.5	..	0.1	..	2.9	..	-0.3	..	0.5	..	0.4	..	0.5	..	0.8	..	-1.2	..	0.1	
Spain	3.5	1.5	0.5	0.0	0.2	0.3	1.0	1.1	0.8	0.1	0.9	-0.3	0.1	0.2	-1.4	1.1	-0.3	0.1	-0.2	-0.2	-0.3	0.2	-0.3	0.7	-0.3	0.3	
Sweden	-0.7	-0.2	-0.4	0.1	-0.6	-0.5	-0.5	-0.3	0.0	0.2	0.9	0.3	0.0	0.0	1.3	1.5	-0.6	-0.3	1.8	1.2	5.9	4.5	-2.1	-1.8	-3.8	-2.0	
Switzerland	-2.8	-3.5	-1.6	-1.4	-0.4	-0.2	-0.6	-0.4	-0.1	0.0	-0.6	-1.8	0.3	0.3	-6.5	-5.1	-1.1	-0.9	-0.4	-0.3	-1.2	-1.0	-1.0	-0.8	-3.0	-2.1	
Turkey	2.3	-3.0	-0.6	-1.8	0.0	-2.7	1.4	1.8	0.0	-0.3	1.6	-0.1	-0.2	0.0	21.9	16.8	-0.2	0.7	0.0	0.0	-0.8	-0.9	2.2	1.9	20.7	15.2	
United Kingdom	-0.1	0.3	0.6	0.4	0.0	-0.1	0.1	0.0	0.0	0.1	-0.7	-0.1	0.0	0.0	-4.5	-4.6	-0.5	-0.7	-0.8	-0.5	-0.8	-0.5	-0.8	-0.8	-1.6	-2.1	
European Union	0.0	0.0	-0.1	0.0	0.0	0.0	0.2	0.2	0.1	0.1	-0.4	-0.4	0.2	0.1	-1.1	-1.0	-0.1	-0.1	-0.2	-0.1	0.0	0.1	0.1	0.0	-0.8	-0.8	
Total OECD <sup>2</sup>	-0.3	-0.4	-0.4	-0.5	-0.1	0.0	0.0	0.1	0.3	0.2	-0.2	-0.2	0.0	0.0	-2.9	-2.2	-0.6	-0.6	-0.2	-0.1	0.1	0.2	-0.3	0.0	-1.8	-1.6	

1. Observed trade balance of industry minus theoretical trade balance, expressed in hundreds of manufacturing trade (see box in text).

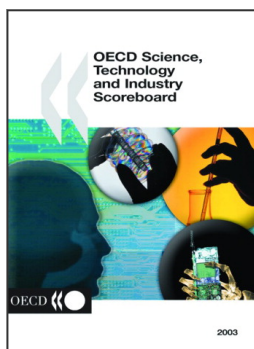
2. Total OECD excludes Korea, Luxembourg, Czech Republic and Slovak Republic.

Source: OECD, STAN database, May 2003.

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