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**STAN BILATERAL TRADE DATABASE  
(EDITION 2005)**

**1988 - 2003**

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## 1. Introduction

The **STAN Bilateral Trade Database** for industrial analysis (BTD) is designed to provide analysts with information on trade of goods in OECD countries, broken down *by partner country* (or geographical area) and *by economic activity*.

BTD is derived from the OECD's *International Trade by Commodities Statistics* (ITCS)<sup>1</sup> database, where (values and quantities of) imports and exports are compiled for OECD countries according to product classifications and by partner country.

To compile the current version of BTD, ITCS data are converted from product classification schemes to an activity classification scheme using a standard conversion key. The industry list of BTD is based on ISIC Rev. 3 and is compatible with other OECD data sets such as the STAN Database for Industrial Analysis, Research and Development Expenditure in Industry (ANBERD), and the Input-Output tables. Details of those and other databases can be found at statistical-analysis of science, technology and industry.

For further information concerning Science, Technology and Industry statistics, please visit our web page at <http://www.oecd.org/sti/> and consult the latest version of our publication "Science, Technology and Industry Scoreboard" at [www.oecd.org/sti/scoreboard/](http://www.oecd.org/sti/scoreboard/).

BTD internet page : [www.oecd.org/sti/btd](http://www.oecd.org/sti/btd)

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<sup>1</sup> See [http://www.oecd.org/document/18/0,2340,en\\_2649\\_34235\\_1906706\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/18/0,2340,en_2649_34235_1906706_1_1_1_1,00.html)

## 2. General Description

### *Data coverage*

**Bilateral Trade Database** consists of *exports* and *imports* of goods presented for each OECD country broken down by partner country, or geographical area, (see Table. 1 for further details on reporting countries and partner countries) and by industry (see Table. 2 for further details on the list of economic activities used).

In the current version of BTM, the time-period covered is 1988-2003, except for a few declaring countries whose data start later than 1988. Exports and imports data are presented in *thousands of US dollars, at current prices*. The BTM application also includes a currency exchange table which allows users to convert the data into national currencies.

### *Data dissemination*

BTM is updated about every two years and is disseminated either in Excel tables on *OlisNet* (the OECD dedicated online service for governments and related agencies) or on *SourceOECD* (the OECD's commercial on line service), using the query based tool *Beyond 20/20*. The *Beyond 20/20* version is supplied with the *Beyond 20/20™* browser (version 6.2) under licence from *Ivation Datasystems Inc*. This is a Windows-based data dissemination tool that allows viewing, printing, graphing and exporting selected data in a user-friendly manner. A volume of BTM is also published on CDROM together with a "snapshot" of the STAN database, R&D expenditures (ANBERD), STAN Indicators and an electronic version of the latest STI Scoreboard publication.

### *Additional remark*

Since the source database ITCS covers mainly OECD trade with the world, users should note that trade entirely outside of the OECD area (e.g. exports from Argentina to Brazil) is not included in BTM and thus, total world trade cannot be calculated. However, based on 2001 data from the United Nations *Comtrade* database (<http://unstats.un.org/unsd/comtrade/>), OECD estimates that between 85% and 95% of world trade is covered by BTM.

### 3. Declaring and Partner Countries

The current edition of BTD provides data for all OECD countries. For each of these *declaring* countries, trade data are presented with 61 *partner* countries and geographical zones.

As a consequence of the European Union enlargement in 2004, the following **partner countries** are now included in the database:

- Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia;
- EU19 includes the previous 15 countries of the European Union and the 4 most recent EU Member countries that also belong to the OECD, namely the Czech Republic, Hungary, Poland and the Slovak Republic;
- EU25 represents the total of EU, it covers the previous 15 countries of the European Union and the 10 most recent EU Member countries above mentioned.

Notes: The additional category “Unspecified” contains data that are not attributed to particular partner countries. This includes ships’ supplies, secret transactions, miscellaneous items and errors and omissions. Also, for a few countries data for re-imports and re-exports are given for some years and are found in the tables where the *declaring* and *partner* countries are *identical*.

Table 1. Countries and geographical groupings

Declaring *and* partner countries are:

AUS	Australia	KOR	Korea <sup>1</sup>
AUT	Austria <sup>1</sup>	LUX	Luxembourg <sup>1</sup>
BLX	Belgium/Luxembourg <sup>2</sup>	MEX	Mexico <sup>1</sup>
CAN	Canada	NLD	Netherlands
CZE	Czech Republic <sup>1</sup>	NZL	New Zealand
DNK	Denmark	NOR	Norway
FIN	Finland	POL	Poland <sup>1</sup>
FRA	France	PRT	Portugal
DEU	Germany <sup>3</sup>	SVK	Slovak Republic <sup>1</sup>
GRC	Greece	ESP	Spain
HUN	Hungary <sup>1</sup>	SWE	Sweden
ISL	Iceland	CHE	Switzerland
IRL	Ireland	TUR	Turkey <sup>1</sup>
ITA	Italy	GBR	United Kingdom
JPN	Japan	USA	United States <sup>1</sup>

Partner countries (*only*) are:

ARG	Argentina	PHL	Philippines
BRA	Brazil	RUS	Russian Federation
CHL	Chile	SGP	Singapore
CHN	China	SVN	Slovenia
TWN	Chinese Taipei	ZAF	South Africa
CYP	Cyprus	THA	Thailand
CSK	Former Czechoslovakia	OPC	OPEC countries (excluding Indonesia)
EST	Estonia	ROW	Rest of World (other Non-OECD)
HKG	Hong Kong, China	WOR	Total World
IND	India	G7	G7 countries
IDN	Indonesia	EU15	European Union 15
LVA	Latvia	EU19	European Union 19
LTU	Lithuania	EU25	European Union 25
MYS	Malaysia	OECD	Total OECD
MLT	Malta	NON	Total Non-OECD
		SEC	Unspecified

<sup>1</sup> For the following *declaring* countries data start later than 1988: Austria (1995), Czech Republic (1993), Hungary (1992), Korea (1994), Luxembourg (1999) Mexico (1990), New Zealand (1989), Poland (1992), Slovak Republic (1997), Turkey (1989), USA (imports: 1990; exports: 1989).

<sup>2</sup> BLX as a *declaring country*: data refer to Belgium/Luxembourg up to and incl. 1992, data refer to Belgium as from 1993. BLX as a *partner country*: data refer to Belgium/Luxembourg throughout.

<sup>3</sup> DEU as a *declaring country*: data refer to Western Germany up to and incl. 1990 and to total Germany thereafter. DEU as a *partner country*: data refer to total Germany throughout.

#### 4. Industry Classification

In BTD, the industry classification is based upon ISIC Rev. 3 (see the [U.N.'s classification registry](#)) and covers 42 sectors among which:

- The non-manufacturing goods-producing sectors, such as *agriculture* and *mining*.
- The two additional categories, *Scrap metal* and *Other*, include goods that are not allocated to ISIC Rev. 3 activities while *Grand Total* represents total trade as given in the product-based tables from ITCS database.
- Special aggregations are provided: Manufactures broken down according to a technology classification (see description in *Annex 1* of the publication "[OECD Science, Technology and Industry Scoreboard, 2003](#)");
- And a sector representing information and communication technology (ICT) manufactures.

BTB 's industry list is compatible with lists used in other OECD data sets such as the STAN database ([www.oecd.org/sti/stan](http://www.oecd.org/sti/stan)), and it allows the trade data to be combined with output measures by activity (*see STAN Indicators*).

Note: The previous ISIC Rev. 2 versions of BTB covered manufacturing industries only and did not provide the total trade in goods for cross-reference.

Table 2. Industry Classification

	<i>Description</i>	<i>NACE</i>	<i>ISIC Revision 3</i>
1	<b>GRAND TOTAL</b>		
2	<b>AGRICULTURE, HUNTING, FORESTRY AND FISHING</b>	<b>A-B</b>	<b>01-05</b>
3	<b>MINING AND QUARRYING</b>	<b>C</b>	<b>10-14</b>
4	<b>TOTAL MANUFACTURING</b>	<b>D</b>	<b>15-37</b>
5	FOOD PRODUCTS, BEVERAGES AND TOBACCO	DA	15-16
6	TEXTILES, TEXTILE PRODUCTS, LEATHER AND FOOTWEAR	DB-DC	17-19
7	WOOD AND PRODUCTS OF WOOD AND CORK	DD	20
8	PULP, PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	DE	21-22
9	CHEMICAL, RUBBER, PLASTICS AND FUEL PRODUCTS	DF-DH	23-25
10	....COKE, REFINED PETROLEUM PRODUCTS AND NUCLEAR FUEL	DF	23
11	....CHEMICALS AND CHEMICAL PRODUCTS	DG	24
12	.....CHEMICALS EXCLUDING PHARMACEUTICALS		24 <i>excluding 2423 (24x)</i>
13	.....PHARMACEUTICALS		2423
14	....RUBBER AND PLASTICS PRODUCTS	DH	25
15	OTHER NON-METALLIC MINERAL PRODUCTS	DI	26
16	BASIC METALS AND FABRICATED METAL PRODUCTS	DJ	27-28
17	....BASIC METALS		27
18	.....IRON AND STEEL		271+2731
19	.....NON-FERROUS METALS		272+2732
20	....FABRICATED METAL PRODUCTS ( <i>except machinery and equipment</i> )		28
21	MACHINERY AND EQUIPMENT	DK-DL	29-33
22	....MACHINERY AND EQUIPMENT, N.E.C.	DK	29
23	....ELECTRICAL AND OPTICAL EQUIPMENT	DL	30-33
24	.....OFFICE, ACCOUNTING AND COMPUTING MACHINERY		30
25	.....ELECTRICAL MACHINERY AND APPARATUS, NEC		31
26	.....RADIO, TELEVISION AND COMMUNICATION EQUIPMENT		32
27	.....MEDICAL, PRECISION AND OPTICAL INSTRUMENTS		33
28	TRANSPORT EQUIPMENT	DM	34-35
29	....MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS		34
30	....OTHER TRANSPORT EQUIPMENT		35
31	.....BUILDING AND REPAIRING OF SHIPS AND BOATS		351
32	.....AIRCRAFT AND SPACECRAFT		353
33	.....RAILROAD EQUIPMENT AND TRANSPORT EQUIPMENT N.E.C.		352+359
34	MANUFACTURING NEC; RECYCLING	DN	36-37
35	<b>ELECTRICITY, GAS AND WATER SUPPLY</b>	<b>E</b>	<b>40-41</b>
36	<b>SCRAP METAL</b>		
37	<b>OTHER</b> <sup>1</sup>		
38	HIGH-TECH MANUFACTURES <sup>2</sup>		2423 + 30 + 32 + 33 + 353
39	MEDIUM-HIGH TECH MANUFACTURES <sup>2</sup>		24x + 29 + 31 + 34 + 352+359
40	MEDIUM-LOW TECH MANUFACTURES <sup>2</sup>		23 + 25 + 26 + 27 + 28 + 351
41	LOW-TECH MANUFACTURES <sup>2</sup>		15-16 + 17-19 + 20 + 21-22 + 36-37
42	ICT MANUFACTURES <sup>3</sup>		313 + 30 + 32 + 3312 + 3313

1. This includes tangible goods from service activities (such as photographic and cinematographic films, plans and drawings, works of art and antiques); confidential transactions; supplies for ships and aircraft; miscellaneous waste (not including scrap metal); and trade not elsewhere classified.

2. For discussion of this technology classification, see Annex 1 of "OECD Science, Technology and Industry Scoreboard, 2003": <http://www1.oecd.org/publications/e-book/92-2003-04-1-7294/>.

3. From the OECD definition of the ICT sector, agreed at the 1998 meeting of the Working Party on Indicators for the Information Society (WPIIS). For more details, see the OECD publication *Measuring information economy*.

Note: This is an ISIC Rev. 3 based activity definition, not a product-based definition.

## 5. Sources and Methods

BTD is primarily drawn from the database on *International Trade by Commodities Statistics* (ITCS) in which data are compiled by OECD on the basis of submissions received from OECD Member Countries and, in some cases, from the United Nations (UN) and Eurostat. In ITCS, data are classified as follows:

- by *declaring country*, the country supplying the information
- by *partner country*, origin of imports and destination of exports
- by *product*, according to standard international classifications

In ITCS, data are stored according to the product classification used by the declaring country at the time that the statistics were collected. In general, source data are held according to Standard International Trade Classification (SITC) Rev. 2 for the time period 1978-1987, the Harmonised System<sup>1</sup> (HS) Rev. 1 for 1988-1995, HS Rev. 2 for 1996-2001 and HS Rev. 3 from 2002. ITCS stores and publishes HS data at the 6-digit level of product detail, although some countries submit data at the 8- or even 10-digit level.

Within ITCS, HS Rev. 2 and HS Rev. 3 data are first converted to HS Rev. 1. For all countries, a standard conversion table<sup>2</sup> from HS Rev. 1 to ISIC Rev. 3 is then used to transform the product-grouped data into the activity-based data presented in BTD. It is worth noting that within ITCS, trade estimates by activity are available at the 4-digit level of ISIC Rev. 3 (as well as for all countries as *partners*).

To compile BTD, the *declaring* and *partner* country lists presented in ITCS have been reduced to make them more manageable. For each *declaring* country, the conversion into ISIC Rev.3 is done by simple aggregation of the appropriate data by product and by *partner* country.

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<sup>1</sup> Details available from the World Customs Organisation (WCO), the custodians of the Harmonised System: [www.wcoomd.org/ie/En/Topics\\_Issues/topics\\_issues.html](http://www.wcoomd.org/ie/En/Topics_Issues/topics_issues.html).

<sup>2</sup> Available on request – or refer to the HS 1996 to ISIC Rev.3 conversion key provided on Eurostat's classification server RAMON - <http://europa.eu.int/comm/eurostat/ramon/>.

## 6. Quality of Data

Users should bear in mind that there are problems associated with the estimation of data in BTD - although most of these are not unique to BTD or ITCS, but rather are inherent in all international trade databases. For example, *mirror statistics* often do not match between two countries (exports from the USA to France may well not agree with imports by France from the USA).

***Reasons for inconsistencies include:***

- The valuation is generally standardised to imports, CIF and exports, FOB. In other words, goods leaving a country are valued free on board, whereas on arrival elsewhere the valuation has increased because the cost of insurance and freight has been included. A few countries, however report imports on a FOB basis;
- The partner country may be declared either as the country of *i*) consignment, or *ii*) origin (for imports) / destination (for exports). Goods may leave country A registered as consigned to country B, but at their ultimate destination, country C, they may be allocated as having originated in country A;
- The accuracy of the original customs declaration may vary between countries and over time;
- Differences across countries in the cut-off points (minimum values) used to determine whether individual transactions are recorded in national trade statistics;
- The point in time of data collection: goods may leave one country in one calendar year and arrive elsewhere the following year;
- Differences between countries in the treatment of confidential transactions (either for political or commercial reasons). This can result in data for a particular industrial sector being greater than the sum of its component sectors for certain declaring/partner country combinations. Also, while a *declaring* country may treat certain exports as confidential, they may not be treated as confidential by the importing *partner(s)*;
- The use of the HS classification at the detailed 6-digit level can, in some cases, lead to a loss of information due to confidentiality problems. Old SITC submissions were at a more aggregate 5-digit level so there was less sensitivity in terms of commercial and/or political confidentiality;
- The UN specifies that all goods which add to or subtract from the resources of a country as a result of their movement into or out of the country should be covered. For example, transactions in new ships and aircraft should be included, while transactions in second-hand ships and aircraft should not be included. There are frequent exceptions to these recommendations.

Note: Detailed sources and methods by country for product trade data submitted to ITCS can be found on this database's internet page.

## 7. Summary of Changes since the last edition

- The current period covered is 1988-2003 for most of countries (that depends on the availability of Harmonised System data, *see* item 3 on page 3);
- Data for Belgium and Luxembourg - as *declaring* countries - are now presented separately;
- The list of *partner* countries has been expanded to include Chile, Russian Federation and South Africa;
- United States as a *declaring* country - break in series: as from 1991, exports include re-exports and imports are reported on a CIF basis.

## 8. Using BTD

BTB data are available in two formats:

- In Excel (\*.xls) workbook files
- In Beyond 20/20 matrices

### *Excel files*

Each declaring country has *two* excel files: an import and an export file which follow the naming convention of BTDX\_AUS.XLS and BTDM\_AUS.XLS, where *X* and *M* refer to *exports* and *imports* respectively, while the 3-character code following the underscore denotes the country code (*see* Table 1. for the country codes). Within each declaring country file, there is a sheet for each partner country with rows containing annual time-series for each industry. Thus the first sheet of BTDM\_FRA.XLS shows France's imports from Australia for the 42 industry groupings from 1988 to 2003, the second sheet, France's imports from Austria, etc.

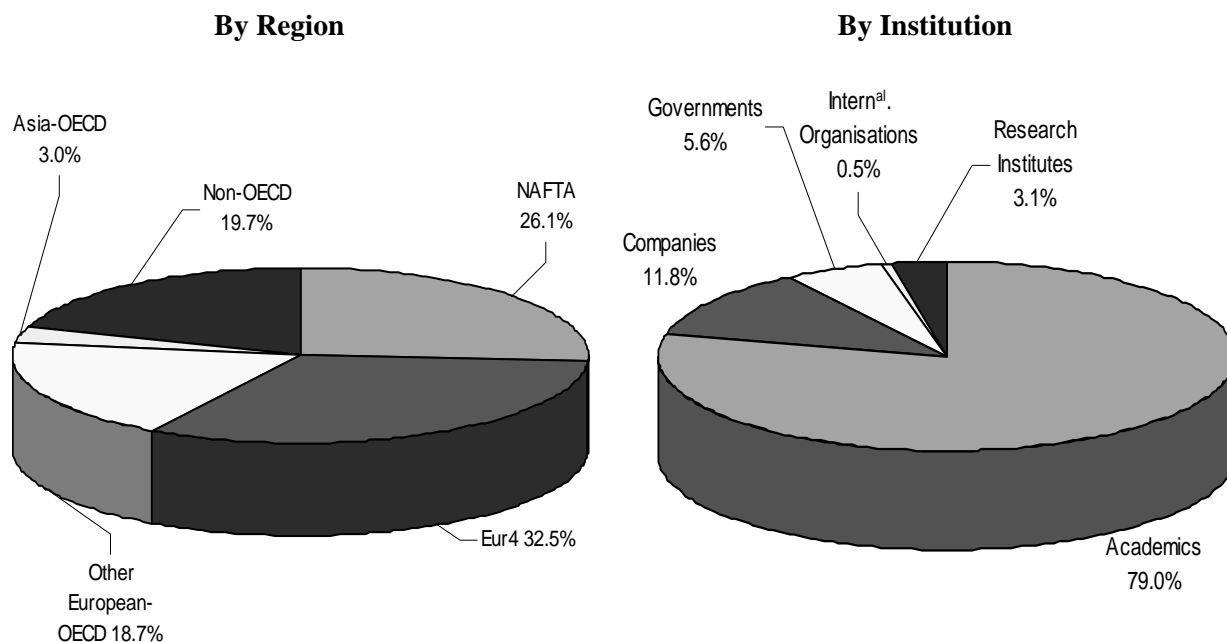
Excel data are stored in 'zipped' files, having one file per country: BTB\_AUS.ZIP to BTB\_USA.ZIP. Altogether, this data set consists of 58 files, which occupy about 46 megabytes when unzipped. An additional file BTB\_RATES.XLS provides USD/ national currency (euro for EMU countries) exchange rates.

### *Beyond 20/20 matrices*

In Beyond 20/20, BTB data are presented in *multi-dimensional matrices* based upon the vectors declaring country, variable, partner country, industry and time period. Beyond 20/20 is a tool that enables to display and manipulate multi-dimensional views in a user-friendly manner. The matrices are available on SourceOECD and OIisNet under the STAN heading.

## 9. Who are BTB users?

The pie-charts below are just aimed at showing the distribution of the 215 different institutions that received the 2000 edition of STAN Bilateral Trade Database for free and used it in the last 15 months (charts as of end of February 2005). It is worth noting that there may be some overlap between academics and research institutions, and between government agencies and research institutes.



Eur4: France, Germany, Italy and United Kingdom.  
 Other European-OECD: other OECD countries that belong to Europe.  
 NAFTA: Canada, Mexico, USA.  
 Asia-OECD: Australia, Japan, Korea and New Zealand.  
 Non-OECD: Non-OECD countries.

Governments and related agencies.  
 International Organisations.  
 Research Institutes.  
 Academic Institutions (universities).  
 Commercial Enterprises.

For any comments or suggestions concerning the STAN Bilateral Trade Database, please contact [dsti.contact@oecd.org](mailto:dsti.contact@oecd.org) (mentioning **BTB** in the title of the message).