

Trade and Production, 1976-1999^{*}

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August 2001

Abstract

This paper is a companion to the database in the Trade and Production CD-ROM. The database contains trade, production and tariff data for 67 developing and developed countries at the industry level over the period 1976-1999. The sector disaggregation in the database follows the International Standard Industrial Classification (ISIC) and is provided at the 3 digit level (28 industries) for 67 countries and at the 4 digit level (81 industries) for 24 of these countries. The sources of the production data are the CD-ROM versions of UNIDO's Industrial Statistics Database at the 3 and 4 digit level of the ISIC classifications. It includes data on value added, total output, average wages, capital formation, number of employees, number of female employees, and number of firms. The source of the trade data is United Nations Statistics Department's Comtrade database (through World Bank's World Integrated Trade Solution (WITS) software) and it includes imports and exports. Mirror exports (reported by other trading partners) were obtained using WITS. Trade data is aggregated by region and income levels according to World Bank's definitions. A separate dataset is provided as well that includes bilateral trade flows (by partner) at the industry level. The sources of MFN average tariffs are UNCTAD's Trains database and WTO's Trade Policy Reviews and Integrated Data Base (IDB). An input-output table using data from GTAP 4 is also provided for each country. The database is available on CD-ROM in a series of ASCII files and Microsoft Excel worksheets.

^{*} This paper accompanies the Trade and Production Database which is available at www.worldbank.org/research/trade or on request in electronic format (CD-ROM). The database is provided on an "as is" basis. The construction of this database has been funded by the World Bank's Research Support Budget and the Export Promotion Thematic Group.

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1. Introduction

The Trade and Production Database described herein produces a readily available and comprehensive set of data. The purpose of this database is to facilitate the long and cumbersome tasks which researchers periodically face when collecting and organizing data. The database merges trade, production and tariff data available from different sources into a common classification: the International Standard Industrial Classification (ISIC), Rev. 2. Data availability varies, but the database potentially covers 67 developing and developed countries over the period 1976-1999. In that respect this database is a complement to other existing datasets, such as those provided in Feenstra (1996, 2000) and Feenstra, Lipsey and Bowen (1997).¹

The United Nations Industrial Development Organization (UNIDO) is the source for production related data. It was obtained from the CD-ROM version of their Industrial Statistics Databases at the 3 and 4 digit level of the ISIC classification.² The main source of trade data is the United Nations Statistical Department, which collects data from individual countries, and then reports the data in the Commodity Trade Statistics (COMTRADE).³ The World Bank's World Integrated Trade Solution (WITS) was used to "mirror" trade using partners data, when countries did not report their trade statistics to the United Nations. Tariff data are sourced from two international organizations: the World Trade Organization (WTO) through the Trade Policy Review series and the internet version of the Integrated Data Base,⁴ as well as the United Nations Conference on Trade and Development (UNCTAD) through the Trade Analysis & Information

¹ Feenstra (1996) covers US imports from 1972 to 1974. Feenstra, Lipsey and Bowen (1997) covers trade, production and tariff data from 1970 to 1992, but production data is only available for OECD countries. On the other hand, it includes non-tariff barriers (coverage ratios) excluded here. Feenstra (2000) covers only trade, but at a much higher level of product disaggregation than the one followed here.

² For more information on all of UNIDO's industrial databases please visit: <http://www.unido.org/doc/50215.htmls>.

³ For more information on UN's COMTRADE database and other products of the United Nations Statistical office, please visit: <http://esa.un.org/unsd/pubs>.

⁴ For more information on WTO products, please visit <http://www.wto.org>

System (TRAINS).⁵ The original source for input-output tables is the Global Trade Analysis Project (GTAP).⁶

The various agencies utilize different classifications in the collection and publication of the data. The main accomplishment of this database is the grouping of the data and the matching of the different classifications. In particular, the Standard International Trade Classification (SITC) or the Harmonised System (HS) generally used to report trade and tariff data do not match in any straightforward way the classification used for industrial output. To address this problem, the Organization for Economic Cooperation and Development (OECD) has developed a concordance that approximates quite effectively SITC codes within the ISIC classification. The OECD's filter is the one used in the production of this database to filter trade data. A concordance from HS to ISIC developed by Jerzy Rozanski (World Bank) has also been used to filter tariff data into the ISIC classification. All filters are provided in the CD-ROM under the directory called “concordances”.

The next section describes the different dimensions of the database and data availability across time, countries and sectors. Section 3 briefly underlines some important issues to be aware of when utilizing the kind of data provided here. Finally, section 4 illustrates the technical aspects of the database. Four appendices describe in more detail various aspects of the database.

2. Description of the Database on Trade and Production

The database is constructed using the ISIC classification and includes trade, production, and tariff data. Depending on the country, the database covers a time span from the late '70s to the late '90s. When available, the database is accompanied by data on tariffs, and

⁵ For more information on UNCTAD's TRAINS database, please visit <http://www.unctad.org/trains/index.htm>

⁶ For more information on GTAP's dataset, please visit <http://www.agecon.purdue.edu/gtap/>

an input/output table, provided for each country. The Trade and Production Database is divided in two independent databases. The first database covers 67 countries and reports data at the 3 digit ISIC classification for a total of 28 manufacturing sectors. A second database covers a subset of 24 countries and reports the data at the more disaggregated 4 digit ISIC classification, covering 81 manufacturing sectors. Each data set is extensively quality controlled and examined for anomalies. Appendix A illustrates the different dimensions of the database and data availability.

2A. Production Data

The production data are collected by UNIDO and OECD through the joint annual collection program of general industrial statistics and published in the UNIDO annual commercial publication, the International Yearbook of Industrial Statistics. They are also available in electronic format (CD-ROM).⁷ UNIDO provides internationally consistent data by collecting annual data directly from all non-OECD member countries through UNIDO's country questionnaire. OECD collects data for its member states and provides the information to UNIDO. The data are usually obtained from industrial census statistics and then compiled into ISIC categories. The industrial data cover only the manufacturing sector and is published at two different levels of detail. The three digit level of aggregation covers 28 manufacturing sectors, while 81 manufacturing sectors are covered at the four digit level. A complete list of those sectors is provided in Appendix C. For each sector, the data on production report yearly values in thousands of US dollars on total output, value added, gross fix capital formation and average wages. The other variables, number of enterprises, total employees and female employees, have values expressed in units.⁸ The data published by UNIDO are by no means complete. Some countries may report few indicators, and some time series may not be complete across all years or industries. Following the usual notation, each missing observation is reported as a dot or a blank. Zeroes are reported as by UNIDO. For further details on data availability across variables see tables in appendix A.

⁷ The source for this database is UNIDO's CD-ROM version.

⁸ Appendix A describes industrial variables in more detail.

2B. Trade Data

The trade data are collected and organized by the United Nations Statistical Department and reported in the COMTRADE database. For the purpose of the Trade and Production Database, the data are first downloaded in the SITC rev. 2 classification and then transformed into ISIC. This process utilizes the concordance filters developed by the OECD, which provides two slightly different concordance tables: one for exports and one for imports. These tables do not follow a one-to-one correspondence, but matching is achieved through a method involving a series of carefully estimated weights. The Trade and Production database is balanced and reports values for imports and exports. Data on mirrored exports, i.e., exports calculated using import data reported by partner countries, are also provided.⁹ The World Bank's WITS system was used to mirror missing trade data. To make the database manageable, the trade flows are aggregated according to World Bank regions and by income level. The database also reports data on trade flows with particularly interesting markets such as E.U., Japan, U.S.A. and world totals, producing a total of 34 region groups.¹⁰ Appendix D illustrates the country composition of each region/income group. For more detailed studies, we also provide bilateral trade flows by partner country in a series of separate ASCII files.¹¹

The trade data are quite complete: there are very few country periods for which data are missing. Whenever the data are not available, the missing observations are reported as dots or blanks. All trade values are reported in thousands of US dollars.

2C. Tariff Data

The tariff data utilized in the database originate from two sources: the WTO and UNCTAD.

⁹ Generally, import data is of better quality than import data for fiscal reasons. However, mirror data need to be used with caution as suggested by Yeats (1995).

¹⁰ Due to rounding errors and aggregation issues there may be very slight differences (usually less than 0.01%) between the sum of the different regions and totals. Users should be aware of these possible discrepancies.

¹¹ The data in the bilateral trade flow files are not balanced. That is, the number of years, product groups and/or partner countries may differ across reporters.

The WTO tariff data were sourced from published Trade Policy Review (TPR) reports and the Internet version of the Integrated Data Base (IDB). The published TPR data, consisting of tariff averages in ISIC(2) nomenclature, were coded manually by Bank staff into the data base. The raw data were converted to ISIC 2 using a concordance developed in the TPR Division. The tariff averages can include *ad valorem* equivalents or, in the cases where no *ad valorem* equivalent was available, the *ad valorem* part of compound duties has been used, but only for those duties for which the *ad valorem* part is always lower or equal to the total value of the duty. In addition, only out-of-quota duties have been retained in the calculations.

The IDB data are expressed in the Harmonized System (HS) nomenclature at the national tariff line level (i.e. more detailed than 6 digits). The tariff data may contain *ad valorem* equivalents if provided by the reporting country. And, depending on how the data are submitted by the reporting country, in-quota duties may have been included in the averages.

Conversion of the IDB information from the HS to the ISIC, and the calculation of tariff averages were undertaken by the World Bank. The methodology employed and the soundness and accuracy of the results are obviously not the responsibility of the WTO.

The ISIC concordance and the methodology for calculating tariff averages used by the Bank on the IDB data are not strictly comparable to the methodology behind the tariff averages and the ISIC conversion published by the WTO Trade Policy Review Division.

Tariff data are also available through the TRAINS database maintained by UNCTAD. TRAINS is a comprehensive computerized information system at the HS-based tariff line level that covers tariff, para-tariff and non-tariff measures as well as import flows by origin for more than 100 countries. In the best cases, the TRAINS data start from the late '80s. UNCTAD reports the tariff data utilizing the six digit HS classification. The conversion from HS classification into ISIC is achieved using a one-to-one concordance

table. TRAINS data are far from complete. While there are only a few countries for which no tariff data are available, the time series are quite sparse.

The Trade and Production Database can include tariff data for a particular country sourced from UNCTAD and the WTO (see Appendix A). Discrepancies may occur due to differences in the concordances and methodologies used by the WTO Trade Policy Review Division, the World Bank in converting the raw data in the WTO Integrated Data Base files and UNCTAD. For example, UNCTAD calculates the simple averages using as the denominator only the actual number of dutiable lines, the WTO Trade Policy Review Division includes all lines. When filtering the IDB tariffs, we follow the TPR approach.

The tariff data reported in the Trade and Production Database are MFN simple averages at the 3 or 4 digit level of the ISIC.

2D. Input/Output tables.

Input and output tables are based upon the Global Trade Analysis Project (GTAP) database version 4. The GTAP database utilizes data from the early '90s in constructing its input and output tables. Only one table is provided for each country in the database. GTAP aggregates some countries in regions; therefore, those countries have the same input and output tables.¹² Those interested in how GTAP constructs each particular input/output table should refer to the GTAP database or consult the GTAP web site (www.gtap.org). The tables reported in the Trade and Production Database are aggregated at the three digit level of the ISIC classification. To facilitate the use of the tables within the database, the data reflecting input and output have been broken down into two tables. The first table reports each manufacturing sector's share that is sold to other industrial sectors and the second table reports the value of each manufacturing sector's originating from intermediate products from each manufacturing sector. Using this GTAP data, the Trade and Production Database provides an intermediate import

¹² If the input and output tables are not country specific, the name of the region is also reported in each table.

share table that demonstrates the import share of intermediates utilized by each sector in each country. These tables are available only in EXCEL format.

3. Problems and special considerations

The data in the Trade and Production Database have been grouped and organized to facilitate its use for a large number of purposes. It is not aimed to produce quick answers, but rather to help researchers in the lengthy and cumbersome exercise of collecting and organizing data. In order to give to researcher the maximum degree of flexibility, the data have not been changed beyond the adaptations described in section two.

Nevertheless, there are a few points that need to be emphasized. Monetary data are not deflated, and are expressed in thousands of USD. If the data were not supplied in USD, the common practice was followed of using the yearly average exchange rate to convert the domestic currency to the dollar.¹³ Caution should also be used when analyzing data gathered from Germany (GER).¹⁴ To have a consistent time series, data on Germany before and immediately after unification are constructed as the sum of the Federal Republic of Germany (DFA) and the Democratic Republic of Germany (DDR).

Especially for the years immediately after unification, it is possible that some data on the DDR are not reported, therefore producing a sudden shift in the time series. The production data from UNIDO are subject to differences in national classifications and assumptions are needed to convert from the national (country specific) industrial classification into the ISIC classification. For example, similar industries may be allocated in slightly different ISIC sectors in different countries, or industries of the same size may have resulted too small to be reported in some countries while they may be fully reported in others. This kind of problems are generally most pronounced at the more disaggregated level.¹⁵

¹³ The researcher should keep this in mind and treat with caution cases where there has been a large and sudden change in the exchange rate.

¹⁴ In other databases the country code identifying Germany may be "DEU" instead of the one used here "GER".

¹⁵ Note that the 4 digit codes starting with 312 are commonly collapsed into 3 digit category 311.

A common issue in trade data is the presence of the label "not classified" as a partner. This is the case when the country doesn't know, or doesn't want to disclose, the origin or the destination of a trade flow. The Trade and Production Database deals with this issue in the following way: data on not classified countries are not allocated to any particular region but are reported as a separate observations. Nevertheless, it could be that the "not classified" value results as negative due to concordance aggregation between the SITC and the ISIC classifications. In this case, the negative value is split across all regions according to weights calculated on the basis of existing documented trade. This problem affects only a minimal part of the data and is equivalent in assuming that exports or imports not classified by country of destination or origin are distributed to each region using as weight the documented trade flows.¹⁶ In the even rarer case that, after the transformation from SITC to ISIC, the documented trade flows with the regions turns to be negative, the value of "not classified" is diminished by the amount of the sum of those negative values and the negative values are set to 0. These operations are performed only on the data aggregated by region and income level. To give maximum flexibility to the researchers, the reallocation of the negative values is not performed in the ASCII file reporting country by country trade flows.

Another recurring issue with trade data, as discussed in detail by Feenstra (1996) and Gordon and Feenstra (2001), is the existence of entrepôts, i.e. countries where transits of trade flows take place but which do not constitute the origin or the final destination of those. In many cases the country of origin (O) reports the entrepôt (T) as the destination of the shipment. Meanwhile the entrepôt country does not report the import and the final importer (F) reports the original exporter (O) as the origin. This creates a surplus (between O and T) and a deficit (between O and F). In the example above, country (F) reports an import from (O), which is not reported (as an export to F) by country (O), creating a discrepancy. The researcher should keep in mind when analyzing entrepôts such as Hong Kong, Macao, Singapore and the Netherlands. For this reason, trade data

¹⁶ Negative values were encountered in less than 0.01% of the observations.

also include values of mirrored exports.¹⁷ In many cases there are huge discrepancies which are attributable to a series of different reasons such as transport costs, different product classifications, entrepôts and poor accounting methods. It is advisable to use mirrored export only in cases where there are serious doubts about the capability of the reporting country in managing the collection of records on trade flows.¹⁸

4. Technical information

The data in the Trade and Production Database are stored in ASCII files, which can be read by any text editor or statistical software. In addition, part of the data is also available as MS Excel worksheets. The ASCII files are comma separated and include variable names in the first row. MS Excel files are usually self-explanatory. Table 1 describes the set of files present in the CD-ROM that encompasses the Trade and Production Database. The variables contained in each of the files of the database are illustrated in Appendix B.

Table 1
Trade and Production Database Files

Directory	Filename	Size	Description
Database	data4digit.csv	~22mb	Complete database at the 4 digit level (comma separated)
database	data3digit.csv	~25mb	Complete database at the 3 digit level (comma separated)
database	data4digit.xls	~58mb	Complete database at the 4 digit level (excel worksheets)
database	data3digit.xls	~58mb	Complete database at the 3 digit level (excel worksheets)
database	totalregion.cvs	~2mb	Total trade flows (comma separated)
bilateral trade	???bilateral.csv	~1-5mb	Bilateral trade flows at 4 digit level (comma separated)
bilateral trade	totalbilateral.csv	~6mb	Bilateral total trade flows (comma separated)
i_o tables	i_o tables.xls	~1mb	Input Output tables (excel worksheets)
i_o tables	intermediate_imports.xls	<1mb	Intermediates products, sectors' imported share (excel worksheet)
docs and tables	trade and production.pdf	~1mb	The Paper (pdf format)
docs and tables	regions and income.xls	<1mb	Country classification to region and income (excel worksheet)
docs and tables	data avail.xls	<1mb	Comprehensive Data Availability Table (excel worksheet)

¹⁷ Mirrored data is available from 1980 to 1998. Many countries failed to report trade data before 1980 and for year 1999 therefore producing incomplete results for those years.

¹⁸ However, in some cases mirrored export may be considered more precise than exports because trade flows are usually better recorded in entrance (imports). Therefore, mirrored export carries useful and utilizable information, on a bilateral basis, in the cases where the partner countries have a good custom administration.

docs and tables	data avail production.xls	<1mb	Production Data Availability Table specific (excel worksheets)
docs and tables	othertables.xls	<1mb	Other tables as in the paper (excel worksheets)
concordances	ccode_region_inclvl.csv	<1mb	concordances COMTRADE codes to World Bank Regions (text)
concordances	hs_isic.txt	<1mb	concordance table HS96 to ISIC (text)
concordances	sitc2_isic.txt	<1mb	Concordance table SITC rev2 to ISIC (text)

Note: all data follow ISIC classification rev 2.

References

Feenstra, Robert C., (1996), *U.S. Imports, 1972-1994: Data and Concordances*. NATIONAL BUREAU OF ECONOMIC RESEARCH. WORKING PAPER SERIES (U.S.); No. 5515.

Feenstra, Robert C (2000), *World Trade Flows, 1980-1997*, mimeo, University of California Davis, March 2000.

Feenstra, Robert C., Robert E. Lipsey and Harry P. Bowen, (1997), *World Trade Flows, 1970-1992 with Production and Tariff Data*. NATIONAL BUREAU OF ECONOMIC RESEARCH. WORKING PAPER SERIES (U.S.); No. 5910

Hanson, Gordon H. and Robert C. Feenstra, (2001), *Intermediaries in entrepôt trade: Hong Kong re-exports of Chinese goods*. NATIONAL BUREAU OF ECONOMIC RESEARCH. WORKING PAPER SERIES (U.S.); No. 8088

McDougall, Robert, Aziz Elbehri and Truong P. Truong, (1998), *Global Trade, Assistance, and Protection: The GTAP 4 Data Base*. Center for Global Trade Analysis, Purdue University.

United Nations, (1975), *Standard Industrial Trade Classification System, Revision 2*, Statistical Papers Series M, no. 34/Rev.2, New York.

United Nations Conference on Trade and Development (1999), TRAINS database. Geneva, Switzerland.

United Nations Industrial Development Organization (several years), *International yearbook of industrial statistics series (CD-ROM version)*. Vienna, Austria.

World Trade Organization, *Trade Policy Review Series*. Geneva, Switzerland.

Yeats, Alexander (1995), "Are partner country statistics useful for estimating "missing" trade data?", World Bank Policy Research Working Paper # 1501

Appendix A: Data Availability and Database Dimensions.

Country		Production		Trade	Tariffs		
Code	Name	3 digit	4 digit	Data	WTO4d	WTO3d	TRAINS
ARG	Argentina	83-93(91-92)		80-99		98	92-99(94)
ARM	Armenia	94-97		95-99			
AUS	Australia	76-92		79-99		93,98	91-99(92,94-95)
AUT	Austria	76-98		78-99		97	88-99
BGD	Bangladesh	76-92		77-99		93	89,94,99-99
BGR	Bulgaria	80-97		92-99		97	
BOL	Bolivia	76-98	88-95	80-99	96	96	93-99
CAN	Canada	76-98	81-98	78-99	96	96	89,93-99(94)
CHL	Chile	76-98	85-98(87-88)	81-99	97	97	92-99(96)
CHN	China	77-97		84-99			92-98(95)
CMR	Cameroon	76-97(85-88)	90-97	76-98	94	94	94-95
COL	Colombia	76-98	81-98(84)	78-99	96	96	91-99(93,98)
CRI	Costa Rica	76-97	80-97	81-99	94-95	94-95	95,99-99
CYP	Cyprus	76-98	81-98	76-99	96	96	
DNK	Denmark	76-98		76-99		97	88-99
ECU	Ecuador	76-97	84-95	79-99	96	96	93-99
EGY	Egypt	76-96	80-95	81-99	98	98	95,98
ESP	Spain	76-98		78-99		97	88-99
ETH	Ethiopia	90-97		76-97			95
FIN	Finland	76-98		76-99		97	88-99
FRA	France	76-95		78-99		97	88-99
GBR	United Kingdom	76-98		78-99		97	88-99
GER	Germany	76-94		78-99		97	88-99
GRC	Greece	76-98		76-99		97	88-99
GTM	Guatemala	76-97(90-91&96)	83-87(90&96)	81-99	98	98	95,98
HKG	Hong Kong	76-98	81-96	78-99	96	96	88,98
HND	Honduras	81-96	81-96	81-99			95,99
HUN	Hungary	76-98		76-99		96	91,93,96-97
IDN	Indonesia	76-97	81-97	79-99	98	98	89-99(91-92,94,96-97)
IND	India	76-98	81-95	80-99	93,97	93,97	90,92,97,99-99
IRL	Ireland	76-97		76-99		97	88-99
IRN	Iran	76-93(78)		81-99			99
ITA	Italy	76-94		77-99		97	88-99
JOR	Jordan	76-97	86-96	81-99			99
JPN	Japan	76-98		76-99		96	88-99
KEN	Kenya	76-98		84-99			94
KOR	Korea, Republic of	76-97	81-97	76-99	96	96	88-99(91,93-94,97-98)
KWT	Kuwait	76-97	81-97	81-99			
LKA	Sri Lanka	79-95		79-96		95	90-93-94,97
LVA	Latvia	92-96		94-99		98	96-97
MAC	Macau	78-97		76-99		96	
MAR	Morocco	76-97		76-98		95	93,97
MDA	Moldova	91-96		94-99			
MEX	Mexico	76-98	85-95	81-99	98	98	91,95,97-99
MWI	Malawi	79-94		77-98			94-98(95)
MYS	Malaysia	76-98	81-98	78-99	97	97	88,91,93,96-97
NLD	Netherlands	76-98		78-99		97	88-99
NOR	Norway	76-98		76-99		95	88,93-99(94,97,99)
NPL	Nepal	77-96(78-85&92&95)		81-99			93,98-99
NZL	New Zealand	76-96		79-99		96	92-93,96-99
PAK	Pakistan	76-92		82-99		95	95,98
PAN	Panama	76-97(95)		86-99			98
PER	Peru	82-96		76-99		98	93,95,97-99
PHL	Philippines	76-97	83-97	77-99	96	96	88-99(91,96-97)
POL	Poland	76-98		80-99		99	91-92,95,-96
PRT	Portugal	76-97		79-99		97	88-99
ROM	Romania	85-93		89-99		99	91,99
SGP	Singapore	76-97	81-94	79-99	96	96	89,95
SWE	Sweden	76-98		76-99		97	88-99
THA	Thailand	76-94(78&80-81&83&85&87&92)		76-99		95	89,91,93,95
TTO	Trinidad and Tobago	76-95(79-80)		79-99			91-92,96,99
TUR	Turkey	76-98	81-97	81-99	93,98	93,98	93,95,97
TWN	Taiwan	76-96		76-99*		96	89,92,96,99-99
URY	Uruguay	76-97		81-99		98	92,95-99
USA	United States	76-98	81-98	78-99	96	96	89-99(94)
VEN	Venezuela	76-96	81-96(82-83)	81-99	94	94	92,95-99(96)
ZAF	South Africa	76-98		76-99		97	88,90-99(92,94-95,98)

Note: For the years reported in parentheses the data are not available. The symbol '-' divides the first and last year of a time series, the symbol '|', divides single years. For example: 76-96,98(78-81,92) indicates that the data are available for the years 1976-1996 and 1998, excluding the years from 1978 to 1981 and the year 1992.

* In the case of Taiwan both imports and exports were obtained from UNCTAD's Trains CD-ROM.

Production Data availability 3 digit ISIC

Country	Output	Value Added	Gross Fix Capital Form	#Firms	#Employees	#Female Employees	Wages
ARG	83-93(91-92)	83-93(91-92)	93	85,93-94	76-94(91-92)	85,94	83-93(91-92)
ARM	94-97			86-97	86-97		94-97
AUS	76-92	76-92	76-95(86-89)	81-92(86)	76-95(86-89)	81-90(86)	76-95
AUT	76-98	76-98	76-94	81-94	76-98	83-94	76-98
BGD	76-92	76-92	81-92	81-92	76-92	81-92	76-92
BGR	80-97	91-96	76-97	81-97	76-97	93-97	76-97
BOL	76-98	76-98	76-94 (78-80,85-87)	81-95	76-98		76-98
CAN	76-98	76-98	76-90	81-94	76-98	81-91	76-98
CHL	76-98	76-98	76-95(87-88)	81-96(87-88)	76-98	85-96(87-88)	76-98
CHN	77-97	80-97	77-82	81-97	77-97		77-86
CMR	76-97(85-88)	76-97(85-88)	76-97(80-88)	89-97	76-97(85-88)		76-97(85-88)
COL	76-98	76-98	76-96	81-96	76-98	87-94(90-92)	76-98
CRI	76-97	76-97	80	84-97	84-97		76-97
CYP	76-98	76-98	76-97	81-97	76-98	81-94	76-98
DNK	76-98	76-98	76-91	81-92	76-98	85-92(88-89)	76-98
ECU	76-97	76-97	76-97	81-97	76-97		76-97
EGY	76-96	76-96	76-95	81-95	76-96	91-95	76-96
ESP	76-98	76-98	77-97	81-97(93-95)	76-98		76-98
ETH	90-97	90-97	90-97	90-97	90-97	91-97	90-97
FIN	76-98	76-98	76-98	81-97	76-98	81-85	76-98
FRA	76-95	76-95	76-96		76-96		77-92
GBR	76-98	76-98	76-95(93)	81-97(95)	76-98	81-95(91,93-94)	76-98
GER	76-94	76-93	76-93	81-94	76-94	81-90	76-94
GRC	76-98	76-98	76-92(78-79)	81-92	76-98		76-98
GTM	76-97(89-90,96)	76-88	77-88(89)	81-97(90,96)	77-88,91-95,97		76-97(89-90,96)
HKG	76-98	76-98	76-96	81-96	76-98		76-98
HND	81-96	81-96	83-84	83-95(89-91)	76-95		81-96
HUN	76-98	76-98	76-98	81-93	76-98	83-93(91)	76-98
IDN	76-97	76-97	76-97	81-97	76-97	93-97	76-97
IND	76-98	76-98	76-95	81-95	80-98	93-95	76-98
IRL	76-97	76-97	76-91	81-91	76-97	88-91	76-97
IRN	76-93(78)	76-93(78)	79-93(81-83)	81-93	76-93(78)	91-93	76-93(78)
ITA	76-94	76-94	76-94	81-94	76-94	87-94(91-94)	76-94
JOR	76-97	76-97	76-97	81-97	76-97	85-97	76-97
JPN	76-98	76-98	76-97	81-97	76-98	85,95-97	76-98
KEN	76-98	76-98	93-98	81-97(83-84)	76-98	87-97(95)	76-98
KOR	76-97	76-97	76-97	81-97	76-97	82-97	76-97
KWT	76-97	76-97	76-96	81-96	77-97	82-96	76-97
LKA	79-95	79-95(84-86)	79-95(87)	81-95	76-95	90-95	80-95
LVA	92-96	93-96	92-96	86-96	86-96		
MAC	78-97	78-97	78-97(87)	81-97(87)	78-97	84-97(86-87)	78-97
MAR	76-97	76-97(81-84)	85-97	82-97	76-97	92-96	76-97
MDA	91-96	93-96		86-96	86-95	94-95	91-95(92)
MEX	76-98	76-98	77-91	81-95	76-98		76-98
MWI	79-94	79-94	79-94	79-94	77-94		79-94
MYS	76-98	76-98	76-96 (77,80-82,84)	81-96	76-98	83-96 (84)	76-98
NLD	76-98	76-98	76-93	84-94	76-98		76-98
NOR	76-98	76-98	76-97	81-97	76-98		76-98
NPL	77,86-96 (92,95)	76-96 (81-85,92,95)	77,86-90,96	82-96 (83-85,92,95)	77,82,86-96 (92,95)	86-96 (92,95)	77,86-96 (92,95)
NZL	76-96	76-96	76-90	81-96(82)	76-96	88-93	76-96
PAK	76-92	76-92	76-91 (78-80,85,89-90)	81-91 (89-90)	76-92		76-92
PAN	76-97(95)	76-97(95)	76-97 (80,86,95)	81-97(86,95)	76-97(95)	82-90(86-88)	76-97(95)
PER	82-94(93)	82-94(93)	82-94(93)	81-94(93)	79-94(93)		82-94(93)
PHL	76-97	76-97	76-95(78)	81-95	76-97	92-95	76-97
POL	82,84,89-98	76-98	76-93	81-93	76-98		76-98
PRT	76-97	76-97	76-97	81-95	76-97	81-95(88-89)	76-89
ROM	85-93	88-93	76-94	81-94	76-94		90-94
SGP	76-97	76-97	76-97	81-97	76-97		76-97
SWE	76-98	76-98	76-87	81-94	76-98	81-90	76-98
THA	76-94(78,80- 81,83,85,87,92)	76-94(78,80- 81,83,85,87,92)	89-94 (92)	82-94 (83,85,87,92)	76-94(78,80- 81,83,85,87,92)	82-94 (83,85,87,92)	76-94(78,80- 81,83,85,87,92)
TTO	76-95(79-80)	76-95	81-95(88-89)	81-95	76-95		76-95(79-80)
TUR	76-98	76-98	76-97	81-94	76-98	83-90	76-98
TWN	76-96	76-96			76-97	81-97	76-97
UKR	90-98		90-98	87-98	88-98		90-98
URY	76-97	76-97	89-95	88	76-97		76-97
USA	76-98	76-98	76-98	82,87,92	76-98	92-95	76-95
VEN	76-96	76-96	76-96(80)	82-96	76-96		76-96
ZAF	76-98	76-98	79-93	85,91	76-98	85	76-98

Note: For the years reported in parentheses the data are not available. The symbol '-' divides the first and last year of a time series, the symbol '/' divides single years. For example: 76-96,98(78-81,92) indicates that the data are available for the years 1976-1996 and 1998, excluding the years from 1978 to 1981 and the year 1992.

Production Data availability 4 digit ISIC

Country	Output	Value Added	Gross Fix Capital Form	#Firms	#Employees	#Female Employees	Wages
BOL	88-95	88-95	88-94	88-95	88-95		88-95
CAN	81-98	81-98		81-94	81-98	81-91	81-98
CHL	86-98(87-88)	85-98(87-88)		85-96(87-88)	85-98(87-88)	85-96(87-88)	85-98(87-88)
CMR	90-97	92-97	91-97	91-97	92-97		91-97
COL	81-98(84)	81-98(84)	87-96(89-90)	87-96	81-98(84)	87-94(90,92)	81-98(84)
CRI	80-97	80-97		84-97	84-97		84-97
CYP	81-98	81-98	89-97	81-98	81-98	81-94	81-98
ECU	84-95	84-95	91-95	84-95	84-95		84-95
EGY	83-95	83-95		80-95	83-95	91-95	83-95
GTM	83-97(89-90,96)	83-88		83-97(90,96)	83-88,91-95,97		83-97(89-90,96)
HKG	77-96	77-96	92-96	77-96	77-96		77-96
HND	77-96	77-96		83-95(89-91)	83-95(86-89)		77-96
IDN	81-97	81-97	90-97(96)	81-97	81-97	93-97	81-97
IND	81-95	81-95	89-95	81-95	81-95	93-95	81-95
JOR	86-96	86-96	95-96	86-96	86-96	85-96	86-96
KOR	81-97	81-97	92-95	81-97	81-97	82-95	81-97
KWT	77-97	77-97	89-96	77-96	77-97		77-97
MEX	87-97	85-94	84-91	87-97	87-97		87-97
MYS	81-98	81-98	93-96	81-97	81-98	83-96(84)	81-98
PHL	83-97	83-97	90-95	83-97	83-97	92-95	83-97
SGP	81-94	81-94	89-94	81-94	81-94		81-94
TUR	81-97	81-97	90-97	81-94	81-97	83-89	81-97
USA	81-98	81-98	92-95	82,87,92	81-98	92-95	81-98
VEN	81-96(82-83)	81-96(82-83)	96	81-96(82-83)	81-96(82-83)		81-96(82-83)

Note: For the years reported in parentheses the data are not available. The symbol "-" divides the first and last year of a time series, the symbol "|", divides single years. For example: 76-96,98(78-81,92) indicates that the data are available for the years 1976-1996 and 1998, excluding the years from 1978 to 1981 and the year 1992.

The variable "Gross fix capital formation" refers to the value of purchases and own account construction of fixed assets during the reference year less the value of corresponding sales. The fixed assets covered are the one (whether new or used) with a productive life of one year or more.

The variable "#Firms" refers to the number of Establishments or Enterprises. Establishment is a unit which engages, under a single ownership or control, in one or predominantly one, kind of activity in a single location. An enterprise is a legal entity possessing the right to conducting business in its own name.

The variable "#Employees" refers to the number or employees or persons engaged. Number of persons engaged includes employees plus self employed.

The variable "Wages" refers to wages and salaries paid to employees.

The variables "Output" and "Value Added" are reported using different accounting methods. Some countries reports them in factor values and some others in producer prices, moreover some other countries fails in reporting the accounting methods used in the calculation.

The database reports the information on how the production data has been constructed in a series of "flag" variables. Those variables are illustrated, among the others, in Appendix B.

Appendix B: Variables

Variable Names and Descriptions

Filename: data4digit.csv - data3digit.csv

Column	Variable Name	Unit	Description
1	cocode	3 digit code	Country Code
2	year	4 digit year	Year
3	pcode	3 or 4 digit ISIC code	Product Code
4	viOUTP	(000 USD)	Output Value (see variable flago)
5	viVADD	(000 USD)	Value Added (see variable flagv)
6	viFIRMS	units	Number of Establishment or Enterprises (see variable flagf)
7	viLABOR	units	Number of Employees or Persons Engaged (see variable flagl)
8	viNFEME	units	Number of Female Employees
9	viWAGES	(000 USD)	Wages and Salaries Paid to Employees
10	viFCAPF	(000 USD)	Gross Fix Capital Formation (see note)
11	tarWTO	percentage	Tariffs WTO (simple average)
12	tarTRAINS	percentage	Tariffs UNCTAD (simple average)
13	impTOTALTOT	(000 USD)	Total Import
14	expTOTALTOT	(000 USD)	Total Export
15	mexpTOTALTOT	(000 USD)	Total Mirrored Export
16	impEU__EU	(000 USD)	Imports European Union
17	expEU__EU	(000 USD)	Exports European Union
18	mexpEU__EU	(000 USD)	Mirrored Exports European Union
19	impJPN__JPN	(000 USD)	Imports Japan
20	expJPN__JPN	(000 USD)	Exports Japan
21	mexpJPN__JPN	(000 USD)	Mirrored Exports Japan
22	impUSA__USA	(000 USD)	Imports United States
23	expUSA__USA	(000 USD)	Exports United States
24	mexpUSA__USA	(000 USD)	Mirrored Exports United States
25	impAMERCHOE	(000 USD)	Imports Americas High Income OECD
26	expAMERCHOE	(000 USD)	Exports Americas High Income OECD
27	mexpAMERCHOE	(000 USD)	Mirrored Exports Americas High Income OECD
28	impAMERCHOT	(000 USD)	Imports Americas High Income not OECD
29	expAMERCHOT	(000 USD)	Exports Americas High Income not OECD
30	mexpAMERCHOT	(000 USD)	Mirrored Exports Americas High Income not OECD
31	impAMERCMUP	(000 USD)	Imports Americas Upper Middle Income
32	expAMERCMUP	(000 USD)	Exports Americas Upper Middle Income
33	mexpAMERCMUP	(000 USD)	Mirrored Exports Americas Upper Middle Income
34	impAMERCMLW	(000 USD)	Imports Americas Lower Middle Income
35	expAMERCMLW	(000 USD)	Exports Americas Lower Middle Income
36	mexpAMERCMLW	(000 USD)	Mirrored Exports Americas Lower Middle Income
37	impAMERCLOW	(000 USD)	Imports Americas Low Income
38	expAMERCLOW	(000 USD)	Exports Americas Low Income
39	mexpAMERCLOW	(000 USD)	Mirrored Exports Americas Low Income
40	impEECASHOT	(000 USD)	Imports East Europe and Central Asia High Income not OECD
41	expEECASHOT	(000 USD)	Exports East Europe and Central Asia High Income not OECD
42	mexpEECASHOT	(000 USD)	Mirrored Exports East Europe and Central Asia High Income not OECD
43	impEECASMUP	(000 USD)	Imports East Europe and Central Asia Upper Middle Income
44	expEECASMUP	(000 USD)	Exports East Europe and Central Asia Upper Middle Income
45	mexpEECASMUP	(000 USD)	Mirrored Exports East Europe and Central Asia Upper Middle Income
46	impEECASMLW	(000 USD)	Imports East Europe and Central Asia Lower Middle Income
47	expEECASMLW	(000 USD)	Exports East Europe and Central Asia Lower Middle Income
48	mexpEECASMLW	(000 USD)	Mirrored Exports East Europe and Central Asia Lower Middle Income
49	impEECASLOW	(000 USD)	Imports East Europe and Central Asia Low Income
50	expEECASLOW	(000 USD)	Exports East Europe and Central Asia Low Income

51	mexpEECASLOW	(000 USD)	Mirrored Exports East Europe and Central Asia Low Income
52	impEPASIH0E	(000 USD)	Imports East Asia and Pacific High Income OECD
53	expEPASIH0E	(000 USD)	Exports East Asia and Pacific High Income OECD
54	mexpEPASIH0E	(000 USD)	Mirrored Exports East Asia and Pacific High Income OECD
55	impEPASIH0T	(000 USD)	Imports East Asia and Pacific High Income not OECD
56	expEPASIH0T	(000 USD)	Exports East Asia and Pacific High Income not OECD
57	mexpEPASIH0T	(000 USD)	Mirrored Exports East Asia and Pacific High Income not OECD
58	impEPASIMUP	(000 USD)	Imports East Asia and Pacific Upper Middle Income
59	expEPASIMUP	(000 USD)	Exports East Asia and Pacific Upper Middle Income
60	mexpEPASIMUP	(000 USD)	Mirrored Exports East Asia and Pacific Upper Middle Income
61	impEPASIMLW	(000 USD)	Imports East Asia and Pacific Lower Middle Income
62	expEPASIMLW	(000 USD)	Exports East Asia and Pacific Lower Middle Income
63	mexpEPASIMLW	(000 USD)	Mirrored Exports East Asia and Pacific Lower Middle Income
64	impEPASIL0W	(000 USD)	Imports East Asia and Pacific Low Income
65	expEPASIL0W	(000 USD)	Exports East Asia and Pacific Low Income
66	mexpEPASIL0W	(000 USD)	Mirrored Exports East Asia and Pacific Low Income
67	impESAFRMD	(000 USD)	Imports East and Southern Africa Upper Middle Income
68	expESAFRMD	(000 USD)	Exports East and Southern Africa Upper Middle Income
69	mexpESAFRMD	(000 USD)	Mirrored Exports East and Southern Africa Upper Middle Income
70	impESAFRLOW	(000 USD)	Imports East and Southern Africa Low Income
71	expESAFRLOW	(000 USD)	Exports East and Southern Africa Low Income
72	mexpESAFRLOW	(000 USD)	Mirrored Exports East and Southern Africa Low Income
73	impMEASTHOT	(000 USD)	Imports Middle East High Income not OECD
74	expMEASTHOT	(000 USD)	Exports Middle East High Income not OECD
75	mexpMEASTHOT	(000 USD)	Mirrored Exports Middle East High Income not OECD
76	impMEASTMUP	(000 USD)	Imports Middle East Upper Middle Income
77	expMEASTMUP	(000 USD)	Exports Middle East Upper Middle Income
78	mexpMEASTMUP	(000 USD)	Mirrored Exports Middle East Upper Middle Income
79	impMEASTMLW	(000 USD)	Imports Middle East Lower Middle Income
80	expMEASTMLW	(000 USD)	Exports Middle East Lower Middle Income
81	mexpMEASTMLW	(000 USD)	Mirrored Exports Middle East Lower Middle Income
82	impMEASTLOW	(000 USD)	Imports Middle East Low Income
83	expMEASTLOW	(000 USD)	Exports Middle East Low Income
84	mexpMEASTLOW	(000 USD)	Mirrored Exports Middle East Low Income
85	impNNAFRMUP	(000 USD)	Imports North Africa Upper Middle Income
86	expNNAFRMUP	(000 USD)	Exports North Africa Upper Middle Income
87	mexpNNAFRMUP	(000 USD)	Mirrored Exports North Africa Upper Middle Income
88	impNNAFRMLW	(000 USD)	Imports North Africa Lower Middle Income
89	expNNAFRMLW	(000 USD)	Exports North Africa Lower Middle Income
90	mexpNNAFRMLW	(000 USD)	Mirrored Exports North Africa Lower Middle Income
91	impRSTEUH0E	(000 USD)	Imports Rest of Europe High Income OECD
92	expRSTEUH0E	(000 USD)	Exports Rest of Europe High Income OECD
93	mexpRSTEUH0E	(000 USD)	Mirrored Exports Rest of Europe High Income OECD
94	impRSTEUHOT	(000 USD)	Imports Rest of Europe High Income not OECD
95	expRSTEUHOT	(000 USD)	Exports Rest of Europe High Income not OECD
96	mexpRSTEUHOT	(000 USD)	Mirrored Exports Rest of Europe High Income not OECD
97	impRSTEU MDL	(000 USD)	Imports Rest of Europe Lower Middle Income
98	expRSTEU MDL	(000 USD)	Exports Rest of Europe Lower Middle Income
99	mexpRSTEU MDL	(000 USD)	Mirrored Exports Rest of Europe Lower Middle Income
100	impSOASIH0T	(000 USD)	Imports South Asia High Income not OECD
101	expSOASIH0T	(000 USD)	Exports South Asia High Income not OECD
102	mexpSOASIH0T	(000 USD)	Mirrored Exports South Asia High Income not OECD
103	impSOASIMLW	(000 USD)	Imports South Asia Lower Middle Income
104	expSOASIMLW	(000 USD)	Exports South Asia Lower Middle Income
105	mexpSOASIMLW	(000 USD)	Mirrored Exports South Asia Lower Middle Income
106	impSOASIL0W	(000 USD)	Imports South Asia Low Income
107	expSOASIL0W	(000 USD)	Exports South Asia Low Income
108	mexpSOASIL0W	(000 USD)	Mirrored Exports South Asia Low Income
109	impWWAFRH0T	(000 USD)	Imports West Africa High Income not OECD

110	expWWAFRHOT	(000 USD)	Exports West Africa High Income not OECD
111	mexpWWAFRHOT	(000 USD)	Mirrored Exports West Africa High Income not OECD
112	impWWAFRMUP	(000 USD)	Imports West Africa Upper Middle Income
113	expWWAFRMUP	(000 USD)	Exports West Africa Upper Middle Income
114	mexpWWAFRMUP	(000 USD)	Mirrored Exports West Africa Upper Middle Income
115	impWWAFRMLW	(000 USD)	Imports West Africa Lower Middle Income
116	expWWAFRMLW	(000 USD)	Exports West Africa Lower Middle Income
117	mexpWWAFRMLW	(000 USD)	Mirrored Exports West Africa Lower Middle Income
118	impWWAFRLOW	(000 USD)	Imports West Africa Low Income
119	expWWAFRLOW	(000 USD)	Exports West Africa Low Income
120	mexpWWAFRLOW	(000 USD)	Mirrored Exports West Africa Low Income
121	impNOTCLNCL	(000 USD)	Imports Not Specified
122	expNOTCLNCL	(000 USD)	Exports Not Specified
123	flago	Flag variable for vIOUTP (output value): the variable can take 3 values according how its value is expressed: "pprice" for producer prices, "fvalue" for factor value and "nocls" for not specified.	
124	flagv	Flag variable for vIVADD (value added): the variable can take 3 values according how the value is expressed: "pprice" for producer prices, "fvalue" for factor value and "nocls" for not specified.	
125	flagf	Flag variable for vIFIRMS (number of firms): the variable can take 2 values: "estab" number of establishments and "entpr" number of enterprises (see note)	
126	flagl	Flag variable for vLABOR (labor force): the variable can take 2 values: "emply" number of employees and "perse" number of persons engaged (see note)	

Notes:

Gross fixed capital formation refers to the value of purchases and own account construction of fixed assets during the reference year less the value of corresponding sales. The fixed assets covered are the one (whether new or used) with a productive life of one year or more.

Establishment is a unit which engages, under a single ownership or control, in one or predominantly one, kind of activity in a single location. Enterprise is a legal entity possessing the right to conducting business in its own name.

Number of persons engaged includes employees plus self employed.

filename: CCCbilateral.csv

Column	Variable Name	Unit	Description
1	year	4 digit year	Year
2	ccode	3 digit code	Country Code
3-84	e????	(000 USD)	Exports
84-166	i????	(000 USD)	Imports
167-248	mexp????	(000 USD)	Mirrored Exports

Note: CCC refers to country code and ???? refers to the 4 digit ISIC product group.

filename: totalregion.csv

Column	Variable Name	Unit	Description
1	year	4 digit year	Year
2	reporter	3 digit code	Country Code
3	region	5 digit code	Region Code
4	inclvl	5 digit code	Income Code
5	imports	(000 USD)	Imports
6	exports	(000 USD)	Exports

Filename: totalbilateral.csv

Column	Variable Name	Unit	Description
1	year	4 digit year	Year
2	reporter	3 digit code	Country Code
3	partner	3 digit year	Partner Code
4	imports	(000 USD)	Imports
5	exports	(000 USD)	Exports

Regions an Income levels abbreviations.

Region Code	Description	Income Code	Description
AMERC	Americas	HOECD	High Income OECD
EECAS	East Europe and Central Asia	HOTHR	High Income Others
EEU	European Union	MIDUP	Upper Middle Income
EPASI	East Asia and Pacific	MIDLW	Lower Middle Income
ESAFR	East and Southern Africa	LOW	Low Income
JPN	Japan		
MEAST	Middle East		
NNAFR	North Africa		
NOTCL	Not Specified		
RSTEU	Rest of Europe		
SOASI	South Asia		
USA	USA		
WLD	World Total		
WWAFR	West Africa		

Appendix C: The ISIC Classification

ISIC 3 digit	description
311	Food products
313	Beverages
314	Tobacco
321	Textiles
322	Wearing apparel except footwear
323	Leather products
324	Footwear except rubber or plastic
331	Wood products except furniture
332	Furniture except metal
341	Paper and products
342	Printing and publishing
351	Industrial chemicals
352	Other chemicals
353	Petroleum refineries
354	Miscellaneous petroleum and coal products
355	Rubber products
356	Plastic products
361	Pottery china earthenware
362	Glass and products
369	Other non-metallic mineral products
371	Iron and steel
372	Non-ferrous metals
381	Fabricated metal products
382	Machinery except electrical
383	Machinery electric
384	Transport equipment
385	Professional and scientific equipment
390	Other manufactured products

ISIC 4 digit	description
3111	Slaughtering preparing and preserving meat
3112	Manufacture of dairy products
3113	Canning and preserving of fruits and vegetables
3114	Canning preserving and processing of fish crustacea and similar foods
3115	Manufacture of vegetable and animal oils and fats
3116	Grain mill products
3117	Manufacture of bakery products
3118	Sugar factories and refineries
3119	Manufacture of cocoa chocolate and sugar confectionery
3121	Manufacture of food products not elsewhere classified
3122	Manufacture of prepared animal feeds
3131	Distilling rectifying and blending spirits

3132 Wine industries
 3133 Malt liquors and malt
 3134 Soft drinks and carbonated waters industries
 3140 Tobacco manufactures
 3211 Spinning weaving and finishing textiles
 3212 Manufacture of made-up textile goods except wearing apparel
 3213 Knitting mills
 3214 Manufacture of carpets and rugs
 3215 Cordage rope and twine industries
 3219 Manufacture of textiles not elsewhere classified
 3220 Manufacture of wearing apparel except footwear
 3231 Tanneries and leather finishing
 3232 Fur dressing and dyeing industries
 3233 Manufacture of products of leather and leather substitutes except footwear and
 3240 Manufacture of footwear except vulcanized or moulded rubber or plastic footwear
 3311 Sawmills planing and other wood mills
 3312 Manufacture of wooden and cane containers and small cane ware
 3319 Manufacture of wood and cork products not elsewhere classified
 3320 Manufacture of furniture and fixtures except primarily of metal
 3411 Manufacture of pulp paper and paperboard
 3412 Manufacture of containers and boxes of paper and paperboard
 3419 Manufacture of pulp paper and paperboard articles not elsewhere classified
 3420 Printing publishing and allied industries
 3511 Manufacture of basic industrial chemicals except fertilizers
 3512 Manufacture of fertilizers and pesticides
 3513 Manufacture of synthetic resins plastic materials and man-made fibres except gl
 3521 Manufacture of paints varnishes and lacquers
 3522 Manufacture of drugs and medicines
 3523 Manufacture of soap and cleaning preparations perfumes cosmetics and other toi
 3529 Manufacture of chemical products not elsewhere classified
 3530 Petroleum refineries
 3540 Manufacture of miscellaneous products of petroleum and coal
 3551 Tyre and tube industries
 3559 Manufacture of rubber products not elsewhere classified
 3560 Manufacture of plastic products not elsewhere classified
 3610 Manufacture of pottery china and earthenware
 3620 Manufacture of glass and glass products
 3691 Manufacture of structural clay products
 3692 Manufacture of cement lime and plaster
 3699 Manufacture of non-metallic mineral products not elsewhere classified
 3710 Iron and steel basic industries
 3720 Non-ferrous metal basic industries
 3811 Manufacture of cutlery hand tools and general hardware
 3812 Manufacture of furniture and fixtures primarily of metal
 3813 Manufacture of structural metal products
 3819 Manufacture of fabricated metal products except machinery and equipment not - el
 3821 Manufacture of engines and turbines

3822	Manufacture of agricultural machinery and equipment
3823	Manufacture of metal and woodworking machinery
3824	Manufacture of special industrial machinery and equipment except metal and - woo
3825	Manufacture of office computing and accounting machinery
3829	Machinery and equipment except electrical not elsewhere classified
3831	Manufacture of electrical industrial machinery and apparatus
3832	Manufacture of radio television and communication equipment and apparatus
3833	Manufacture of electrical appliances and housewares
3839	Manufacture of electrical apparatus and supplies not elsewhere classified
3841	Shipbuilding and repairing
3842	Manufacture of railroad equipment
3843	Manufacture of motor vehicles
3844	Manufacture of motorcycles and bicycles
3845	Manufacture of aircraft
3849	Manufacture of transport equipment not elsewhere classified
3851	Manufacture of professional and scientific and measuring and controlling equipm
3852	Manufacture of photographic and optical goods
3853	Manufacture of watches and clocks
3901	Manufacture of jewellery and related articles
3902	Manufacture of musical instruments
3903	Manufacture of sporting and athletic goods
3909	Manufacturing industries not elsewhere classified

Note: when collapsing the 4 digit categories into 3 digit the standard practice is to aggregate 312x and 311x into 311.

Appendix D: Country Region Income Concordances.

	East and Southern Africa	West Africa	East Asia and Pacific	South Asia	East Europe Central Asia	Rest of Europe	Middle East	North Africa	Americas
Low Income	Ethiopia	Benin	Cambodia	Afghanistan	Armenia		Yemen		Haiti
	Angola	Burkina Faso	Indonesia	Bangladesh	Azerbaijan		Yemen DR		Nicaragua
	Burundi	Cameroon	Korea, DPR	Bhutan	Georgia				
	Comoros	Central Afr. Rep.	Laos	India	Kyrgyzstan				
	Eritrea	Chad	Mongolia	Nepal	Moldova				
	Ethiopia	Congo	Myanmar	Pakistan	Tajikistan				
	Kenya	Cote D'Ivoire	Solomon Islands		Turkmenistan				
	Lesotho	Gambia	Viet Nam		Ukraine				
	Madagascar	Ghana			Uzbekistan				
	Malawi	Guinea							
	Mozambique	Guinea-Bissau							
	Rwanda	Liberia							
	Somalia	Mali							
	Sudan	Mauritania							
	Tanzania	Niger							
	Uganda	Nigeria							
	Zambia	Sao Tome and Principe							
	Zimbabwe	Senegal							
		Sierra Leone							
	Togo								
	Western Sahara								
	Zaire								
Middle Income Lower		Cape Verde	China	Maldives	USSR	Turkey	Iran	Algeria	Belize
		Equatorial Guinea	Fiji	Sri Lanka	Albania		Iraq	Djibouti	Bolivia
			Kiribati		Belarus		Jordan	Egypt	Colombia
			Marshall Islands		Bosnia And Herzegovina		Syria	Morocco	Costa Rica
			Micronesia		Bulgaria			Tunisia	Cuba
			Papua New Guinea		Kazakhstan				Dominican Rep.
			Philippines		Latvia				Ecuador
			Samoa		Lithuania				El Salvador
			Thailand		Macedonia				Guatemala
			Tonga		Romania				Guyana
			Vanuatu		Russian Federation				Honduras
					Serbia				Jamaica
					Yugoslavia				Paraguay
									Peru
								Saint Vincent	
								Suriname	

	East and Southern Africa	West Africa	East Asia and Pacific	South Asia	East Europe Central Asia	Rest of Europe	Middle East	North Africa	Americas
Middle Income Upper	Botswana Mauritius Mayotte Seychelles South Africa	Gabon	American Samoa Korea, Republic of Malaysia Palau		Czechoslovakia Germany DDR Croatia Czech Republic Estonia Hungary Poland Slovakia		Bahrain Lebanon Oman Saudi Arabia	Lybia Malta	Antigua and Barbuda Argentina Barbados Brazil Chile Dominica Grenada Mexico Panama Puerto Rico Saint Kitts and Nevis Saint Lucia Trinidad and Tobago Uruguay Venezuela Canada United States
High Income OECD			Australia Japan New Zealand			Austria Benelux Denmark Finland France Germany Greece Iceland Ireland Italy Netherlands Norway Portugal Spain Sweden Switzerland United Kingdom			
High Income Non-OECD		St. Helena	Brunei French Polynesia Guam Hong Kong Macau New Caledonia Northern Mariana Islands Singapore Taiwan		Slovenia	Andorra Cyprus Gibraltar Greenland Monaco	Israel Kuwait Qatar United Arab Emirates		Aruba Bahamas Bermuda Cayman Islands Falkland Islands Netherlands Antilles Virgin Islands (U.S.)

