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AND CONCORDANCES

Robert C. Feenstra

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**ABSTRACT**

This paper describes data on U.S. imports from 1972-1994, classified according to the Tariff Schedule of the U.S. Annotated (TSUSA), Harmonized System (HS), Standard International Trade Classification (SITC, Revisions 2 and 3), and Standard Industrial Classification (SIC, 1972 basis), along with various concordances. All of these data sets are disaggregated by the source country for imports. These data are available on the CD-ROM: "NBER Trade Database, Disk 1: U.S. Imports, 1972-1994," which can be ordered for \$50 from the Publications Department, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138. The TSUSA and HS import data are at the most disaggregate level collected by the U.S. Census, and will be particularly useful for research on antidumping cases. The SITC import data will be valuable for those wanting to compare U.S. trade flows at a more aggregate level with comparable data for other countries. The SIC import data will be particularly useful for those wanting to study the effects of import competition on U.S. industries. A summary of the SIC data, which does not contain the source country detail and incorporates earlier years, is available via anonymous FTP from: [nber.harvard.edu/pub/feenstra](http://nber.harvard.edu/pub/feenstra). A second CD-ROM, containing U.S. export data, will be released later in 1996.

Robert C. Feenstra  
Department of Economics  
University of California  
Davis, CA 95616  
[rcfeenstra@ucdavis.edu](mailto:rcfeenstra@ucdavis.edu)  
and NBER

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## 1. Introduction

With the spread of economic activity around the globe, accurate data on trade between countries is of increased interest to researchers in the private and public sectors. This was recognized in the United States by the Omnibus Trade and Competitiveness Act of 1988, which mandated that increased attention be devoted to the collection and dissemination of international statistics. Resulting from the legislation was the National Trade Data Bank (NTDB) program, which distributes the data in a CD-ROM format. While the NTDB includes detailed information on U.S. imports and exports, the earliest year provided is 1989. The only source for earlier years of import and export data are magnetic tapes and printed media, which are often difficult to work with for research purposes.

The Omnibus Trade and Competitiveness Act of 1988 also mandated that the United States adopt the Harmonized System (HS) for the collection of import and export data by the Bureau of the Census. The HS is an international classification scheme for commodities. In earlier years, U.S. imports were classified according to the Tariff Schedule of the United States Annotated (TSUSA), while U.S. exports were collected under the "Schedule B" classification system. The fact that no information from either of these classification schemes is included in the NTDB means that researchers cannot easily make the link between earlier and later years. Furthermore, the TSUSA and Schedule B classifications each changed frequently, so that it is difficult to track the same commodity over successive years. These problems have meant that the TSUSA imports and Schedule B exports, which are a potentially very rich and detailed data source, have not been utilized in academic research to the extent that is possible.

The objective of this database is to provide complete information on the HS and TSUSA *imports* as collected by the Bureau of the Census for 1972-1994, on a CD-ROM. It is anticipated that a second CD-ROM dealing with U.S. *exports* over 1972-1994 will be available at a future date. The import data are merged with various concordances so that in addition to the commodity number and descriptive information such as the commodity name, the Standard Industrial Classification (SIC) number and Standard International Trade Classification (SITC) numbers are provided. This allows that data to be compared across years, and across different classification schemes. In addition, summations of the imports according to the SIC and SITC systems are included on the CD-ROM.

## 2. Related Research

There are several important areas of economic research where the Census trade data have been used. First, the recent concern in the United States that the *consumer* price index may overstate the extent of price inflation also applies to the *import* price index, so that it is important to have several sources of price information. The TSUSA and HS import data collected by the Census at the border includes both the value and the quantity of imports, so that the unit-value (=value/quantity) can be used as an estimate of the price. For many years, this was the only source of price trends for goods involved in U.S. trade. More recently, this source has come to be replaced by prices that are obtained through *interviews* of importing firms, performed by the Division of International Prices, Bureau of Labor Statistics (BLS). The BLS and Census programs are described and contrasted in Alterman (1991) and Walter (1991).

While the prices obtained through interviews of firms are often thought to be preferable to the unit-values, these data series are actually complementary. The unit-values can be used to obtain estimates of the “quality-upgrading” that occurs in imports subject to quota restrictions, such as footwear (Aw and Roberts, 1986) and steel (Boorstein and Feenstra, 1991), or to compare the relative quality of U.S. imports from different countries, such as Korea and Taiwan (Feenstra, Hamilton and Yang, 1993; Rodrik, 1994). A number of authors including Knetter (1989) have used the Census data to study the impact of changing exchange rates on the prices of traded goods. Shiells (1991) compares the performance of the BLS import price indexes with the Census unit-values in the context of import demand. Feenstra (1994) used the Census data to construct an alternative estimate of the price indexes for selected imports, which were meant to correct for potential overstatement of price inflation. Feenstra and Shiells (1994) have applied this same idea to the entire range of U.S. merchandise imports, and conclude that the official index of import prices published by the U.S. Department of Commerce is upward biased by as much as one and one-half percentage points annually; this is the same magnitude of upward bias that is believed to apply to the consumer price index.

Second, in cases of alleged “dumping” in the United States, whereby imports are sold at prices that are below their foreign prices or costs of production, the commodities in question are identified by their TSUSA or HS number. This means that the TSUSA or HS import data is ideally suited to track the changes in import value, quantity, or unit-value around the time of the

alleged dumping and its investigation. This type of research has been undertaken by Harrison (1991), Prusa (1994, 1995), and Staiger and Wolak (1994). If a foreign firm is found to be guilty of dumping, then duties are applied by the United States and consumers face higher prices. However, even when duties are not applied, these researchers have found that the investigation itself and threat of possible duties leads to an increase in import prices.

Third, during the decade of the 1980's there have been profound changes in the structure of wages in the United States, with blue-collar workers experiencing a decline in their wages both in real terms, and relative to the wages of white-collar workers. Many researchers are investigating the sources of this decline in blue-collar wages, with the leading explanations being the widespread use of computers in the workplace, and the increased import competition from developing countries. However, these research efforts are hampered by a lack of U.S. import and export data concorded to a domestic industry basis. The only source for this information has been Abowd (1991), who concorded the U.S. import and export data to a 4-digit domestic SIC basis; this data formed the basis for many of the studies in Abowd and Freeman (1991). Unfortunately, the last year of the trade data from Abowd is 1985, and this source does not provide imports by the source country. Included in the present database are the import values on a domestic SIC for 1972-1994, distinguished by the source country. As described in the section 5, the methodology established by Abowd was extended forward to 1994, but was also modified to obtain more accurate import figures for all industries back to 1972.

### **3. Methodology**

The disaggregate import data by TSUSA or HS classification was initially obtained on magnetic tape for 1972-1989, or CD-ROM for 1990-1994 (sources are listed in section 6). These sources contained logical record files, where each record had the TSUSA or HS number, and quantitative information on: the value and quantity of imports; the source country (designated by a Census number); the country sub-code (such as Generalized System of Preferences item, Caribbean Basin Initiative item, tariff code 806 or 807 item, etc.); the port of entry into the United States; and other information such as the rate of duty and method of shipment. Starting with these files, four changes were made:

- (i) The value and quantity data for each TSUSA or HS commodity was summed over all ports of entry (and also over the rates of duty and method of shipment, if these were included). This means that for each imported item, source country, and country sub-code, the total value and quantity of that item coming into the United States was measured;
- (ii) The quantitative information on the value and quantity of imports was merged with descriptive information such as the TSUSA or HS description, and the import-based SIC or SITC classification code. This descriptive information was stored on each record, so that imported items can be identified by their alphabetic description, and import-based SIC and SITC classifications, rather than only the TSUSA or HS number;
- (iii) Instead of the classification scheme for source countries used by Census, we instead introduced the United Nations (UN) system for country names and numbers.<sup>1</sup> In some cases, several source countries as identified by the Census classification were merged into a single country as defined by the UN.
- (iv) The 1977 import data were extensively corrected.

The motivation for the first of these adjustments to the original data is that the value of imports by their port of entry is not that interesting a variable for economic analysis: the initial port of entry may have little relation to the location where this commodity is sold or consumed. By eliminating the disaggregation of the data according to port of entry, the size of the data files was reduced quite substantially.

The second adjustment to the data is necessary because the TSUSA and HS numbers change frequently over time, so these codes alone cannot be used to identify a commodity over time. In fact, it even happens that the same TSUSA number to be used for completely different commodities in two separate years! By including the alphabetic description of commodities, along with their import-based SIC and SITC classifications, it is much easier to track commodities over time. This descriptive information on each commodity was obtained from cumulative concordances, which were initially available for 1978-1988 and 1989-1994. The

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<sup>1</sup> This is the six digit Standard Classification of Customs Areas and Territories, and is the same as that used by Statistics Canada in their World Trade Database. See Appendix A.

former concordance was extended back in time to 1972, using the information on TSUSA numbers and alphabetic descriptions contained in U.S. Bureau of the Census [1], for 1972-1977. This time-consuming task was the only way that the quantitative information for 1972-1977 could be linked to the commodity names, and to the import-based SIC numbers, which were obtained from U.S. Bureau of the Census [3].

The third adjustment made to the data was needed because the classification numbers for source countries used by the Census are unfamiliar, and also change over time. Typically, this classification scheme identifies countries in even more detail than the UN classification. For example, in 1988 the Census used three different numbers for France (distinguishing Andorra, Monaco, and the rest of France), three numbers for Italy (distinguishing San Marino, Vatican City, and the rest of Italy), four numbers for New Zealand (distinguishing various surrounding islands), etc. For each year, the Census numbers used for any given UN country were changed to that UN number and name, and the value and quantity of imports were summed within each UN country (and country sub-code). The complete list of UN numbers, along with country names and the corresponding Census numbers (for 1994) are given in Appendix A.

The fourth adjustment affected the data for 1977 only, where it became apparent that a significant portion of the import data was either missing from the magnetic tape, or had imports values and quantities that were twice as large as the data listed in the bound volumes Bureau of the Census [1] for 1977. Taking the bound volumes as the accurate source, the data obtained from the magnetic tape was extensively corrected, as follows:

- (a) For all TSUSA numbers in the range 7000500--7066020 inclusive the import data was missing from the tape, and for a few TSUSA numbers in the range 6571000--6966000 the import data was missing or had very low values. Correct data was added to the database using the information from the bound volume;
- (b) For all TSUSA numbers in the range 3823322--3906000; those beginning with 4 or 5; and those in the range 6571000--6966000 (except for the missing data noted above), the import value and quantity on the tape were twice as large as that reported in the bound volume. The tape data was corrected by dividing by two.

#### 4. Comparison with Other Data Sources

To check the integrity of the data after making these adjustments, the total value of imports over all source country and all commodities can be compared with the totals from other sources. Included in the database are both the *customs* value of imports, and the *CIF* (*cost including freight*) value of imports. The customs value does not include freight, and is the value on which duties are assessed. It is intended to serve as an arm's-length transactions value for the commodity, and is similar to the FAS (free alongside ship) value, which reflects the value at the foreign port of exportation. Both the customs and CIF values will be used for comparison.

In the first three column of Table 1 we focus on the customs value for all merchandise imports. The first column reports the value of imports in our database, followed by the value of imports from the U.S. Bureau of the Census [1],[2], which are the sources that are in principal identical to the original tapes/CD-ROM from which our data were obtained. We therefore expect the first two columns to be very close in magnitude, and this is confirmed for most years. The largest difference in the early years is \$333 million in 1977, which was the year in which the magnetic tape contained faulty data; even this difference is only about two-tenths of one percent of the import value. In the later years there is a surprising difference of \$1 billion in the 1991 values (again, two-tenths of one percent), but otherwise the magnitude of imports in the database and the Census volumes are very close.

In years where there is some difference, the total value of imports in our database is usually *less than* that in the Census volumes. This is no coincidence, and reflects one type of error in our database that we are aware of: in rare cases, the record(s) indicating the imports of a particular commodity from a particular source country are missing. For example, the TSUSA commodity 6837000, flashlights and parts, is primarily imported from Asian countries, but includes some imports from European nations. In 1982, however, the imports from Europe are missing from the database: the value of the missing imports is \$1.0 million.<sup>2</sup> Missing records of this type may reflect errors in the magnetic tape/CD-ROM that we started with, or could have appeared during the processing of the data. In any case, the very close magnitudes of total imports in our database and Census [1],[2] assures us that the number and importance of missing records is small.

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<sup>2</sup> We thank Frank Wolak of Stanford University for identifying this source of error in the database.

**Table 1: Comparison of Value of Imports (\$ million)**

<u>Year</u>	<i>All Merchandise (Customs value)</i>			<i>Manufactured Imports (CIF)</i>	
	<u>Database</u>	<u>Bureau of the Census [1],[2]</u>	<u>Econ. Report of the President</u>	<u>Database</u>	<u>Abowd (1991)</u>
1972	55,278.1	55,282.3	55,600	na	50,362.5
1973	68,658.9	68,656.0	69,500	na	60,446.3
1974	100,125.8	100,125.8	103,300	77,808.0	80,197.1
1975	96,477.2	96,515.1	99,300	70,054.9	72,680.2
1976	121,043.2	121,120.9	124,600	84,871.6	88,885.0
1977	146,957.5	147,290.5	151,500	100,807.9	106,866.3
1978	172,912.2	172,952.2	176,100	126,493.3	133,471.9
1979	205,850.4	205,922.7	210,300	143,726.5	153,021.3
1980	239,941.9	239,943.5	245,300	158,572.2	169,934.4
1981	258,961.9	259,012.0	261,000	179,424.6	192,495.3
1982	242,338.9	242,340.0	244,000	178,290.4	197,028.0
1983	256,674.5	256,679.5	258,000	202,787.1	223,490.8
1984	322,975.9	322,989.5	330,700 <sup>a</sup>	269,348.0	300,397.6
1985	343,549.8	343,553.2	336,500 <sup>a</sup>	293,571.2	339,511.8
1986	368,652.5	368,656.6	365,400	328,037.6	na
1987	402,065.9	402,066.0	406,200	355,964.8	na
1988	437,130.3	437,140.2	441,000	392,823.1	na
1989	468,012.0	468,012.0	473,200	396,746.1	na
1990	490,553.7	490,553.7	495,300	407,020.3	na
1991	483,027.9	482,083.1	488,500	405,566.3	na
1992	525,091.4	525,260.2	532,700	441,935.7	na
1993	574,862.9	575,074.7	580,700	na	na
1994	657,884.7	na	663,800	na	na

Notes na Not available

<sup>a</sup> Revised

For comparison in the third column, we include the customs value of all merchandise imports taken from *Economic Report of the President* (1995, Table B-108). These values are higher than those in columns one or two, because they refer to “general imports” rather than “imports for consumption.” The former category includes imports that enter into bonded warehouses or foreign trade zones within the U.S., whereas “imports for consumption” reflect the value of imports for immediate consumption (including withdrawals from bonded warehouses and foreign trade zones). These values are used in the database, and are generally smaller than “general imports.” In addition to this difference between columns one or two and column three, there is another source of difference in 1984 and 1985. In these two years, the *Economic Report of the President* (1995, Table B-108) notes that the import values have been revised. We can judge that this revision dealt with the exact timing of imports during the year: while the import value for 1984 in column three exceeds that in columns one and two, and conversely for 1985, the *sum* of imports over these two years is quite close in all the columns. It is apparent that the import values in our database do not incorporate this particular revision.

In the final two columns of Table 1, we report the import value over just manufactured imports, identified as those commodities with a Standard Industrial Classification (SIC) number beginning with 2 or 3. In the fourth column we report the value of manufactured imports in our database, and in the last column we report the value from the widely-used database of Abowd (1991). Surprisingly, the values from Abowd are significantly higher than those from our database, with a difference ranging from nearly \$7 billion in 1978 (or 5% of imports) to \$46 billion in 1985 (or about 15% of the import value). While these differences are large, it turns out that they can be traced to a very small number of SIC industries at the 4-digit level. In particular, these are industries in which it is especially difficult to measure or impute the value of imports, for the following reasons.

The import data from Census [1],[2] is not collected or concorded to a *domestic* SIC basis. Rather, this data is concorded to a so-called *import-based* SIC. This distinction is necessary because a number of industries in the domestic SIC are identified by their method of processing, and this is unknown for imports entering the country. For example,<sup>3</sup> SIC industry

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<sup>3</sup> This example is drawn from Sachs and Shatz (1994, unpublished Appendix), who were the first to note that the total import values from Abowd (1991) exceeded that from published sources. They did not provide an explanation for this difference, however. All SIC numbers used in this section are based on the 1972 version.

**Table 2: Comparison of MSIC and SIC Imports, 1978 (\$ million)**

Database		Census [4]			Abowd (1991)		
<u>MSIC</u>	<u>CIF value</u>	<u>SIC</u>	<u>CIF value</u>	<u>Share</u>	<u>SIC</u>	<u>CIF value</u>	<u>Share</u>
<i>Meat Packing Plants, Sausages and Prepared Meats</i>							
2011	2,166.5	2011+2013	2,230.3	5%	2011	1,821.7	4.6%
2013	<u>69.2</u>	2013A	<u>69.3</u>	65%	2013	<u>456.7</u>	4.6%
Total	2,235.7		2,299.6			2,278.4	
<i>Primary and Secondary Smelting and Refining of Nonferrous Metals</i>							
3331	651.1	3331+33412	651.1	14%	3331	628.0	12.9%
3332	181.9	3332+33413	181.9	12%	3332	112.7	11.5%
3333	414.3	3333+33414	413.5	45%	3333	307.4	43.2%
3334	755.7	3334+33417	755.7	10%	3334	552.7	9.7%
3339	<u>3499.6</u>	3339+33415,6	<u>3,479.3</u>	63%	3339	1618.9	60.8%
					3341	<u>5878.7</u>	60.8%
Total	5,502.6		5,481.5			9,098.4	

2011, meat packing plants, and industry 2013, sausages and other prepared meats, produce many of the same products. What makes them different is that industry 2011 slaughters while industry uses purchased carcasses. There is no way to determine the source of materials for imported meat products, so most of the imports are grouped into the *import-based* SIC code (or MSIC) 2011, with only a very small amount of imports in MSIC 2013. The magnitude of imports in each of these categories for 1978 is shown in Table 2.

Listed in the first and second columns of Table 2 are the CIF value of imports from our database, along with the correspondingly *import-based* SIC (or MSIC) number. These values can be directly compared to Census [4], *U.S. Commodity Exports and Imports as Related to Output*. In that publication, the value of imports is compared to U.S. industry supply, so that the *import shares* defined as  $(\text{import value})/(\text{domestic supply} + \text{import value})$  can be constructed. To achieve this, the SIC data on domestic output is concorded to the MSIC data on imports. For example, in the third column of Table 2 are listed the SIC numbers that correspond to the MSIC codes given

in the first column: as already noted, most of the prepared meats are grouped into MSIC 2011, which incorporates SIC 2011+2013. The exception to this is SIC 2013A, natural sausage casings, which are given the MSIC number 2103 upon importation. It is apparent that there is a very close correspondence between the import values in columns two and four. In column five, the import shares calculated over the corresponding MSIC and SIC groups are given.

In the last columns of Table 2, we show the 1978 import values for from Abowd (1991), which are listed according to *domestic-based* SIC numbers. Because imports are not collected separately by the SIC 2011 and 2013 categories, Abowd has imputed the imports to each in such a way that the import shares in the two SIC categories are equal, and the total value of imports approximately matches that in the earlier columns.<sup>4</sup> We will use precisely the same kind of imputation in our database when there is not a one-to-one correspondence between the MSIC and SIC categories. In some cases, however, the imputation becomes more difficult, and it is these cases that account for the overstatement in the total import value from Abowd.

The case with the greatest overstatement of total imports is shown next in Table 2. The SIC industry 333 deal with the *primary* refining and smelting of copper (3331), lead (3332), zinc (3333), aluminum (3334) and materials not elsewhere classified (3339), whereas the SIC industry 3341 deals with the *secondary* smelting and refining of these metals. Processing through primary or secondary smelting cannot be distinguished when these products are imported, and instead, the import data is simply collected by the type of metal, as listed in the first two columns of Table 2. The SIC numbers in the third column show clearly that the imports in MSIC 3331, for example, are drawn from both primary and secondary smelting of copper (SIC 3331+33412), imports in MSIC 3332 include both primary and secondary smelting of zinc (SIC 3332+33413), and similarly for the other metals. Note that the total value of imports from the database and Census [4] are in close agreement.

Turning to the final columns, Abowd (1991) imputed imports into each of the primary smelting SIC categories 3331,2,3,4,9, using import shares that are quite close to those from Census [4]. The problem arises, however, in imputing an import value for *secondary* smelting (SIC 3341), where is no separate import data. Faced with the range of import shares for each

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<sup>4</sup> There is some difference between the total value of imports because Abowd (1991) used import shares from a source that was similar, but not identical, to Census [4]. Using these import shares along with the value of domestic production, the import values were then computed.

type of metal in the final column of Table 2, Abowd evidently chose the *maximum value* of these shares (60.8%), and applied this to the value of domestic production, to impute imports for smelted metal of \$5,878.7 million. When summing this together with the other imputed imports, the total value of imported nonferrous metals from Abowd is \$9.1 billion, which exceeds the value of imported nonferrous metals in our database by \$3.6 billion (and exceeds the total from Census [4] by slightly more). In other words, this single industry accounts for fully *one-half* of the overstatement in the total value of manufacturing imports for 1978.

With 450 SIC industries at the 4-digit level, and about 435 having some imports, the concordance developed by Abowd (1991) identifies six cases similar to nonferrous metals, where one SIC industry corresponds to multiple MSIC categories, which themselves may include other SIC industries. In each of these cases, it appears that the maximum value of the possible import shares was chosen in order to compute imports for the SIC industry in question. But in addition, there are some industries not specially identified in the concordance developed by Abowd in which import shares that are too high were used. An example is the SIC industry 3915, jewelers' findings and materials and lapidary work. Census [4] lists an import share of 78% for the 5-digit category SIC 39152 (lapidary work including diamond cutting and polishing), and a much lower import share of 18% for the combined SIC category 3911 (jewelry, precious metals) plus 39151 (jeweler's findings and materials). In this case, Abowd applied the higher import share of 75.2% to the *entire* SIC 3915 category, which resulted in an overstatement of imports by \$1.0 billion in 1978. For that year, we have also found that Abowd's import values exceed those in our database or Census [4] by more than \$500 million for the following industries: rubber and plastic footwear (SIC 3021); radio and television receiving sets (SIC 3651); office, computing, and accounting machines (SIC 357); and engineering, laboratory, scientific, and research instruments (SIC 3811).

While there are also some other industries in which imports from Abowd (1991) exceed those in our database or Census [4] by less than \$500 million, or where Abowd's imports are lower in value, the industries that we have identified account for the bulk of the overstatement in the total import value in 1978. These industries are certainly small in number, and even in cases where the value of imports is overstated, the *import shares* are still within the range that occur in other related industries. This means that studies that have used Abowd's data in share form

(such as some chapters in Abowd and Freeman, 1991), may not be affected to any significant extent by the overstatement. But it is potentially more serious for studies that have relied on the absolute magnitude of imports, such as those that estimate the factor-content of imports and its impact on the labor market.

## **5. Calculation of Domestic-based SIC Imports**

Included in the database are the (customs and CIF) value of imports by source country for all manufacturing industries at the 4-digit SIC level, using the 1972 version of the SIC. These values were computed by first summing the import data according to the 4-digit MSIC values. Then a concordance between the MSIC and SIC values was applied to convert the import data to the SIC basis. This concordance was itself developed by starting with the concordance of Abowd (1991), and making adjustments to it based on two sources of information: Census [4], and a remarkable Appendix in Census [5] entitled “Principal Differences Between the SIC-Based Output and Import Product Codes.” As suggested by the title, it lists those cases in which the SIC and MSIC numbers differ for the same underlying commodity. This information is actually provided at the 5-digit SIC and MSIC level, though for the purpose of the concordance we worked at the 4-digit level. Then there are three types of matches that can occur between the SIC and MSIC numbers: (1) an “exact match” between one MSIC and one SIC; (2) one MSIC category corresponds to several SIC industries; (3) several MSIC categories correspond to several SIC industries.

In the first case, the “exact match” between a MSIC and SIC means that either these two categories really were identical, or that any differences were judged as too small to be important. This occurred for 234 cases out of the 435 4-digit SIC industries with positive imports. In the second case, the MSIC imports are allocated to the various SIC industries in proportion to their domestic output, which means that the import share in each of the SIC industries would be identical. This occurred for another 84 4-digit SIC industries. In the third case, we impute imports to various SIC industries according to the following rules: (a) the total value of imports across the MSIC and SIC categories is identical; (b) imports are allocated across the SIC industries in proportion to their domestic output. An exception is the smelting and refining of nonferrous metals, detailed in Table 2. In that case, the allocation of total imports across *primary* and *secondary* smelting is done according to rules (a) and (b). But given this allocation, the

division of primary smelting imports across the various types of metals (SIC 3331,2,3,4,9) can be done in proportion to the imports in the like-numbered MSIC categories.

This methodology can be used to obtain imports by source country for the 4-digit SIC industries for 1972-1988, since our import data for those years include the MSIC numbers on a 1972 basis. However, for 1989 and later years, the import data includes only the MSIC numbers on a 1987 basis, which is the years in which the SIC codes were substantially revised. In order to convert the import totals for 1989 and later from the 1987 MSIC to the 1972 MSIC basis, we proceeded as follows. For the single year 1988, each TSUSA commodity in the import data includes a listing for both the 1972 MSIC and 1987 MSIC numbers. By aggregating across these, we obtain a “weighting matrix” for each source country between the 4-digit 1972 MSIC numbers and 4-digit 1987 MSIC numbers. For later years, we first sum the data according the 1987 MSIC numbers, then multiply by the weighting matrix for each source country, and then apply our concordance between the 1972 MSIC and 1972 SIC numbers. This gives us the value of imports for the year in question organized by the 1972 SIC industries, and distinguishing the various source countries for each industry.

## **6. Technical Information**

All of the data, concordances, and documentation in the import database are stored as ASCII files. The data and concordances have the extension .ASC, and in all cases are logical record files. For each datafile (or group of files) and each concordance, there is documentation with the identical name but the extension .TXT; this documentation is the same as that found on the following pages. Any text editor can be used to read these files, except the Windows-based *Notepad*, which cannot handle the size of the .ASC files and will not respect the line-breaks in the .TXT files. The ASCII datafiles are kept to a maximum of 15 megabytes in size. This means that the TSUSA and HS import data for each year is broken into three separate files, with \_1, \_2, or \_3 appended onto the file names. This disaggregate import data includes both values and quantities, so that unit-values(=value/quantity) can be constructed. In addition, there are import values and price indexes for the SIC and SITC aggregations. The value of import duties as estimated by the U.S. Customs are included according to TSUSA, HS, SIC and SITC categories, so that *ad valorem* tariff rates can be calculated by dividing the import duties and values. The complete list of files included on the CD-ROM is displayed in Table 3.

**Table 3: Files on the CD-ROM**

<u>Directory and File</u>	<u>Description</u>
<b>TSUSA import data, 1972-1988:</b>	
IMP72_1.ASC, IMP72_2.ASC, IMP72_3.ASC .....	1972 Import data by TSUSA commodity (same for 1973-1988 years)
IMP72_88.TXT	Documentation for 1972-1988 TSUSA data
<b>Harmonized System import data, 1989-1994:</b>	
IMP89_1.ASC, IMP89_2.ASC, IMP89_3.ASC .....	1989 Import data by HS commodity (same for 1990-1994 years)
IMP89_94.TXT	Documentation for 1989-1994 HS data
<b>SIC (1972 basis, 4-digit) import data, 1972-1992:</b>	
SIC72.ASC,.....,SIC92.ASC	SIC imports by source country and year
SIC58_92.ASC	SIC shipments & world imports, 1958-1992
SICPRICE.ASC, SICPRICE.TXT	SIC import prices and documentation
SIC.TXT	Documentation for 1972-1992 SIC data
<b>SITC (Rev. 2 and 3, 5-digit) import data, 1972-1994:</b>	
SITC72.ASC,.....,SITC94.ASC	SITC imports by source and year
SITC.TXT	Documentation for 1972-1994 SITC data
SITPRICE.ASC, SITPRICE.TXT	SITC import prices and documentation
<b>Concordances:</b>	
CON72_88, ASC, CON72_88.TXT	Concordance for 1972-1988 TSUSA data
CON89_94.ASC, CON89_94.TXT	Concordance for 1989-1994 HS data
HS_TSUSA.ASC, HS_TSUSA.TXT	Concordance between HS and TSUSA
SIC_MSIC.ASC, SIC_MSIC.TXT	Concordance between SIC and MSIC
SITCR1_2.ASC, SITCR2_3.ASC, etc.	Concordances between SITC Revisions
<b>Other:</b>	
COUNTRY.ASC, COUNTRY.TXT	List of country names and codes
SICNAME.ASC, SITCREV*.ASC	Industry/product names for SIC and SITC
UNIT7288.TXT, UNIT8994.TXT	Units of quantity used in IMP*.ASC

**6A. TSUSA Import Data, 1972-1988 (IMP\*.ASC)**

For years up until 1988, imports to the United States at a disaggregate level were measured according to the Tariff Schedule of the United States Annotated (TSUSA) classification. These datafiles contain the U.S. import data according to TSUSA number, distinguished by source country, and including both quantitative information about imports and descriptive information about each commodity.

The files IMPYR\_1.ASC, IMPYR\_2.ASC AND IMPYR\_3.ASC contain U.S. import data for 1972-88, sorted by TSUSA number, with YR={a two digit number in the range 72-88}. The first of these files, IMPYR\_1.ASC, includes commodities with a TSUSA number beginning with 1-3; the second, IMPYR\_2.ASC, contains those commodities with a TSUSA number beginning with 4-6; and the third, IMPYR\_3.ASC, contains those commodities with a TSUSA number beginning with 7-9.

*Record Layout:*

The variables included in IMP\*.ASC are:

columns 1-7	- TSUSA number
columns 9-14	- Source Country Code United Nations country codes are used (see Appendix A)
column 16-23	- Country name
column 25	- Source Country Sub-Code, which are defined as follows: 0 = Country of Origin 1 = Country of Shipment 2 = 807 Commodity 3 = 806 Commodity 4 = Generalized System of Preferences (GSP) Item 5 = Folklore Merchandise 9 = Caribbean Basin Initiative (CBI) Item I = Israel Preference Commodity T = 807 commodity in CBI country
columns 27-31	- Revision 2 SITC number (5-digit)
columns 33-40	- 1972 import-based SIC number (8-digit)
columns 42-49	- 1987 import-based SIC number (8-digit)
columns 51-53	- Units for quantity (see Appendix B)
columns 55-66	- Quantity
columns 68-79	- Customs value (dollars)

	Customs value does not include freight, and is the value on which duties are assessed. It is intended to serve as an arm's-length transactions value for the commodity. It is similar to the FAS (free alongside ship) value, which was collected by Census prior to 1982.
columns 81-92	- CIF value (dollars). CIF (cost including freight) includes freight but not tariff duties.
columns 94-105	- Duties paid (dollars) This variable is estimated by U.S. Customs.
columns 107-170	- Description of the TSUSA commodity
columns 172-173	- Year

*Missing and Imputed Values:*

- (i) Missing values for any alphabetic variable are indicated by a blank field, as occurs especially for the Units of quantity, indicating that either the units could not be measured, or were simply missing. When the units could not be measured, there will be a zero value for Quantity, but positive entries for Customs value or CIF value. In other cases, a zero value for Quantity and also the Customs and CIF values indicates that the good was not imported from that country in that year.
- (ii) For 1972 and 1973, the CIF value and Duties paid are missing, as indicated by a dot. Duties paid are also missing for a very small number of TSUSA commodities in other years.
- (iii) In some years, the Units of quantity have been imputed based on the units used for the same commodity in other years.
- (iv) For 1972-1977, the SITC Rev. 2 codes have been imputed using information on: (a) the SITC Rev. 2 codes used for a like-named TSUSA commodity in later years; or (b) the SITC Rev. 1 code used for that commodity, and the concordance SITCR1\_2.ASC between Rev. 1 and Rev. 2. In a very small number of cases, the Rev. 2 SITC number is missing, as indicated by a blank field.
- (v) The 1987 SIC numbers contain a number of cases where "Z" is used to indicate that the classification is not known. For example, "23ZZZZZZ" indicates that the commodity belongs to the 2-digit SIC category 23, but more precise information is not available. The 1987 SITC numbers are missing for those commodities with TSUSA numbers that were used only before 1978, as indicated by a blank field.

*Special Considerations:*

The 1972 and 1987 import-based SIC numbers are not the same as the SIC numbers used to identify U.S. industries. This is because industries in the United States are sometimes defined in terms of the processing that occurs in them, whereas the method of processing is not known for imports. As a result, a condensed set of SIC numbers called "import-based SIC" are used, and these are included in the IMP\*.ASC files.

*Related Files:*

- (i) A complete list of the commodities, including the TSUSA number for each, 1972 and 1987 import-based SIC numbers, Revision 2 SITC number (5-digit), and the first and last years that the TSUSA number is used for that commodity, is contained in the concordance CON72-88.ASC, which is described in CON72\_88.TXT.
- (ii) The source country for each imported commodity is identified by the name and United Nations (UN) code. The complete list of names and UN codes, along with a correspondence to the country codes used by the U.S. Census, is provided in Appendix A.
- (iii) There is a cross-reference between the Tariff Schedule of the United States Annotated (TSUSA) codes that are used in the 1972-1988 import files, and the Harmonized Tariff System (HTS) numbers that are used in the 1989-1994 import files, and. This cross-reference is contained in HS\_TSUSA.ASC and described in HS\_TSUSA.TXT.

*Size:* Each file IMP\*.ASC is between 5 and 15 megabytes.

*Sources:*

The data for 1972-1988 were obtained on magnetic tapes from:

National Archives and Record Administration, Annual Import Databank, IA245, Record group 29, Washington, D.C. [magnetic tapes].

The same data are reported in printed form in:

U.S. Imports for Consumption and General Imports, TSUSA Commodity by Country of Origin, FT246, Bureau of the Census, Dept. of Commerce, Washington, D.C., 1972-1988.

Additional information on the variables listed above can be obtained from:

Guide to Foreign Trade Statistics, Bureau of the Census, Department of Commerce, Washington, D.C., 1983.

**6B. Harmonized System Import Data, 1989-1994 (IMP\*.ASC)**

In 1989 and later years, the Harmonized System of commodity classification has been used to measure disaggregate U.S. imports and exports. The particular application of the Harmonized System to U.S. imports is called the Harmonized Tariff Schedule (HTS). These datafiles contain the U.S. import data according to HTS number, distinguished by source country, and including both quantitative information about imports and descriptive information about each commodity.

The files IMPYR\_1.ASC, IMPYR\_2.ASC AND IMPYR\_3.ASC contain U.S. import data for 1989-94, sorted by HTS numbers, with YR={a two digit number in the range 89-94}. The first of these files, IMPYR\_1.ASC, includes commodities with a HTS number beginning with the digits 0-4; the second, IMPYR\_2.ASC, contains those includes commodities with an HTS number beginning with 5-7; and the third, IMPYR\_3.ASC, includes those commodities with a HTS number beginning with 8-9.

*Record Layout:*

The variables included in IMP\*.ASC are:

columns 1-10	- Harmonized Tariff System (HTS) number
columns 12-17	- Source country code United Nations country codes are used (see Appendix A)
columns 19-26	- Country name
column 28	- Country Sub-Code 0 = Country of Origin 1 = Country of Shipment 4 = Generalized System of Preferences (GSP) Item 9 = Caribbean Basin Initiative (CBI) Item B = APTA Automotive Products Trade Act C = Agreement on Civil Aircraft I = Israel Free Trade Agreement J = Andean Trade Preference Act X = Canada Free Trade Agreement (suspended 1/1/94) W = Puerto-Rico product improved in a CBI country and returned to the United States Y = North American Free Trade Agreement (NAFTA) Z = Compact of Free Association Act with Marshall Islands and Federated States of Micronesia
columns 30-34	- Revision 3 SITC number (5-digit)
columns 36-39	- 1987 SIC number (4-digit)

columns 41-43	- Units for quantity (see Appendix B)
columns 45-56	- Quantity
columns 58-69	- Customs value (dollars) Customs value does not include freight, and is the value on which duties are assessed. It is intended to serve as an arm's-length transactions value for the commodity.
columns 71-82	- CIF value (dollars) CIF (cost including freight) includes freight but not tariff duties.
columns 84-95	- Duties paid (dollars) This variable is estimated by U.S. Customs.
columns 97-146	- Commodity description
columns 148-149	- Year

*Missing and Imputed Values:*

Missing values for any alphabetic variable are indicated by a blank field, as occurs especially for the Units of quantity, indicating that either the units could not be measured, or were simply missing. When the units could not be measured, there will be a zero value for Quantity, but positive entries for Customs value or CIF value. In other cases, a zero value for Quantity and also for the Customs and CIF values indicates that the commodity was not imported from that country in that year.

*Related Files:*

- (i) A complete list of the commodities, including the HTS number for each, 1987 import-based SIC numbers (4-digit), Rev. 3 SITC number (5-digit), and the first and last years that the HTS number is used for that commodity, is contained in the concordance CON89\_94.ASC, which is described in CON89\_94.TXT.
- (ii) The source country for each imported commodity is identified by a name and United Nations (UN) code. The complete list of names and UN codes, along with a correspondence to the country codes used by the U.S. Census, is provided in Appendix A.
- (iii) There is a cross-reference between the Harmonized Tariff System (HTS) numbers that are used in the 1989-1994 import files, and the Tariff Schedule of the United States Annotated (TSUSA) codes that are used in the 1972-1988 import files. This cross-reference is contained in HS\_TSUSA.ASC and described in HS\_TSUSA.TXT.

*Size:* Each file IMP\*.ASC is between 5 and 15 megabytes.

*Sources:*

The data for 1989 was obtained from:

National Archives and Record Administration, Annual Import Databank, IA245, Record group 29, Washington, D.C. [magnetic tape].

Data for 1990 and later years were obtained from:

U.S. Imports of Merchandise on CD-ROM [machine-readable data file] / prepared by the Bureau of the Census. - Washington: The Bureau [producer and distributor], 1990-1994.

The same data in printed form are reported in:

U.S. Imports for Consumption, HTSUSA Commodity by Country of Origin, FT247, Bureau of the Census, Washington, D.C., 1989-1994.

Additional information on the variables listed above can be obtained from:

Guide to Foreign Trade Statistics, Bureau of the Census, Department of Commerce, Washington, D.C., 1991.

## **6C. SIC (1972 basis, 4-digit) Import Data, 1972-1992 (SIC\*.ASC)**

These files contain the U.S. import data according to a 4-digit Standard Industrial Classification (SIC) basis, for 1972-1992, and related information. Later years are not included because converting the data to an SIC basis requires data on domestic shipments by 4-digit SIC industries, which is available only up until 1992. Also, note that this conversion is done only for manufactured goods, which are those having SIC numbers beginning with 2 or 3.

### **(1) Conversion from Import-based SIC to SIC**

Using the files IMP\*.ASC for 1972-1992, the import data are summed according to the 4-digit Standard Industrial Classification (SIC) codes, using the 1972-basis SIC for 1972-1988 and the 1987 basis SIC for 1989-1994. As explained in the main text of the documentation, the SIC codes found in IMP\*.ASC are actually import-based SIC, or MSIC. These differ from the domestic-based SIC because many domestic industries are classified according to the method of processing in the industry, which is unknown for imports. Thus, the MSIC will sometimes combine several SIC codes, or overlap in more complicated ways. In order to convert the 4-digit MSIC data to a 4-digit SIC basis, a concordance between the MSIC and SIC was developed, as described in the main text. This concordance is stored in SIC\_MSIC.

#### *Record Layout for SIC\_MSIC.ASC:*

columns 1-5	- 4-digit SIC (1972 basis)
column 8-11	- 4-digit MSIC (1972 basis)
column 15	- Type of match between SIC and MSIC
	1 = Several MSIC overlap with several SIC
	2 = Several MSIC correspond to one SIC
	3 = Exact match between one MSIC and one SIC
	4 = No MSIC corresponding to that SIC

*Size:* SIC\_MSIC has 625 records.

### **(2) 1972-based SIC Import Data**

Using this concordance, the import data summed according to 4-digit MSIC was converted to a 4-digit SIC basis for 1972-1988. For 1989 and later years, the MSIC was on a 1987-basis, and so it first had to be converted to a 1972-basis, as described below. These data are stored in the files SIC72.ASC,...,SIC92.ASC.

*Record Layout for SIC72.ASC,....,SIC92.ASC:*

columns 1-4	- 4-digit SIC number (1972-basis)
columns 6-13	- Source country name
columns 15-20	- Country code (UN codes are used, as listed in Appendix A)
columns 22-33	- CIF value (millions of dollars)
columns 35-46	- Customs value (millions of dollars)
columns 48-49	- Year

*Size:* Each file SIC\*.ASC is approximately 1 megabyte.

*Missing and Imputed Values:*

- (i) The CIF value of imports is missing for 1972 and 1973 as indicated by a dot.
- (ii) Included in these files are the CIF and Customs value of imports summed over all source countries, in which case the Country name is listed as WORLD, and the Country code is 100000.

**(3) Conversion from 1987-based to 1972-based MSIC**

In order to convert the import values for 1989 and later to the 1972-basis MSIC, the "weights" found in MSIC8772.ASC were used. Specifically, for each 1987-basis MSIC and each source country, the file lists the corresponding 1972-basis MSIC number(s) and the fraction of value for the 1987-basis MSIC coming from that 1972-basis MSIC. Thus, by construction the fractions shown will sum to unity by adding over all the 1972-basis MSIC within each 1987-basis MSIC and each source country. This file has been constructed from the import values found in IMP\*.ASC for 1988, since in that year there is a complete listing of the 1972-basis MSIC and the 1987-basis MSIC. For later years, the import data in IMP\*.ASC has only the 1987-basis MSIC numbers. In order to convert these to a 1972-basis, one would first sum up the import values according to 4-digit 1987-basis MSIC; then merge the resulting file with MSIC8772.ASC; then multiply the 1987-based MSIC values by the "weights" found in MSIC8772.ASC (for each source country), so as to obtain the import values on a 1972-basis MSIC.

*Record Layout for MSIC8772.ASC:*

columns 1-4	- 1987-basis MSIC number (4-digit)
columns 6-9	- 1972-basis MSIC number (4-digit)
columns 11-18	- Source country name
columns 20-25	- Source country code (UN codes are used; see Appendix A)
columns 27-35	- Weight for CIF import value
columns 37-45	- Weight for Customs import value

Size: MSIC8772.ASC has 21,849 records

#### (4) **WORLD Import Values (CIF), 1958-1992**

The CIF value for WORLD imports have been gathered together in the single file SIC58\_92.ASC, which also makes use of the 1958-1974 value of CIF imports from Abowd (1991). In order to splice these two datasets together, the ratio of the WORLD CIF values from SIC74.ASC and from Abowd were computed for each 4-digit SIC industry, and then the import value for 1974 and earlier years from Abowd were multiplied by that ratio. In addition, SIC58\_92.ASC includes the value of domestic shipments from Eric J. Bartelsman and Wayne B. Gray (NBER Productivity Database) for 1958-1991, which were updated to 1992 using data from the *Annual Survey of Manufactures* provided by Gordon H. Hanson, Department of Economics, University of Texas, Austin. Using the value of domestic shipments, a measure of the import share can be constructed as  $\text{imports}/(\text{shipments}+\text{imports})$ .

#### *Record Layout for SIC58\_92.ASC:*

columns 1-4	- 4-digit SIC number (1972 basis)
columns 6-7	- Year
columns 9-20	- CIF import value (millions of dollars)
columns 22-33	- Industry Shipments (millions of dollars)

Size: SIC58\_92.ASC has 15,750 records.

#### *Related Files:*

- (i) The prices for 3-digit and selected 4-digit SIC imports can be found in SICPRICE.ASC.
- (ii) The commodity names corresponding to each 4-digit manufacturing SIC category can be found in SICNAME.ASC.
- (iii) The data in SIC\*.ASC is computed from that found in IMP\*.ASC. Thus, the details about each variable provided in the documentation for IMP\*.ASC also applies to SIC\*.ASC.

**6D. SITC (Revision 2 and 3, 5-digit) Import Data, 1972-1994 (SITC\*.ASC)**

Using the files IMP\*.ASC for 1972-1994, the import data are summed according to the 5-digit Standard International Trade Classification (SITC) codes. The results are stored in SITC72.ASC,.....,SITC94.ASC.

*Record Layout:*

columns 1-5	- SITC Rev. 2 number (5-digit)
columns 7-11	- SITC Rev. 3 number A 3-digit Revision 3 is used in the 1972-1988 files, and the 5-digit Revision 3 number for 1989-1994
columns 13-18	- Country code (UN codes are used, as listed in Appendix A)
columns 20-27	- Source country name
columns 29-40	- Customs value (dollars)
columns 42-53	- CIF value (dollars)
columns 55-66	- Duties paid (dollars)
columns 68-69	- Year

*Special Considerations:*

- (i) For 1972-1977, the SITC Rev. 2 codes have been imputed using information on: (a) the SITC Rev. 2 codes used for a like-named TSUSA commodity in later years; (b) the SITC Rev. 1 code used for that commodity, and the concordance SITCR1\_2.ASC between Rev. 1 and Rev. 2. This imputation may cause some irregular movement in the import values across 5-digit SITC Rev. 2 categories over 1977-1978. In cases where a 5-digit SITC Rev. 2 code could not be imputed, a 4-digit (or more aggregate) code is used instead, with zero appended as the fifth digit.
- (ii) For 1972-1988, the data were initially organized on a 5-digit SITC Rev. 2 basis. Then the SITC Rev. 3 codes were imputed using the concordance contained in SITCR3\_2.ASC. Because this imputation is difficult to perform when going from Rev. 2 to 3 (because Rev. 3 is more disaggregate at the 5-digit level), only the 3-digit Rev. 3 codes are used. This imputation may cause some irregular movement in the import values across 3-digit SITC Rev. 3 categories over 1988-1989. In cases where a 3-digit SITC Rev. 3 code could not be imputed, a 2-digit code is used instead, with zero appended as the third digit. Any given 3-digit SITC Rev. 3 number will generally appear multiple times in a year, corresponding to different 5-digit SITC Rev. 2 numbers. Thus, to compute the value of imports by 3-digit Rev. 3 code, it is necessary to sum over all records for each such code.

(iii) For 1989-1994, the data are initially organized on a 5-digit SITC Rev. 3 basis. In this case the concordance SITCR3\_2.ASC gives a unique 5-digit SITC Rev. 2 code for each of the Rev. 3 codes. So these Rev. 2 codes were added into the file for each year, and then the records were re-sorted according to the Rev. 2 codes. As is apparent by inspection, each 5-digit Rev. 2 code can appear more than once. Thus, to compute the value of imports by 5-digit Rev. 2 code, it would be necessary to sum over all records for each such code.

(iv) Also included in these files are the variables listed above summed over all source countries, in which case the Country name is listed as WORLD, and the Country code is 100000.

*Size:* Each file SITC\*.ASC is between 2 and 10 megabytes.

*Related Files:*

The prices for 2-digit and selected 3-digit Revision 3 SITC imports can be found in SITPRICE.ASC.

The commodity names corresponding to each SITC code, for each revision of the SITC, are found in SITCREV1.ASC, SITCREV2.ASC, and SITCREV3.ASC.

Concordances between the various revisions of the SITC are found in SITCR2\_1.ASC, SITCR2\_3.ASC, and SITCR3\_2.ASC.

The data in SITC\*.ASC is a summation of that found in IMP\*.ASC. Thus, the details about each variable provided in the documentation to IMP\*.ASC also applies to SITC\*.ASC.

## **6E. SIC and SITC Import Prices (SICPRICE.ASC, SITPRICE.ASC)**

Most of the data included on this CD-ROM does not include import prices. In some files, there is an import value and an import quantity, which can be used to construct a unit-value (=value/quantity). But this unit-value will generally combine products that are somewhat heterogeneous, so that it cannot be treated as the price of a single product. The only source for actual prices of U.S. imports and exports is the Division of International Prices, U.S. Bureau of Labor Statistics. That office collects price by repeat interviewing OF U.S. firms that import or export goods. These prices are then aggregated into SIC or SITC categories, and these indexes are reported in the files SICPRICE.ASC and SITPRICE.ASC, respectively.

The file SICPRICE.ASC contain import price indexes for the U.S. at the 3-digit 1972-basis SIC level (annual and quarterly) over 1980-1992, though data for some industries is over a shorter period. Selected 4-digit industries are also included. More recent data at the SIC level is not available. The file SITPRICE.ASC contains the import price indexes at the 2-digit SITC Revision 3 level (annual, quarterly and monthly for recent years) for various starting years up until 1995. Selected 3-digit industries are also included. The record layout for both files is self-explanatory.

### *Related Files:*

Since the 1972-basis SIC is used for the import price indexes, they can be used with the import values in SIC58\_92.ASC, which are also on a 1972-basis SIC, but at the 4-digit level. Thus, the import values would have to be aggregated to a 3-digit level to be fully comparable to the import prices. Since the SITC price indexes are on a Rev. 3 basis, they can be used with the import values reported in SITC72.ASC,....,SITC94.ASC, which is also on a Rev. 3 basis but at the 5-digit level. For years before 1989, the SITC import values are reported on a Rev. 3 basis, 3-digit level, in SITC72.ASC,....,SITC88.ASC.

### *Source:*

Division of International Prices, Bureau of Labor Statistics. See also:

William Alterman, "Price Trends in U.S. Trade: New Data, New Insights," in Peter Hooper and J. David Richardson, eds. *International Economic Transactions*, Chicago: Univ. of Chicago Press and NBER, 1991, pp. 109-139.

**6F. Concordance for TSUSA Imports, 1972-1988 (CON72\_88.ASC)**

For years up until 1988, imports to the United States at a disaggregate level were measured according to the Tariff Schedule of the United States Annotated (TSUSA) classification. The file CON72\_88.ASC contains a complete list of the TSUSA numbers for 1972-88, along with various information about that commodity.

*Record Layout:*

columns 1-7	- TSUSA number
columns 9-16	- 1972 SIC number
columns 18-25	- 1987 SIC number
columns 27-31	- Revision 2 SITC number (5-digit)
columns 33-35	- Revision 3 SITC number (3-digit)
columns 37-38	- First year TSUSA number is used
columns 40-41	- Last year TSUSA number is used
columns 43-45	- Units of quantity (see Appendix B)
columns 47-110	- Description of TSUSA commodity
column 112	- End of record indicator (the number 1)

*Missing and Imputed Values:*

- (i) Some of the units of quantity are missing, and are indicated by blanks.
- (ii) In some years, the Units of quantity have been imputed based on the units used for the same commodity in other years.
- (iii) Some of the 1972 SIC numbers have been revised from the original source, to obtain a better match with the commodity description. For example, various articles of women's, children's and infant's clothing were classified in 1972 SIC numbers with the first four digits 2321, which refers to "men's and boy's shirts." The 1972 SIC number for these items was changed to 2361ZZZZ, which refers to "girl's, children's and infant's clothing." In addition, the category 3715ZZZZ referring to "truck trailers" was created.
- (iv) The SITC Rev. 2 codes have been imputed for TSUSA categories used during 1972-1977 by applying information on: (a) the SITC Rev. 2 codes used for a like-named TSUSA commodity in later years; or (b) the SITC Rev. 1 code used for that commodity, and the concordance SITCR1\_2.ASC between Rev. 1 and Rev. 2. In a very small number of cases, the Rev. 2 SITC number is missing, as indicated by a blank.

(v) The 1987 SIC numbers contain a number of cases where "Z" is used to indicate that the classification is not known. For example, "23ZZZZZZ" indicates that the commodity belongs to the 2-digit SIC category 23, but more precise information is not available. The 1987 SIC numbers are missing for the commodities with TSUSA numbers that were only used before 1978, as indicated by a blank.

*Special Considerations:*

It should be noted that the TSUSA numbers for any commodity change over time, so the only way to keep track of a given commodity is by its alphabetic description. One way to identify all the TSUSA numbers corresponding to a given commodity is to SORT the data by the description. However, the descriptions themselves also change slightly over time due to variations in spelling, etc. This means that the set of TSUSA numbers for a given description will not equal all the TSUSA numbers for that item, since there may be slightly different alphabetic descriptions for essentially the same item. Some attempt has been made to resolve this issue by using consistent alphabetic description for commodities over various years, but cases of slight changes in spelling still remain.

*Related Files:*

- (i) The Description has been used to identify the TSUSA commodities in the files IMPYR\_1.ASC, IMPYR\_2.ASC, and IMPYR\_3.ASC, for the years YR=72,73,...,88, and does not have any missing values. The SIC and SITC Rev. 2 numbers, and units of quantity in this concordance are identical to those in IMP\*.ASC for 1978-88.
- (ii) The SITC Rev. 3 numbers used in CON72\_88.ASC are obtained from the SITC Rev. 2 to Rev. 3 concordance reported in SITCR2\_3.ASC.
- (iii) For years after 1988, imported commodities are identified by the Harmonized Tariff Schedule (HTS) numbers. A concordance of these numbers is contained in CON89\_94.ASC, as described in CON89\_94.TXT. A cross-reference between the TSUSA and HTS numbers is contained in HS\_TSUSA.ASC, as described in HS\_TSUSA.TXT.

*Size:* CON72\_88.ASC contains 26,665 records.

*Sources:*

A concordance for 1978-1988 was obtained from:

U.S. International Trade Administration, COMPRO database [machine-readable file].

In order to extend this back to 1972, the TSUSA numbers and commodity descriptions for these years were typed into the concordance from the annual source:

U.S. Imports for Consumption and General Imports, TSUSA Commodity by Country of Origin, FT246, Bureau of the Census, Washington, D.C., 1972-1977.

The SIC and Rev. 1 SITC numbers corresponding to the 1972-1977 TSUSA numbers were obtained from:

U.S. Foreign Trade Statistics. Classifications and Cross-Classifications, 1974. Washington, D.C.: U.S. Dept. of Commerce, Bureau of the Census, December 1975.

The concordance SITCR2\_1.ASC between Rev. 1 and Rev. 2 SITC was obtained from Robert Lipsey, National Bureau of Economic Research, and was used to convert the SITC codes for the 1972-1977 period to a Rev. 2 basis.

**6G. Concordance for Harmonized System Imports, 1989-1994 (CON89\_94.ASC)**

In 1989 and later years, the Harmonized System of commodity classification has been used to measure disaggregate U.S. imports and exports. The particular application of the Harmonized System to U.S. imports is called the Harmonized Tariff Schedule (HTS). The file CON89\_94.ASC is a concordance that contains a complete list of the HTS numbers used identify U.S. imports over 1989-1994, along with various information about each of these commodities.

*Record Layout:*

columns 1-10	- Harmonized Tariff System (HTS) number
columns 12-15	- 1987 SIC 4-digit code
columns 17-21	- Revision 2 SITC code (5-digits)
columns 23-27	- Revision 3 SITC code (5-digits)
columns 29-33	- End-Use Classification
columns 35-36	- First year that this HTS number was used
columns 38-39	- Last year that this HTS number was used
columns 41-43	- Units of quantity (see Appendix B)
columns 45-94	- HTS description
column 96	- End of record indicator (the number 1)

*Missing Values:*

Some units of quantity are missing, which are indicated by a blank.

*Related Files:*

- (i) The HTS description, SIC and SITC numbers, and units of quantity in this concordance are identical to those used in the files IMPYR\_1.ASC, IMPYR\_2.ASC, and IMPYR\_3.ASC, for the years YR=89,90,...,94.
- (ii) For years before 1989, imported commodities are identified by the Tariff Schedule of the United States Annotated (TSUSA) numbers. A concordance of these numbers is contained in CON72\_88.ASC, as described in CON72\_88.TXT. A cross-reference between the TSUSA and HTS numbers is contained in HS\_TSUSA.ASC, as described in HS\_TSUSA.TXT.

*Size:* CON89\_94.ASC contains 18,519 records.

*Source:* U.S. International Trade Administration, COMPRO database [machine-readable file].

## **6H. Harmonized System to TSUSA Concordance (HS\_TSUSA.ASC)**

In 1989, the United States changed its system for collecting import (and export) data. Prior to that year, the import data were collected according to the Tariff Schedule of the United States Annotated (TSUSA), whereas beginning in 1989 the data were collected according to the Harmonized System of commodity classification. The application of the Harmonized System to U.S. imports is called the Harmonized Tariff Schedule (HTS).

The file HS\_TSUSA.ASC contains a cross-reference between the TSUSA codes for 1987, and the HTS codes proposed at that time. Since the actual conversion from the TSUSA codes for U.S. imports and the HTS codes occurred in 1989, so this file can be used to obtain the linkage between a 1987 or 1988 TSUSA code, and the corresponding HTS code in 1989. (HTS codes that were introduced in years later than 1989 would not be reflected in this cross-reference).

### *Record Layout:*

Columns 1-9	- HTS code (9-digit)
Columns 10-16	- TSUSA code (7-digit)

The records are sorted by HTS code.

### *Missing Values:*

The first record of HS\_TSUSA.ASC has a missing value (blank) for the HTS code, with a TSUSA value of 3201900. There are no other missing values.

### *Special Considerations:*

This source for this cross-reference, USITC (1988) listed below, contains the following explanatory notes: "The cross-references are designed to assist the international trade community in translating a known classification in the TSUSA into a likely classification under the HTS. The use is strongly cautioned against relying on the cross-reference in order to determine legally appropriate tariff classifications under the HTS... All TSUSA numbers have been aligned with at least one HTS subheading. Similarly, all HTS subheadings have been referenced to at least one TSUSA number or headnote. Nevertheless, these cross-references do not include all possible TSUSA/HTS combinations."

Most importantly, within the cross-reference each TSUSA code can correspond to more than one HTS code, and vice-versa. Thus, this cross-reference *does not* give a unique correspondence between the TSUSA and HTS. Its usefulness will depend on the particular commodities that each researcher is interested in.

The USITC (1988) publication listed below also provides the following information concerning "special situations":

### *1. Intangibles*

Certain HTS subheadings (for example, 2716.00, 8901.10 and 8904.00) have no equivalent TSUSA number since they describe goods listed in general footnote 5 to the Tariff Schedules of the United States that are identified as "intangibles." Intangibles are articles not subject to the provisions of the Tariff Schedule of the U.S.

In these cases, the code GHDNT5G is used in place of a TSUSA number.

### *2. Certain woven fabrics*

There are an enormous number of 7-digit TSUSA numbers between 320.01 through 331.98, many of which have very little trade. In order to reduce the complexity of the cross-reference, TSUSA numbers at the 5-digit level are instead used for these commodities.

Even at the five digit level, the number of commodities is reduced by consolidating the fourth and fifth digits. For example, TSUSA items 320.01 through 320.09 are shown in the cross-reference under item 320.09. In general, the fourth and fifth digits of the TSUSA items have been replaced as follows:

Range of actual fourth and fifth digits	Fourth and fifth digits as shown in the cross-reference
01-09 .....	09
10-19 .....	19
20-29 .....	29
30-39 .....	39
40-49 .....	49
50-59 .....	59
60-69 .....	69
70-79 .....	79
80-88 .....	89
92-98 .....	99

With these fourth and fifth digits, the sixth and seventh digits for the TSUSA numbers in the cross-reference are set at zero.

The treatment of TSUSA item 338.50 in the cross-reference is similar to that of items 320.01 through 331.98, and the same adjustments apply.

### *3. Watches and clocks*

The tariff classification applicable to watches, clocks with watch movements, and watch movements under the TSUSA were too convoluted to apply the general principles for linking TSUSA and HTS. As a result, for these items certain numbers reported in the 7-digit TSUSA columns are not actually TSUSA numbers, but are instead Census trade reporting numbers. At the same time, some 7-digit TSUSA numbers covering these articles are not included in the listings. These exceptions are as follows:

- (a) All 7-digit numbers shown in the TSUSA column beginning with 715 or 716. These numbers, which cover watches and clocks with watch movements, are the numbers used by Census in publishing import trade statistics, rather than the TSUSA numbers used on Customs entry forms.
- (b) TSUSA numbers beginning with 716.37, 716.38, 716.39, 716.40, 716.45 and 719. Of these numbers, which cover watch movements, only those for which import trade was reported in the period 1983-86 are listed.

*Size:* HS\_TSUSA.ASC contains 27,248 records.

*Source:*

United States International Trade Commission. Continuity of Import and Export Trade Statistics After Implementation of the Harmonized Commodity Description and Coding System. Report to the President on Investigation no. 332-250 under Section 332 of the Tariff Act of 1930. USITC Publication 2051, January 1988, Washington, D.C.

The data in HS\_TSUSA.ASC was scanned from Annex II of this publication. Bruce A. Blonigen, Department of Economics, University of Oregon, arranged to have this scanning performed at the U.S. International Trade Commission.

**6I. SIC and SITC Names and Concordances (SICNAME.ASC, SITCREV\*.ASC, SITCR1\_2.ASC, SITCR2\_1.ASC, SITCR2\_3.ASC, SITCR3\_2.ASC)**

The file SICNAME.ASC contains the commodity codes and names for the Standard Industrial Classification (SIC), 1972 basis, for manufactured goods only (SIC codes beginning with 2 and 3). These SIC codes are used in the files SIC72.ASC, ..., SIC92.ASC, SIC58\_92.ASC. The organization of the records is self-explanatory. This file was scanned from the document: *Standard Industrial Classification Manual, 1972*, Executive Office of the President, Office of Management and Budget, Government Printing Office.

The file SITCREV1.ASC contains the commodity codes and names for the Standard International Trade Classification (SITC), Rev. 1, and was obtained from Harry P. Bowen, National Bureau of Economic Research. The file SITCREV2.ASC contains the codes and names for the SITC Rev. 2, and was obtained from Bruce A. Blonigen, Dept. of Economics, University of Oregon. The file SITCREV3.ASC contains the codes and names for the SITC Rev. 3, and was copied from: *U.S. Imports of Merchandise on CD-ROM* [machine-readable data file]/prepared by the Bureau of the Census. - Washington: The Bureau [producer and distributor], 1994.

Concordances between SITC Rev. 2 and 1, and between Rev. 3 and 2, are contained in SITC2\_1.ASC and SITC3\_2.ASC, respectively. Both of these files were obtained from Robert E. Lipsey, National Bureau of Economic Research. In general, it is easier to go from a later revision of the SITC to an earlier edition, rather than vice-versa, because the number of categories tends to expand over time. However, in some cases it was also necessary to go from Rev. 1 to Rev. 2, or Rev. 2 to Rev. 3. To achieve this, the concordances SITCR1\_2.ASC and SITCR2\_3.ASC was developed from SITCR2\_1.ASC and SITCR3\_2.ASC. In the first of these, SITCR1\_2.ASC, each 5-digit Rev. 1 number can correspond to several different Rev. 2 numbers at the 5-digit or 4-digit level. In cases where a 5-digit Rev. 1 number does not correspond to a unique 5-digit Rev. 2 number, instead a 4-digit, 3-digit or more aggregate Rev. 2 number is used, with zero's appended onto it to achieve 5 digits. This problem was even more serious when going from Rev. 2 to Rev. 3, so in SITC2\_3 only the 3-digit Rev. 3 numbers are used, with a similar convention for appended zero's.

All these files contain additional information on record layout in their first lines.

## References

- Abowd, John M. (1991) "Appendix: The NBER Immigration, Trade, and Labor Market Files," in John M. Abowd and Richard B. Freeman, eds. Immigration, Trade, and the Labor Market. Chicago: Univ. of Chicago Press and NBER, 407-422.
- Abowd, John M. and Richard B. Freeman, eds. Immigration, Trade, and the Labor Market. Chicago: Univ. of Chicago Press and NBER.
- Alterman, William (1991) "Price Trends in U.S. Trade: New Data, New Insights," in Peter Hooper and J. David Richardson, eds. International Economic Transactions. Studies in Income and wealth, no. 55. Chicago: Univ. of Chicago Press and NBER, 109-139.
- Aw, Bee Yan and Mark J. Roberts (1986) "Estimating Quality Change in Quota-Constrained Import Markets: The Case of U.S. Footwear," Journal of International Economics, 21, 45-60.
- Boorstein, Randi and Robert C. Feenstra (1991) "Quality Upgrading and Its Welfare Cost in U.S. Steel Imports, 1969-74," in Elhanan Helpman and Assaf Razin, eds. International Trade and Trade Policy. Cambridge: MIT Press, 1991, 167-186.
- Feenstra, Robert C. (1994) "New Product Varieties and the Measurement of International Prices," American Economic Review, 84(1), March, 157-177.
- Feenstra, Robert C., Gary Hamilton, and Tzu-han Yang (1993) "Market Structure and International Trade: Business Groups in East Asia," NBER Working Paper no. 4536.
- Feenstra, Robert C. and Clinton R. Shiells (1994) "Bias in U.S. Import Prices and Demand," NBER Working Paper no. 4841, August, forthcoming in T. Bresnahan and R. Gordon, eds. New Products: History, Methodology and Applications. Chicago: Univ. of Chicago Press and NBER.
- Harrison, Ann (1991) "The New Trade Protection: Price Effects of Antidumping and Countervailing Measures in the United States," The World Bank, Trade Policy Division, Working Paper no. 808.
- Knetter, Michael M. (1989) "Price Discrimination by U.S. and German Exporters," American Economic Review, 79(1), 198-210.
- Shiells, Clinton R. (1991) "Errors in Import-Demand Estimates Based Upon Unit-Value Indexes," Review of Economics and Statistics, 55, 456-464.
- Prusa, Thomas J. (1994) "Pricing Behavior in the Presence of Antidumping Law," Journal of Economic Integration, 9(2), 260-289.

Prusa, Thomas J. (1995) "The Trade Effects of U.S. Antidumping Actions," presented at the NBER conference, "Effects of U.S. Trade Protection and Promotion Policies," Richmond, VA, October 6-7, 1995.

Rodrik, Dani (1994) "Industrial Organization and Product Quality: Evidence from South Korean and Taiwanese Exports," in Paul Krugman and Alasdair Smith, eds. Empirical Studies of Strategic Trade Policy. Chicago: Univ. of Chicago Press and NBER, 195-210.

Sachs, Jeffrey D., and Howard J. Shatz (1994) "Trade and Jobs in U.S. Manufacturing," Brookings Papers on Economic Activity, 1, 1-69.

Staiger Robert W. and Frank A. Wolak (1994) "Measuring Industry-Specific Protection: Antidumping in the United States," Brookings Paper on Microeconomics, 51-118.

Walter, Bruce C. (1991) "Quality Issues Affecting the Compilation of the U.S. Merchandise Trade Statistics," in Peter Hooper and J. David Richardson, eds. International Economic Transactions. Studies in Income and wealth, no. 55. Chicago: Univ. of Chicago Press and NBER, 89-103.

#### Census Publications

- [1] U.S. Bureau of the Census, U.S. Imports for Consumption and General Imports, TSUSA Commodity by Country of Origin, FT246, Washington, D.C.: Department of Commerce, annual, 1972-1988.
- [2] U.S. Bureau of the Census, U.S. Imports for Consumption, HTSUSA Commodity by Country of Origin, FT247, Washington, D.C.: Department of Commerce, annual, 1989-1994.
- [3] U.S. Bureau of the Census, U.S. Foreign Trade Statistics. Classifications and Cross-Classifications, 1974. Washington, D.C.: Department of Commerce, December, 1975.
- [4] U.S. Bureau of the Census, U.S. Commodity Exports and Imports as Related to Output, Washington, D.C.: Department of Commerce, annual, various years.
- [5] U.S. Bureau of the Census, U.S. Imports: SIC-Based Products, FT210, Washington, D.C.: Department of Commerce, 1980, 1982, 1983, 1984.

## **Appendix A: Country Codes and Names (COUNTRY.ASC)**

The U.S. import data collected by the Bureau of the Census keeps track of the source country by certain Census codes. For the import database, the United Nations (UN) country codes and names are used instead. The file COUNTRY.ASC gives a complete list of the UN codes, UN country abbreviations, the corresponding Census codes for 1994, and the full name of the Census country. This file is printed on the following two pages.

### *Record Layout:*

columns 1-6	- United Nations (UN) code
columns 8-15	- Abbreviated UN country name
columns 17-20	- Census country code for 1994
columns 22-50	- Full Census country name

The records are sorted by the six-digit UN codes. The first two-digits of that code are a regional identifier, the next three-digits are a specific country code, and the last digit is a special modifier than equals zero in nearly all cases.

*Missing values:* In a few cases, the Census country code for 1994 is missing, as indicated by a blank. This means that the country in question did not appear in the Census import data for 1994, but did appear in some earlier year; an example is East Germany.

*Special considerations:* There are more Census country codes than UN codes. This means that a given UN code may appear on several subsequent records, followed by the same abbreviated UN country name; on each of these records, a different Census country code and Census county name will appear. For example, South Africa is treated as one country in the UN codes, but is broken down into several smaller regions in the Census codes and names.

*Size:* COUNTRY.ASC has 239 records.

*Sources:* The UN codes are the six-digit Standard Classification of Customs Areas and Territories, and are nearly the same as those used by Statistics Canada in their World Trade Database. The Census codes and country names are taken from the file COUNTRY.DBF contained on:

U.S. Imports of Merchandise on CD-ROM [machine-readable data file] / prepared by the Bureau of the Census. - Washington: The Bureau [producer and distributor], 1994.

117100	S_AFRICA	7910	REPUBLIC OF SOUTH AFRICA	331520	CHILE	3370	CHILE
117100	S_AFRICA	7920	NAMIBIA	331700	COLOMBIA	3010	COLOMBIA
117100	S_AFRICA	7930	BOTSWANA	332180	ECUADOR	3310	ECUADOR
117100	S_AFRICA	7950	SWAZILAND	334840	MEXICO	2010	MEXICO
117100	S_AFRICA	7990	LESOTHO	336000	PARAGUA	3530	PARAGUAY
130120	ALGERIA	7210	ALGERIA	336040	PERU	3330	PERU
134340	LIBYA	7250	LIBYA	338580	URUGUAY	3550	URUGUAY
135040	MOROCCO	7140	MOROCCO	338620	VENEZ	3070	VENEZUELA
135040	MOROCCO	7370	WESTERN SAHARA	341880	COS_RICA	2230	COSTA RICA
137360	SUDAN	7320	SUDAN	342220	SALVADR	2110	EL SALVADOR
137880	TUNISIA	7230	TUNISIA	343200	GUATMALA	2050	GUATEMALA
138180	EGYPT	7290	EGYPT	343400	HONDURA	2150	HONDURAS
141200	CAMEROON	7420	CAMEROON	345580	NICARAGA	2190	NICARAGUA
141400	C_AFRICA	7540	CENTRAL AFRICAN REPUBLIC	350440	BAHAMAS	2360	BAHAMAS
141480	CHAD	7560	CHAD	350520	BARBADO	2720	BARBADO
141780	CONGO	7630	CONGO	351920	CUBA	2390	CUBA
142660	GABON	7550	GABON	352140	DOM_REP	2470	DOMINICAN REPUBLIC
160240	ANGOLA	7620	ANGOLA	353120	GUADLPE	2831	GUADELOUPE
161080	BURUNDI	7670	BURUNDI	353120	GUADLPE	2839	MARTINIQUE
161800	ZAIRE	7660	ZAIRE	353320	HAITI	2450	HAITI
162040	BENIN	7610	BENIN	353880	JAMAICA	2410	JAMAICA
162260	EQ_GNEA	7380	EQUATORIAL GUINEA	353880	JAMAICA	2430	TURKS AND CAICOS ISLANDS
162300	ETHIOPIA	7740	ETHIOPIA	353880	JAMAICA	2440	CAYMAN ISLANDS
162300	ETHIOPIA	7741	ERITREA	355320	N_ANTIL	2771	NETHERLANDS ANTILLES
162300	ETHIOPIA	7749	ETHIOPIA	355320	N_ANTIL	2779	ARUBA
162620	DJIBOUTI	7770	DJIBOUTI	356580	ST_K_NEV	2481	ANGUILLA
162700	GAMBIA	7500	THE GAMBIA	356580	ST_K_NEV	2482	BRITISH VIRGIN ISLANDS
162880	GHANA	7490	GHANA	356580	ST_K_NEV	2483	ST. KITTS-NEVIS
163240	GUINEA	7460	GUINEA	356580	ST_K_NEV	2484	ANTIGUA
163840	IVY_CST	7480	IVORY COAST	356580	ST_K_NEV	2485	MONTERRAT
164040	KENYA	7790	KENYA	356580	ST_K_NEV	2486	DOMINICA
164300	LIBERIA	7650	LIBERIA	356580	ST_K_NEV	2487	ST. LUCIA
164500	MADAGASCAR	7880	MADAGASCAR	356580	ST_K_NEV	2488	ST. VINCENT
164540	MALAWI	7970	MALAWI	356580	ST_K_NEV	2489	GRENADA
164660	MALI	7450	MALI	357800	TRINIDAD	2740	TRINIDAD AND TOBAGO
164780	MAURITN	7410	MAURITANIA	360840	BELIZE	2080	BELIZE
164800	MRITIUS	7850	MAURITIUS	362380	FALK_IS	3720	FALKLAND ISLANDS
165080	MOZAMBQ	7870	MOZAMBIQUE	362540	FR_GUIAN	3170	FRENCH GUIANA
165620	NIGER	7510	NIGER	363280	GUYANA	3120	GUYANA
165660	NIGERIA	7530	NIGERIA	365900	PANAMA	2250	PANAMA
166240	G_BISAU	7642	GUINEA-BISSAU	367400	SURINAM	3150	SURINAME
166240	G_BISAU	7643	CAPE VERDE	368960	US_NES	6810	MARSHALL ISLANDS
166240	G_BISAU	7644	SAO TOME AND PRINCIPE	368960	US_NES	6820	FEDRATED STATES OF MICRONESIA
166380	FR_IND_O	7890	COMOROS	368960	US_NES	6830	PALAU
166380	FR_IND_O	7904	REUNION	368960	US_NES	9350	GUAM
166380	FR_IND_O	7905	FR SOUTHERN-ANTARTIC LANDS	368960	US_NES	9800	U.S. OUTLYING ISLANDS
166460	RWANDA	7690	RWANDA	368961	PRT_RICO		PUERTO RICO
166540	S_HELNA	7580	ST. HELENA	368962	VGN_ISL	9110	VIRGIN ISLANDS
166860	SENEGAL	7440	SENEGAL	413760	ISRAEL	5081	ISRAEL
166900	SEYCHEL	7800	SEYCHELLES	413760	ISRAEL	5082	GAZA STRIP ADMNSTD BY ISRAEL
166900	SEYCHEL	7810	BRITISH INDIAN OCEAN TERR.	413760	ISRAEL	5083	WEST BANK ADMNSTD BY ISRAEL
166940	SIER_LN	7470	SIERRA LEONE	413920	JAPAN	5880	JAPAN
167060	SOMALIA	7700	SOMALIA	440480	BAHRAIN	5250	BAHRAIN
167160	ZIMBABWE	7960	ZIMBABWE	441960	CYPRUS	4910	CYPRUS
167680	TOGO	7520	TOGO	443640	IRAN	5070	IRAN
168000	UGANDA	7780	UGANDA	443680	IRAQ	5050	IRAQ
168340	TANZANIA	7830	TANZANIA	444000	JORDON	5110	JORDAN
168540	BURKINA	7600	BURKINA	444140	KUWAIT	5130	KUWAIT
168940	ZAMBIA	7940	ZAMBIA	444220	LEBANON	5040	LEBANON
211240	CANADA	1220	CANADA	445120	OMAN	5230	OMAN
220600	BERMUDA	2320	BERMUDA	446340	QATAR	5180	QATAR
223040	GREENLD	1010	GREENLAND	446820	SD_ARAB	5170	SAUDI ARABIA
226660	SP_MQEL	1610	ST. PIERRE AND MIQUELON	447200	YEMEN_S		SOUTH YEMEN
330320	ARGENT	3570	ARGENTINA	447600	SYRIA	5020	SYRIAN ARAB REPUBLIC
330680	BOLIVIA	3350	BOLIVIA				
330760	BRAZIL	3510	BRAZIL				

447840	ARAB_EM	5200	UNITED ARAB EMIRATES	688100	USSR	4490	LATVIA
447920	TURKEY	4890	TURKEY	688100	USSR	4510	LITHUANIA
448860	YEMEN_N	5210	YEMEN ARAB REPUBLIC	688100	USSR	4621	RUSSIA
450000	ASIA_NES	5610	BRUNEI	688100	USSR	4622	BELARUS
450000	ASIA_NES	5682	BHUTAN	688100	USSR	4623	UKRAINE
450040	AFGHAN	5310	AFGANISTAN	688100	USSR	4631	ARMENIA
450500	BNGLDSE	5380	BANGLADESH	688100	USSR	4632	AZERBAIJAN
451040	BURMA	5460	BURMA	688100	USSR	4633	GEORGIA
451160	CAMBOD	5550	CAMBODIA	688100	USSR	4634	KAZAKHSTAN
451440	SRI_LKA	5420	SRI LANKA	688100	USSR	4635	KYRGYZSTAN
453440	HONGKONG	5820	HONG KONG	688100	USSR	4641	MOLDOVA
453560	INDIA	5330	INDIA	688100	USSR	4642	TAJIKISTAN
453600	INDONES	5600	INDONESIA	688100	USSR	4643	TURKMENISTAN
453600	INDONES	5683	MALDIVE ISLANDS	688100	USSR	4644	UZBEKISTAN
454100	KOREA_S	5800	KOREA, REPUBLIC OF	710360	AUSTRAL	6021	AUSTRALIA
454180	LAO	5530	LAOS	710360	AUSTRAL	6022	NORFOLK ISLAND
454460	MACAU	5660	MACAO	710360	AUSTRAL	6023	COCOS ISLANDS
454580	MALAYSIA	5570	MALAYSIA	710360	AUSTRAL	6024	CHRISTMAS ISLAND
455240	NEPAL	5360	NEPAL	710360	AUSTRAL	6029	HEARD AND MCDONALD ISLANDS
455860	PAKISTAN	5350	PAKISTAN	715540	NEW_ZEAL	6141	NEW ZEALAND
456080	PHIL	5650	PHILIPPINES	715540	NEW_ZEAL	6142	COOK ISLANDS
457020	SINGAPR	5590	SINGAPORE	715540	NEW_ZEAL	6143	TOKELAU ISLANDS
457640	THAILAND	5490	THAILAND	715540	NEW_ZEAL	6144	NIUE
458960	TAIWAN	5830	CHINA (TAIWAN)	722420	FIJI	6862	NAURU
481560	CHINA	5700	CHINA (MAINLAND)	722420	FIJI	6863	FIJI
484080	KOREA_N	5790	NORTH KOREA	722420	FIJI	6864	TONGA
484960	MONGOLA	5740	MONGOLIA	722960	KIRIBATI	6223	SOLOMON ISLANDS
487040	VIETNAM	5520	VIETNAM	722960	KIRIBATI	6224	VANUATU
530560	BEL_LUX	4231	BELGIUM	722960	KIRIBATI	6225	PITCAIRN ISLAND
530560	BEL_LUX	4239	LUXEMBOURG	722960	KIRIBATI	6226	KIRIBATI
532080	DENMARK	4091	FAROE ISLAND	722960	KIRIBATI	6227	TUVALU ISLANDS
532080	DENMARK	4099	DENMARK	725400	NEW_CALE	6412	NEW CALEDONIA
532500	FRANCE	4271	ANDORRA	725400	NEW_CALE	6413	WALLIS AND FUTUNA
532500	FRANCE	4272	MONACO	725400	NEW_CALE	6414	FRENCH POLYNESIA
532500	FRANCE	4279	FRANCE	725980	NEW_GUIN	6040	PAPUA NEW GUINEA
532800	GERMAN	4280	GERMANY	728882	SAMOA	6150	WESTERN SAMOA
533000	GREECE	4840	GREECE	728882	SAMOA	9510	AMERICAN SAMOA
533720	IRELAND	4190	IRELAND	999999	UNKNOWN	9610	NORTHERN MARIANA ISLANDS
533800	ITALY	4751	SAN MARINO	999999	UNKNOWN	9980	UNIDENTIFIED
533800	ITALY	4752	VATICAN CITY				
533800	ITALY	4759	ITALY				
535280	NETHLDS	4210	NETHERLANDS				
536200	PORTUGAL	4710	PORTUGAL				
537240	SPAIN	4700	SPAIN				
538260	UKINGDOM	4120	UNITED KINGDOM				
550400	AUSTRIA	4330	AUSTRIA				
552460	FINLAND	4050	FINLAND				
553520	ICELAND	4000	ICELAND				
555780	NORWAY	4031	SVALBARD, JAN MAYEN ISLAND				
555780	NORWAY	4039	NORWAY				
557520	SWEDEN	4010	SWEDEN				
557560	SWITZLD	4411	LIECHTENSTEIN				
557560	SWITZLD	4419	SWITZERLAND				
572920	GILBRALT	4720	GIBRALTAR				
574700	MALTA	4730	MALTA AND GOZO				
580080	ALBANIA	4810	ALBANIA				
581000	BULGARIA	4870	BULGARIA				
582000	CZECHO	4351	THE CZECH REPUBLIC				
582000	CZECHO	4359	SLOVAKIA				
582780	GERMAN_E		EAST GERMANY				
583480	HUNGARY	4370	HUNGARY				
586160	POLAND	4550	POLAND				
586420	ROMANIA	4850	ROMANIA				
598900	YUGOSLAV	4790	YUGOSLAVIA				
598900	YUGOSLAV	4791	CROATIA				
598900	YUGOSLAV	4792	SLOVENIA				
598900	YUGOSLAV	4793	BOSNIA-HERCEGOVINA				
598900	YUGOSLAV	4794	MACEDONIA				
598900	YUGOSLAV	4799	YUGOSLAVIA				
688100	USSR	4470	ESTONIA				

## Appendix B: Units for Quantity

The following units for quantity are used in IMP\*.ASC for 1972-1988:

AOZ	Avoirdupois ounce
BBL	Barrel
BFT	Board feet
BU	Bushel
C	One hundred
CAR	Carot
CD	Cord
CFT	Cubic feet
CLB	Content pound
CRT	Crate
CTN	Content ton
CUR	Curie
CWT	Hundredweight (100 pounds)
CYD	Cubic Yard
DOZ	Dozen
DPC	Dozen Pieces
DPR	Dozen Pair
GAL	Gallon
GBX	Gross boxes
GR	Gross
GRL	Gross lines
GM	Gram
GTN	Gross ton
JWL	Jewels
LB	Pound
LF	Leaf
LFT	Linear Foot
LTN	Long ton (2,240 pounds)
LYD	Long yard
M	Thousand (1,000)
MBF	Thousand board feet
MC	Milli-Curie
MCF	Thousand cubic feet
MFT	Thousand feet
MLF	Thousand linear feet
MSF	Thousand square feet
NO	Number
PC	Piece
PFG	Proof gallon
PK	Pack
PR	Pair
SFT	Square foot
SQ	Square
SQI	Square inch
STN	Short ton (2,000 pounds)
SUF	Superficial foot
SYD	Square yard
TON	Long Ton (2,240 pounds)
TOZ	Troy ounce
YD	Yard

The following units for quantity are used in IMP\*.ASC for 1989-1994:

BBL	Barrel
CAR	Carot
CBM	Cubic Meters
CKG	Content Kilogram
CTN	Content Metric Ton
CUR	Curie
CYK	Clean Yield Kilogram
DOZ	Dozen
DPC	Dozen Pieces
DPR	Dozen Pair
FBM	Fiber Meter
GCN	Gross Containers
GKG	Kilogram (gross)
GM	Gram
GRS	Gross
HUN	Hundred
KG	Kilograms
KGS	Kilogram Total Sugars
KWH	Kilowatt-hours
LTR	Liters
M2	Square Meters
MC	Milli-Curie
MCU	Micro-Curie
MTR	Meter
NO	Number
ODE	Ozone Depletion Equivalent
PCS	Pieces
PFL	Proof Liter
PKS	Packs
PRS	Pairs
RBA	Running Bales
SCM	Square Centimeters
SET	Sets
SQ	Square
SQM	Square meters
TBE	Thousand Standard Brick Equivalent
TCM	Thousand Cubic Meter
THS	Thousands
TON	Metric Ton