

Forward Linkages

*An Analysis of the Employment Impacts of
Selected Commodities Imported through the
Port of Long Beach*

Prepared for the Port of Long Beach

Prepared by the Office of Economic Research
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Executive Summary

- The primary focus of this study is to estimate the employment impacts (i.e., the creation of jobs) arising from the importation of raw materials and semi-finished goods through the Port of Long Beach. These jobs involve the manufacturing and distribution of finishing goods.
- Four commodity groups were selected for this case study: paper; iron and steel; electronic parts; and organic chemicals.
- The POLB staff provided PIERS data to identify the shippers of these commodities. The research teams administered a telephone survey to identify the activities of shippers and the likely employment impacts. Shippers engaged in manufacturing activities generate a larger number of jobs than distributors engaged in wholesale trade activities. In addition, the researchers matched data from the Dunn and Bradstreet database with the PIERS data to determine base levels of employment by location.
- The case study results were based upon phone surveys. Typically, we were able to identify about one quarter of the shippers. We were, however, able to account for about 50 percent of the volume shipped, since we could identify the larger shippers.
- The case study results, while far from a systematic analysis of every shipper, are nonetheless instructive of the range of choices confronting the firms in the four commodity groups.
 - For paper importers, the survey results indicate that two-thirds of the firms are manufacturers and the remaining third are distributors. Somewhat surprising is that approximately 50 percent of the manufactured output was exported, oftentimes through the POLB.
 - The survey results for steel and iron imports indicated that the firms were equally divided between manufacturers and distributors. Slightly less than 50 percent of the manufactured products were exported.
 - In the case of imported electronic parts, the surveys indicate that almost 60 percent of the firms were manufacturers or assemblers. Approximately 85 percent of these firms export *some* of their output and approximately 24 percent of the total output of these firms is exported.
 - The survey results for organic chemical importers indicate that 60 percent of the firms were manufacturers and the remaining firms were distributors. Approximately two-thirds of these firms export some of their output and about 25 percent of the total output is exported. Half of the interviewed firms report that exports are shipped via the POLB.
- The importation of 308,000 metric tons of paper imports through the POLB generated 16,600 manufacturing jobs with an annual payroll of \$1 billion, yielding an average annual payroll of \$66,000. The value of the finished paper

output was \$5.1 billion. In addition, the activities of paper wholesalers generated 1,900 jobs with an annual payroll of \$100 million.

- The importation of 353,000 metric tons of steel through the POLB generated 63,400 manufacturing jobs with an annual payroll of \$4.5 billion, yielding an average annual payroll of \$73,000. The value of the manufactured steel goods was \$17.4 billion. In addition, the activities of steel wholesalers generated 3,100 jobs with an annual payroll of \$183 million.
- The importation of 38,537 TEUs of electronic parts through the POLB generated 100,000 manufacturing and assembly jobs with an annual payroll of \$8 billion or an average annual payroll of \$80,000. The value of the final electronic goods was \$26.4 billion. Wholesale activities involved in the distribution of these electronic goods generated 16,000 jobs and an annual payroll of \$963 million.
- The importation of 239,000 metric tons of organic chemicals through the POLB generated 42,000 manufacturing jobs with an annual payroll of \$3.8 billion, or an average annual payroll of \$92,000. The value of the final goods was \$60 billion. Wholesale activities involved in the distribution of these organic chemicals generated 700 jobs and an annual payroll of \$41 million.
- Overall, the importation of the four selected commodities through the POLB generated 220,000 manufacturing jobs and 22,000 wholesale trade jobs. These jobs, on average, are high-wage jobs. Manufacturing annual average payroll per worker range from \$92,000 in the organic chemical industry to a low of \$66,000 in the paper industry. Wholesale trade employment, on the other hand, has an annual average payroll per worker of \$59,000.

Section 1. Introduction and Motivation

In 2005, Thomas Friedman published the bestselling book *The World is Flat: A Brief History of the Twenty-first Century*. Friedman attempts to analyze the process of globalization whereby national economies become integrated through trade, capital flows and technology. The very rapid growth of ports, especially those on the west coast, is an outcome of the globalization process. Much of the attention on trade through the ports, especially that of the Port of Long Beach (POLB) and the Port of Los Angeles (POLA), is focused upon the importation of finished consumer goods, since these ports are the principal entry port for the Pacific Rim nations. The emergence of the Asian economies during the last 40 years has created a dramatic shift in trade from the east to the west coast. While containerized cargo of finished consumer goods is a vital element of west coast ports, the port operations are far more complex than the importation of finished goods.

A. Employment Impacts of Selected Imports

In this research project, our primary focus was the importation of raw materials and semi-finished goods through the POLB which serve as inputs in domestic manufacturing activities. Most often, the manufacturing processes utilizing these inputs produced finished goods which were distributed in domestic markets. However, in some instances, these domestically-manufactured finished goods were exported. Depending upon the proximity of the export market, these goods were transported via rail, truck, or water operations and, in some instances, were exports through the POLB.

The basic interest of this study is to estimate the employment impact associated with the importation of raw materials and semi-finished goods through the POLB.

The POLB staff made PIERS data available to assist the primary researchers in identifying the raw materials and semi-finished goods imported through the POLB. Since there is a broad array of semi-finished goods and raw materials that are imported, it would be a daunting task to estimate the employment impacts associated with the importation of all raw materials and semi-finished goods. Instead, the primary researchers in consultation with the POLB staff identified four broad categories of goods to serve as a case study of impacts. The commodity groups selected were steel, electronic equipment, paper, and organic chemicals. The rationale for the selection appears below.

B. Educational Aspects

Our research efforts also had a secondary element of enhancing the educational experience of our students. In the undergraduate curriculum, students oftentimes are not afforded the opportunity of working with faculty on a research project. While the curriculum allows students to develop their theoretical and quantitative

skills, they do not always have the opportunity to apply these skills, except at a more aggregated level. The POLB contract allowed us to address this shortcoming for a small group of students. Invitations to participate in this research project were extended to upper-division students majoring in economics. From the set of students invited, twelve students were selected to participate based upon their academic record and recommendation from faculty members. In the fall semester of 2007, these students were enrolled in a seminar taught by Professor Grobar. In addition to providing instruction on international trade, she provided these students with the necessary institutional background as well as familiarity with government classification systems and databases. The students were divided into four groups of three, and each group was assigned one of the four commodity groups. Each group was required to write and present their initial research results, in addition to the usual testing as part of the economics curriculum.

In the spring semester of 2008, the students were employed through the contract as student research assistants. Each group of students was under the direct supervision of one of the faculty members. Professor Grobar was responsible for the steel and the electronics group, Professor Monaco was responsible for the paper group, and Professor Magaddino was responsible for the organic chemical group. A survey instrument was developed by the faculty which was reviewed and approved by the California State University, Long Beach Human Subjects Committee. The survey instrument is contained in Appendix A of this report.

Using the PIERS data, the students conducted internet searches to identify contact information regarding the shippers of the imports in question. As explained in section 3, the students then conducted telephone interviews and, in some cases, email interviews with firms receiving the imported goods. Approximately 3,000 hours were spent by student researchers on this project with the vast majority of time on the interview process.

This report is organized as follows: a brief overview of trade is provided in Section 2; the case study results are presented in Section 3; the estimated employment impacts are contained in Section 4; and the last section summarizes the findings.

Section 2. Overview of Trade

Trade volumes and values through U.S. ports have increased steadily over time. Figure 2-1 presents the growth in real value (i.e., adjusted for inflation) and volumes for all U.S. ports. During 2003-2006, the volume and value of trade increased steadily. In 2007, there was a drop in volume reflecting a slowing in the national economy and depreciation of the dollar. While the value of trade did not decline in 2007, its growth slowed due to slower growth in the U.S. economy. Even with the drop in the volume of trade in 2007, the growth in real vessel value

for the U.S. was 50 percent between 2003 and 2007, with a 39 percent increase in vessel volume.

Figure 2-1 U.S. Vessel Trade Value and Volume, 2003-2007

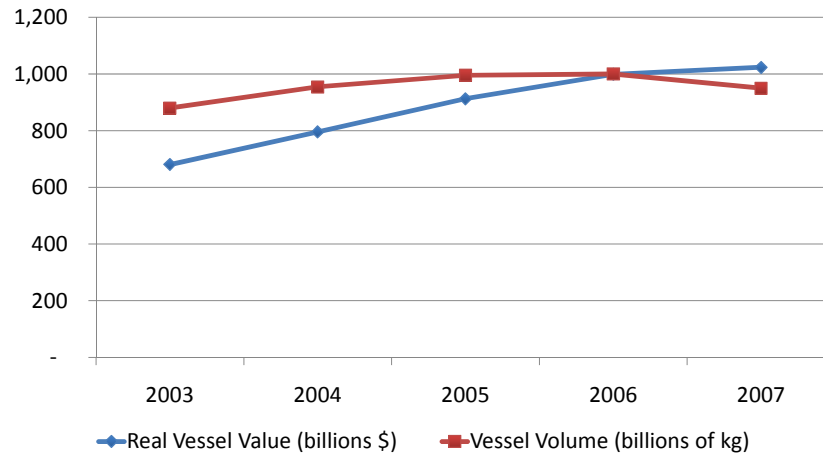
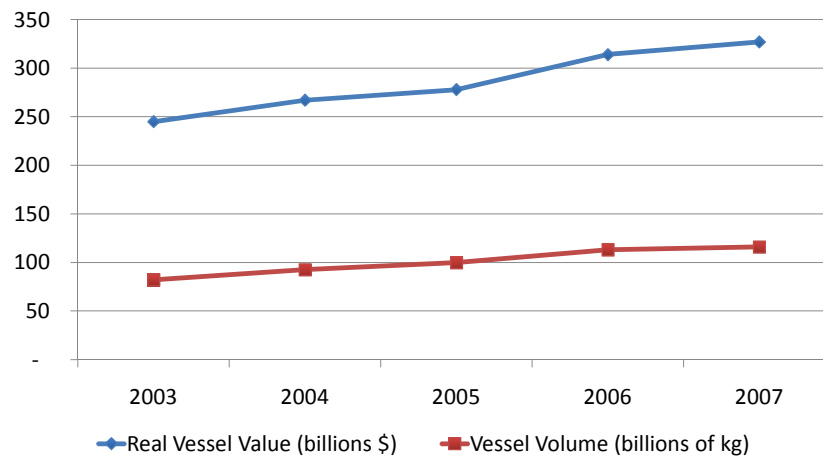


Figure 2-2 present the growth in real value and volumes for the San Pedro Bay Ports. The pattern is similar to that of the nation. During the same period, the value and volume of freight passing through the Ports of Long Beach and Long Beach increased by 33 percent and 44 percent, respectively.

Figure 2-2 POLB & POLA Combined Trade, Vessel Trade Value and Volume, 2003-2007



The San Pedro Bay Ports are critical for U.S trade. While it is most often cited as a port that specialized in container trade, its importance in transporting all types of freight cannot be understated. Reflecting the relatively high value of goods transported in containers, in 2003 the cargo transported through the two ports represented 36 percent of the total value of waterborne trade handled in the U.S. Though this dropped slightly, it was relatively stable at nearly 32 percent in 2006 and 2007. Over this same time period, the share of total volume increased, from 9.4 percent in 2003 to 12.2 percent in 2007.

The types of goods that are transported through POLB vary considerably by weight and value, and include commodities and raw materials (oil, steel), semi-finished products (electronic components, yarns and fibers), and finished products (apparel, cars). Table 2 lists data on the types of goods imported, categorized by Harmonized Tariff Schedule (HTS) and sorted by volume (for those HTS imports more than 100 million kgs – a list of all imports by HTS is presented in Appendix 2). In addition to the value and volume for the year 2007, the final two columns in the table present the percentage changes in these two measures between 2003 and 2007.

Table 2. Imported Goods Grouped by Harmonized Tariff Schedule

	2007 Vessel SWT (kg)	2007 Vessel Value	Vessel SWT percent change	Real Vessel Value percent change
27 Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	4,429,509,165	1,944,547,837	-16.51%	65.31 %
94 Furniture; Bedding Etc; Lamps Nesoi Etc; Prefab Bd	1,454,080,009	3,960,354,543	57.96 %	55.17 %
84 Nuclear Reactors, Boilers, Machinery Etc.; Parts	1,296,395,639	11,642,129,640	52.64 %	23.93 %
85 Electric Machinery Etc; Sound Equip; Tv Equip; Pts	1,049,010,080	10,791,498,354	26.57 %	20.01 %
73 Articles Of Iron Or Steel	1,034,021,934	1,977,068,607	60.84 %	83.76 %
39 Plastics And Articles Thereof	729,245,615	1,985,550,964	44.63 %	49.49 %
95 Toys, Games & Sport Equipment; Parts & Accessories	623,604,830	5,404,653,034	34.87 %	45.17 %
25 Salt; Sulfur; Earth & Stone; Lime & Cement Plaster	619,468,663	19,177,259	48.55 %	39.19 %
87 Vehicles, Except Railway Or Tramway, And Parts Etc	598,630,768	3,164,032,422	56.05 %	11.90 %
44 Wood, Articles Of Wood; Wood Charcoal	472,740,148	621,781,576	116.13%	83.96 %
40 Rubber And Articles Thereof	456,192,246	1,508,020,800	56.51 %	58.33 %
48 Paper & Paperboard & Articles (inc Papr Pulp Artl)	436,760,124	599,879,630	23.73 %	38.42 %
69 Ceramic Products	431,581,070	435,264,038	52.24 %	52.70 %
72 Iron And Steel	371,876,297	360,419,427	24.23 %	136.36 %
68 Art Of Stone, Plaster, Cement, Asbestos, Mica Etc.	287,944,857	310,722,433	106.20%	97.09 %
83 Misc Articles of Base Metal	207,156,874	687,171,976	83.33 %	85.09 %
29 Organic Chemicals	189,271,413	520,155,202	23.61 %	59.34 %
64 Footwear, Gaiters Etc. And Parts Thereof	178,597,929	1,638,000,548	64.53 %	61.16 %
22 Beverages, Spirits And Vinegar	170,846,127	276,515,182	81.68 %	77.03 %
42 Leather Art; Saddlery Etc; Handbags Etc; Gut Art	160,126,212	1,306,510,247	9.23 %	27.06 %
62 Apparel Articles And Accessories, Not Knit Etc.	152,353,404	1,861,281,371	-10.01%	-28.67 %
20 Prep Vegetables, Fruit, Nuts Or Other Plant Parts	151,715,137	144,640,977	13.57 %	32.85 %
70 Glass And Glassware	148,250,234	246,593,189	65.91 %	50.42 %
63 Textile Art Nesoi; Needlecraft Sets; Worn Text Art	137,755,824	671,872,999	33.60 %	31.46 %
28 Inorg Chem; Prec & Rare- earth Met & Radioact Compd	130,395,071	184,759,573	26.38 %	94.57 %
49 Printed Books, Newspapers Etc; Manuscripts Etc	120,243,409	449,878,105	40.61 %	37.58 %
61 Apparel Articles And Accessories, Knit	117,219,636	1,450,857,503	-28.45%	-36.94 %
08 Edible Fruit & Nuts; Citrus Fruit Or Melon	107,198,666	109,353,331	-57.32%	2.74 %

For the purpose of this study, we selected four major commodities (by HTS Chapter) imported through the POLB and included semi-finished goods and raw materials. These commodities are listed in bold type and highlighted in yellow in

the above table and include: organic chemicals (HTS chapter 29), paper and paperboard (HTS chapter 48), iron and steel (HTS chapter 72) and electronic parts (HTS chapter 85). The selection of these four commodities provides a sample of imported commodities. Each group had similar growth in volume in the mid 20 percent range. The dramatic change in value of steel reflects the increase in this commodity's price in the global marketplace.

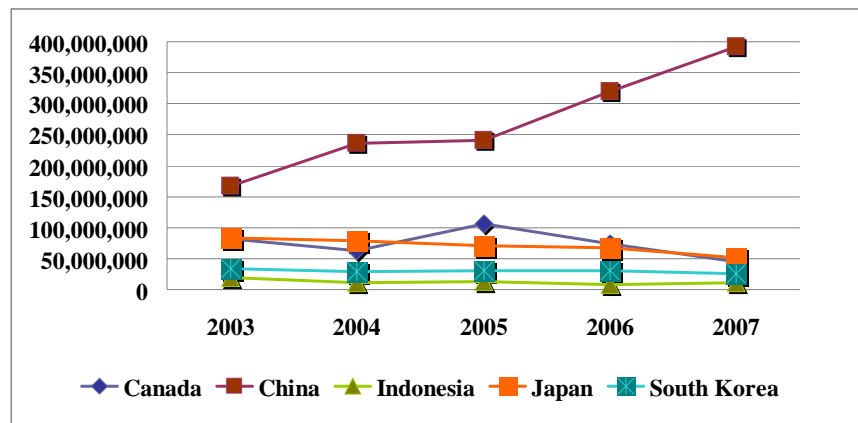
Section 3. Industry Analysis

A. Paper, Paperboard and Articles Imports

1) Census Data on Paper Imports

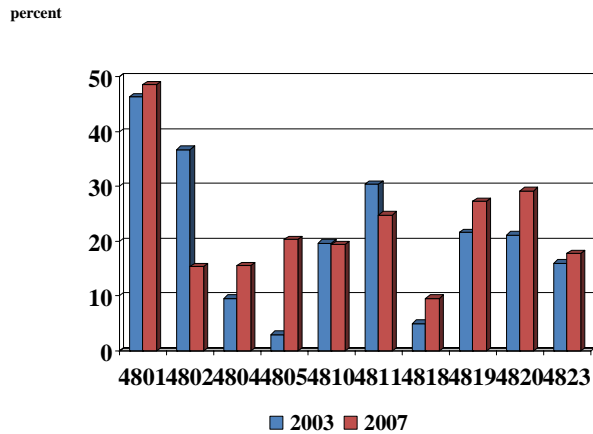
As indicated above, the import category “paper and paperboard” is among the largest (by volume) commodities imported through POLB. As Figure 3-1 reflects, the largest trading partner for imports of paper is China, whose importance in imports has increased over the period of 2003-2007, while imports from the next largest trading partners (measured in terms of value of imports) has declined or remained relatively stable.

Figure 3-1 Value of Paper Imports Via POLB by Country (in 2007 \$)



Paper imports through POLB represent a relatively large share of those imported into California. The largest paper products imported (by 4 digit HTS) and share entering POLB are presented in Figure 3-2.

**Figure 3-2 Percent of Commodity Imported
Into California Through Long Beach**



While nearly 50 percent of newsprint entering California moves through Long Beach, it is not the most important paper product, measured by either value or volume. Table 3-1 presents the 2007 vessel value at the 4 digit HTS level for paper and paperboard.

Table 3-1. Value of Paper Imports through POLB in 2007

Commodity	2007 Vessel Value	percent of total
4801 Newsprint, In Rolls Or Sheets	46,447,463	7.74 %
4802 Paper, Uncoat, For Writing Etc, Rolls; Hndmd Paper	25,734,545	4.29 %
4803 Toilet Etc Hshld/santry Stock Paper Roll Or Sheets	3,790,079	0.63 %
4804 Kraft Paper & Paperboard, Uncoat Nesoi, Rolls Etc	5,073,504	0.85 %
4805 Paper & Paperboard, Uncoat, Nesoi, Rolls Or Sheets	4,306,063	0.72 %
4806 Veg Parchment, Greaseproof Papers Etc, Rolls Etc	978,139	0.16 %
4807 Composite Paper & Paperboard, No Surf Coat, RI Etc	6,318	0.00 %
4808 Paper And Paperboard, Corrugated Etc, Rolls Etc	5,037,372	0.84 %
4809 Paper, Carbon, Self-copy Etc, Rolls Etc	1,554,550	0.26 %
4810 Paper & Paperboard, Coated With Kaolin Etc, RI Etc	102,091,261	17.02 %
4811 Paper, Paperboard, Wad Etc, Coat Etc Nesoi, RI Etc	75,786,346	12.63 %

4813 Cigarette Paper, Cut To Size Etc Or Not	75,339	0.01 %
4814 Wallpaper Etc.; Window Transparencies Of Paper	2,510,233	0.42 %
4816 Paper, Carbon, Self-copy Etc Nesoi, Boxed Or Not	1,401,844	0.23 %
4817 Envelopes, Postcards Etc & Boxes Etc Of Stationary	8,798,460	1.47 %
4818 Toilet Paper & Similar Household, Sanitary Items	29,586,161	4.93 %
4819 Cartons Etc Paper; Office Box Files Etc, Paper Etc	130,176,320	21.70 %
4820 Registers, Notebooks, Binders, Bus Forms Etc, Papr	117,832,388	19.64 %
4821 Labels Of Paper Or Paperboard, Printed Or Not	9,215,296	1.54 %
4822 Bobbins, Spools Etc. Of Pap Pulp, Paper & Paperbd	24,089	0.00 %
4823 Paper, Paperboard, Cellul Wad To Size & Arts Nesoi	29,453,860	4.91 %

As the goal of this study is to analyze the imports of goods that have additional value-added in the U.S., we restrict the segments of the paper imports we will analyze to specific commodities that are more likely to meet this criteria. These roughly correspond to the 4 digit HTS codes that are listed in bold type and highlighted in yellow in Table 3-1 (the complete list of 6 digit HTS codes used are presented in Appendix 3-1). These represent 44 percent of the paper imports by weight using the Census trade data.

2) PIERS Data on Paper Imports

Based upon the PIERS data, we identified the shippers importing the products identified by the HTS codes. Out of all paper imports in the HTS chapter 48, the shippers identified imported 40 percent of all paper imports (measured as percent of total metric tons) through POLB.

The goal was to conduct a case study of paper importers by conducting interviews with shippers. We first removed firms whose primary business was providing transportation services, as they would not be able to give us information regarding the use of the imports. We also excluded companies located in Mexico and Canada.

Contact information for these firms was obtained by using internet database searches, and the firms were subsequently contacted by phone and asked to participate in a study of importers. While the economic impact of these importers is assessed in Section 4 of this report, our intent below is to give some idea of the characteristics of the importers who agreed to the detailed interview. Due to somewhat small sample sizes, this should be interpreted as a case study only and these data should not be used to extrapolate to the population of importers.

3) Case Study Results: Paper, Paperboard and Articles Imports

Our case study consists of 21 usable interviews with firms that import paper through POLB. Of these, 14 firms (67 percent) are manufacturers and the remaining firms are distributors of paper products. Among the manufacturers, 79 percent produce finished products and 21 percent produce components.

All of the firms rely heavily on imported goods; the share of imported goods used by the firm ranges from 10 to 100 percent, with a mean of 68 percent and a median of 80 percent. Though over half (61 percent) of the firms import goods through ports other than Long Beach, the bulk of their imports do flow through POLB – on average three-quarters of their imports come through the POLB and the other quarter primarily through East Coast or Gulf Ports (when other ports were mentioned).

Somewhat surprising is that 57 percent of the firms interviewed export their output. Among those firms that do export, the mean export share is 20 percent of their output (with a median export share of 10 percent). Most of the firms report using POLB for their exports as well as their imports. One-quarter export exclusively through POLB and another 50 percent use POLB in combination with other U.S ports (primarily East Coast ports). As one would expect, the primary destination of exports was Canada and Mexico, with two firms mentioning exports to markets in Europe and one to New Zealand.

There is a considerable variation in firm size among those firms interviewed. One quarter of them had 13 or fewer total employees. The top quarter had 200 or more employees. The mean number was 357 with a median of 60, illustrating the fact that a few of the shippers interviewed were quite large. The median number of managers was 20, with a mean of 35.

The goods imported through POLB were primarily transported via truck (57.14 percent versus 10 percent train and 33 percent intermodal). About half (52 percent) of the freight was transported directly to the shipper's facility. Among the freight that was not directly transported to the shipper, 40 percent was transloaded (primarily freight destined for areas outside of Southern California) and 60 percent was stored at least temporarily in third-party warehouses. The third-party warehouses in some cases (60 percent) also generated some value-added activities including assembly and resizing the product.

The final question asked of the shippers was whether they anticipated importing more or less through POLB in the future. Nearly half (48 percent) reported an expectation of increasing the amount imported through POLB, 43 percent expected constant imports, and 9 percent expected to decrease imports.

B. Iron and Steel

1) Census Data on Steel Products

Figure 3-3 shows total steel imports flowing through the Port of Long Beach from the top five exporting countries. As the table indicates, China is not only the top trading partner in imported steel, but is also the exporter with the fastest growth in steel exports.

Figure 3-3: Value of Steel Imports Via POLB by Country (2007\$)

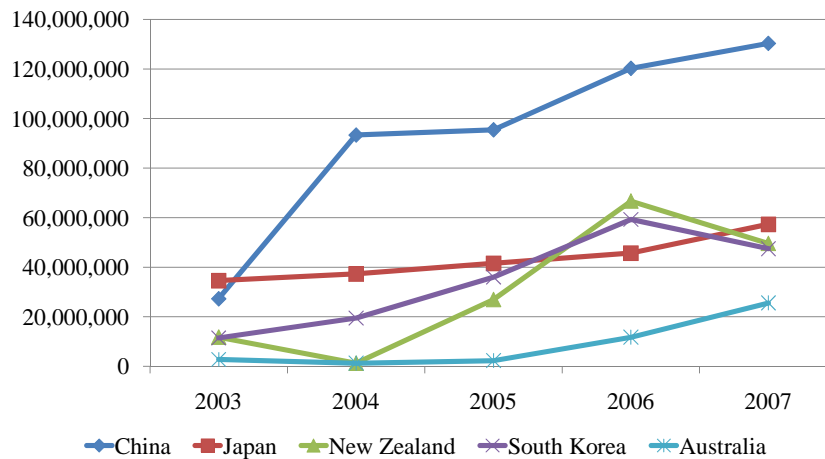


Figure 3-4 shows the value of steel imports passing through the Port of Long Beach by major HTS category. As can be seen, there was significant growth in these steel imports until 2007, when a decline in imports in category 7208 (Flat-rolled products of iron or nonalloy steel, of a width of 600 mm or more, hot-rolled, not clad, plated or coated) declined by 28 percent from the previous year.

This decline in imports reflects the weakening dollar and weakening US economy, which has served to reduce demand for many categories of imported goods and raw materials.

**Figure 3-4 Steel Imports
Via POLB by Major HTS Categories**

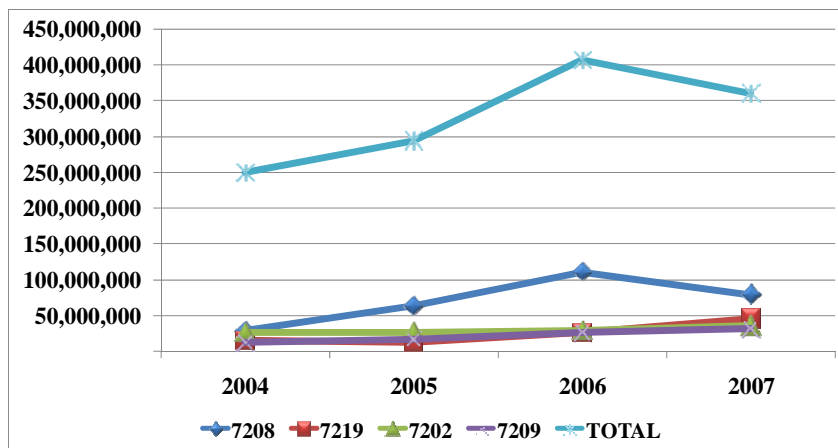


Table 3-2 presents the 2007 vessel value at the 4 digit HTS level for all categories of steel imports. The largest categories of steel imports flowing through the Port of Long Beach are HTS code 7208 (hot rolled steel), 7218 (flat rolled stainless steel), 7202 (ferroalloys), and 7209 (cold rolled steel). In our investigation, we included all categories of imported steel. Unlike some of the other commodities studied, steel is most always used as an intermediate good or input to the production of other goods. Therefore, all categories of steel imports would qualify as goods that would have additional value-added in the U.S.

Table 3-2. Value of Steel Imports Via POLB

<i>Commodity</i>	<i>Total Value (2007\$)</i>	<i>Percent of Total</i>
7201 Pig Iron & Spiegeleisen In Pigs, Blocks Etc.	0	0.0%
7202 Ferroalloys	34,857,395	9.7%
7203 Spongy Ferrous Prod & Iron 99.94 percent Pure, Lumps Etc	16,059	0.0%
7204 Ferrous Waste & Scrap; Remelt Scr Iron/steel Ingot	1,624,494	0.5%
7205 Pig Iron, Spiegel, Iron Or Steel Granules & Powder	9,411,323	2.6%
7206 Iron & Nonalloy Steel In Ingots Etc Nesoi	20,963	0.0%
7207 Semifinished Products Of Iron Or Nonalloy Steel	64,721	0.0%
7208 Fl-rl Iron & Na Steel Nun600mm Wd Hot-rl, Not Clad	78,891,541	21.9%
7209 Fl-rl Iron & Na Steel Nun600mm Wd Cold-rl, No Clad	31,793,712	8.8%
7210 Fl-rl Iron & Na Steel Nun600mm Wd, Clad Etc	23,329,280	6.5%
7211 Fl-rl Iron & Na Steel Un 600mm Wd, Not Clad Etc	1,125,810	0.3%
7212 Fl-rl Iron & Na Steel Un 600mm Wd, Clad Etc	4,450,354	1.2%
7213 Bars & Rods, Iron & Na Steel, H-r Irreg Coils	17,799,266	4.9%
7214 Bars & Rods, Iron & Na Steel Nesoi, H-r Etc	459,371	0.1%
7215 Bars & Rods, Iron & Na Steel Nesoi	2,110,495	0.6%
7216 Angles, Shapes & Sections Of Iron & Nonalloy Steel	1,428,545	0.4%
7217 Wire Of Iron & Nonalloy Steel	28,714,794	8.0%
7218 Stainless Steel In Ingots Etc & Semifin Products	280,866	0.1%
7219 Flat-roll Stainless Steel Products, Not Und 600mm Wide	45,027,333	12.5%
7220 Fl-rl Stainless Steel Products, Under 600mm Wide	3,848,871	1.1%
7221 Bars And Rods, Stnls Stl, Ht-rl, Irreg Coils	850,849	0.2%
7222 Bars & Rods, St Steel Nesoi; Angles Etc, St Steel	4,649,753	1.3%
7223 Wire Of Stainless Steel	20,820,392	5.8%
7224 Alloy Steel Nesoi In Ingots, Oth Pr Frm & Semif Pr	577,415	0.2%
7225 Fl-rl Alloy Steel Nesoi Nun 600mm Wide	19,440,444	5.4%
7226 Fl-rl Alloy Steel Nesoi Un 600mm Wide	2,089,124	0.6%
7227 Bars & Rods Alloy Steel Nesoi, H-r Irreg Coils	1,335,488	0.4%
7228 Al Steel Nesoi Bars, Ang Etc; Hol Dr St Bars Etc	10,451,463	2.9%
7229 Wire Of Alloy Steel Nesoi	14,949,306	4.1%
TOTAL	360,419,427	100.0%

2) PIERS Data on Steel Imports

Using PIERS Data, we identified all shippers importing steel (see 6-digit HTS codes in Appendix 3-1). Our goal was to conduct a case study of steel importers by conducting interviews with importing firms. As in the case of paper goods, we first removed firms whose primary business was providing transportation services, as they would not be able to give us information regarding the use of the imports. We also excluded companies located in Mexico and Canada.

Contact information for these firms was obtained by using internet database searches, and the firms were subsequently contacted by phone and asked to participate in a study of importers. While the economic impact of these importers is assessed in Section 4 of this report, our intent below is to give some idea of the characteristics of the importers who agreed to the detailed interview. Due to somewhat small sample sizes, this should be interpreted as a case study only, and these data should not be used to extrapolate to the population of importers.

3) Case Study Results: Steel and Iron Imports

Our case study consists of 108 usable interviews with firms that import steel through POLB. Of these firms, 50 (46 percent) are manufacturers and the remaining 58 firms (54 percent) are distributors of steel products. All of the firms rely heavily on imported goods – the share of imported goods used by the firms ranges from 1 to 100 percent, with a mean of 54 percent and a median of 50 percent for manufacturers, and a mean of 76 percent and median of 95 percent for distributors.

Though 63 percent of the manufacturers and 81 percent of the distributors import goods through ports other than POLB, the bulk of their imports do flow through POLB. The manufacturers in our sample reported that two-thirds of their imports come through the POLB, while distributors indicated that 62 percent of their imports come through the POLB.

Somewhat surprising is that 46 percent of the manufacturing firms interviewed export their output. Among those firms that do export, the mean export share is 25 percent of their output (with a median export share of 18 percent). Most of the firms report using POLB for their exports as well as their imports. Of these manufacturing firms, 4 percent export exclusively through POLB and another 32 percent use POLB in combination with other U.S ports (Houston and Miami were mentioned most frequently). Countries that these firms reported exporting to included Canada, Mexico, China, Spain, Brazil, South Africa, Thailand, Egypt, and Australia.

There is a considerable variation in firm size among those firms interviewed. The manufacturing firms interviewed had average employment of 265, and median employment of 83. The distributors reported average employment of 67 and median employment of 15. Among the manufacturers, the median number of managers was 10,

the average was 12. Among the distributors, the median number of managers was 3, the average was 6.

The goods imported through POLB were primarily transported via truck. Manufacturers reported 49 percent of these goods were transported via truck, versus 18 percent train and 33 percent intermodal. For the distributors, 43 percent were transported by truck, 22 percent by train, and 35 percent intermodal.

For the manufacturers, 77 percent of the freight was transported directly to the shipper's facility. Among the freight that was not directly transported to the shipper, 70 percent was transloaded (primarily in destinations outside of Southern California) and 70 percent was stored at least temporarily in third-party warehouses. Shippers did not indicate any value-added to these imports in third-party warehouses.

For the distributors, about half (47 percent) of the freight was transported directly to the shipper's facility. Among the freight that was not directly transported to the shipper, 71 percent was transloaded (primarily in destinations outside of Southern California) and 46 percent was stored at least temporarily in third-party warehouses. The third-party warehouses in some cases (11 percent) also generated some value-added activities including sorting, quality control, and repackaging the product.

The final question asked of the shippers was whether they anticipated importing more or less through POLB in the future. Of the manufacturers, 34 percent reported an expectation of increasing the amount imported through POLB, 55 percent expected constant imports, and 11 percent expected to decrease imports. Of the distributors, 38 percent reported an expectation of increasing the amount imported through POLB, 34 percent expected constant imports, and 28 percent expected to decrease imports.

C. Electronics Machinery, Etc.

1) Census Data on Electronics

Figure 3-5 shows the value of electronics imports through the Port of Long Beach by major trading partner. As the figure illustrates, China increasingly dominates this trade. Imports of electronics from China almost doubled over the period 2003-2007. By contrast, electronics imports from other major trading partners were flat over the same period.

**Figure 3-5 Value of Electronics Imports
Via POLB by Country (2007 \$)**

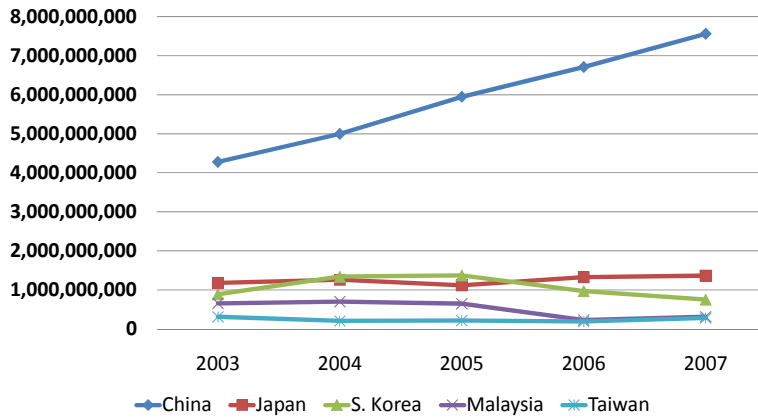


Figure 3-6 shows total electronics (HTS 85) imports flowing through the Port of Long Beach from 2004 to 2007. Over the period, total imports in this sector grew by 17 percent and growth was positive in 2007 in spite of the weakening dollar.

**Figure 3-6 Imports of Electronics (HTS 85)
Via POLB**

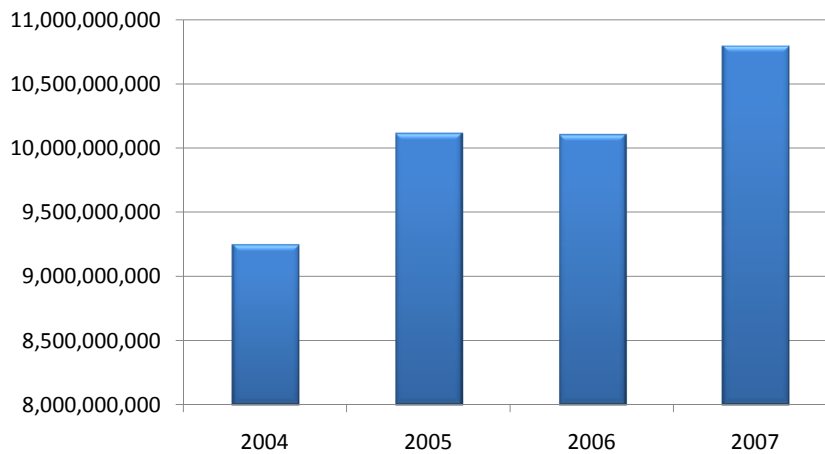
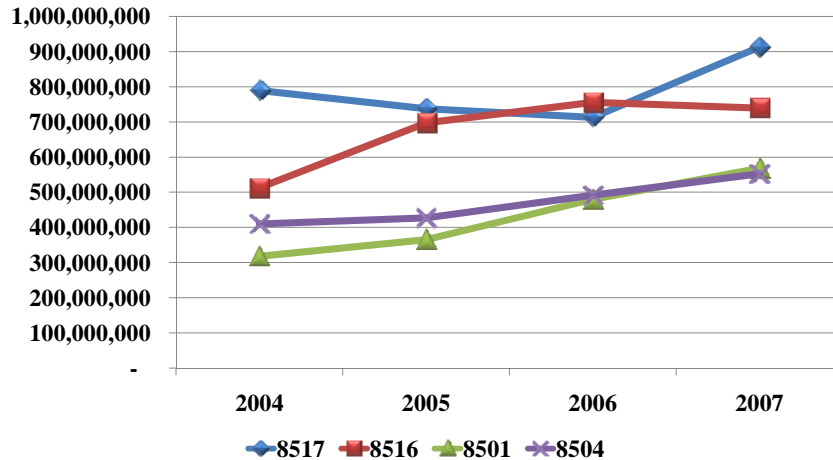


Figure 3-7 shows the major categories of electronic parts imports flowing through the Port of Long Beach. These include HTS 8517 (telephone sets and parts) HTS 8516

(heating apparatus and parts) HTS 8501 (electric motors and generators), and 8504 (electrical transformers, inductors and parts). All categories saw growth in imports over the period 2004-2007, although imports of HTS 8516 saw a slight decline from 2006 to 2007.

**Figure 3-7 Electronic Parts Imports Via POLB
Major HTS Categories**



2) PIERS Data on Electronic Parts Imports through POLB

Using PIERS Data, we identified all shippers importing electronic parts (see HTS codes in Appendix 3-1). Our goal was to conduct a case study of electronic parts importers by conducting interviews with importing firms. We first removed firms whose primary business was providing transportation services, as they would not be able to give us information regarding the use of the imports. We also excluded companies located in Mexico and Canada.

Contact information for these firms was obtained by using internet database searches and the firms were subsequently contacted by phone and asked to participate in a study of importers. While the economic impact of these importers is assessed in Section 4 of this report, our intent below is to give some idea of the characteristics of the importers who agreed to the detailed interview. Due to somewhat small sample sizes, this should be interpreted as a case study only and these data should not be used to extrapolate to the population of importers.

As the goal of this study is to analyze the imports of goods that have additional value-added in the U.S., we restrict the segments of the electronic parts imports we will analyze

to specific commodities that are more likely to meet this criteria. These roughly correspond to the shaded 4 digit HTS codes in Table 3-3 (the complete list of 6 digit HTS codes used are presented in Appendix 3-1). These represent 66.2 percent of the electronics imports by weight using the Census trade data.

Table 3-3. Value of Electronics Imports through POLB in 2007

<i>Commodity</i>	<i>Commodity Value</i>	<i>percent of total</i>
8501 Electric Motors And Generators (no Sets)	567,987,613	5.3
8502 Electric Generating Sets And Rotary Converters	21,197,485	0.2
8503 Parts Of Electric Motors, Generators & Sets	43,735,841	0.4
8504 Elec Trans, Static Conv & Induct, Adp Pwr Supp, Pt	552,500,929	5.1
8505 Electromagnets, Permanent Magnets Etc & Parts	72,317,677	0.7
8506 Primary Cells & Batteries, Parts	64,276,365	0.6
8507 Electric Storage Batteries, Incl Separators, Parts	161,025,972	1.5
8508 Vacuum Cleaners; Parts Thereof	340,409,626	3.2
8509 Electromech Domestic Appliances; Parts	178,046,043	1.6
8510 Electric Shavers, Hair Clippers & Remov App; Pts	71,935,753	0.7
8511 Electric Ignition Etc Equip; Generators; Parts	433,101,001	4.0
8512 Electric Light Etc Equip; Windsh Wipers Etc, Parts	145,306,735	1.3
8513 Portable Elec Lamps Function By Own Energy Source	97,812,230	0.9
8514 Industrial Or Lab Elec Furnaces Etc, Parts	7,601,420	0.1
8515 Electric, Laser Or Oth Light Or Photon Beam Etc	52,188,979	0.5
8516 Elec Water, Space & Soil Heaters; Hair Etc Dry, Pt	739,178,504	6.8
8517 Electric Apparatus For Line Telephony Etc, Parts	912,699,831	8.5
8518 Microphones; Loudspeakers; Sound Amplifier Etc, Pt	321,449,468	3.0
8519 Turntables, Record & Cassette Players Etc.	115,223,516	1.1
8520 Magnetic Tape & Other Sound Recorders		0.0
8521 Video Recrdng/reproduc Appar Wheth/nt Video Tuner	243,767,551	2.3
8522 Parts And Accessories For Items 8519 To 8521	21,620,348	0.2
8523 Prepared Unrecorded Media (no Film) For Sound Etc.	247,686,381	2.3
8524 Records, Tapes & Other Recorded Sound Media Etc		0.0
8525 Trans Appar For Radiotele Etc; Tv Camera & Rec	289,972,706	2.7
8526 Radar Apparatus, Radio Navig Aid & Remote Cont App	106,004,419	1.0
8527 Reception Apparatus For Radiotelephony Etc	477,289,288	4.4
8528 Tv Recvrs, Incl Video Monitors & Projectors	2,431,946,652	22.5
8529 Parts For Television, Radio And Radar Apparatus	146,343,294	1.4
8530 Electric Signal, Safety Or Traffic Control Equip	1,592,817	0.0
8531 Electric Sound Or Visual Signaling Apparatus, Pts	130,423,206	1.2
8532 Electric Capacitors, Fixed, Var Or Adj (preset) Pt	64,352,772	0.6
8533 Electrical Resistors Except Heating Resistors, Pts	29,333,575	0.3
8534 Printed Circuits	41,895,866	0.4
8535 Electrical Apparatus For Switching Etc, Ov 1000 V	16,593,940	0.2
8536 Electrical Apparatus For Switching Etc, Nov 1000 V	311,486,816	2.9
8537 Boards, Panels Etc Elec Switch And N/c Appar Etc.	255,386,556	2.4
8538 Parts For Elec Appar Etc Of Head 8535, 8536 & 8537	58,009,366	0.5
8539 Electric Filament Or Discharge Lamps, Parts	134,545,927	1.2
8540 Thermionic, Cold Cathode Or Photocathode Tubes, Pt	4,274,398	0.0
8541 Semiconductor Devices; Light-emit Diodes Etc, Pts	131,697,957	1.2

8542 Electronic Integrated Circuits & Microassembl, Pts	33,220,114	0.3
8543 Electrical Mach Etc, With Ind Functions Nesoi, Pts	170,073,347	1.6
8544 Insulated Wire, Cable Etc; Opt Sheath Fib Cables	497,395,290	4.6
8545 Carbon Electrodes & Brushes, Lamp Carbons Etc	24,849,703	0.2
8546 Electrical Insulators Of Any Material	15,046,897	0.1
8547 Insulating Fittings For Assembly Nesoi	8,363,591	0.1
8548 Battery Waste, Scrap; Electrical Pts Of Mach Nesoi	1,807,097	0.0
Total	5,381,905,594	100.0

3) Case Study Results: Electronics

Our case study consists of 107 usable interviews with firms that import electronics through POLB. Of these firms, 61 (57 percent) are manufacturers and the remaining 46 firms (43 percent) are distributors of electronic parts. All of the firms rely heavily on imported goods – the share of imported goods used by the firms ranges from 5 to 100 percent, with a mean of 59 percent and a median of 63 percent for manufacturers, and a mean of 94 percent and median of 100 percent for distributors.

Though 60 percent of the manufacturers and 54 percent of the distributors import goods through ports other than POLB, the bulk of their imports do flow through POLB. The manufacturers in our sample reported that over half (54 percent) of their imports come through the POLB, while distributors indicated that 66 percent of their imports come through the POLB.

A large proportion (85 percent) of the manufacturing firms interviewed report that they export at least part of their output. Among those firms that do export, the mean export share is 24 percent of their output (with a median export share of 15 percent). Most of the firms report using POLB for their exports as well as their imports. Of these manufacturing firms, 24 percent use POLB in combination with other U.S ports (Houston and Miami were mentioned most frequently). Countries that these firms reported exporting to included Canada, Mexico, China, U.K., Japan, Australia, Sweden, and other parts of Europe, South America, and Asia.

There is a considerable variation in firm size among those firms interviewed. The manufacturing firms interviewed had average employment of 315, and median employment of 125. The distributors reported average employment of 95 and median employment of 36. Among the manufacturers, the median number of managers was 13, the average was 54. Among the distributors, the median number of managers was 5, the average was 23.

The goods imported through POLB were primarily transported via truck. Manufacturers reported 35 percent of these goods were transported via truck, versus 15 percent train and 50 percent intermodal. For the distributors, 48 percent were transported by truck, 33 percent by train, and 19 percent intermodal.

For the manufacturers, 62 percent of the freight was transported directly to the shipper's facility. Among the freight that was not directly transported to the shipper, 76 percent

was transloaded (primarily in destinations outside of Southern California) and 7 percent was stored at least temporarily in third-party warehouses. Shippers did not indicate any value-added to these imports in third-party warehouses.

For the distributors, about half (58 percent) of the freight was transported directly to the shipper's facility. Among the freight that was not directly transported to the shipper, 32 percent was transloaded (primarily in destinations outside of Southern California) and 59 percent was stored at least temporarily in third-party warehouses. The third-party warehouses in some cases (18 percent) also generated some value-added activities including repackaging, labeling, and bar-coding the product.

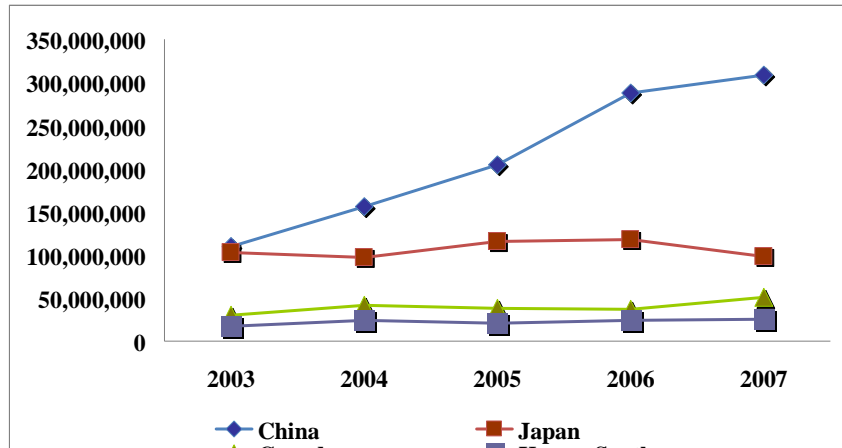
The final question asked of the shippers was whether they anticipated importing more or less through POLB in the future. Of the manufacturers, 55 percent reported an expectation of increasing the amount imported through POLB, 35 percent expected constant imports, and 10 percent expected to decrease imports. Of the distributors, 55 percent reported an expectation of increasing the amount imported through POLB, 26 percent expected constant imports, and 19 percent expected to decrease imports.

D. Organic Chemicals

1) Census data on Organic Chemicals

Just as is the case of paper, steel and electronic imports, China is the leading country importing organic chemicals through the Port of Long Beach. During the period 2003-2007, China experienced a rapid growth in the value of organic chemicals imported via the POLB. The slowing in growth in 2007 reflects the slowing in the U.S. economy, although China's share continued to rise. In 2003, China's share of organic chemicals flowing through the Port of Long Beach was 38 percent and by 2007 its share increased to 60 percent. The increased market share came largely at the expense of Japan, which saw its market share fall from 35 percent to 19 percent. Similarly, the market share of the other leading country imports fell, although in a less dramatic fashion. Collectively the countries of China, Japan, Canada and South Korea account for over 92 percent of the value of organic chemicals flowing through the POLB in 2007.

**Figure 3-8 Value of Organic Chemical Imports
Via POLB by Country**



During the period of 2003-2007, the value of organic chemicals flowing through the POLB nearly doubled, increasing by almost 65 percent in real value. This data is arrayed in Figure 3-9. During the same period, Chinese imports nearly tripled increasing by a factor of 2.7.

**Figure 3-9 Imports of Organic Chemicals
(HTS 29) Via POLB**

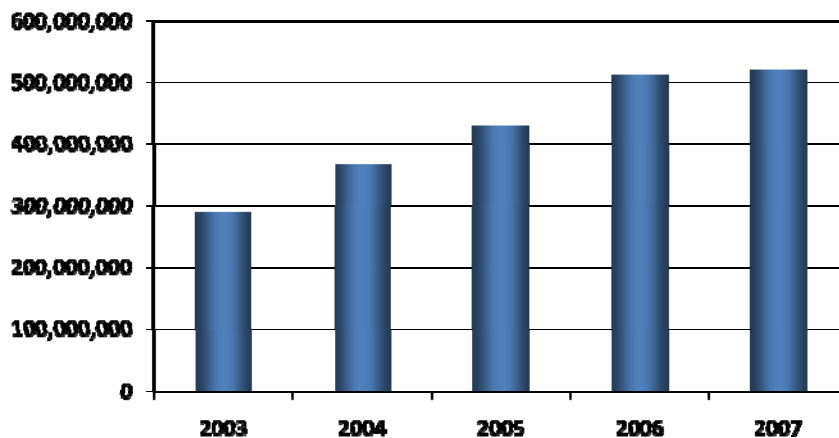
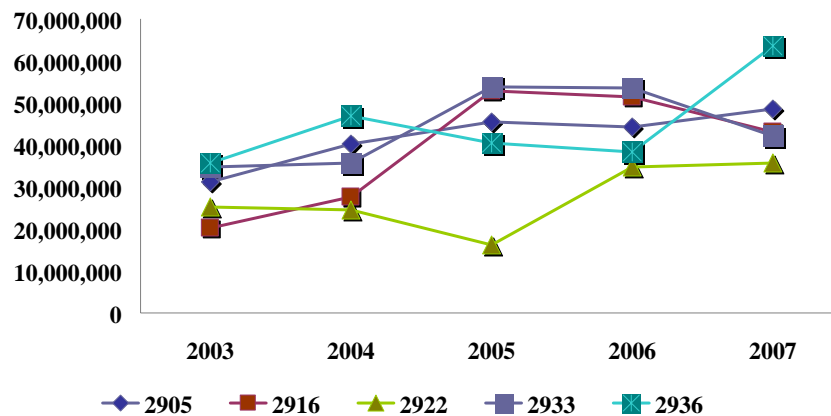


Figure 3-10 displays the value of the top five categories of chemicals flowing through the POLB. These five HTS categories account for 52 percent of the value of organic chemicals in 2007. HTS 2905 (Acyclic Alcohols, etc.) is the second largest component of organic chemicals flowing through the ports and represents almost 10 percent of the total value in 2007. HTS 2916 (Unsat Acyclic, etc) represents about 8 percent of the total value of organic chemicals in 2007, which is down from a peak share of 12 percent. HTS 2922 (Oxygen-function Amino-compounds) represented almost 7 percent of the total value in 2007. HTS 2933 (Heterocyclic Comp. etc.) had a share of 8 percent and HTS 2936 (Provitamins, etc.) had the largest share with 12 percent. The growth of HTS 2936 was sharply upward in 2007, increasing its share from 7 to 12 percent.

Figure 3-10 Value of Organic Chemical Imports Via POLB by Major HTS Categories (2007 \$)



2) PIERS Data on Organic Chemical Imports through POLB

As with the other commodities studied, we utilized the PIERS data to identify all shippers importing organic chemicals (see HTS codes in Appendix 3-4). The goal was to conduct a case study of organic chemical importers by conducting interviews with importing firms. We first removed firms whose primary business was providing transportation services, as they would not be able to give us information regarding the use of the imports. We also excluded companies located in Mexico and Canada.

Contact information for these firms was obtained by using internet database searches and the firms were subsequently contacted by phone and asked to participate in a study of importers. While the economic impact of these importers is assessed in Section 4 of this report, our intent below is to give some idea of the characteristics of the importers who agreed to the detailed interview. Due to somewhat small sample sizes, this should be

interpreted as a case study only and these data should not be used to extrapolate to the population of importers.

Table 3-4 lists the value and share of organic chemical imports by HTS code. The POLB's share of the total value of all organic chemicals imported into the U.S. is only 1 percent. Much of the importation of organic chemicals is in bulk, and while the port is able to handle these shipments, there is greater value-added in the container shipments. Moreover, in 2007, over 50 percent of the total value of organic chemicals came from Ireland, the United Kingdom, Belgium, Germany, and Canada. China accounts for only 6 percent of the value of all organic chemical imports.

Table 3-4. Value of Organic Chemicals through POLB in 2007

<i>Commodity</i>	<i>Commodity Value</i>	<i>percent of total</i>
2936 Provitamins And Vitamins & Derivatives & Intermixs	63,538,072	12.2
2905 Acyclic Alcohols & Halogenat, Sulfonatd Etc Derivs	48,658,263	9.4
2916 Unsat Acyclic & Cyclic Monocarbox Acid & Anhyd Etc	43,193,849	8.3
2933 Heterocyclic Comp, Nit Hetero-atoms Only	42,078,088	8.1
2922 Oxygen-function Amino-compounds	35,732,318	6.9
2918 Carboxylic Acid, Added Oxygen & Anhy Etc, Hal Etc	28,977,715	5.6
2903 Halogenated Derivatives Of Hydrocarbons	22,233,054	4.3
2914 Ketones & Quinones & Halogenatd, Sulfonatd Der Etc	22,121,168	4.3
2917 Polycarboxylic Acids & Anhyd Etc, Halog, Sulf Etc	21,557,534	4.1
2934 Nucleic Acids & Salts, Heterocyclic Comp Nesoi	18,989,491	3.7
2921 Amine-function Compounds	14,020,966	2.7
2930 Organo-sulfur Compounds	13,812,979	2.7
2926 Nitrile-function Compounds	13,269,740	2.6
2909 Ethers, Ether-alcohols, Alcohol Peroxides Etc.	12,447,977	2.4
2932 Heterocyclic Compounds, Oxygen Hetero-atom(s) Only	10,856,898	2.1
2931 Organo-inorganic Compounds Nesoi	10,352,689	2.0
2941 Antibiotics	10,151,167	2.0
2901 Acyclic Hydrocarbons	9,800,914	1.9
2907 Phenols; Phenol-alcohols	9,432,965	1.8
2939 Veg Alkaloids, Nat Or Synth & Salts, Ethers Etc.	8,982,677	1.7
2935 Sulfonamides	7,624,056	1.5
2924 Carboxamide-function Comp; Amide-function Com Etc	7,478,031	1.4
2940 Sugars, Chem Pure (exc Sucrose, Lactose, Etc)	6,737,532	1.3
2915 Sat Acyclic Nonocarbox Acid & Anhyd, Halogon Etc	6,699,527	1.3
2925 Carboxyimide-function Comp; Imine-function Com Etc	4,365,767	0.8
2912 Aldehydes, Its Cyclic Polymers; Paraformaldehyde	3,677,216	0.7
2906 Cyclic Alcohols & Halogenatd, Sulfonatd Etc Derivs	3,618,727	0.7
2938 Glycosides, Natural Or Synth & Salts, Ethers Etc.	3,455,745	0.7
2904 Hydrocarbon Derivatives, Sulfonated, Nitrated Etc	3,187,797	0.6
2927 Diazo-, Azo-, Or Azoxy-compounds	2,844,881	0.5
2920 Esters Of Inorg Acids & Salts; Their Halog Etc Der	2,420,399	0.5
2919 Phosphoric Esters & Salts, Lactophosphates Etc.	1,669,738	0.3
2908 Phenol Or Phenol-alcohol Deriv, Halog, Sulf Etc	1,635,067	0.3
2928 Organic Derivatives Of Hydrazine Or Hydroxylamine	1,266,492	0.2

2923 Quaternary Ammonium Salts Etc; Lecithins Etc.	803,832	0.2
2929 Nitrogen Function Compounds Nesoi	695,017	0.1
2913 Halogenated, Sulfonated Etc Der Of Aldehyde Compds	541,428	0.1
2902 Cyclic Hydrocarbons	497,851	0.1
2910 Epoxides With A 3-memb Ring & Halog, Sulfon Etc	420,569	0.1
2942 Organic Compounds Nesoi	82,658	0.0
2937 Hormones; Derivatives & Steriods Used As Hormones	17,304	0.0
2911 Acetals And Hemiacetals With Or W/o Oth Oxy Func		0.0
Total	519,948,158	100.0

3) Case Study Results: Organic Chemical Imports

Our case study consists of 86 usable interviews with firms that import organic chemicals through POLB. 52 of the firms (60 percent) are manufacturers and the remaining firms are distributors of chemicals. Among the manufacturers, 63 percent produce finished products and 37 percent produce components.

All of the firms rely heavily on imported goods – the share of imported goods used by the firm ranges from 5 to 100 percent, with a mean of 64 percent and a median of 72 percent. Though 83 percent of the firms import goods through ports other than POLB, approximately half of their imports flow through POLB.

Approximately two-thirds (65.1 percent) of the firms interviewed export their output. Among those firms that do export, the mean export share is 24.5 percent of their output (with a median export share of 15 percent). Half of the firms report using POLB for their exports as well as their imports. The destinations of imports varied widely, but included North, Central, and South America, Asia, Australia, and Europe.

There is a considerable variation in firm size among those firms interviewed. One quarter of them had 10 or fewer total employees. The top quarter had 125 or more employees. The mean number was 706 with a median of 30, illustrating the fact that a few of the shippers interviewed were quite large. The median number of managers was 10, with a mean of 71.

The goods imported through POLB were primarily transported via truck (60.3 percent versus 14.3 percent train and 24.5 percent intermodal). About half (55 percent) of the freight was transported directly to the shipper's facility. Among the freight that was not directly transported to the shipper, 66 percent was transloaded (primarily in destinations outside of Southern California) and 72 percent was stored at least temporarily in third-party warehouses. The third-party warehouses in some cases (25 percent) also generated some value-added activities including assembly and resizing the product.

The final question asked of the shippers was whether they anticipated importing more or less through POLB in the future. Over one-third (38 percent) reported an expectation of increasing the amount imported through POLB, 51 percent expected constant imports, and 7 percent expected to decrease imports.

Section 4. Economic Impact of Imports Flowing through the Port of Long Beach

Imports of raw materials and semi-finished goods contribute to the U.S. economy in two main ways. The first is that manufacturing firms use these materials as inputs to the production of goods and services. Thus, we can identify jobs in the manufacturing sector that are directly related to the imports that flow into the country through the POLB. Second, many of these imports are shipped to wholesalers, firms that specialize in the distribution of materials and parts. Imports support jobs in these sectors as well.

In the tables below, we provide estimates on the value of these impacts, using a methodology that is conservative in its approach. In other words, the impacts below almost certainly understate the true impacts associated with these imports. The data provided were obtained through telephone surveys as well as from the Dun & Bradstreet Million Dollar Directory. This directory provides information on firms including the types of goods produced, and employment and sales for the company as a whole, and at the specific site. The site-specific data are important because many of the importing firms are large conglomerates with production activities spanning many sites. If we used company-wide data from such firms, we would overstate the economic impact of imports. Thus, we only include in our estimates the impact of imports to large firms where site-specific data was available.

In the case of wholesalers, we also sought to be conservative in our estimates. For this reason, we only include employment impacts for firms who specialize specifically in the distribution of the raw materials or semi-finished goods being researched.

A. Paper Imports

Our records indicate total paper imports of 307,811 metric tons¹. These imports were shipped to approximately 800 different establishments, mainly in the wholesale and manufacturing sectors. Of this universe, we were able to identify and collect data on 79 manufacturing establishments, representing 8,672 metric tons of paper imports, and 85 wholesalers representing 159,183 metric tons of paper imports.

Table 4-1 shows the top 25 importing industries ranked by their total imports of paper. As the table indicates, the industries found to import the largest quantity of paper included plastics packaging film & sheet, loose-leaf binders, unlaminated plastics film & sheet, adhesive, other converted paper product, and paper (except newsprint) mills.

¹ Imports through POLB and later shipped to Mexico or Canada were excluded from our study.

Table 4-1. Top 25 Importing Paper Industries

<i>NAICS</i>	<i>Code and Description</i>	<i>Total Metric Tons</i>
326112	Plastics Packaging Film & Sheet (Including Laminated)	3,614
323118	Blankbook, Loose-Leaf Binders & Devices	2,582
326113	Unlaminated Plastics Film and Sheet (except Packaging)	419
325520	Adhesive	333
322299	All Other Converted Paper Product	318
322121	Paper (except Newsprint) Mills	304
322222	Coated and Laminated Paper	163
322221	Coated & Laminated Packaging Paper & Plastics Film	110
333315	Photographic & Photocopying Equipment	87
314129	Other Household Textile Product Mills	82
333291	Paper Industry Machinery	68
334612	Prerecorded Compact Disc, Tape, and Record Reproducing	67
331316	Aluminum Extruded Product	58
322291	Sanitary Paper Product	39
325510	Paint and Coating	38
326150	Urethane & Other Foam Product (Except Polystyrene)	37
332312	Fabricated Structural Metal	36
335129	Other Lighting Equipment	34
322223	Plastics, Foil & Coated Paper Bag	32
323119	Other Commercial Printing	31
334310	Audio & Video Equipment	24
323122	Prepress Services	17
325188	All Other Basic Inorganic Chemical	17
331111	Iron and Steel Mills	15
322224	Uncoated Paper and Multiwall Bag	15

Table 4-2 arrays the state location of establishments receiving shipments from the POLB. It is not surprising that almost 60 percent of all paper goods goes to establishments in California. The state with the next largest share of paper goods was Tennessee with almost one-third of all TEUs.

Table 4-2. Location of Establishments Receiving Shipments of Paper Flowing through the Port of Long Beach

<i>State</i>	<i>Percent Share</i>	<i>TEU</i>
AL	0.0 %	1
AZ	0.8 %	58
CA	59.0 %	4,311
CO	0.1 %	4
CT	0.1 %	9
FL	0.1 %	6
GA	5.2 %	377
IL	0.1 %	6
IN	0.1 %	8
MA	0.0 %	-
MI	0.1 %	4
MN	0.4 %	32
MS	0.2 %	15
NC	0.0 %	2
NJ	0.3 %	23
NV	0.0 %	1
NY	0.0 %	3
OH	0.3 %	21
OR	0.0 %	-
PA	0.1 %	7
TN	32.4 %	2,366
TX	0.5 %	34
WI	0.30 %	24
Total	100 %	7,312

Table 4-3 shows the economic impact related to these imports of paper. Among the manufacturers who import paper through the Port of Long Beach, we were able to identify a total of 16,644 jobs and output valued at \$5.1 billion.

Table 4-3. Economic Impacts from Manufacturing Industries Using Imported Paper Flowing Through the Port of Long Beach

<i>Employment</i>	<i>Output</i>	<i>Payroll</i>
16,644	\$5,080,636,757	\$1,091,730,150

Table 4-4 shows the impact of selected industries using paper imports and their associated impacts.

Table 4-4. Economic Impacts of Selected Paper Industries

<i>NAICS</i>	<i>Description</i>	<i>Employment</i>	<i>Output (\$)</i>
322222	Coated and Laminated Paper	1,046	287,252,400
323110	Commercial Lithographic Printing	670	109,821,472
323116	Manifold Business Forms Printing	600	99,098,319
322130	Paperboard Mills	500	282,210,372
323119	Other Commercial Printing	305	24,000,000
322223	Plastics, Foil & Coated Paper Bag	180	24,800,000

Of the firms that we identified wholesaling paper shipped through the Port of Long Beach, we found a subset of 20 firms were found to specialize in the wholesaling of paper. We isolate data from these establishments, because employment in these firms is most closely related to the paper imported from the Port. This subset of firms was found to account for 64,513 metric tons of imported paper. Table 4-5 shows the economic impact of these establishments, by sector.

Table 4-5. Wholesale Employment Supported by Imports of Paper Flowing through the Port of Long Beach

<i>Industry</i>	<i>Employment</i>	<i>Payroll</i>
424110 – Printing and Writing Paper Merchant Wholesalers	832	48,892,782
424120 – Stationary and Office Supplies Merchant Wholesalers	664	39,020,201
424130 - Industrial & Personal Service Paper Merchant Wholesalers	384	22,565,899
TOTAL	1,880	110,478,881

As in the sections above, the economic impacts are presented by industry.

B. Steel Imports

Our records indicate total steel imports of 352,641 metric tons. These imports were shipped to approximately 1,800 different establishments, mainly in the wholesale and manufacturing sectors. Out of this universe, we were able to identify and collect data on 235 manufacturing establishments, representing 54,852 metric ton of steel imports, and 190 wholesalers representing 22,306 metric tons of steel imports.

Table 4-6 shows the top 25 importing industries ranked by their total imports of steel. As the table indicates, the manufacturing industries found to import the largest quantity of steel included iron & steel mills and manufacturers of pumping equipment, motor vehicle parts, pipe and pipe fittings and plate work.

Table 4-6. Top 25 Importing Steel Industries

<i>NAICS Code and Description</i>	<i>Total Metric Tons</i>
331111 - Iron & Steel Mills	30,033
333132 - Oil & Gas Field Machinery & Equipment	4,678
336350 - Motor Vehicle Transmission Parts	1,741
335211 - Household Cooking Appliance	1,411
332313 - Plate Work	1,390
332312 - Fabricated Structural Metal	1,202
332323 - Ornamental & Architectural Metal Work	1,127
331528 - Other Nonferrous Foundries	981
332998 - Enameled Iron & Metal Sanitary Ware	820
332813 - Electroplating, Plating, Polishing, Anodizing & Coloring	811
333999 - All Other Misc General Purpose Machinery	786
336212 - Truck Trailer	690
332618 - Other Fabricated Wire Product	676
332322 - Sheet Metal Work	573
336399 - All Other Motor Vehicle Parts	520
339112 - Surgical & Medical Instrument	501
332116 - Metal Stamping	443
331419 - Primary Smelting/Refining Nonferrous Metal	420
332996 - Fabricated Pipe & Pipe Fitting	410
332722 - Bolt, Nut, Screw, Rivet & Washer	309
325412 - Pharmaceutical Preparation	259
332911 - Industrial Valve	257
336510 - Railroad Rolling Stock	254
332991 - Ball & Roller Bearing	203
332611 - Spring (Heavy Gauge)	201

Table 4-7 shows the geographic distribution of steel imports by destination (based on the universe of all 1,800 U.S. importing establishments.) We find that the steel imports flowing through the POLB tend to go to a relatively small set of destinations. Slightly over half of the imports are bound for California destinations. About 9 percent of these steel imports are bound for New York, and about 7 percent are bound for destinations in Illinois. New Jersey, Pennsylvania, and Texas each receive about 6 percent of the total steel imports flowing through the POLB. Less than 15 percent of steel imports are bound for other states.

Table 4-7. Location of Establishments Receiving Shipments of Steel Flowing through the Port of Long Beach

<i>State</i>	<i>Percent Share</i>	<i>Total Tons</i>
AL	0.4 %	1,238
AR	0.4 %	1,471
AZ	0.2 %	703
CA	52.3 %	184,410
CO	0.1 %	299
CT	0.2 %	611
DC	0.0 %	11
DE	0.0 %	17
FL	1.2 %	4,263
GA	1.5 %	5,229
IA	0.1 %	509
ID	0.0 %	112
IL	7.0 %	24,677
IN	1.1 %	3,739
KS	0.1 %	414
KY	0.2 %	773
LA	0.6 %	2,102
MA	0.2 %	667
MD	0.3 %	917
ME	0.0 %	138
MI	0.7 %	2,513
MN	0.1 %	244
MO	1.2 %	4,074
MS	0.0 %	78
MT	0.0 %	8
NC	0.2 %	642

NE	0.0 %	90
NH	0.0 %	14
NJ	6.0 %	21,003
NM	0.0 %	79
NV	0.3 %	1,095
NY	9.1 %	32,024
OH	2.0 %	6,969
OK	0.4 %	1,291
OR	0.7 %	2,516
PA	5.9 %	20,952
RI	0.1 %	193
SC	0.2 %	544
SD	0.0 %	1
TN	0.3 %	1,021
TX	5.5 %	19,494
UT	0.0 %	153
VA	0.1 %	190
WA	0.7 %	2,471
WI	0.7 %	2,360
WV	0.1 %	322
Total	100 %	352,641

In Table 4-8, we summarize the employment and output associated with these imports, based on the sample of firms identified in our research. The first table shows the impacts of manufacturing firms using steel imported through the Port of Long Beach. We found 63,366 domestic jobs linked to manufacturing activities using these imports as raw materials or inputs. The output associated with manufacturing activities was \$17.4 billion. A breakdown of impacts by detailed NAICS industry can be found in Appendix 4.

Table 4-8. Summary of Economic Impacts from Manufacturing Industries Using Imported Steel Flowing Through the Port of Long Beach

<i>Employment</i>	<i>Output</i>	<i>Payroll</i>
63,366	\$17,370,993,093	\$4,450,402,210

Table 4-9 shows the impacts of selected steel importing manufacturing industries.

Table 4-9. Economic Impacts of Selected Steel Manufacturers

<i>NAICS CODE</i>	<i>Description of Goods Manufactured</i>	<i>Employment</i>	<i>Output (\$)</i>
332991	Ball & Roller Bearing	5,235	1,372,798,812
331111	Iron & Steel Mills	3,359	1,950,749,369
333992	Welding & Soldering Equipment	3,200	1,601,190,000
336399	All Other Motor Vehicle Parts	2,339	427,539,290
332618	Other Fabricated Wire Product	1,529	248,154,812
333911	Pump & Pumping Equipment	1,526	566,859,411
333611	Turbine & Turbine Generator Set Units	1,455	114,900,000
332322	Sheet Metal Work	1,411	138,227,349
331222	Steel Wire Drawing	1,351	497,473,220
337125	Institutional Furniture	1,320	155,000,000
337215	Showcase, Partition, Shelving & Locker	1,185	147,203,327
332510	Hardware	1,134	239,535,000
335312	Motor & Generator	1,130	98,300,000

Of the firms that we identified wholesaling steel shipped through the POLB, a subset of 58 firms was found to specialize in the wholesaling of steel. We isolate data from these establishments, because employment in these firms is most closely related to the steel imported from the Port. This subset of firms was found to account for 12,233 metric tons of imported steel. Table 4-10 shows the economic impact of these establishments by sector.

Table 4-10. Wholesale Employment Supported by Imports of Steel Flowing through the Port of Long Beach

<i>Industry</i>	<i>Employment</i>	<i>Payroll</i>
423510 - Metal Service Centers & Other Metal Merchant Wholesalers	3,094	181,820,032
423930 - Wholesale Metal Alloys, Chemicals & Industrial Equipment	24	1,410,369
TOTAL	3,118	183,230,402

C. Electronic Parts Imports

Our records indicate total electronic parts imports of 38,537 TEUs. These imports were shipped to approximately 3,200 different establishments, mainly in the wholesale and manufacturing sectors.² Out of this universe, we were able to identify and collect data on 312 manufacturing establishments, representing 10,487 TEUs of electronic parts

² To some extent, this number overestimates the actual number of firms, because of a significant number of duplicate entries due to misspellings, and slight variations on firm names (e.g., Company A International, Company A, Company A Ltd.)

imports, and 247 electronics wholesalers representing 7,051 TEUs of electronic parts imports.

Table 4-11 shows the top 25 importing manufacturing industries ranked by their total imports of electronic parts. As the table indicates, the manufacturing industries found to import the largest quantity of electronic parts included audio & video equipment, motor vehicle electrical and electronic equipment, telephone apparatus, and broadcasting equipment.

Table 4-11. Top 25 Importing Electronic Parts Manufacturers

<i>NAICS Code and Description</i>	<i>Total TEUs</i>
334310 - Audio & Video Equipment Mfg	2,414
336322 - Other Motor Vehicle Electrical & Electronic Eqpt Mfg	1,576
334210 - Telephone Apparatus Mfg	1,081
331112 - Electrometallurgical Ferroalloy Product Mfg	568
334220 - Radio & TV Broadcasting & Wireless Communication Equip Mfg	510
335212 - Household Vacuum Cleaner Mfg	485
334310 - Audio & Video Equipment Mfg	308
335312 - Motor & Generator Mfg	274
334220 - Radio & Television Broadcasting & Wireless Comm Eqpt Mfg	242
336391 - Motor Vehicle Air-Conditioning Mfg	192
333414 - Heating Eqpt (Except Electric & Warm Air Furnaces) Mfg	120
325620 - Toilet Preparation Mfg (hair care products)	112
333412 - Industrial & Commercial Fan & Blower Mfg	109
334419 - Other Electronic Component Mfg (Primary	108
334119 - Other Computer Peripheral Equipment Mfg	111
334310 - Audio & Video Equipment Mfg	100
334416 - Electronic Coil, Transformer & Other Inductor Mfg	97
333315 - Photographic & Photocopying Equipment Mfg	94
335211 - Electric Housewares & Household Fan Mfg	78
336322 - Other Motor Vehicle Electrical & Electronic Eqpt Mfg	75
336399 - All Other Motor Vehicle Parts Mfg	73
333298 - All Other Industrial Machinery Mfg	65
333415 - Air-Conditioning, Warm Air Heating, Comm & Indl Refrig Eqpt Mfg	63
335314 - Relay & Industrial Control Mfg	60
333412 - Industrial & Commercial Fan & Blower Mfg	57
335999 - All Other Misc Electrical Eqpt & Component Mfg	56
335212 - Household Vacuum Cleaner Mfg	55
334412 - Bare Printed Circuit Board Mfg	50

Table 4-12 shows the geographic distribution of electronic parts imports by destination (based on the universe of all 3,200 U.S. importing establishments.) As in the case of steel, the majority (over 40 %) of these imports are shipped to California locations. Texas importers absorb almost 13 % of these imports, Illinois importers account for over 6 %, and New York accounts for slightly less than 5 %. Other locations with significant imports include Tennessee, Ohio and Michigan.

Table 4-12. Location of Establishments Receiving Shipments of Electronic Parts Flowing through the Port of Long Beach

<i>State</i>	<i>Percent Share</i>	<i>Total TEU</i>
AL	0.7 %	284
AR	0.3 %	125
AZ	2.4 %	934
CA	41.1 %	15,829
CO	0.2 %	90
CT	1.9 %	744
DE	0.0 %	2
FL	1.0 %	369
GA	1.3 %	492
HI	0.0 %	1
IA	0.1 %	56
ID	0.0 %	8
IL	6.2 %	2,385
IN	2.3 %	887
KS	0.2 %	93
KY	2.0 %	764
LA	0.0 %	5
MA	0.3 %	120
MD	0.3 %	122
ME	0.1 %	39
MI	2.7 %	1,035
MN	0.2 %	87
MO	2.2 %	858
MS	2.4 %	908
MT	0.0 %	8
NC	1.3 %	485
ND	0.0 %	2
NE	0.1 %	20
NH	0.0 %	3
NJ	0.9 %	335
NM	0.1 %	30
NV	0.3 %	113
NY	4.6 %	1,786
OH	3.1 %	1,193

OK	0.9 %	357
OR	0.1 %	43
PA	2.0 %	755
RI	0.2 %	80
SC	0.2 %	94
SD	0.0 %	8
TN	3.4 %	1,318
TX	12.8 %	4,924
UT	0.1 %	54
VA	0.1 %	44
VT	0.0 %	6
WA	0.6 %	223
WI	1.0 %	404
WV	0.0 %	15
WY	0.0 %	-
ND	0.0 %	2
NE	0.1 %	20
NH	0.0 %	3
	100 %	38,562

Table 4-14 provides a summary of the economic impact related to these imports of electronic parts. Among the manufacturers who import these parts through the Port of Long Beach, we were able to identify a total of 99,535 jobs and output of \$26.4 billion. A detailed breakdown of impacts by NAICS industry may be found in the Appendix 4.

Table 4-13. Summary of Economic Impacts from Manufacturing Industries Using Imported Electronic Parts Flowing Through the Port of Long Beach

<i>Employment</i>	<i>Output</i>	<i>Payroll</i>
99,535	\$26,444,467,996	\$7,958,492,036

Table 4-15 shows the impacts associated with selected electronic parts importers.

Table 4-14. Economic Impacts of Selected Electronic Parts Importers

<i>NAICS</i>	<i>Description</i>	<i>Employment</i>	<i>Output (\$)</i>
334210	Telephone Apparatus	7,157	2,493,995,606
335312	Motor & Generator	6,144	1,193,007,397
336322	Other Motor Vehicle Electrical & Electronic Eqpt	5,938	1,536,953,654
333992	Welding & Soldering Equipment	4,750	1,776,530,175
334417	Electronic Connector	4,050	293,609,025
334310	Audio & Video Equipment	3,943	1,219,570,650
334220	Radio & Television Broadcasting & Wireless Comm Eqpt	3,716	1,280,242,795
336399	All Other Motor Vehicle Parts	2,666	462,042,747

335313	Switchgear & Switchboard Apparatus	2,655	1,105,795,632
335931	Current Carrying Wiring Device	2,412	666,211,406
335211	Electric Housewares & Household Fan	2,295	461,797,848
333295	Semiconductor Machinery	2,000	1,560,784,000
333911	Pump & Pumping Equipment	1,927	445,630,876

Of the firms that we identified wholesaling electronic parts shipped through the Port of Long Beach, we found a subset of 114 firms were found to specialize in the wholesaling of electronic parts. We isolate data from these establishments because employment in these firms is most closely related to the parts imported from the POLB. This subset of firms was found to account for 5,119 TEUs of imported electronic parts. Table 4-15 shows the economic impact of these establishments by sector.

Table 4-15. Wholesale Employment Supported by Imports of Electronic Parts Flowing through the Port of Long Beach

<i>Industry</i>	<i>Employment</i>	<i>Payroll</i>
423610 - Electrical Apparatus, Equipment, Wiring Supplies Merchant Wholesaler	2,449	143,916,374
423690 - Other Electronic Parts & Equipment Merchant Wholesalers	11,054	649,592,323
423620 - Electrical & Electronic Appliance, TV & Radio Set Wholesaler	2,875	168,950,419
TOTAL	16,378	962,459,115

D. Organic Chemical Imports

Our records indicate total organic chemical imports of 239,190 metric tons. These imports were shipped to approximately 900 different establishments, mainly in the wholesale and manufacturing sectors. Out of this universe, we were able to identify and collect data on 169 establishments in the manufacturing and utilities sectors, representing 126,098 metric ton of organic chemical imports, and 28 wholesalers representing 11,767 metric tons of organic chemical imports.

Table 4-16 shows the top 25 importing industries ranked by their total imports of organic chemicals. As the table indicates, the industries found to import the largest quantity of organic chemicals included oil and gas operations, basic organic and inorganic chemical manufacturing, alkalis and chlorine manufacturing, plastics, animal food manufacturing, petroleum refineries, and pharmaceutical manufacturing.

Table 4-16. Top 25 Industries Importing Organic Chemicals

<i>NAICS Code and Description</i>	<i>Metric Tons</i>
213112 - Support Activities For Oil & Gas Operations	89,581
325199 - All Other Basic Organic Chemical	13,122
325181 - Alkalies & Chlorine	3,480
325211 - Plastics Material & Resin	2,415
325188 - All Other Basic Inorganic Chemical	2,357
311119 - Other Animal Food	2,001
324110 - Petroleum Refineries	1,904
325412 - Pharmaceutical Preparation	1,561
325998 - All Other Miscellaneous Chemical Product	1,451
326122 - Plastics Pipe & Pipe Fitting	1,234
325320 - Pesticide & Other Agricultural Chemical	1,095
311990 - All other food	873
333912 - Air & Gas Compressor	599
325612 - Polish and other sanitation good	586
325510 - Paint and Coating Manufacturing	475
326150 - Urethane & Other Foam (Except Polystyrene)	402
311119 - Other Animal Food Mfg	298
325411 - Medicinal & Botanical Mfg	257
311221 - Wet Corn Milling	231
311999 - All Other Miscellaneous Food	200
325620 - Toilet Preparation	187
326299 - All Other Rubber Product	181
221210 - Natural Gas Distribution	176
311514 - Dry, Condensed & Evaporated Dairy Product	176
325613 - Surface Active Agent	174

Table 4-17 shows the geographic distribution of chemical imports by destination (based on the universe of all 900 U.S. importing establishments). Texas importers account for almost half of these imports, while California absorbs slightly more than 12 percent. Illinois and New York importers each account for over 6 percent and New Jersey absorbs slightly more than 5 percent of the chemical imports.

Table 4-17. Location of Establishments Receiving Shipments of Chemicals Flowing through the Port of Long Beach

<i>State</i>	<i>Percent Share</i>	<i>Metric Tons</i>
AL	0.3 %	656
AR	0.2 %	397
AZ	0.1 %	209

CA	12.4 %	29,591
CO	0.0 %	36
CR	0.0 %	5
CT	0.7 %	1,595
DE	0.1 %	121
FL	1.0 %	2,292
GA	0.7 %	1,574
GT	0.0 %	8
HI	0.0 %	-
IA	2.6 %	6,226
IL	6.6 %	15,725
IN	0.4 %	908
KS	0.1 %	149
KY	0.9 %	2,254
LA	0.1 %	281
MA	0.7 %	1,632
MD	0.2 %	583
ME	0.0 %	20
MI	1.2 %	2,943
MN	0.1 %	343
MO	1.0 %	2,352
MS	0.1 %	288
NC	0.9 %	2,111
NE	0.0 %	32
NH	0.0 %	18
NJ	5.3 %	12,638
NM	0.0 %	-
NV	0.4 %	855
NY	6.1 %	14,546
OH	1.9 %	4,578
OK	0.1 %	137
OR	0.5 %	1,290
PA	2.3 %	5,410
RI	0.0 %	-
SC	0.1 %	280
TN	0.9 %	2,047
TX	48.6 %	116,277
UT	0.1 %	157
VA	0.0 %	109

WA	2.9 %	6,896
WI	0.3 %	756
WV	0.4 %	865
Total	100 %	239,190

Tables 4-18 provides a summary of the employment and output associated with these imports based on the sample of firms identified in our research, and shows the impacts of utilities and manufacturing firms using organic chemicals imported through the POLB. We found about 42,000 domestic jobs linked to manufacturing and utilities activities using these imports as raw materials or inputs. Reflecting the high average value-added in industries using chemical inputs, the output associated with these activities was found to be about \$60 billion. Industries creating the largest output effects include plastics and photographic film and chemicals manufacturing.

Table 4-18. Summary of Impacts from Manufacturing Industries and Utilities Using Imported Organic Chemicals Flowing Through the Port of Long Beach

<i>Employment</i>	<i>Output</i>	<i>Payroll</i>
41,730	\$59,662,115,277	\$3,841,067,976

Table 4-19 arrays the impacts of selected organic chemical importing manufacturing industries.

Table 4-19. Impacts of Selected Organic Chemical Importing Manufacturing Industries

<i>NAICS</i>	<i>Description</i>	<i>Employment</i>	<i>Output (\$)</i>
325992	Photographic Film, Paper, Plate & Chemical	8,200	10,301,000,000
325199	All Other Basic Organic Chemical	5,733	4,564,395,399
325412	Pharmaceutical Preparation	4,345	745,028,813
325998	All Other Miscellaneous Chemical Product	4,275	2,317,718,358
325211	Plastics Material & Resin	2,047	31,935,954,115
325620	Toilet Preparation	1,972	445,617,064
334413	Semiconductor & Related Device	1,917	580,935,938
325188	All Other Basic Inorganic Chemical	1,851	728,899,987
325312	Phosphatic fertilizer, Pesticide & Other Ag. Chemical	1,505	1,378,201,372

Of the firms that we identified wholesaling chemicals shipped through the Port of Long Beach, we found a subset of 19 firms that specialize in the wholesaling of chemicals and allied products. We isolate data from these establishments, because employment in these firms is most closely related to the parts imported from the Port. This subset of firms was

found to account for 11,110 metric tons of imported chemicals. The table below shows the economic impact of these establishments, by sector.

Table 4-20. Wholesale Employment Supported by Imports of Organic Chemicals Flowing through the Port of Long Beach

<i>Industry</i>	<i>Employment</i>	<i>Payroll</i>
424690 – Other Chemical & Allied Products Merchant Wholesalers	700	\$41,135,754

Section 5. Summary of Findings

The POLB is a critical port for U.S. trade. While it is most often cited as a port that specializes in container trade, its importance in transporting all types of freight cannot be understated. Reflecting the relatively high value of goods transported in containers, the cargo transported through POLB represented 6 percent of the total value of waterborne trade handled in the U.S. in 2007. The POLB share of the total volume is 1.8 percent of the U.S. total.

The types of goods that are transported through POLB vary considerably by weight and value and include commodities and raw materials (oil, steel), semi-finished products (electronic components, yarns and fibers), and finished products (apparel, cars). In this study our focus was to estimate the jobs generated by the importation of raw materials and semi-finished goods. Given the broad diversity of imported raw materials and semi-finished goods, we selected four commodity groups as a case study. These commodity groups are: paper and paperboard; iron and steel; electronic parts; and organic chemicals. The jobs created, not including jobs in the goods movement industry directly tied to the port, include manufacturing activities and wholesale trade activities. In 2007, we identified 220,000 manufacturing jobs linked to imports in the four industries examined and 22,000 distribution jobs in these industries. The manufacturing and wholesale trade sectors are sectors of the economy that have high-wage jobs. The manufacturing average payroll per worker ranged from \$92,000 in the organic chemical industry, where there has traditionally been high value-added, to \$66,000 in the paper and paperboard industry. The average payroll per worker in the wholesale trade industry is \$59,000 annually.

Most surprising is that a considerable amount of the goods manufactured, especially in the paper and paperboard and the iron and steel industry, is exported. While one should be careful of generalizing from the survey results, they do indicate the complexity of trade and underscore the importance of the POLB to the local and national economy.

Appendix 1: Survey Instrument

Initial Interviewer Statement:

Hello. My name is _____ and I'm an economics student at California State University, Long Beach. I am working on a university research contract collecting data on companies who import raw materials and semi-finished goods through the Port of Long Beach. This research project is sponsored by the Port of Long Beach. Would you be willing to participate in a 10-minute survey concerning your firm's activities?

First, I will read you an informed consent statement to ensure that you fully agree to participate in this research. (See appendix A)

Screening Question:

Is your firm a manufacturer or a distributor?

- Manufacturer (continue with question 1)
- Distributor (skip to page 4)

1. At this establishment, do you produce finished goods or parts/components?

- Finished Goods
 - Please describe your major product lines

- Parts/Components
 - What types of finished products will ultimately be produced using the parts/components that you manufacture?

2. What percentage of your output consists of imported materials?

_____ %

3. Do you import into the U.S. through ports other than Long Beach?

- Yes
 - What percent of the volume is imported through other ports?

_____ %

- No

4. Do you sell your output domestically, or is some exported?
- Domestically
 - Exported
 - Roughly what proportion is exported?
_____ %
 - What percent is exported through the Port of Long Beach?
 - What other North American Ports are used for export?
 - To which countries do you export?
5. How many individuals are employed at your establishment?
(Include full- and part-time jobs)
- 5A. How many are managers/supervisors? _____
- 5B. How many are production workers? _____
6. How are your imports of raw materials or parts/components transported from the Port of Long Beach to your establishment?
- primarily truck
 - primarily train
 - intermodal
7. Are your imports transported directly from the port to your facility?
- Yes (skip to question 8)
 - No (continue to 7A)
- 7A. Are they transloaded?
- No (go to 7B)
 - Yes
 - Where are they transloaded? (City, State)

- 7B. Are they transported to a warehouse or distribution center owned by a third party?
- No (go to question 8)
 - Yes
 1. Where is this located (City, State)?

 2. Are any value-added activities conducted at the warehouse/distribution center?
 Yes
What Kinds? _____
 No
8. Do you anticipate that your imports of parts or raw materials through the Port of Long Beach will increase, decrease or remain the same this year compared to last year?
- increase (go to conclusion)
 - stay the same (go to conclusion)
 - decrease (continue to 8A)
- 8A. Is this due to volumes of imports decreasing or due to other ports being used?

Thank you for participating in this survey. Would you like a copy of our white paper when this research is finished?

If so, indicate name and contact info on separate sheet.

If not, indicate that may request one by calling 562-985-5061.
END OF MANUFACTURER SURVEY

Distributor Survey

1. What types of finished products are produced by the firms that you sell to?
(Note: we do not want a list of their customers, just a sense of what their customers produce)

2. What percentage of your product line consists of imported materials?
_____ %
3. Do you import into the U.S. through ports other than Long Beach?
 - Yes
 - What percent of the volume is imported through other ports?
_____ %
 - No
4. Do you sell primarily to U.S. firms, or are some of your products exported?
 - Domestically
 - Exported
 - Roughly what proportion is exported?
_____ %
 - What % is exported through the Port of Long Beach?
 - What other North American Ports are used for export?
 - Do you export to Canada or Mexico?
 - Canada
 - Mexico
 - If you export to Canada or Mexico, do you primarily use truck or rail?
 - Truck
 - Rail
 - To which countries do you export?
5. How many individuals are employed at your establishment?
(Include full- and part-time jobs)
5A. How many are managers/supervisors? _____
6. How are your imports transported from the Port of Long Beach to your establishment?
 - primarily truck
 - primarily train
 - intermodal
7. Are your imports transported directly from the port to your facility?
 - Yes (skip to question 8)
 - No (continue to 7A)
7A. Are they transloaded?
 - No (go to 7B)
 - Yes
 - Where are they transloaded? (City, State)

 - 7B. Are they transported to a warehouse or distribution center owned by a third party?
 - No (go to question 8)

Yes

1. Where is this located (City, State)?
2. Are any value-added activities conducted at the warehouse/distribution center?

Yes

What Kinds? _____

No

8. Do you anticipate that your imports through the Port of Long Beach will increase, decrease or remain the same this year compared to last year?

- increase (go to conclusion)
- stay the same (go to conclusion)
- decrease (continue to 8A)

8A. Is this due to volumes of imports decreasing or due to other ports being used?

Thank you for participating in this survey. Would you like a copy of our white paper when this research is finished?

If so, indicate name and contact info on separate sheet.

If not, indicate that can request one by calling 562-985-5061.

Appendix 2 Port of Long Beach Imports by HTS

	2007 Vessel SWT (kg)	2007 Vessel Value	% change Vessel SWT	% change Real Vessel Value
27 Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	4,429,509,165	1,944,547,837	-16.51 %	65.31 %
94 Furniture; Bedding Etc; Lamps Nesoi Etc; Prefab Bd	1,454,080,009	3,960,354,543	57.96 %	55.17 %
84 Nuclear Reactors, Boilers, Machinery Etc.; Parts	1,296,395,639	11,642,129,640	52.64 %	23.93 %
85 Electric Machinery Etc; Sound Equip; Tv Equip; Pts	1,049,010,080	10,791,498,354	26.57 %	20.01 %
73 Articles Of Iron Or Steel	1,034,021,934	1,977,068,607	60.84 %	83.76 %
39 Plastics And Articles Thereof	729,245,615	1,985,550,964	44.63 %	49.49 %
95 Toys, Games & Sport Equipment; Parts & Accessories	623,604,830	5,404,653,034	34.87 %	45.17 %
25 Salt; Sulfur; Earth & Stone; Lime & Cement Plaster	619,468,663	19,177,259	48.55 %	39.19 %
87 Vehicles, Except Railway Or Tramway, And Parts Etc	598,630,768	3,164,032,422	56.05 %	11.90 %
44 Wood, Articles Of Wood; Wood Charcoal	472,740,148	621,781,576	116.13 %	83.96 %
40 Rubber And Articles Thereof	456,192,246	1,508,020,800	56.51 %	58.33 %
48 Paper & Paperboard & Articles (inc Papr Pulp Artl)	436,760,124	599,879,630	23.73 %	38.42 %
69 Ceramic Products	431,581,070	435,264,038	52.24 %	52.70 %
72 Iron And Steel	371,876,297	360,419,427	24.23 %	136.36 %
68 Art Of Stone, Plaster, Cement, Asbestos, Mica Etc.	287,944,857	310,722,433	106.20 %	97.09 %
83 Miscellaneous Articles Of Base Metal	207,156,874	687,171,976	83.33 %	85.09 %
29 Organic Chemicals	189,271,413	520,155,202	23.61 %	59.34 %
64 Footwear, Gaiters Etc. And Parts Thereof	178,597,929	1,638,000,548	64.53 %	61.16 %
22 Beverages, Spirits And Vinegar	170,846,127	276,515,182	81.68 %	77.03 %
42 Leather Art; Saddlery Etc; Handbags Etc; Gut Art	160,126,212	1,306,510,247	9.23 %	27.06 %
62 Apparel Articles And Accessories, Not Knit Etc.	152,353,404	1,861,281,371	-10.01 %	-28.67 %
20 Prep Vegetables, Fruit, Nuts Or Other Plant Parts	151,715,137	144,640,977	13.57 %	32.85 %
70 Glass And Glassware	148,250,234	246,593,189	65.91 %	50.42 %
63 Textile Art Nesoi; Needlecraft Sets; Worn Text Art	137,755,824	671,872,999	33.60 %	31.46 %
28 Inorg Chem; Prec & Rare-earth Met & Radioact Compd	130,395,071	184,759,573	26.38 %	94.57 %
49 Printed Books, Newspapers Etc; Manuscripts Etc	120,243,409	449,878,105	40.61 %	37.58 %
61 Apparel Articles And Accessories, Knit	117,219,636	1,450,857,503	-28.45 %	-36.94 %
08 Edible Fruit & Nuts; Citrus Fruit Or Melon	107,198,666	109,353,331	-57.32 %	2.74 %
76 Aluminum And Articles Thereof	97,833,264	392,308,838	103.99 %	129.40 %
82 Tools, Cutlery Etc. Of Base Metal & Parts Thereof	95,503,846	551,091,326	10.43 %	7.79 %
96 Miscellaneous Manufactured Articles	62,543,652	361,864,170	57.19 %	30.68 %

90 Optic, Photo Etc, Medic Or Surgical Instruments Etc	57,024,145	1,240,031,029	33.83 %	30.92 %
15 Animal Or Vegetable Fats, Oils Etc. & Waxes	52,364,816	66,889,757	413.29 %	157.77 %
38 Miscellaneous Chemical Products	46,690,653	182,457,369	24.07 %	38.43 %
09 Coffee, Tea, Mate & Spices	44,659,696	91,262,981	-15.90 %	56.23 %
03 Fish, Crustaceans & Aquatic Invertebr.	42,206,946	191,758,319	-51.86 %	-61.15 %
34 Soap Etc; Waxes, Polish Etc; Candles; Dental Preps	37,658,575	93,511,546	25.00 %	38.20 %
36 Explosives; Pyrotechnics; Matches; Pyro Alloys Etc	37,465,947	58,298,031	19.68 %	18.04 %
74 Copper And Articles Thereof	32,971,408	273,850,439	85.35 %	226.05 %
07 Edible Vegetables, Certain Roots, Tubers	31,444,876	39,443,456	26.04 %	86.73 %
86 Railway Or Tramway Stock Etc; Traffic Signal Equip	31,436,165	69,284,414	135.39 %	202.33 %
32 Tanning & Dye Ext Etc; Dye, Paint, Putty Etc; Inks	31,397,681	112,796,975	79.38 %	15.87 %
67 Prep Feathers, Down Etc; Artif Flowers	28,706,308	234,035,306	50.76 %	65.26 %
16 Edible Preparations Of Meat, Fish, Crustaceans Etc	27,869,582	114,829,771	-55.10 %	-51.25 %
55 Manmade Staple Fibers, Incl Yarns & Woven Fabrics	27,587,696	66,590,444	-3.01 %	26.51 %
19 Prep Cereal, Flour, Starch Or Milk; Bakers Wares	27,179,621	49,119,127	13.61 %	13.55 %
33 Essential Oils Etc; Perfumery, Cosmetic Etc Preps	21,726,393	111,052,805	89.81 %	71.61 %
98 Special Classification Provisions, Nesoi	21,405,865	138,827,547	-5.70 %	-20.59 %
23 Food Industry Residues & Waste; Prep Animal Feed	21,170,024	37,850,900	554.90 %	942.40 %
17 Sugars And Sugar Confectionary	21,101,598	23,333,228	76.18 %	70.07 %
46 Mfr Of Straw, Esparto Etc.; Basketware & Wickerwrk	19,289,245	56,057,266	51.28 %	19.93 %
21 Miscellaneous Edible Preparations	18,019,906	31,408,880	7.79 %	-43.69 %
81 Base Metals Nesoi; Cermets; Articles Thereof	17,953,585	166,566,763	258.34 %	521.65 %
56 Wadding, Felt Etc; Sp Yarn; Twine, Ropes Etc.	17,193,599	64,924,652	40.18 %	27.44 %
65 Headgear And Parts Thereof	14,881,776	196,745,590	22.23 %	14.59 %
92 Musical Instruments; Parts & Accessories	14,359,238	123,328,187	-11.43 %	-33.82 %
57 Carpets And Other Textile Floor Coverings	14,185,688	65,319,761	26.49 %	1.56 %
71 Nat Etc Pearls, Prec Etc Stones, Pr Met Etc; Coin	13,856,801	122,031,229	27.05 %	45.44 %
11 Milling Products; Malt; Starch; Inulin; Wht Gluten	13,091,212	11,532,001	348.12 %	558.06 %
35 Albuminoidal Subst; Modified Starch; Glue; Enzymes	12,575,097	69,076,765	158.84 %	122.84 %
52 Cotton, Including Yarn And Woven Fabric Thereof	12,253,621	76,784,482	-43.65 %	-32.68 %
91 Clocks And Watches And Parts Thereof	11,536,262	106,171,938	-2.49 %	-36.86 %
10 Cereals	11,395,921	6,097,694	74.69 %	63.01 %
66 Umbrellas, Walking-sticks, Riding-crops	10,893,485	38,015,916	-13.15 %	-15.10 %
60 Knitted Or Crocheted Fabrics	10,548,330	49,258,597	-17.45 %	-26.46 %
26 Ores, Slag And Ash	9,012,390	3,278,741	1561.34 %	252.66 %
30 Pharmaceutical Products	8,793,442	66,081,684	123.44 %	147.68 %

54 Manmade Filaments, Including Yarns & Woven Fabrics	8,705,328	37,380,332	-35.41 %	-50.74 %
04 Dairy Prods; Birds Eggs; Honey; Ed Animal Pr Nesoi	8,150,068	20,404,354	-8.06 %	-2.15 %
59 Impregnated Etc Text Fabrics; Tex Art For Industry	7,760,811	45,865,683	-6.81 %	5.55 %
12 Oil Seeds Etc.; Misc Grain, Seed, Fruit, Plant Etc	7,581,779	24,000,895	40.18 %	30.18 %
58 Spec Wov Fabrics; Tufted Fab; Lace; Tapestries Etc	7,019,422	49,241,566	170.91 %	81.77 %
31 Fertilizers	6,559,700	3,983,310	58.67 %	137.23 %
37 Photographic Or Cinematographic Goods	6,214,346	89,479,152	-11.68 %	-38.89 %
05 Products Of Animal Origin, Nesoi	4,872,520	19,681,836	-30.33 %	-25.51 %
93 Arms And Ammunition; Parts And Accessories Thereof	4,846,890	46,665,451	31.59 %	-28.25 %
18 Cocoa And Cocoa Preparations	4,567,437	10,146,193	102.91 %	26.82 %
14 Vegetable Plaiting Materials & Products Nesoi	3,942,756	5,167,665	-19.69 %	20.19 %
79 Zinc And Articles Thereof	3,357,734	21,512,836	57.94 %	107.24 %
13 Lac; Gums, Resins & Other Vegetable Sap & Extract	3,201,084	23,091,175	297.82 %	268.42 %
02 Meat And Edible Meat Offal	3,023,414	16,582,029	132.68 %	314.72 %
45 Cork And Articles Of Cork	2,923,661	5,609,249	390.20 %	44.97 %
97 Works Of Art, Collectors' Pieces And Antiques	2,459,340	17,204,392	19.16 %	80.32 %
80 Tin And Articles Thereof	1,948,955	8,302,441	29.81 %	34.10 %
24 Tobacco And Manufactured Tobacco Substitutes	1,695,895	26,275,495	-45.67 %	-35.39 %
06 Live Trees, Plants, Bulbs Etc.; Cut Flowers Etc.	1,438,595	3,908,910	-30.37 %	-23.35 %
89 Ships, Boats And Floating Structures	1,291,246	13,458,633	115.84 %	94.80 %
53 Veg Text Fib Nesoi; Veg Fib & Paper Yns & Wov Fab	923,842	3,727,065	-24.91 %	-18.96 %
75 Nickel And Articles Thereof	549,397	8,586,412	18.30 %	94.49 %
88 Aircraft, Spacecraft, And Parts Thereof	540,424	41,980,615	143.38 %	62.31 %
47 Wood Pulp Etc; Recovd (waste & Scrap) ppr & pprbd	495,607	342,631	1179.05 %	838.80 %
41 Raw Hides And Skins And Leather	481,166	9,212,136	12.36 %	-3.49 %
51 Wool & Animal Hair, Including Yarn & Woven Fabric	432,025	2,974,944	1034.79 %	169.08 %
43 Furskins And Artificial Fur; Manufactures	345,406	5,250,741	-33.57 %	-11.97 %
78 Lead And Articles Thereof	290,089	1,042,250	136.21 %	83.14 %
50 Silk, Including Yarns And Woven Fabric	28,122	1,302,360	-65.32 %	-61.15 %

Appendix 3-1 Six Digit Import Codes, Paper

<u>HTC</u>	<u>Description</u>
480100	NEWSPRINT, IN ROLLS OR SHEETS
480200	PAPER, UNCOAT, FOR WRITING ETC, ROLLS; HNDMD PAPER
480210	HANDMADE PAPER AND PAPERBOARD
480220	UNCTD BASE PPR TO BE SENSITIZD (PHOTO ETC) RLS/SHT
480240	WALLPAPER BASE (HANGING PPR) UNCOATD, ROLLS/SHEETS
480411	KRAFTLINER, UNCOATED UNBLEACHED IN ROLLS OR SHEETS
480429	SACK KRAFT PAPER UNCOATED BLEACHED IN ROLLS/SHEETS
480441	KRAFT PAPER NESOI, OV 150 G/M2 UN 225 G/M2 UC UNBL
480442	KRAFT PR NESOI, OV150G/M2UND225G/M2, BL, 95 % WF UC
480500	PAPER & PAPERBOARD, UNCOAT, NESOI, ROLLS OR SHEETS
480530	SULFITE WRAPPING PAPER UNCOATED IN ROLLS OR SHEETS
480540	FILTER PPR & PAPERBOARD, UNCOATED, IN ROLLS/SHEETS
480550	FELT PAPER & PAPERBOARD, UNCOATED, IN ROLLS/SHEETS
480560	PAPER AND PAPERBOARD, NESOI, NOT OVER 150 G/M2, UC
480620	GREASEPROOF PAPER (AS MANUFACTURED) IN ROLLS/SHEET
480630	TRACING PAPERS IN ROLLS OR SHEETS
480640	GLASSINE & OTH GLAZED TRANSPARENT/TRANSLUCENT PAPER
480990	COPYING/TRANSFER PAPER, COATED/IMPREGNTD, OV 36 CM
481099	PPR/PBRD EX KRFT/GRPHIC CLAY CTD NESOI ROLLS/SHEET
481121	PPR/PBRD GUMMED/ADHESIVE PRESSURE-SENSITIVE ROLL/SHT
481129	PPR/PBRD, GUMMED OR ADHESIVE, NESOI, ROLLS/SHEETS
481131	PAPER NESOI, OV150G/M2, BLEACH, IMPR OR PLAST COVR
481139	PAPER & PAPERBD COATED, ETC, WITH PLASTICS NESOI
481310	CIGARETTE PAPER IN THE FORM OF BOOKLETS OR TUBES
481320	CIGARETTE PAPER IN ROLLS OF A WIDTH NOT OVER 5 CM
481490	WALLPR/SIMLR WALLCVRNG NESOI; PPR WINDW TRANSPAREN
481900	CARTONS ETC PAPER; OFFICE BOX FILES ETC, PAPER ETC
482311	GUMMED/ADHESIVE PPR STRIP/ROLL PRSSR-SENS NT LABEL
482320	FILTER PAPER AND PAPERBOARD, CUT TO SIZE OR SHAPE
482340	ROLL/SHEET/DIAL PRINTED FR SELF-RECORDNG APPR, PPR
482370	MOLDED OR PRESSED ARTICLES OF PAPER PULP
482390	ARTICLES OF PPR PULP/PPR/PPRBRD/CELLULSE ETC NESOI

Appendix 3-2 Six Digit Import Codes, Steel Imports

<u>HTC</u>	<u>Description</u>
720130	ALLOY PIG IRON
720521	ALLOY STEEL POWDERS
722240	ANGLES, SHAPES AND SECTIONS OF STAINLESS STEEL
721690	ANGLS SHPS SEC IOS NA NESOI
722200	BARS & RODS, ST STEEL NESOI; ANGLES ETC, ST STEEL
721590	BARS AND RODS IRON OR NONALLOY STEEL, NESOI
722790	BARS AND RODS OTH ALLOY STL, HOT-RLD, IRREG COILS
720299	FERROALLOYS, NESOI
720241	FERROCHROMIUM OVER 4 % CARBON
720211	FERROMANGANESE WITH OVER 2 % CARBON
720270	FERROMOLYBDENUM
720260	FERRONICKEL
720230	FERROSILICON MANGANESE
720221	FERROSILICON WITH OVER 55 % SILICON
720229	FERROSILICON, 55 % OR LESS SILICON
720291	FERROTITANIUM AND FERROSILICON TITANIUM
720310	FERROUS PRODUCTS FM DIRECT REDCTION OF IRON ORE
720449	FERROUS WASTE & SCRAP NESOI
720292	FERROVANADIUM
721230	FLAT-RLD IR/NAS UN 600MM W PLTD/CTD W ZINC NT ELEC
721240	FLAT-RLD IR/NAS UN 600MM W PNTD/VARNSHD/PLSTC CTD
722620	FLAT-ROLLED HIGH-SPEED STEEL UNDER 600MM WIDE
722699	FLAT-ROLLED OTHER ALLOY STEEL UN 600MM W NESOI
722020	FLAT-ROLLED STNLS STL UND 600MM WIDE, CLD-RLD
720800	FL-RL IRON & NA STEEL NUN600MM WD HOT-RL, NOT CLAD
722090	FL-RLD STNLS STL UN 600MM WDE, NESOI
722540	FLT-RLD OTH ALLOY STL 600MM OM W, HT-RLD NT COILS
722692	FLT-RLD OTH ALLOY STL UN 600MM W, CLD-RLD
721990	FLT-RLD STNLS STL 600MM AO WIDE, NESOI
721931	FLT-RLD STNLS STL 600MM OM W CLD/RLD 4.75MM OM THK
721221	FR HS IOS NA UN 600MM W ELEC PLD O CTD W ZINC
721050	FR IOS NA 600MM AO W CTD/PLTD W CRO OR CR AND CRO
721229	FR IOS NA UN 600MM W ELEC PLD O CTD W ZINC, OTH
721190	FR IOS NA UN 600MM W, NESOI MR THN C-R
721250	FR IOS NA UNDR 600MM WIDE PLTD OR COATD, NESOI
721210	FR IOS NA UNDR 600MM WIDE TIN COATD O PLATED
721260	FR IOS UN 600MM WD CLAD NESOI

721070	FR IR/NAS 600MM W OM, PAINTED, VARNISHED, PLASTIC
721049	FR IR/NAS CTD/PLTD W ZINC NT ELEC NT CORR 600MM OM
721911	FR SS 600MM AO W HR CLS OV 10MM THCK
720510	GRANULES, IRON OR STEEL
722880	HOLLOW DRILL BARS AND RODS, IOS, NESOI
720610	IRON AND NONALLOY STEEL INGOTS
720690	IRON AND NONALLOY STEEL, PRIMARY FORMS NOT INGOTS
720000	IRON AND STEEL
720110	NONALLOY PIG IRON 0.5 PRCNT OR LESS PHOSPHORUS
721650	OTH ANGLS SHPS SEC IOS NA HOT-WKD
722220	OTH BARS A RODS, STNLS STL, NT FUR TH CLD-FRM/FNSH
722850	OTH BRS A RODS OTH ALY STL NT FUR TH CLD-FRMD/FNSH
722830	OTH BRS A RODS OTH ALY STL NT FUR TH HT-RLD/DRN/EX
721510	OTH BRS AND RDS FREE-C TTNG STL COLD-FMD OR FNSHD
721420	OTH BRS RDS IOS NA HOT-WRKD, CONC REINFRNG
722840	OTH BRS RDS OTH ALLOY STL NT FRTHR WRKD THN FORGED
721129	OTH FR IRN/NAS UN 600MM W NPLTD UN 4.75MM THK NESO
721430	OTHER BARS AND RODS FREE-CUTTING STEEL, HOT-WORKED
721410	OTHER BARS AND RODS IRON OR NONALLOY STEEL, FORGED
722860	OTHER BARS AND RODS OF OTHER ALLOY STEEL, NESOI
722230	OTHER BARS AND RODS STAINLESS STEEL, NESOI
720390	OTHR SPONGY FERROUS PRDCTS MIN PURITY 99.94 PCT FE
720529	POWDERS, IRON OR NONALLOY STEEL
722490	SEMIFINISHED PRODUCTS OF ALLOY STEEL NOT STAINLESS
721890	SEMIFINISHED PRODUCTS OF STAINLESS STEEL
720720	SMFD IRN OR NONALLOY STL, .25 PCT OR MORE CARBON
720712	SMFD IRN/NAL STL LT .25 PCT CRB RECT CS WID 2X THK
720719	SMFD IRN/NAL STL LT 0.25 PCT CARBON CS NT RECT/SQR
721810	STAINLESS STEEL INGOTS AND OTHER PRIMARY FORMS
720421	STAINLESS STEEL WASTE AND SCRAP
721631	U SEC IOS NA HOT-WKD 80MM OR MORE HIGH
722910	WIRE OF HIGH-SPEED STEEL
721700	WIRE OF IRON & NONALLOY STEEL
722990	WIRE OF OTHER ALLOY STEEL, NESOI
722300	WIRE OF STAINLESS STEEL

Appendix: 3-3 Six-digit Import Codes, Electronic Parts

<u>HTC</u>	<u>Description</u>
850161	AC GENERATORS (ALTERNATORS) <=75 KVA OUTPUT
850140	AC MOTORS NESOI, SINGLE-PHASE
853222	ALUMINUM ELECTROLYTIC FIXED CAPACITORS
851840	AUDIO-FREQUENCY ELECTRIC AMPLIFIERS
853529	AUTO CIRCT BREAKER VOLTAGE 72.5 KV OR MORE
853620	AUTO CIRCUIT BREAKERS VOLTAGE NOT EXCEEDING 1000 V
853810	BOARDS, PANELS, CONSOLES ETC OF 8537 LESS APTS
854519	CARBON ELECTRODES NESOI
854011	CATHODE-RAY TV PICTURE TUBES, COLOR INC MONITOR
853224	CERAMIC DIELECTRIC, MULTILAYER FIXED CAPACITORS
853710	CONTROLS ETC W ELECT APPR F ELECT CONT NOV 1000 V
850131	DC MOTORS & GENERATORS W OUTPUT N OV 750 W
854211	DIGITAL MONOLITHIC INTEGRATED CIRCUITS
854110	DIODES EX PHOTSENSITIVE OR LIGHT-EMITTING DIODES
853939	DISCHARGE LAMPS EX ULTRVILT FLURSCNT HT CTHDE LAMP
851130	DISTRIBUTORS; IGNITION COILS
853590	ELECT APPR F PRTCT TO ELECT CIRCT >1000 V NESOI
853690	ELECT APPR F PRTCT TO ELECT CIRCT NOV 1000 V NESOI
853669	ELECT PLUGS & SOCKETS F VOLTAGE NOT OVER 1000 V
853650	ELECT SWITCHES F VOLTAGE NOT OVER 1000 V, NESOI
851640	ELECTRIC FLATIRONS
851680	ELECTRIC HEATING RESISTORS
850110	ELECTRIC MOTORS OF AN OUTPUT NOT EXCEEDING 37.5 W
851621	ELECTRIC STORAGE HEATING RADIATORS
853600	ELECTRICAL APPARATUS FOR SWITCHING ETC, NOV 1000 V
853500	ELECTRICAL APPARATUS FOR SWITCHING ETC, OV 1000 V
854590	ELECTRICAL CARBON OR GRAPHITE ARTICLES, NESOI
850450	ELECTRICAL INDUCTORS NESOI
854620	ELECTRICAL INSULATORS OF CERAMICS
854610	ELECTRICAL INSULATORS OF GLASS
854690	ELECTRICAL INSULATORS, NESOI
850590	ELECTROMAGNETS,CLAMPS, SIMILR HLDNG DEVICES,PARTS
854200	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS
854280	ELECTRONIC INTEGRATED CIRCUITS AND MCRSSMBLS
854330	ELECTROPLATING, ELECTROPHORESIS & ELECTROLYS MACH
853229	FIXED CAPACITORS, NESOI
853310	FIXED CARBON RESISTORS, COMPOSITION OR FILM TYPE

853329	FIXED RESISTORS NESOI > 20 W POWER HDLG CPCY
853510	FUSES FOR ELECTRICAL APPARATUS, VOLTAGE > 1000 V
853610	FUSES FOR VOLTAGE NOT EXCEEDING 1000 V
853120	INDICATOR PANELS INCORPORATING LCD'S OR LED'S
854790	INSLT FIT EX CERAM/PLAS;ELEC COND TB/JNT,BMTL ETC
854430	INSULATED WIRING SETS FOR VEHICLES SHIPS AIRCRAFT
854700	INSULATING FITTINGS FOR ASSEMBLY NESOI
851140	INTERNAL COMBUSTION ENGINE STARTER MOTORS
853530	ISOLATING SWITCH & MAKE/BREAK SWTCH VOLT > 1000V
853661	LAMPHOLDERS FOR VOLTAGE NOT OVER 1000V
853540	LIGHTNING ARRESTERS,VOLTAGE LIMITERS,SURGE SUP
853630	OTHER APPARATUS FOR PROTECTING ELC CRTS =< 1000 V
852200	PARTS & ACCESS OF RECORD PLAY, MAG TAPE RECORD ETC
854190	PARTS FOR DIODES, TRANSISTORS & SMLR SEMICONDUCT
853800	PARTS FOR ELEC APPAR ETC OF HEAD 8535, 8536 & 8537
853290	PARTS FOR ELECTRICAL CAPACITORS
851490	PARTS FOR IND, LAB FURNACES,OVENS OR HEATING EQUIP
851390	PARTS FOR PORTABLE ELECTRIC LAMPS NESOI
854091	PARTS OF CATHODE-BAY TUBES
850300	PARTS OF ELECTRIC MOTORS, GENERATORS & SETS
853190	PARTS OF ELECTRIC SOUND OR VISUAL SIGNALING APRTS
850519	PERMANENT MAGNETS MADE OF MATERIALS O/T METAL
850511	PERMANENT MAGNETS MADE OF METAL
854140	PHOTOSNSITVE SEMICNDCTR DVICE INC PHTVLTC CELL ETC
850690	PRIMARY BATTERY AND CELL PARTS
853400	PRINTED CIRCUITS
854390	PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI
851590	PT ELECT LASER ULTRASONIC,ETC,HOT SPRAY METAL MACH
851290	PT ELECT LGHTNG/SGNLNG EQ WNDSHIELD WPR DFRSTR
853890	PT F ELECT APPR F ELECT CIRCT; F ELCT CONTRL NESOI
852290	PTS & ACCESS F SOUND/VIDEO REPRODUCING,RECORD APP
851190	PTS ELECT IGNTN/START EQUIP; GENERATORS & CUT-OUTS
850790	PTS ELECT STORAGE BATTERIES INC SEPARATORS THEREOF
850990	PTS ELECTROMECH DOM APPL SLF-CONT ELECT MOTORS
851690	PTS F HEATERS,HAIRDRESSING APPR,FLT IRON,STOVE ETC
851890	PTS MICRO-HEAD-EAR-PHONE,ELECT SND AMPL SETS ETC
852990	PTS,EX ANTENNA,FOR TRNSMSSN,RDR,RADIO,TV,ETC NESOI
853641	RELAYS FOR A VOLTAGE NOT EXCEEDING 60 V
853649	RELAYS FOR VOLTAGE OVER 60V MORE BUT NT OVER 1000V
854150	SEMICNDCTR DVICE EX PHOTSENSITIVE/PHOTOVOLTAIC
851821	SINGLE LOUDSPEAKERS, MOUNTED IN THEIR ENCLOSURES
850780	STORAGE BATTERIES NESOI

854089	THERMIONIC AND OTHER CATHODE TUBES NESOI
854000	THERMIONIC,COLD CATHODE OR PHOTOCATH TUBES, PTS
850431	TRANSFORMERS NESOI, POWER HANDLING CAP NOV 1 KVA
854129	TRANSISTORS, OTHER THAN PHOTOSENSITIVE, NESOI
852510	TRANSMISSION APPARATUS FOR RADIO OR TELEVISION
850120	UNIVERSAL AC/DC MOTORS OF AN OUTPUT > 37.5 W
853230	VARIABLE OR ADJUSTABLE (PRE-SET) CAPACITORS
853340	VARIABLE RESISTORS INC RHEOSTAT & POTNTIOMTR NESOI
853331	WIREWOUND VARIABLE RESISTORS, < 20 W

Appendix 3-4 Six-digit Import Codes, Organic Chemicals

<i>6 digit HS</i>	<i>Description</i>
290110	ACYCLIC HYDROCARBONS, SATURATED
294130	TETRACYCLINES AND THEIR DERIVATIVES; SALTS THEREOF
291814	CITRIC ACID
293369	CMPDS (EXC MELAMINE) CONT AN UNFUSED TRIAZINE RING
292249	AMINO-ACIDS & ESTERS, 1 OXYGEN FUNCTION NESOI
293627	VITAMIN C (ASCORBIC ACID) AND ITS DERIVATIVES UNM
291590	SAT ACYCLIC MONOCARBOXY ACIDS AND DERIV NESOI
290340	HALOGENATED DERIV ACYCLIC HYDROCARBON OV 1 HALOGEN
292242	GLUTAMIC ACID AND ITS SALTS
292241	LYSINE AND ITS ESTERS; SALTS THEREOF
290549	ACYCLIC POLYHYDRIC ALCOHOLS NESOI
290330	FLUORINATED ETC DERIVATIVES OF ACYCLIC HYDROCARBNS
291512	SALTS OF FORMIC ACID
293361	MELAMINE
293100	ORGANO-INORGANIC COMPOUNDS NESOI
291619	UNSAT ACYCLIC MONOCARBOX ACIDS AND DERIV NESOI
293090	ORGANO-SULFUR COMPOUNDS NESOI
290542	PENTAERYTHRITOL
291719	ACYCLIC POLYCARBOXYLIC ACIDS, ANHYDRIDES ETC NESOI
291714	MALEIC ANHYDRIDE
293420	HETEROCYC CM, BENZOTHAZOLE RING-SYSTEM ETC
291612	ESTERS OF ACRYLIC ACID
291711	OXALIC ACID, ITS SALTS AND ESTERS
291461	ANTHRAQUINONE
291815	SALTS AND ESTERS OF CITRIC ACID
292690	NITRILE FUNCTION COMPOUNDS, NESOI
293390	HETEROCYCLIC COMP W NITROGEN HETERO-ATM ONLY NESOI
293629	VITAMINS AND THEIR DERIVATIVES, UNMIXED, NESOI
290544	D-GLUCITOL (SORBITOL)
291736	TEREPHTHALIC ACID AND ITS SALTS
292090	ESTERS OF OTHER INORGANIC ACIDS, ETC NESOI
292229	AMINO-NAPHTHOLS AND OTHER AMINO-PHENOLS NESOI
293930	CAFFEINE AND ITS SALTS
291811	LACTIC ACID, ITS SALTS AND ESTERS
291819	CARBOX ACIDS WITH ALCOHOL FUNCT ETC NESOI
291570	PALMITIC ACID, STEARIC ACID, THEIR SALTS AND ESTRS
292141	ANILINE (AMINOBENZENE) AND ITS SALTS
290529	UNSATURATED MONOHYDRIC ALCOHOLS NESOI
291550	PROPIONIC ACID, ITS SALTS AND ESTERS
291829	CARBOXYLIC ACIDS WITH PHENOL FUNCTION ETC NESOI
291713	AZELAIC ACID, SEBACIC ACID, THEIR SALTS AND ESTERS
292429	CYCLIC AMIDES, DERIVATIVES AND SALTS OF, NESOI
290369	HALOGENTD DERIV OF AROM HYDROCARBONS NESOI
292119	ACYCLIC MONOAMINES, THEIR DERIVATIVES, SALTS NESOI
292111	METHYLAMINE, DI OR TRIMETHYLAMINE AND THEIR SALTS
293624	D- OR DL-PANTOTHENIC ACID (VITMIN B3 OR B5)AND DER

291739 AROMATIC POLYCARBOXYLIC ACIDS, ANHYDRIDE ETC NESOI
290920 CYCLANIC, ETC ETHERS AND THEIR HALO, ETC DERIV
291611 ACRYLIC ACID AND ITS SALTS
292620 1-CYANO GUANIDINE (DICYANDIAMIDE)
290211 CYCLOHEXANE
290960 ALCOHOL PEROXIDES, ETHER PEROX, KETONE PEROX ETC
291631 BENZOIC ACID, ITS SALTS AND ESTERS
290410 HYDROCARBON DERIV CONT ONLY SULFO GROUPS, ETC
290711 PHENOL (HYDROXYBENZENE) AND ITS SALTS
290420 HYDROCARBON DERIVATIVES, NITRO OR NITROSO GR ONLY
291816 GLUCONIC ACID, ITS SALTS AND ESTERS
292159 AROMATIC POLYAMINES NESOI AND THEIR DERIVATIV
291614 ESTERS OF METHACRYLIC ACID
292410 ACYCLIC AMIDES AND THEIR DERIV ETC
293010 DITHIOCARBONATES (XANTHATES)
290290 CYCLIC HYDROCARBONS, NESOI
292310 CHOLINE AND ITS SALTS
290820 DERIV OF PHENOLS OR PHENOL-ALCHLS CONT ONLY SULFO
294200 ORGANIC COMPOUNDS NESOI
290532 PROPYLENE GLYCOL (PROPANE-1,2-DIOL)
290531 ETHYLENE GLYCOL (ETHANEDIOL)
291822 O-ACETYLSALICYLIC ACID (ASPIRIN), SALTS AND ESTERS
293340 HETEROCYCLIC COMP WITH A QUINOLINE ETC RING-SYSTEM
290219 CYCLANES, CYCLENES AND CYCLOTERPENES NESOI
291823 ESTERS OF SALICYLIC ACID AND ITS SALTS NESOI
293500 SULFONAMIDES
294000 SUGARS, CHEM PURE (EXC SUCROSE, LACTOSE, ETC)
290323 TETRACHLOROETHYLENE (PERCHLOROETHYLENE)
290723 BISPHENOL A, DIPHENYLOLPROPANE AND ITS SALTS
293371 6-HEXANELACTAM (EPSILON-CAPROLACTAM)
292142 ANILINE DERIVATIVES AND THEIR SALTS
292910 ISOCYANATES
293622 VITAMIN B1 (THIAMINE) AND ITS DERIVATIVES UNMIX
292800 ORGANIC DERIVATIVES OF HYDRAZINE OR HYDROXYLAMINE
290539 DIOLS, NESOI
292511 SACCHARIN AND ITS SALTS
291532 VINYL ACETATE
290949 ETHER-ALCOHOLS AND THEIR HALO ETC DERIV NESOI
293628 VITAMIN E AND ITS DERIVATIVES UNMIXED
292151 O-, M-, P-PHENYLENEDIAMINE, DIAMINOTOLUENES ETC
290490 SULFONATED, NITRATED ETC OF HYDROCARBONS ETC
291241 VANILLIN (4-HYDROXY-3-METHOXYBENZALDEHYDE)
292519 IMIDES AND THEIR DERIVATIVES (EXC SACCHARIN) ETC
290613 STEROLS AND INOSITOLS
291639 AROMATIC MONOCARBOX ACIDS AND DERIV ETC NESOI
290300 HALOGENATED DERIVATIVES OF HYDROCARBONS
290312 DICHLOROMETHANE (METHYLENE CHLORIDE)
291522 SODIUM ACETATE
291539 ESTERS OF ACETIC ACID, NESOI
294190 ANTIBIOTICS, NESOI

292130 CYCLANIC, CYCLNIC ETC MONO- OR POLYAMINES ETC
291900 PHOSPHORIC ESTERS & SALTS, LACTOPHOSPHATES ETC.
291812 TARTARIC ACID
293890 GLYCOSIDES, NATURAL OR SYNTHETIC AND DERIV NESOI
290123 BUTENE (BUTYLENE) AND ISOMERS THEREOF
291632 BENZOYL PEROXIDE AND BENZOYL CHLORIDE
292222 ANISIDINES, DIANISIDINES, PHENETIDINES AND SALTS
291450 KETONE-PHENOLS AND KETONES WITH OTHER OXYGEN FUNCT
293359 COMP WITH PYRIMIDINE RING, NUCLEIC ACID ETC NESOI
292520 IMINES AND THEIR DERIVATIVES; SALTS THEREOF
293410 HETEROCYC CMP, UNFUSED THIAZOLE RING IN THE STRUCT
290512 PROPYL ALCOHOL AND ISOPROPYL ALCOHOL
292700 DIAZO-, AZO-, OR AZOXY-COMPOUNDS
290930 AROMATIC ETHERS AND THEIR HALO, SULFO ETC DERIV
293030 THIURAM MONO-, DI- OR TETRASULFIDES
293490 HETEROCYCLIC COMPOUNDS NESOI
290810 PHENOL OR PHENOL-ALCOHOL DERIV, HALOGEN SUBST ETC.
291430 AROMATIC KETONES WITHOUT OTHER OXYGEN FUNCTION
291720 CYCLANIC, ETC POLYCARBOXYLIC ACIDS AND THEIR DERIV
293321 HYDANTOIN AND ITS DERIVATIVES
290517 LAURYL ALCOHOL, CETYL ALCOHOL AND STEARYL ALCOHOL
291513 ESTERS OF FORMIC ACID
293339 CMPDS CONT AN UNFUSED PYRIDINE RING ETC NESOI
290621 BENZYL ALCOHOL
292219 AMINO-ALCOHOLS, ETHERS ETC., 1 OXYGEN FUNCT NESOI
291531 ETHYL ACETATE
292390 QUATERNARY AMMONIUM SALTS AND HYDROXIDES NESOI
291700 POLYCARBOXYLIC ACIDS & ANHYD ETC, HALOG, SULF ETC
290519 SATURATED MONOHYDRIC ALCOHOLS, NESOI
290611 MENTHOL
293626 VITAMIN B12 AND ITS DERIVATIVES
293229 LACTONES NESOI
290890 HALO, SULFO, NITRAT DER OF PHENOL ETC NESOI
290900 ETHERS, ETHER-ALCOHOLS, ALCOHOL PEROXIDES ETC.
291540 MONO-, DI- OR TRICHLOROACETIC ACIDS, THEIR DERIV
293625 VITAMIN B6 (PYRIDOXINE ETC) AND ITS DERIVATIVES
291090 EPOXIDES, EPOXYALCOHOLS ETC WITH 3-MEMBER RING ETC
291449 KETONE-ALCOHOLS AND KETONE-ALDEHYDES NESOI
291890 CARBOXYLIC ACIDS WITH ADDED OXYGEN FUNCT ETC NESOI
291219 ACYCLIC ALDEHYDES WITHOUT OTHER OXY FUNC NESOI
291615 OLEIC, LINOLEIC OR LINOLENIC ACIDS, SALTS & ESTERS
291813 SALTS AND ESTERS OF TARTARIC ACID
292145 1-NAPHTHYLAMINE (ALPHA-NAPHTHYLAMINE), 2-NAPHTHYLA
290100 ACYCLIC HYDROCARBONS
290950 ETHER-PHENOLS ETC AND THEIR HALO ETC NESOI
291821 SALICYLIC ACID AND ITS SALTS
290730 PHENOL-ALCOHOLS
290514 BUTANOLS, NESOI
291000 EPOXIDES WITH A 3-MEMB RING & HALOG, SULFON ETC
292221 AMINOHYDROXYNAPHTHALENE SULFONIC ACIDS AND SALTS

292990	COMPOUNDS NESOI WITH NITROGEN FUNCTION NESOI
290129	ACYCLIC HYDROCARBONS, UNSATURATED NESOI
290122	PROPENE (PROPYLENE)
293329	HETEROCYC COMP, UNFUSED IMIDAZOLE RING ETC NESOI
291211	METHANAL (FORMALDEHYDE)
291400	KETONES & QUINONES & HALOGENATED, SULFONATED DER ETC
293331	PYRIDINE AND ITS SALTS
290322	TRICHLOROETHYLENE
293221	COUMARIN, METHYLCOUMARINS, AND ETHYLCOUMARINS
292121	ETHYLENEDIAMINE AND ITS SALTS
290729	POLYPHENOLS, NESOI
293379	LACTAMS (EXCLUDING 6-HEXANOLACTAM) NESOI
291620	CYCLANIC, ETC MONOCARBOXYLIC ACIDS AND THEIR DERIV
290719	MONOPHENOLS, NESOI
291469	QUINONES, NESOI
293623	VITAMIN B2 (RIBOFLAVIN) AND ITS DERIVATIVES UNM
291221	BENZALDEHYDE
291529	SALTS OF ACETIC ACID NESOI
290629	AROMATIC ALCOHOLS AND THEIR HALO ETC DER NESOI
293219	COMPDS CONT AN UNFUSED FURAN RING ETC NESOI
292129	ACYCLIC POLYAMINES, THEIR DERIVATIVES, SALTS NESOI
290121	ETHYLENE (ETHENE)
290715	NAPHTHOLS AND THEIR SALTS
291242	ETHYLVANILLIN (3-ETHOXY-4-HYDROXY-BENZALDEHYDE)
290230	TOLUENE
292144	DIPHENYLAMINE AND ITS DERIVATIVES; SALTS THEREOF
290543	MANNITOL
290550	HALO, SULFO, NITRO OR NITROSO DER OF ACYC ALCOHOLS
291521	ACETIC ACID
291470	HALO, SULFO, ETC DERIV OF KETONES & QUINONES
293212	2-FURALDEHYDE (FURFURALDEHYDE)
291421	CAMPHOR (2-CAMPHANONE)
293621	VITAMINS A AND THEIR DERIVATIVES UNMIXED
293929	ALKALOIDS OF CINCHONA AND THEIR DERIV NESOI
290619	CYCLANIC, ETC ALCOHOLS AND SULFO, ETC DERIV NESOI
292010	THIOPHOSPHORIC ESTERS AND THEIR SALTS AND DERIV
293040	METHIONINE
292421	UREINES AND THEIR DERIVATIVES; SALTS THEREOF
290250	STYRENE
290522	UNSATURATED ACYCLIC TERPENE ALCOHOLS
290541	2-ETHYL-2-(HYDROXYMETHYL)PROPANE-1,3-DIOL
291030	1-CHLORO-2,3-EPOXYPROPANE (EPICHLOROHYDRIN)
292400	CARBOXYAMIDE-FUNCTION COMP; AMIDE-FUNCTION COM ETC
290516	OCTANOL (OCTYL ALCOHOL) AND ISOMERS THEREOF
290941	2,2'-OXYDIETHANOL (DIETHYLENE GLYCOL, DIGOL)
292320	LECITHINS AND OTHER PHOSPHOAMINOLIPIDS
293290	HETEROCYCLIC COMP WITH OXYGN HETERO-ATOM ETC NESOI
291300	HALOGENATED, SULFONATED ETC DER OF ALDEHYDE COMPDS
290722	HYDROQUINONE (QUINOL) AND ITS SALTS
291249	ALDEHYDE-ETHERS, ALDEHYDE-PHENOLS ETC NESOI

293311 PHENAZONE (ANTIPYRINE) AND ITS DERIVATIVES
290311 CHLOROMETHANE AND CHLOROETHANE
290942 MONOMETHYL ETHERS OF MONO OR DI-ETHYLENE GLYCOLS
291100 ACETALS AND HEMIACETALS WITH OR W/O OTH OXY FUNC
291613 METHACRYLIC ACID AND ITS SALTS
291735 PHTHALIC ANHYDRIDE
291010 OXIRANE (ETHYLENE OXIDE)
291560 BUTYRIC ACID, VALERIC ACID, THEIR SALTS AND ESTERS
291411 ACETONE (PROPANONE)
291830 CARBOXYLIC ACIDS WITH ALDEHYDE OR KETONE FUNC ETC
292610 ACRYLONITRILE
293319 HETEROCYCLIC COMP WITH UNFUSED PYRAZOLE RING NESOI
290319 SATURATED CHLOR DERIV OF ACYCLIC HYDROCARBON NESOI
290714 XYLENOLS AND THEIR SALTS
291712 ADIPIC ACID, ITS SALTS AND ESTERS
292143 TOLUIDINES (AMINOTOLUENES) AND THEIR DERIVATIVES
290220 BENZENE
290361 CHLOROBENZ, O-DICHLOROBENZ & P-DICHLOROBENZ
290919 ACYCLIC ETHERS (EXCL DIETHYL ETHER) NESOI
291533 N-BUTYL ACETATE
292500 CARBOXYIMIDE-FUNCTION COMP; IMINE-FUNCTION COM ETC
292600 NITRILE-FUNCTION COMPOUNDS
290515 PENTANOL (AMYL ALCOHOL) AND ISOMERS THEREOF
291229 CYCLIC ALDEHYDES WITHOUT OTHER OXY FUNC NESOI
291419 ACYCLIC KETONES WITHOUT OTHER OXYGEN FUNCTN NESOI
292250 AMINO-ALCOHOL-PHENOLS, AMINO-ACID-PHENOLS, ETC.
293810 RUTOSIDE (RUTIN) AND ITS DERIVATIVES)
293950 THEOPHYLLINE AND AMINOPHYLLINE AND THEIR DERIV
294140 CHLORAMPHENICOL AND ITS DERIVATIVES; SALTS THEREOF
290500 ACYCLIC ALCOHOLS & HALOGENAT, SULFONATD ETC DERIVS
290721 RESORCINOL AND ITS SALTS
291412 BUTANONE
291511 FORMIC ACID
291600 UNSAT ACYCLIC & CYCLIC MONOCARBOX ACID & ANHYD ETC
292230 AMINO-ALDEHYDES, AMINO-KETONES AND AMINO-QUIN ETC
290329 UNSAT CHLORIN DERIV OF ACYCLIC HYDROCARBONS NESOI
291213 BUTANAL (BUTYRALDEHYDE, NORMAL ISOMER)
291429 CYCLANIC, ETC KETONES WITHOUT OTHER OXY FUNC NESOI
293940 EPHEDRINES AND THEIR SALTS
293990 VEGETABLE ALKALOIDS, NATURAL OR REPRODUCED NESOI
