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Appendix V

Exports and Imports of Manufactured Goods, classified according to Ultimate Use of Product

A nation ordinarily increases its capital supply in two ways: by diverting part of its productive energies from the making of consumption goods to the making of products that may be utilized as productive capital, or by continuing to make consumption goods and purchasing with them capital goods produced in other countries. The figures in Chapter II on the relative output of capital and consumption goods are qualified,

Table Va

Exports and Imports of Manufactured Goods classified according to Ultimate Use, 1929 [1]

Ultimate Use	Exports		Imports [2]		Net Exports
	Millions of dollars	Per cent	Millions of dollars	Per cent	(*millions of dollars*)
Consumption goods	1,944	51.5	1,609	66.1	+335
Capital goods	1,087	28.8	194	8.0	+893
Construction materials	244	6.4	111	4.5	+133
Producers' supplies	501	13.3	520	21.4	−19
Total	3,776	100.0	2,434	100.0	+1,342

[1] Includes semimanufactured goods, as classified by the Census of Manufactures. The totals differ somewhat from Department of Commerce estimates.
[2] Import duties of $585 million have been ignored.

for some purposes, by the fact that some quantity of almost every product was used in other countries. Consequently, it is desirable to examine the exports and imports of manufactured goods in a manner similar to that employed in the analysis of the domestic productive system. A classification of the values

of goods leaving and entering the country in 1929, according to their ultimate uses, is indicated in Table Va[1].

Of $3,776 million of manufactured and semimanufactured goods exported in 1929, we estimate that $1,944 million, or 51.5 per cent, were destined for human consumption, and $1,087 million (28.8 per cent) were capital goods. The two minor groups, construction materials and producers' supplies, contributed 6.4 and 13.3 per cent to the total. The significant fact is that whereas capital goods constituted only 19.8 per cent of production in 1929 they were 28.8 per cent of exports. On the other hand, imports of capital goods or goods ultimately to be utilized for capital purposes were small—only 8 per cent of imports of all manufactured and semimanufactured products. In terms of net movements, the capital goods group is outstanding; approximately two-thirds of the value of net exports in manufactured goods were for capital use. This comparison of net movements is affected slightly by a reverse flow in the case of producers' supplies, with a net import figure of $19 million, but because of the nature of the classification, the magnitude of this differential is probably not significant.

Among consumption goods, foodstuffs constituted 24.4 per cent of exports of manufactured goods and 39.6 per cent of imports, involving transactions of over a billion dollars (see Table Vb). Most striking, however, are the exceptionally heavy exports of goods used for private transportation, chiefly passenger automobiles and petroleum products, amounting to $773 million or 40 per cent of all exports[2] of consumption goods.

[1] It is assumed that the value of products with joint uses (uses falling into different groups of our classification scheme) may be allocated in accordance with the same ratios that have been used for domestic production. This, in many instances, is quite legitimate since the ratios are based on data for total consumption of both domestic and foreign production. Where the ratios were calculated on the basis of the domestic use of domestic production alone, the assumption is probably still valid, though the assumption that goods exported will be put to the same uses abroad, and in the same proportions, as though they were consumed at home is less tenable. From the viewpoint of net changes in our domestic stock, however, the same ratios must be applied throughout.

Since foreign trade data are for the calendar year 1929, they are not quite comparable with production data, because of the time lag in exports. However, as shipments are from stock in many instances, the identity of the goods is not essential for our comparison.

[2] Total exports in 1929 of the two groups, petroleum refining and automobiles, were $1,113 million. A portion of the first group has been included among producers' supplies, and some of the second group, which includes trucks, was apportioned to capital

But imports of these goods are small, less than 6 per cent of the imports of all goods ultimately to be used for consumption purposes.

Division of the consumption goods total into subgroups reveals markedly different relationships between exports and imports than might be expected from the totals. The net export movement of $335 million of goods destined for human consumption results from the heavy export of automobiles and a small credit item from the miscellaneous group of drugs, goods for recreation, and manufactured fuels for domestic use. Imports of foods and of wearing apparel and goods for personal use exceeded exports of similar products by $163 and $218 million.

Table Vb

Exports and Imports of Manufactured and Semimanufactured Goods destined for Human Consumption, 1929

Ultimate Consumer Use	Exports		Imports		Net Exports (*millions of dollars*)
	Millions of dollars	Per cent	Millions of dollars	Per cent	
Foods	475	24.4	638	39.6	−163
Wearing apparel, etc.	247	12.7	465	28.9	−218
Household goods	272	14.0	293	18.2	−21
Transportation	773	39.8	88	5.5	+685
Publications	68	3.5	90	5.6	−22
Other[1]	109	5.6	35	2.2	+74
Total	1,944	100.0	1,609	100.0	+335

[1] Includes domestic fuel and lighting (manufactured only, excluding electricity), drugs, medicines and supplies, recreation goods.

If a direct relationship between merchandise exports and imports may be assumed, it is fair to consider that net purchases of foods and clothing were made with motor cars. It might as readily be said, of course, that they were bought with industrial machinery or with raw cotton, since there is no mutually exclusive trade within special commodity groups.

The significance of these trade movements from our point

goods. Where a division of a commodity according to *use* could not readily be accomplished on the basis of its description or its subgroups, reference was made to the industry divisions of Ap. I.

of view depends upon their magnitude relative to the volume of manufacturing production. Accordingly in Table Vc they are set against estimates previously prepared for domestic output. The importance of foreign trade movements is probably overstated in this comparison, for many manufactured goods are shipped for export by wholesalers or similar distributive agencies with the result that their selling prices are higher than values at the factory door as reported in the Census.[3] Because of the uncertainty of the degree of overstatement, and lack of information on the industries where it occurs, neither export figures nor data on imports have been adjusted for such differences. It is assumed that all valuations are on approximately the same basis.[4]

The net movement of foreign trade relative to production is not appreciable except for two groups: commodities related to private transportation and capital goods in which net exports amount respectively to 8.2 and 6.4 per cent of domestic production. In the other groups the net movement ranges between + 4.3 and — 1.9 per cent, despite the overstatement in the

[3] That the value of exports of manufactured goods includes a distributive margin not included in the Census totals is the conclusion of Simon Kuznets in his study of commodity flow and capital formation. His average reduction factor is 12 per cent. The average export price of manufactured goods is usually, though not always, above the average factory price. Ten commodities, for which average prices could be computed and for which there was a maximum of probable comparability between export and production data as to quality, averaged around 10 per cent higher in price when per unit export values were compared with Census value of product per unit. The commodities selected for examination were not highly fabricated, however, lest variation in quality influence the comparisons. It is improbable therefore that instances of price cutting and 'dumping' in foreign markets are represented, since this practise is followed more frequently in the distribution of fully manufactured products. The ten commodities examined are (in order of excess of export price): evaporated milk, newsprint paper, turpentine, gasoline, cottonseed oil, cotton sheetings less than 40 inches wide, tin plate and terne plate, wheat flour, barbed wire, refined sugar.

Doubt as to the validity of the assumption that export values are significantly higher than manufacturers' values is raised by a comparison of sales in 1935 of wholesalers for export and the total export values reported for the same year by the Bureau of Foreign and Domestic Commerce. When the sales of unmanufactured farm products and other unmanufactured commodities are excluded, wholesalers' foreign sales in 1935 amount to $596 million. Total exports of manufactured and semimanufactured goods, however, were $1,501 million, so that the wholesalers reporting to the Bureau of the Census account for but 40 per cent of the total. If sales by manufacturers' sales branches are excluded from sales by wholesalers, the percentage falls to 33. The explanation of the other 60–67 per cent must be direct foreign sales by manufacturers, and for this portion no adjustment for wholesalers' commissions would be warranted.

[4] Ocean freights and import duties would modify the values of imports if they were taken into account. The effect of both modifications would be to reduce, in terms of domestic prices, the magnitude of the net exports.

trade figures pointed out above, and except for the minor group of miscellaneous consumption goods does not exceed 2 per cent of domestic production.

The product totals of Table Vc contain duplications arising from the inclusion of semimanufactured goods. This is less troublesome in the foreign trade figures where duplications cannot occur, since the value of a semimanufactured good sent from the country cannot appear also in the value of a finished

Table Vc

Relation of Net Exports of Manufactured Goods to the Value of Manufactured Products, 1929

Ultimate Use	Value of Products (gross sales)	Net Exports	Production less Net Exports	Adjusted Estimate as a Percentage of Unadjusted
	(millions of dollars)			
Consumption goods, total	42,504	+335	42,169	99.2
Foods	12,898	−163	13,061	101.3
Wearing apparel, etc.	11,395	−218	11,613	101.9
Household goods	5,417	−21	5,438	100.4
Private transportation	8,312	+685	7,627	91.8
Publications	2,752	−22	2,774	100.8
Other	1,730	+74	1,656	95.7
Capital goods	13,920	+893	13,027	93.6
Construction materials	6,784	+133	6,651	98.0
Producers' supplies	7,227	−19	7,246	100.3
Total	70,435	+1,342	69,093	98.1

commodity of domestic manufacture. But in relation to the productive system at large, duplications occur by reason of the presence of unfinished products. To the extent that they occur to approximately the same degree in the trade totals as in the total of manufactures, the two sets of figures are comparable. Rough estimates based on the records of foreign trade, and comparison with our divisions of domestic product, show the proportion of finished goods to be reasonably the same. A higher percentage of final products occurs in exports than in imports, as would be expected of an industrial country like the United States.

The adjustment of value totals for net exports can be carried over to other elements of manufacturing activity by use of the

ratios appearing in the last column of Table Vc on the assumption that the same proportion of exports applies throughout a given type of manufactured product; e.g., that 8.2 per cent of the value added in making automobiles and in refining petroleum for consumers' use is embodied in the 8.2 per cent of the value product that is sent abroad. The assumption is perhaps crude but the adjustments are not large. Table Vd shows the revised figures for certain of the items discussed earlier.

Table Vd

Three Magnitudes relating to Manufacturing Production, classified according to Ultimate Use and adjusted for Net Exports, 1929

Ultimate Domestic Use	Value Added	Wages	Wage Earners
	(*millions of dollars*)		(*thousands*)
Consumption goods, total [1]	18,196	6,001	4,861
Foods	4,173	990	868
Wearing apparel, etc.	5,327	2,151	1,990
Household goods	2,835	1,084	884
Private transportation	2,911	1,071	698
Publications	1,988	497	290
Other	985	211	155
Capital goods	6,603	2,993	1,996
Construction materials	3,311	1,334	1,001
Producers' supplies	3,118	1,016	788
All manufactures [1]	31,279	11,400	8,671

[1] The entries for all consumption goods and for all manufacturing are not the sums of the several items in the table, but have been computed directly by use of the ratios of Table Vc.

A final comparison shows, for selected industries, the proportion of the domestic product that finds its market in foreign countries. A part of these exports may be offset by incoming products of similar character or satisfying the same general needs. This offsetting of foreign trade movements served to reduce the influence of trade on the aggregate volume of manufacturing to the degree shown in preceding tables. Yet the influence of foreign trade on particular industries greatly exceeds these average relationships, as Table Ve shows. Advantage is here taken of the opportunity to use data in physical terms, and the problem of valuation is therefore not so pressing. We do

assume, however, that the average quality of the exported portion and that retained for domestic use is the same.

Table Ve

Percentage of Domestic Production Exported, Selected Manufactured Commodities *, 1929

(based on data expressed in physical units)

Commodity	Percentage Exported	Commodity	Percentage Exported
Rosin	60.8	Household refrigerators	9.3
Turpentine	50.6	Caustic soda	8.4
Borax	47.0	Lumber and timber products	8.3
Dried fruits	46.0	Gas oil and fuel oil	8.3
Copper, refined	36.2	Cotton cloth	7.3
Kerosene	35.4	Cigarettes	6.9
Carbon black	32.4	Iron and steel rolled products	5.7
Lubricating oil	31.4	Hosiery	4.9
Benzol	26.1	Tires	4.0
Patent side leather	25.4	Coke	2.1
Corn starch and corn flour	22.5	Sugar, refined	2.0
Motor fuel	13.8	Wrapping paper	1.4
Goat and kid upper leather	12.8	Boots and shoes	1.3
Automobiles	12.0	Cotton yarn	1.0
Wheat flour	11.4		

* See *Foreign Trade of the United States, 1933* (U.S. Department of Commerce, Trade Promotion Series No. 156) pp. 13, 14. Obviously not all major manufactured commodities are listed, for the reason that the exports of many are negligible and also that data in quantity terms are not available. The latter reason explains the omission of industrial machinery (13.3 per cent of value exported), agricultural machinery (25.1 per cent of value exported), electrical machinery (5.5 per cent of value exported), and other commodities for which there is a considerable foreign market.

The export market absorbed in 1929 a large share of the products of many manufacturing industries. Over half of the production of rosin and turpentine was exported, over a fourth of refined copper, lubricating oil, patent side leather; almost one-half of dried fruits; one-fourth of the output of canned fruit (by value); one-fourth of agricultural machinery (by value); 13 per cent of all industrial machinery (again by value); and 12 per cent of the number of automobiles. In the aggregate, however, exports are not a dominant element in the manufacturing structure and, when considered in relation to imports of manufactured goods, do not alter greatly the distribution pattern that consideration of production alone suggests.