

**Twenty-ninth Annual Report
of
The United States
Tariff Commission
1945**

UNITED STATES TARIFF COMMISSION

Office: Seventh and E Streets, N.W., Washington, D.C.

COMMISSIONERS

OSCAR B. RYDER, *Chairman*

LYNN R. EDMINSTER, *Vice Chairman*

EDGAR B. BROSSARD

E. DANA DURAND

GEORGE MCGILL

E. M. WHITCOMB, *Acting Secretary*

LETTER OF TRANSMITTAL

UNITED STATES TARIFF COMMISSION
Washington, January 3, 1946

Sir:

I have the honor to transmit to you the Twenty-ninth Annual Report of the United States Tariff Commission in compliance with the provisions of section 332 of the Tariff Act of 1930.

In accordance with the authority contained in Section 103 of the Legislative Branch Appropriations Act, 1946, the Commission has not ordered the printing of this report.

Respectfully,

OSCAR B. RYDER, Chairman

THE PRESIDENT OF THE SENATE.
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

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UNITED STATES TARIFF COMMISSION
Washington

January 3, 1946

TWENTY-NINTH ANNUAL REPORT

TO THE CONGRESS:

The United States Tariff Commission submits herewith its Twenty-ninth Annual Report.

During the war the activities of the Tariff Commission consisted very largely of cooperating with the war agencies in the economic phases of the prosecution of the war. Two years before the final cessation of hostilities, however, the Commission began systematic work on the foreign-trade problems which the war was creating for the postwar period. Since the surrender of Germany and Japan, the Commission has concentrated its attention on these problems. Never before has the United States faced such difficult and complex questions regarding foreign trade. The United States will have to increase its exports if it is to approximate full agricultural production, maintain substantially the industrial capacity built up during the war, and approach full employment. But many of the countries of the world will find it difficult, if not impossible, to secure dollar funds with which to buy from the United States even as much as they bought in prewar years. Moreover, global war has caused new industries to come into existence in the United States and old ones to expand, and these changes are likely to give rise to new problems concerning our international trade.

During the year the direction of policy in respect to currency stabilization and other reconstruction of the economies of war-torn countries was provisionally determined by United States ratification of the Bretton-Woods agreements, and the general direction of the postwar foreign trade policy of the United States was indicated by the Congress when it extended the Trade Agreements Act with increased authority for duty reductions. A general financial understanding with the United Kingdom has been recommended by the President and is now under consideration by the Congress, and a trade conference of the principal trading nations of the world is planned for next summer.

It should be emphasized, however, that for the most part only the general direction of foreign trade policy has been decided upon. Many aspects of this policy and practically all of its innumerable detailed applications remain to be formulated. To the carrying out of its statutory obligation to assist in this undertaking the Tariff Commission has increasingly directed its attention in recent months, as the objectives of the Government in the field of foreign trade have assumed more definite form.

This report reviews the work done during the year 1945.

WORK OF THE TARIFF COMMISSION

The work of the Tariff Commission may be classified on the basis of: (1) Work for the Congress; (2) work on trade agreements; (3) work for war agencies; and (4) miscellaneous work.

Work for the Congress

Much the greater and more important part of the Commission's work during 1945 has been directly requested by the Congress or by Congressional Committees. Some of it, including the report in response to Senate Resolution 341 of the Seventy-eighth Congress and several of the reports requested by the Senate Finance Committee and the House Ways and Means Committee on United States industries that have been substantially affected by the war, has been completed. The bulk of it, however, is still in progress.

Senate Resolution 341, Seventy-eighth Congress.--This resolution directed the Tariff Commission, under certain prescribed assumptions as to national income and tariff treatment, to report regarding probable postwar production, imports, exports, consumption, and employment (with specific estimates wherever possible) relative to all articles imported in 1939 with a value in excess of \$100,000. The resolution required the Commission to give precedence to work under it over all other work except that for war agencies. From December 1944 through April 1945 the entire available staff was put to work preparing the report in response to the Senate Resolution. Data relating to more than 450 articles or groups were closely examined, and the information available in the Commission's files was assembled and studied in order to determine for each of them what will be the probable course of postwar production, consumption, exports, imports, and employment under the assumptions set forth in the resolution. The report, while necessarily subject to considerable error, nevertheless represents the most comprehensive and thoroughgoing analysis that has been made regarding the probable import trade of the United States in the postwar period. The results of the study are summarized in appendix 1.

Reports at the request of the Senate Finance and House Ways and Means Committees.--Next to the work in response to Senate Resolution 341, much the largest part of the Commission's work in 1945 was in the preparation of reports on postwar economic problems specially requested by the Senate Finance and House Ways and Means Committees. These reports fall into three groups and are described in the paragraphs which follow.

The Commission is preparing at the request of the Ways and Means Committee of the House and the Finance Committee of the Senate a series of reports, designated the War Changes in Industry

series, on United States industries which were substantially affected by the war in such manner as to alter their competitive positions in relation to the industries of foreign countries. It is planned to issue reports on about 75 major industries, most of them industries which have had, or may be expected to have, important problems of competition from imported articles. Each report of the series reviews the conditions of production and competition in the industry before the war, the changes caused by the war, and the problems, especially those of international competition, which will probably be encountered after the war. A complete list of subjects to be covered is contained in the Commission's Twenty-eighth Annual Report.

The Commission had hoped to complete most of the reports in this series by the end of the fiscal year 1946. It will not be able to do so, however, primarily for the reason that virtually all work on the series had to be suspended between December 1944 and the end of April 1945, in order to comply with the requirements of Senate Resolution 341, which absorbed practically the whole of the Commission's time during that period. Notwithstanding this interruption, however, and the press of trade-agreements work in the last quarter of the year, the Commission completed during the current year reports in this series on Pottery Tableware, Red Cedar Shingles, Sheet Glass, Magnesium, Cigarette Paper, Refractory Magnesia (Magnesite), Hides and Skins and Leather, and Aluminum. These reports are summarized in appendix 1. Work is well advanced on several other reports in this series.

The Commission has also in preparation at the request of the Senate Finance and House Ways and Means Committees a report on the Effects of the War on the General Foreign-Trade Position of the United States. In this report, the Commission is directing special attention to the crucial problems of commercial policy which are facing the United States, including those resulting from the effects of the war on the economies of foreign countries.

Finally, in response to the requests of the two committees named, the Commission is making studies of the changes in international trade policies in selected countries since 1929. As part of this work, the Commission is preparing a series of reports on the probable postwar conditions in respect to economic controls and commercial policies in the American Republics. For the more important Latin American countries, it is also preparing reports on agricultural, pastoral, and forest industries; on mining and manufacturing industries; and on recent developments in foreign trade. The reports in this series, when completed, will number about 50, of which 30 have already been published and are summarized in the appendix. Fifteen additional reports are in process and work is soon to be initiated on the remaining five. Earlier, the Commission completed a series of reports on prewar commercial policy and trade in Greece, Rumania, Bulgaria,

Jugoslavia, and Spain. The Commission has in course of preparation a similar report on the trade and economy of the British Empire.

Work for the Senate Finance and the House Ways and Means Committee on Current Legislation.--In addition to the work done at the request of the Senate Finance and the House Ways and Means Committees and described above, the Commission has given much assistance to these committees in connection with pending legislation. They were supplied with factual memorandums regarding a number of bills under consideration. The largest amount of work for these committees in connection with pending legislation, however, was given in connection with the consideration of the bill to extend and expand the trade-agreements program. In respect to this bill the Commission supplied numerous memorandums. Among these were the following, which are summarized in appendix 1:

- Effect of trade-agreement reductions on tariff levels in the United States
- Major import articles in relation to trade agreements
- Tariff reductions under trade agreements, by economic classes
- Trade agreements--A miscellany of information
- United States imports from trade-agreement and nontrade-agreement countries, 1934 and 1937-42

A number of memorandums specifically requested by individual members of the Congress were also prepared. The Commission also assigned members of its staff to assist both the Majority and Minority Members of these Committees during the legislative proceedings. Members of the committees referred frequently to the Commission's report which had previously been prepared in response to Senate Resolution 341, as well as to the War Changes in Industry reports just mentioned. An index of the extensive hearings before the Ways and Means Committee was made by the staff of the Commission.

Senate Committee on Territories and Insular Affairs.--At the request of the Senate Committee on Territories and Insular Affairs, the Commission is preparing a report on the Economy of Puerto Rico which, it is believed, will be of considerable value to the Congress in dealing with the varied and difficult problems that arise in the administration of this island possession.

Senate and House Committees on Agriculture.--At the request of a subcommittee of the Committee on Agriculture of the House of Representatives, the Commission prepared a report summarizing the costs of producing wool and sheep and lambs in the period

1940-43 and estimates of similar costs in 1944. A summary of this report is contained in appendix 1.

The Commission has also rendered assistance to a subcommittee of the Senate Committee on Agriculture in its consideration of postwar policy regarding wool.

Philippine problems.—By designation of the President, the Vice Chairman of the Commission serves as a member of the Filipino Rehabilitation Commission, and members of the staff contribute to the work of that Commission.

At the request of the President, a senior member of the staff was assigned to assist in a special study of Philippine problems. In conjunction with this study, several analyses have been prepared by the Commission and submitted to the Congress on pending legislative proposals.

Work on trade agreements

The Tariff Commission did relatively little work on trade agreements during the first part of 1945, other than the assistance given to the Congress during its consideration of trade-agreements legislation.

After the Trade Agreements Act was extended, preparatory work in connection with future agreements was undertaken on a large scale. The Department of State has recently sent invitations to the following countries to participate in negotiations sometime next spring for the general reduction of trade barriers: Belgium-Luxembourg, Australia, Brazil, Canada, China, Cuba, Czechoslovakia, France, Holland, India, New Zealand, South Africa, Union of Socialist Soviet Republics, and the United Kingdom. So far as the United States is concerned, these negotiations will be under the Trade Agreements Act.

Information regarding the vast number of import products which will be the subject of negotiations is being prepared by the Commission's staff. In addition, Commission experts participate in the work of the various country and commodity committees which have been set up. The Chairman and Vice Chairman of the Commission serve on the Trade Agreements Committee.

The Vice Chairman of the Tariff Commission serves as Chairman of the Committee for Reciprocity Information. This is an interdepartmental committee set up by Executive order for the purpose of holding hearings and receiving information from interested parties with reference to proposed new trade agreements or to the operation of agreements already in effect. The staff of the Commission serves the Committee for Reciprocity Information both in a research capacity and in the summarization of briefs and oral testimony submitted to that Committee.

Work for war agencies

Beginning in 1940 and continuing through 1944, a very substantial part of the Commission's activities consisted of work for war agencies. In order to indicate the way in which a permanent Government agency experienced in economic research and in the study of commodity problems can be used effectively during a war period, the Commission has summarized its wartime activities in appendix 2 of this report.

Work of the Tariff Commission for war agencies during 1945 is summarized below. It accounts for less than one-fourth of the year's activities and most of it was completed before the surrender of Japan.

War Food Administration.—The work for the War Food Administration (and the Department of Agriculture) consisted principally of procurement and analysis of data on costs and cost-price relationships for firms from which the War Food Administration was purchasing supplies. The principal commodities covered were milk products; dried eggs; canned salmon; California fish products; and processed fruits and vegetables. Field work included coverage of 43 plants producing dried eggs and 56 fish canneries.

Currently, members of the Accounting Division of the Commission are engaged in a study of the costs of Puerto Rican sugar under the direction of the Department of Agriculture.

In addition to the work described above, the New York Office of the Commission has made extensive invoice analyses of food products.

Reports on the studies referred to above are made directly to the War Food Administration and are not available for public distribution.

Office of Price Administration.—Work this year for the Office of Price Administration has been similar to the work done in earlier years for that organization. This year it related almost entirely to the financial history of textile producers and to costs and cost-price relations of textile products, principally print cloths; fine cotton cloths; shirts, shorts, and nightwear; and cotton duck. Field work during the year on print cloths covered 49 companies operating more than 60 mills, that on fine cotton cloths 21 companies operating more than 30 mills, and that on shirts, shorts, and nightware, 38 producers. The Commission also did some work for the Office of Price Administration on processed fruits and vegetables. All this work has involved difficult cost accounting problems, and its results have been used by the Office of Price Administration in pricing the products investigated.

Foreign Economic Administration.—From the beginning of the war there was extensive cooperation between the Tariff Commission and the Foreign Economic Administration and its predecessor organizations. The principal work done for the Foreign Economic Administration in the past fiscal year consisted of studies of the Japanese economy and trade for the purpose of determining the extent to which Japanese facilities were built up for war purposes either directly or indirectly, and the effect of the continuance or discontinuance of these facilities in the postwar period on the trade and economy of the United Nations, particularly the United States. The reports were originally prepared for the use of the Foreign Economic Administration and other agencies concerned with Japanese problems. After the surrender of Japan, the Tariff Commission and the Foreign Economic Administration arranged for the public distribution of the reports, and the Commission is now in the process of releasing them. A summary of the reports will be found in appendix 1.

War Production Board.—The Commission has cooperated with the War Production Board and its successor, the Civilian Production Administration.

During most of the period 1941-45 the Tariff Commission collected for the War Production Board monthly data on production, consumption, and stocks of some 300 synthetic organic chemicals. The data were used by the War Production Board in connection with its conservation and control activities. Early in 1944 the list was reviewed to determine what statistics could be published without endangering national security, and in March 1944 the first monthly release, known as Facts for Industry Series, 6-2, was issued jointly with the War Production Board. Reports have been issued each month since then. They show production, consumption, and stocks of 19 important synthetic organic chemicals.

This work for the War Production Board ended with the release of the statistics for September 1945. However, with the approval of the Budget Bureau, the Commission is continuing to collect and publish current statistics on a very limited number of synthetic organic chemicals.

During the first three quarters of the year, the Tariff Commission collected monthly data on receipts and consumption of kapok for the War Production Board. The Commission during the year has also made numerous import analyses at the request of the War Production Board. These were made by the New York Office of the Commission.

The War Production Board called upon the Tariff Commission for extensive monthly analyses of various classes of imports, particularly those affected by shipping priority controls.

War Department.—When the Army undertook economic research in Germany following VE-day, several Government agencies, including the Tariff Commission, were asked to prepare lists of questions which would indicate to the investigators the type of information desired.

After VJ-day corresponding studies were undertaken in Japan, and the Textiles Subcommittee of the Technical Industrial Intelligence Committee asked the Commission to prepare a complete outline for the guidance of investigators. This outline covered data needed by all Government agencies. An outline was prepared covering textiles, including all natural and synthetic fibers and their products, dyestuffs, furs, pottery, hides and skins, leather and leather manufactures, and tanning materials. Three members of the Commission's staff have been detailed to the War Department to work on special assignments, one in Germany and two in Japan.

In anticipation of the problems of administering the Austrian Economy, the War Department requested the Tariff Commission to provide it with an analysis of Austrian commercial policy in the prewar period. This report was completed in May 1945.

Miscellaneous work

Most of the miscellaneous work of the Commission is carried on under the provisions of section 332 of the Tariff Act of 1930. The principal phases of this work are briefly described below.

Review of Customs laws and procedures.—One of the most important of the miscellaneous projects carried on during the past year has been the review of the customs laws and procedures, in order to report to the Congress what changes seem desirable. A report on this subject is expected to be completed during the coming year.

Work on synthetic organic chemicals.—The Commission has continued to collect annual statistics on the production and sales of synthetic organic chemicals. This work has been carried on continuously since 1918. For security reasons, final reports on production were withheld during the war, but a summary of the data for the years 1941, 1942, and 1943 is now at the Printing Office and will be released early in 1946. A preliminary report for 1944 has been issued and the final report will be available in printed form later.

In November of this year the Commission issued a report analyzing the imports in 1944 of the coal-tar products entered under paragraphs 27 and 28 of the Tariff Act of 1930. Details on this trade supplement the published information available from the Department of Commerce and make available detailed information

on imports for comparison with the data contained in the annual census of production and sales of sythetic organic chemicals. A summary of the import analysis for 1944 is contained in appendix 1. Similar reports for 1942 and 1943 were prepared during the war years, but were withheld from publication for security reasons until 1945.

For several years before the war, the Commission issued annually an analysis of the imports of chemicals and medicinal preparations entered under paragraph 5 and crude drugs entered under paragraph 1669 of the Tariff Act of 1930. Issuance of this material was discontinued during the war for security reasons, but, since the lifting of restrictions during the current year, the Commission has made available to the public the data on paragraph 5 for 1942 and 1943, and on paragraph 1669 for 1942, 1943, and 1944. The reports are summarized in appendix 1.

Summaries of commodity information.—The basic source of the Tariff Commission's information and the one from which it draws data to comply with Congressional requests consists of its summaries of commodity information. This series of summaries was started when the Tariff Act of 1922 was under consideration and was reissued when the Tariff Act of 1930 was before the Congress. Information in the summaries is kept up to date, and general revisions are made from time to time when changes in production or production technique or competitive factors affecting the industry warrant.

Work of the New York office.—The Tariff Commission supplements the information on imports contained in published statistics of the Department of Commerce through more detailed data obtained by a force which it maintains in New York. This office analyzes import entry papers and obtains extensive data needed by the Commission or by other Government agencies. The data so obtained are incorporated in the summaries of commodity information, and if they are of particular value to the trade are issued to the public.

Report on imports from China.—During the year the Tariff Commission issued a report on prewar imports into the United States from China. The purpose of the report was to supply detailed information for those working on the postwar trade of the Far East. The report includes digests of information on all the important articles imported from China, Hong Kong, and Kwantung Leased Territory. It is summarized in appendix 1.

Work on the Standard Commodity Classification.—At the request of the Bureau of the Budget, members of the staff of the Tariff Commission have contributed materially to the preparation of the Standard Commodity Classification. This task, work on which has extended over several years, is now approaching completion.

Work on Census schedules.—The Commission has also cooperated with the Census Bureau in the review and revision of Census schedules of production for use in the forthcoming Census of Manufactures.

Import duties on fish and fish products.—The Commission also prepared a compilation of import duties on fish and fish products including therein the changes which have been effected since 1930.

Work on interdepartmental committees.—Much of the Commission's contribution to the work of the Government is through its activities on interdepartmental committees. Mention has previously been made of the work done on the interdepartmental committees dealing with trade agreement problems, on the Standard Commodity Classification, and on Census schedules. The Commission is also represented on many other important interdepartmental committees. They include the Executive Committee on Economic Foreign Policy and many of its subcommittees, the Committee on Cultural and Scientific Cooperation with Foreign Countries, and the Coordinating Committee on Foreign Food Facts.

FINANCES AND APPROPRIATIONS, FISCAL YEAR 1945

The appropriated funds available to the Tariff Commission during the fiscal year 1945 were, for salaries and expenses, \$951,881; for printing and binding, \$10,000.

In addition, working funds from other appropriations, amounting to \$256,715, were transferred to the Commission for services rendered to war agencies. At the end of the fiscal year unobligated balances of all funds available totaled \$16,734.

There follows a summary of the expenditures and obligations for all purposes during the fiscal year 1945:

	<u>Appropriated funds</u>	<u>Working funds</u>
Salaries:		
Commissioners	\$56,916	—
Employees:		
Departmental	721,219	\$170,633
Field	26,665	6,136
Overtime pay	122,018	30,133
Travel expense	3,504	37,503
Books of reference and publications	3,144	—
Telephone and telegraph service	3,754	806
Office equipment, supplies, etc.	10,625	218
Contractual services	3,608	24
Printing and binding	4,956	—
Total	<u>956,409</u>	<u>245,453</u>

PERSONNEL AND ADMINISTRATION

Membership of the Commission

Oscar B. Ryder, of Virginia, Chairman of the Commission since July 1, 1942, was again designated by the President as Chairman, effective July 1, 1945.

Lynn R. Edminster, of Illinois, Vice Chairman of the Commission since August 4, 1942, was again designated by the President as Vice Chairman, effective August 4, 1945.

Edgar B. Brossard, of Utah.

E. Dana Durand, of Minnesota.

George McGill, of Kansas.

George Z. Barnes, of Illinois, resigned from the Commission August 8, 1945. There is thus a vacancy in the Commission's membership.

Personnel

On June 30, 1945, the Commission's staff numbered 301. This number was made up of 6 Commissioners and 295 employees--160 men and 141 women. At present, 43 men, including the Secretary of the Commission, and two women are in active military service. Of those of the staff in the military service during World War II, 15 men and 1 woman have been honorably discharged.

The following table shows the distribution of the staff as of June 30, 1944, and June 30 and December 1, 1945:

Departmental and Field Services

Title	June 30, 1944	June 30, 1945	Dec. 1, 1945
Commissioners	4	6	5
Chief Economist	1	1	1
Director of Investigation	1	1	1
Chief, Technical Service	1	1	1
Adviser on International Trade Policies	1	1	1
General Counsel	1	1	1
Assistant General Counsel	1	1	1
Executive Officer	1	1	1
Chiefs of Divisions	10	10	10
Acting Chief of Division	1	1	1
Assistant Chiefs of Divisions	2	2	2
Chiefs of Sections	7	7	6
Librarian	1	1	1
Graphic Presentation Designer	1	1	1
Accountants	34	38	17
Marine and Foreign Transportation: Specialist	1	1	1
Transportation Analyst	-	-	1
Commodity Specialists	55	53	51
Economists	32	31	28
Commercial Policy Analysts	3	4	4
Attorney	1	-	-
Assistant Librarian	1	1	1
Clerks and Stenographers	118	109	114
Secretaries to Commissioners	4	6	5
Junior Administrative Assistant	1	1	1
Operators, Office Devices	9	8	6
Telephone Operators	3	3	3
Messengers	8	9	6
Skilled Laborer	1	1	1
Chief, New York Office	1	1	1
Total	305	301	273

APPENDIX 1

SUMMARIES OF REPORTS ISSUED DURING 1945

Report in Response to Senate Resolution 341 (79th Congress, 2d Session)

In April 1945 the Commission submitted, in response to Senate Resolution 341 (79th Congress, 2d Session), a report entitled "Postwar Imports and Domestic Production of Major Commodities."

Senate Resolution 341 directed the Commission to examine all articles which were imported in 1939 to a value in excess of \$100,000 or which are likely to be imported in excess of that value after the war, and with respect to each to report:

I. The quantity and value of United States imports, production, consumption, and exports in 1939, and the number of persons engaged in the production thereof;

II. The probable short- and long-term effects of the changes in conditions which have resulted from the war upon imports, production, consumption, exports, and employment under specified assumptions set forth in the resolution. These included two assumptions regarding national income, namely, (1) that it will be the same as in 1939 and (2) that it will be 75 percent greater than in 1939 and three assumptions regarding rates of duty, namely, (a) that they will be the same as on July 1, 1939, (b) that they will be 50 percent lower, and (c) that they will be 50 percent higher than on that date, thus making six combinations of assumptions.

In interpreting this resolution the Commission took the second year following the end of hostilities as representative of the short-term postwar period. It took as the long-term postwar period the 5 years from 1951 or 1952 through 1955 or 1956, the year 1953 being considered representative. The Census Bureau estimates that the population in 1953 will be about 10 percent greater than that in 1939. Because of the abnormal domestic and foreign conditions which may be expected for some time after the war, the Commission found it impossible to apply the several assumptions specified in the resolution regarding national income and rates of duty to its estimates for the short-term period. It did apply them to the estimates for the long-term period.

The Commission found it necessary also to make various assumptions not specified in the resolution. In general it was assumed that in the postwar period there would be substantially the same relationships as in the prewar period between the United States and other countries with respect to rates of exchange, prices and cost levels, cartel arrangements, and similar matters affecting international trade; that practices of foreign countries relating to control of exchange would remain substantially as before the war; and that, except in Germany and Japan, there would be substantial recovery in the industries of war-torn countries. Some, at least, of these assumptions are likely to prove unfounded; but, since they related to imponderables that are subject to changes of which the extent and effects cannot be forecast, no practicable alternatives appeared available.

Scope

Since the Senate resolution called for estimates only regarding commodities of which the imports had been or are likely to become \$100,000 or more in value, the report does not cover all foreign trade or all domestic production. The commodities actually included accounted for a little over 90 per cent of the total imports in 1939. The Commission refrained from using the combined totals of its estimates for the commodities actually covered by the report as a basis for projecting general estimates for all commodities either in the foreign trade or in domestic production and consumption.

Margin of error in estimates

The introduction to the report dwells on the great complexity of the factors which affect consumption, production, and foreign trade, and emphasizes the consequent wide margin of error to which postwar estimates for individual commodities must inevitably be subject. It is also pointed out that if any of the assumptions made by the Commission regarding price levels, exchange rates, economic conditions in foreign countries, and similar matters should fail to be realized, the margin of error in the estimates would become still greater.

Summary of estimates of imports and production for the domestic market

Presumably the principal interest of members of the Congress and of the general public in this report will lie in the estimates regarding individual commodities, which cannot in this summary be set forth even for major articles. Much

interest attaches, however, to combined figures for all the commodities included in the report. These combined totals give at least a rough indication of what would happen to the domestic production and imports in the postwar period under the several assumptions regarding national income and rates of duty.

Although the Senate resolution called for estimates of postwar exports of the several commodities (i.e., those of which the imports were or are likely to become \$100,000 or more), the Commission found it impossible, in the case of many articles, to make estimates of exports which could be considered at all trustworthy. Moreover, much of the export trade is in commodities of which the imports are below the level specified in the Senate resolution. Because of the inadequacy of the estimates regarding exports, as well as those regarding employment, summary tables in the report relate only to domestic consumption, production for the domestic market (excluding production for export), and imports.

Free and dutiable commodities.--The following table summarizes the statistics and long-term postwar estimates for all commodities, whether dutiable or free, covered by the report.

Summary of United States production (for domestic market) and imports of all commodities (dutiable or free) covered by the report, for 1939, and estimates for the post-war period. ^{1/}

Item	Estimates for post-war long term							
	1939	Per capita income as in 1939				Per capita income 75 percent above 1939		
		Duties as in 1939	Duties reduced by 50 percent	Duties increased by 50 percent	Duties in- as in 1939	Duties reduced by 50 percent	Duties increased by 50 percent	
Production for the domestic market—net ^{2/} (estimated as 75% of gross), million dollars:	30,914	37,235	36,590	37,547	57,060	56,176	57,547	
Imports (million dollars):								
Foreign value	2,052	2,182	2,645	1,948	3,622	4,389	3,220	
Estimated landed value	2,594	2,758	3,153	2,603	4,578	5,232	4,302	
Ratio of imports to net production for domestic market (percent):								
Based on foreign value	6.6	5.9	7.2	5.2	6.3	7.8	5.6	
Based on estimated landed value	8.4	7.4	8.6	6.9	8.0	9.3	7.5	
Ratio to 1939 (percent):								
Production for domestic market	100	120	118	121	185	182	186	
Imports (foreign value)	100	106	129	95	177	214	157	
Ratio to estimates at lower income level (percent):								
Production for domestic market	-	100	100	100	153	154	153	
Imports (foreign value)	-	100	100	100	166	166	165	
Ratio to estimates at unchanged duty level (percent):								
Production for domestic market	-	100	98	101	100	98	101	
Imports (foreign value)	-	100	121	89	100	121	89	

^{1/} In totaling the estimated values, the Commission has taken the middle point of those estimates which, because of the many uncertainties involved, were expressed in the form of a range.

^{2/} Does not include production for export.

It will be noted that the figure given for net value of production for the domestic market in 1939 is itself an estimate. It is intended to represent the production of all the commodities combined, exclusive of the numerous duplications. There may be an appreciable error in the assumption that the net value was 75 percent of the gross value; to the extent that there is such an error, the ratios of imports to net production shown in the table are too high or too low. Error in this respect, however, would not seriously vitiate the relationships between the ratios given for 1939 and the estimated ratios for the postwar long-term period.

Regarding imports the table shows data on the basis both of the foreign value and of the landed value, including transportation to United States ports, importers' expenses, and duties on dutiable commodities. Of course, the spread between foreign value and landed value in the estimates depends on the assumptions regarding the level of duties.

In 1939 the foreign value of imports of the articles covered by this report was equal to 6.6 percent of the estimated net value of the production of the same articles for the domestic market; the corresponding ratio based on landed value was 8.4 percent.

Under the assumptions (1) that duties will be the same as in 1939 and (2) that per capita income in the postwar long-term period will be the same as in 1939—an assumption that virtually involves the further assumption of an unchanged general price level—it might be expected that, on account of anticipated increase in the population, the combined value of the consumption of the commodities covered by the report in that period would be about 10 percent greater than in 1939. As a matter of fact the sum of the Commission's estimates for the individual commodities (adjusted to eliminate duplication) shows an increase in consumption approximating 19 percent, the increase in production for the domestic market being 20 percent and that in imports 6 percent. The report states that the "relatively high percentage of increase for production does not necessarily indicate that overestimates, which no doubt have been made for many commodities, are not offset by underestimates for other items, although it may perhaps point toward that conclusion." Reasons why the increase in domestic production might be expected to exceed the increase in imports include (1) the establishment of a large synthetic rubber industry in the United States, (2) the greatly expanded production of vegetable oils in this country during the war period, (3) the development of the manufacture of

nylon, tending largely to replace silk in hosiery manufacture, and (4) possibly a further replacement of silk by rayon.

According to the Commission's estimates, postwar production (for the domestic market) of the commodities covered by the report would be about 53 percent greater if national income were 75 percent above that of 1939 than with no change in income. High national income would, according to these estimates, result in an even greater increase, namely 66 percent, in imports than in domestic production for the reason that imports include a larger proportion of luxury articles and of materials for the manufacture of capital goods, both of which classes are particularly affected by income levels.

The total of the estimates of postwar production for the domestic market (on either of the two assumptions regarding the level of income) is about 2 percent less on the basis of duties reduced by 50 percent than on the basis of duties as in 1939, whereas imports are estimated to be about 21 percent larger at the lower duty level. In interpreting this latter percentage, it should be borne in mind that the table covers free as well as dutiable imports; in 1939 roughly half, in value, of the imports of the commodities covered by the report were free of duty. Conversely, the estimate of production based on an increase of 50 percent in duties is about 1 percent greater than that based on no changes in duties, while the estimate for imports is about 11 percent less at the higher duty level.

According to the Commission's estimates, if there should be no change in duty, the foreign value of imports, on the assumption of an increase of 75 percent in per capita income, would be about 1,440 million dollars larger than with national income as in 1939. At the same high income level, it is estimated that a reduction of 50 percent in the rates of duty would add about 770 million dollars more to the imports. The combined effect of high income and reduced duties would be to increase the estimated foreign value of imports of these commodities to about 4,400 million dollars, or almost exactly twice as much as on the assumptions of no change in either income or rates of duty.

Dutiable commodities.--The relationships shown in the 1939 data and the postwar estimates for dutiable articles naturally differ materially from those for all articles combined. The ratio of the value of imports to that of domestic production is much lower for the dutiable articles than for all articles; the ratio based on foreign value in 1939 was 3.5 percent and that based on estimated landed value 5.3 percent.

The effect of high per capita income in increasing domestic production would be substantially the same for dutiable as for all commodities, but the effect in increasing imports would be appreciably greater for the dutiable commodities; it is estimated that the imports would be around 80 percent greater (with no change of duty) at the high income level than at an unchanged income level. Of course, reduction or increase in duties would affect dutiable more than all commodities. According to these estimates the foreign value of dutiable imports, on the assumption of no change in national income, would be about 41 percent greater if duties should be reduced 50 percent than if they should remain at the 1939 level, but even this would be a much smaller increase than that which would result from high national income. An increase of 50 percent in duties, according to the estimates, would cause a reduction of about 21 percent in the value of imports of dutiable commodities.

Duty-free commodities.—The ratio of imports to domestic production is naturally far higher for duty-free than for dutiable commodities. In 1939 the foreign value of duty-free commodities was equal to about 36 percent of the net value of United States production (for the domestic market) of the same commodities. Duty-free commodities consist largely of articles not produced at all in the United States or produced in quantities quite inadequate to supply the requirements (short-staple cotton and coal are the principal exceptions). On the basis of these estimates, the imports of the duty-free articles covered by the report, under the assumption of no change in national income, would be slightly smaller in the postwar long-term period than in 1939 despite increase in population; the explanation lies mainly in the development of the synthetic rubber industry in this country. On the assumption of a national income 75 percent above that of 1939, the estimated value of the duty-free imports would be about 50 percent greater than with no change in income, the effect of high income being decidedly less marked for duty-free than for dutiable articles.

Summaries by tariff schedules

The commodities covered by the report are arranged by tariff schedules and paragraphs, except that duty-free articles in the presentation are associated with dutiable articles of the tariff schedule to which they are most closely related. For each tariff schedule there is a summary of the 1939 statistics and the postwar estimates somewhat similar to the summary presented above for all commodities covered by the report.

War changes in industry

During the year the Commission has completed eight reports in the War Changes in Industry series. This series of reports is being prepared at the request of the Ways and Means Committee and the Senate Finance Committee. Summaries of each of the reports completed this year follow:

Pottery tableware.—This report covers tableware of china and earthenware.

The pottery tableware industry in the United States comprises about 60 firms which furnish employment to more than 25,000 workers. Three-fourths of the total output in 1943, which was valued at 65 million dollars, was manufactured in Ohio, Pennsylvania, and West Virginia.

During and after World War I, the United States output of pottery tableware increased rapidly and in 1923 was valued at nearly 50 million dollars which was about three times as much as in 1912. The value of output declined drastically from 1930 to 1932 and did not surpass the 1923 level until 1941.

Imports of pottery tableware, in terms of sales value on the domestic market, supplied about half of United States consumption during 1909-13, and about one-third during 1932-37. In this period Europe gradually yielded to Japan as a source of imported pottery tableware. In the middle thirties Japan, which enjoyed a temporary exchange advantage, supplied, in terms of value, about 20 percent of United States consumption and Europe 13 percent. In terms of quantity the shift was even greater because of the lower unit of value of Japanese ware. After 1937 the percentage of imports from Japan declined.

During the 1930's the output of the domestic pottery tableware industry consisted almost entirely of household earthenware and hotel or restaurant china, the production of household china being small. The domestic industry supplied 80 to 90 percent of the household earthenware and almost all the hotel china used in this country. In these lines the domestic industry had obtained a relatively favorable position by the development of improved raw materials and techniques and by the improved quality of the wares produced. Labor-saving methods were increasingly utilized; a very important advance was the replacement in most factories of the old intermittent upright kiln by the continuous tunnel kiln. Although some plants in Europe and Japan were well mechanized, mechanization had been more generally adopted in the United States than in foreign countries, which in the bulk of their production continued to use traditional methods.

In the field of household china, however, imports continued to supply practically the entire domestic market during the pre-war period and in 1937 about 88 percent of these imports by

quantity and 65 percent by value were entered from Japan. Modernized methods used in the manufacture of hotel china and earthenware were not so well adapted to the production of household china. The thin bodies and delicate shapes of household china required much personal attention and hand labor. This United States producers could not afford because of the differentials between foreign and domestic wage rates. In 1938 wages averaged about \$22 weekly in domestic factories compared with about 40 percent as much in British, 33 percent as much in German, and about one-seventh as much in Japanese potteries, and the working week was longer in the foreign industries, especially in Japan. On the average, however, the rate of production per man-hour in foreign plants was lower than in the United States, so that differences in labor costs were not as great as differences in hourly wage rates.

In the Tariff Act of 1930 the ad valorem rates remained the same as in the act of 1922, namely, 45 and 50 percent on undecorated and decorated earthenware and 60 and 70 percent on undecorated and decorated china (the previous differential rate on bone china was removed), but a specific rate of 10 cents per dozen pieces was added. The trade agreement of 1939 with the United Kingdom included tariff reductions on decorated earthenware of the better grades and on bone china. These reductions affected principally grades and types imported almost solely from the United Kingdom. Imports from England increased markedly until 1941.

After 1941, while imports declined with the shutting off of several major sources, demand for tableware in the United States rose, stimulated by requirements for feeding military personnel and war workers and by high consumer purchasing power. Production of hotel china in the United States increased from about 6 million dozen in 1937 to 12 million in 1942. Meantime production of earthenware rose from about 24 million to 34 million dozen annually. These increases were accompanied by no great expansion of domestic productive facilities, since before the war productive capacity had been much in excess of actual production in most years.

After war broke out, there was a shortage of household china, because of the almost exclusive prewar dependence on imports. This gave a great incentive to expand this branch of the domestic industry, which expanded about one-third. In contrast to the hotel china and earthenware branches, no unused capacity was available, because the potential capacity for household china production was largely in the hotel-china plants and the Government had called on these facilities for military supplies. Considerable new capacity was, therefore, provided. In the 3 years 1937-39 the average annual production of household table china in the United States was about 150,000 dozen pieces, valued at about 1 million dollars, divided about equally between medium and high grades. In each of the years 1941, 1942, and 1943, production

was more than 700,000 dozen pieces, valued at about 5 million dollars, divided between medium and high grades as to value, in the ratio of about two to three.

How far the expanded domestic production of china tableware will be able to meet revived competition from abroad is difficult to determine. There is a large deferred demand which, if not satisfied by china, presumably may be met in part by earthenware. Domestic producers of medium-grade household china may now be able to compete with continental European producers more effectively than they could before the war, especially since, in addition to other losses, the war doubtless deprived the foreign concerns of a large part of their skilled workmen. Among continental countries, Czechoslovakia probably will furnish the strongest competition to the domestic industry in the postwar period.

The extent of domestic production of medium-grade household china after the war and the degree of foreign competition will depend chiefly on the extent of the revival of competition from Japan. Unless consumption increases tremendously, large further expansion of the domestic production, which might result from the use of excess hotel-china facilities, would be possible only if imports of household china are smaller in the postwar period than they were in the prewar period.

Table china of very high grade produced in the United States in limited quantities before the war, and in increased quantity during the war, competes chiefly with British bone china. England has improved its facilities for the manufacture of bone china and will doubtless seek to expand its exports to this country after the war. China and porcelain of high grade produced in France and other continental European countries also competes with the high-priced domestic product. For a time after the war this competition seems likely to be less severe than before the war.

Before World War II the pottery tableware industries in Japan and in the leading producing countries of continental Europe were highly cartelized, and the British industry was organized into strong trade associations. Postwar policies with regard to international cartels may have a significant effect on the pottery industry of the United States.

Red cedar shingles.—Western red cedar shingles constitute 90 to 95 percent of the wood shingles manufactured annually in the United States and 80 to 85 percent of those manufactured in Canada. Production is chiefly in Washington and Oregon, west of the Cascade range, and in British Columbia.

In April 1941 there were in the United States 402 red cedar shingle mills, containing an aggregate of 907 machines. By January 1944 war conditions had reduced the number of mills to 207 and the number of machines to 588.

The Canadian red cedar shingle industry consisted in September 1941 of 79 mills, containing 443 machines, and in January 1944 of 77 mills, containing 423 machines.

Shingle mills in Washington-Oregon operate on a 6-hour day and 36-hour week; those in Canada run on an 8-hour day and 48-hour week. It is estimated that, on the basis of 588 shingle machines, including both active and idle, in the United States industry in January 1944, the annual capacity is 3,445,000 squares for a single 6-hour shift and 6,030,000 squares for two shifts. The actual output in 1943 was 3,453,000 squares. The capacity of the Canadian industry in January 1944, on the assumption of 423 machines running an 8-hour shift, is estimated at 2,368,800 squares, and on a double shift, 4,474,400 squares. In 1943 British Columbia produced 2,117,000 squares.

From 1922, when 9 million squares were produced, production in the United States has followed a downward trend until the middle 1930's. From 1936 until 1941 production remained at a level of about 5.7 million squares annually, and then declined to 5 million squares in 1942 and to 3.5 million squares in 1943. Production in 1942 and 1943 was 88 percent and 61 percent, respectively, of the 1936-41 average. Annual production in Canada during 1936-41 averaged 2.9 million squares. Canadian production of 3.2 million squares in 1942 and 2.1 million squares in 1943 was equal to 113 and 74 percent, respectively, of the annual average during 1936-41.

Shingle mills in Washington and Oregon obtain their supply of red cedar logs principally from domestic forests, ordinarily supplemented by imports from Canada of from 20 to 45 million feet, or 3 to 9 percent of the total supply. British Columbia mills obtain all their logs from within the Province.

Shingle mill employees in the United States and Canada comprise about 10 percent skilled, 70 percent semiskilled, and 20 percent unskilled workers. Before the war the supply of labor was adequate, but beginning early in 1942 shingle mill operators were confronted with a serious diversion of shingle workers into better paying jobs in the shipyards, airplane factories, and other war industry plants.

About 90 percent of the red cedar shingle workers in the United States are members of the Washington-Oregon Shingle Weavers District Council, an affiliate of the United Brotherhood of Carpenters and Joiners of America, which, in turn, is affiliated with the American Federation of Labor. Through a Joint Industrial Relations Board, representing employer and employee, many problems of the domestic industry are settled amicably. Labor in the Canadian shingle industry is not generally organized.

About 10 percent of the movement of red cedar shingles in prewar years was intercoastal; 85 to 90 percent of the total was by rail in straight carloads or in mixed cars of lumber and shingles. With few exceptions, rail rates to points in the United States from producing centers in Washington, Oregon, and British Columbia are identical.

Transportation costs, competition of shingles of other woods and roof coverings of various materials, climatic conditions, and locally favored types of construction have an important bearing on the geographical distribution of red cedar shingles.

Exports of domestic red cedar shingles are less than 20,000 squares annually, and these shipments go principally to Canada, Mexico, and the West Indies.

The annual average price (f.o.b. mill) of No. 1 grade, 16-inch red cedar shingles during the 10-year period 1931-40 ranged from \$1.41 to \$2.82 per square. Prices increased rapidly in 1941, and in June 1942 ceilings were established by the Office of Price Administration, applicable to both domestic and imported red cedar shingles, on the basis of prices prevailing between October 1 and 15, 1941. A price of \$4 per square was fixed on No. 1, 16-inch shingles, but, because of increased production costs, the price was increased to \$4.35 per square, effective November 1, 1943.

The Canadian Timber Controller established maximum prices in August 1941 on red cedar shingles produced in British Columbia and sold for consumption in the Dominion. The Canadian ceilings were lower by 75 to 90 cents per square, according to grade and size, than the United States ceilings. This circumstance, together with the 10-percent advantage in the rate of exchange, has encouraged Canadian operators to market more shingles in this country.

Shingles were on the free list of the Tariff Acts of 1913, 1922, and 1930. The United States reserved the right in the first trade agreement with Canada, effective January 1, 1936, to impose an absolute quota on imports of red cedar shingles. This right was exercised by the establishment of quotas for the period January 1937 to June 1939. In the second trade agreement with Canada, effective in 1939, the United States reserved the right to levy a duty of not more than 25 cents per square on annual imports in excess of a quantity not less than 30 percent of the annual average, for the three preceding years, of the combined total of shipments by producers in the United States and imports from Canada. On July 1, 1940, the duty-free quota was fixed at 30 percent of the annual average consumption in the three preceding years and a duty was placed on over-quota imports at 25 cents per square.

Imports exceeded the quota in 1940, 1941, and 1942; the duty on the excess imports was equivalent to an ad valorem rate of 9.2 percent in 1940, 7 percent in 1941, and 6.9 percent in 1942.

Red cedar shingles constitute from 95 to 98 percent of the total imports of shingles each year, the remaining imports being white cedar shingles produced in eastern Canada. United States annual imports declined from an average of 2.7 million squares during the 5 years 1921-25 to 2.3 million squares during 1936-40; they rose, however, in percentage of domestic consumption from 25.5 to 28.6 percent. In 1941 imports reached 3.2 million squares, the largest in any year since 1926, and supplied 36 percent of consumption. Imports declined to 2.6 million squares or 34.5 percent of consumption in 1942 and to 1.4 million squares, or 29.6 percent of consumption, in 1943. A proportionately greater volume of longer shingles and higher grades is represented in imports than in shipments of domestic shingles.

The outstanding problem of the red cedar shingle industry in the United States is the over-capacity of the mills which makes for instability. One-third of the total number of machines in the industry are installed in one- and two-machine mills, and many of these mills are inadequately financed and inefficiently operated. Little capital is necessary to set up a one-machine mill. Many of them operate as long as they return day wages to the owner and shut down when they do not. The aggregate output of the small mills is enough to affect the price structure, and their influence on the market is generally bearish.

Domestic red cedar shingles compete not only with similar shingles from Canada but also with roofing of asphalt, tile, asbestos, slate, and tin.

No physical expansion of the industry occurred in either the United States or Canada during the war. In fact, many domestic mills were closed for months at a time; few of those which continued in operation were able to run more than one shift because of the shortage of manpower, scarcity of logs, or other causes. Consumption of red cedar shingles declined substantially in 1942-44 compared with 1941. Much larger quantities could have been sold if they had been made available. So heavy was the demand that shingles lower in grade than No. 3, which customarily are used only for purposes such as roofing sheep pens, were readily sold.

One wartime development in the Pacific-coast shingle industry was the use of species other than western red cedar. The substitute woods included Douglas fir, western hemlock, and Noble fir, which were subjected to preservative treatment.

The duty-free import quota on red cedar shingles for 1944 was 2,153,984 squares, a reduction of nearly 400,000 squares from the 1943 quota and about 14 percent less than the average annual quota for the period 1940-43. Combined shipments of domestic shingles and imports in 1944 fell below the total for 1943, so that a still further reduction followed in the duty-free quota for 1945.

The red cedar shingle industry looks forward to a large postwar demand for its product based on the need for new homes and buildings. The demand is not expected to gain much momentum until early in 1946, but the volume of demand, it is believed, will exceed that of the prewar period.

Only if the demand for shingles increases greatly are shipments of Canadian red cedar shingles to United States markets likely to be much greater in volume after than before the war. During the war British Columbia shingle exports to this country were restricted in quantity by the Canadian Government owing to the necessity of providing a supply for Dominion markets. Presumably this restriction will be lifted when conditions are normal.

Sheet (Window) Glass.---Sheet glass, commonly known as window glass, is used for glazing dwelling-house windows, factory skylights, conservatories, and greenhouses. It is also used for picture frames, in small mirrors, for watch crystals, and in substantial quantities in the manufacture of safety glass for automobiles and airplanes.

About one-fifth of the world productive capacity, estimated at 5 or 6 billion pounds annually, is credited to the United States, the leading producer. Belgium and Czechoslovakia, also large producers, count heavily on sales of glass to obtain foreign exchange, usually exporting more than 75 percent of their output. These two countries together supply about 70 percent of the world exports; almost all of the rest comes from the United States, the Soviet Union, Japan, Germany, the United Kingdom, and France. Exports from all eight of these countries averaged about half a billion pounds annually during the decade before World War II.

The sheet glass industry of the United States comprises 7 companies, having 12 mechanically equipped plants in Pennsylvania, West Virginia, Ohio, Indiana, Oklahoma, Arkansas, and Louisiana. It represents an investment of 25 to 30 million dollars and furnishes employment for 6,000 to 8,000 workers. Three companies, the Pittsburgh Plate Glass Co., the Libbey-Owens-Ford Glass Co., and the American Window Glass Co., together operating 8 plants, account for over 75 percent of the total output.

Since sheet glass is used principally for windows of buildings, demand for it reflects building activity. During the 1920's it was in great demand in this country, and production averaged about half a billion square feet (nearly 600 million pounds) annually; during the subsequent depression it averaged less than 300 million square feet. Stimulated by defense activities, production advanced in 1941 to a record of over 800 million square feet, about 85 percent of capacity output.

Before World War II United States imports of sheet glass came principally from Belgium, Czechoslovakia, and Germany. During the 1920's they represented a substantial part of total consumption. From 1930 until the outbreak of war in Europe imports were at a relatively low level, rarely amounting to as much as 5 percent of consumption; this low level may be attributed to several causes, including the duty, which averaged 59 percent ad valorem during 1932-39; increased efficiency of the domestic industry; reduction in domestic prices; depressed conditions of the United States market during most of this period; and cartel and patent agreements.

Except during the two world wars, United States exports of sheet glass have been small compared with domestic production or with imports; they have seldom exceeded 1 million pounds in any year and have gone mainly to Canada, Central America, Mexico, and Cuba.

Little change took place in the United States sheet-glass industry during the war, either in methods of production, organization, or capacity. Although the industry has maintained an exceptionally high level of production, at no time did it utilize more than 85 percent of its capacity. Occasional but not serious shortages occurred in certain chemicals used as materials, in fuel, and in labor. Imports practically ceased during the war, whereas exports increased greatly; in 1943 exports, principally to South and Central America, amounted to more than 45 million square feet (about 55 million pounds) or over 5 percent of domestic output.

Postwar considerations relate mainly to the demand for sheet glass and its supply. There are no problems with respect to reconversion in the domestic industry, but there are uncertainties with regard to postwar consumption. Each of the principal outlets for sheet glass—buildings, automobiles, miscellaneous uses, and exports—has been affected by the war.

During the depression of the thirties and throughout the war, there was created a large backlog of demand both for the maintenance and repair of buildings, and for new construction of buildings. It has been estimated that during the few years after the war the United States will require 3.5 million boxes of sheet glass for housing repair and about 2 million boxes for new homes. Industrial construction and repair will probably take 1 million boxes.

Before the war an average of about 50 square feet of glass per car was used in the manufacture of automobiles. About 20 percent of the total quantity used was sheet glass. An estimated postwar production of 5 million cars a year would require about 50 million square feet (1 million boxes) of sheet glass, in addition to about 25 million square feet, or half a million boxes, for replacements in automobiles.

Miscellaneous uses, as in mirrors, picture frames, and watch crystals, took about 4.5 million boxes in 1937, or 35 to 40 percent of the total output of sheet glass. With a per capita national income probably higher than before the war, it is likely that production of consumers' goods requiring sheet glass will substantially increase.

Until European sheet glass industries are able to resume export trade, the United States exports are likely to be substantial, probably as much as they were in 1943, or 1 million boxes a year.

The foregoing minimum estimates of postwar demand total about 13.5 million boxes (783 million pounds), which is slightly more than the domestic output for 1937, the largest ever reported before the war. The present annual productive capacity of the domestic sheet glass industry is about 19 million boxes—more than ample to provide for any foreseeable postwar demand.

The future trend of imports into the United States is difficult to forecast. If physical needs alone could be considered, more than the total European output of sheet glass would be required for some time after the war to repair the devastation inflicted by the war. In spite of these needs, the European glass-producing countries may desire to export overseas in order to obtain foreign exchange. Since they will find some of their prewar markets in certain countries, particularly in South America, contracted by the development of local glass industries, they may be more desirous of expanding their exports to the United States.

The relative competitive picture of United States and European glass in the postwar period will depend on many unpredictable factors, such as comparative wage rates, comparative currency values, and cartel agreements. Unless these factors are markedly more unfavorable to the United States industry after the war than before, imports are not likely to offer much greater competition in the domestic market at existing rates of duty than before the war.

Magnesium.—In March 1945 the Commission issued a report on Magnesium as No. 10 in the War Changes in Industry Series. Sections of the report deal with the description and uses of magnesium, production methods, the details of the growth of the

domestic industry, tariffs and foreign trade, price history and production costs, employment, and foreign production. Tentative estimates are made in the report of the probable postwar demand for the metal, and the conditions and problems which may exist in the industry after the war are discussed.

Magnesium, the lightest of the industrial metals, was first commercially produced in the United States in 1915. Before 1940, however, the consumption was relatively small and the industry was of minor importance. Because of the strategic value of the metal in military uses, the rate of expansion of magnesium production in the past few years has been on a scale unparalleled by any other industry in this country with the possible exception of synthetic rubber. Domestic output increased from 6.7 million pounds in 1939 to more than 368 million pounds in 1943. During the greater part of the interwar period, only one concern produced the metal in the United States; but by 1943 a total of 12 companies were operating 16 plants both private and Government-owned, each with several times the capacity of the single prewar plant. The expansion of the industry was almost entirely financed by the Government, with a net public expenditure of more than 363 million dollars. As a result, the Government owns 13 plants which, in 1943, constituted about 90 percent of the total production capacity.

The wartime growth of magnesium consumption has been almost entirely in uses (such as incendiary bombs) which either have no peacetime counterpart, or which will consume much less magnesium than they did during the war (as in aircraft). Although there are definite indications that the postwar demand for the metal will be substantially larger than that which existed before the war, it is doubtful whether the increased demand can utilize more than a fraction of the newly constructed capacity within the foreseeable future. It is estimated that the average annual consumption of magnesium during the immediate postwar period will probably not much exceed 65 million pounds, but even this figure would be more than 10 times the prewar consumption.

The primary problems posed by changes in the magnesium industry during the war relate to the disposition of the Government-owned capacity. These problems are concerned with competition in the domestic industry after the war and with questions of public policy.

The two concerns that are most likely to continue production of magnesium after the war are the Dow Chemical Company and Permanente Metals Corporation (California). Of these, Dow is much the larger. Plants owned by that concern have a capacity equal to more than half the estimated maximum postwar requirements. With the addition built by the Government to one of Dow's plants, the company would control production capacity equivalent to five-sixths of the estimated postwar needs. The

plant owned by Permanente, one of the enterprises controlled by Henry J. Kaiser, has an annual capacity of 20 million pounds. These two companies together could produce more than the estimated maximum national requirements in the immediate postwar period. Under these conditions, it is somewhat uncertain whether the Government can dispose of any of the other magnesium plants it owns so as to foster additional competition in the industry.

Of major importance in the disposal of Government-owned magnesium plants are the protection of the public interest relative to national security in case of emergency, and the protection of industrial and ultimate consumers of magnesium against unreasonable prices. In order to insure a sufficient supply of magnesium in another emergency, the Government might maintain one or more of the plants it owns in stand-by condition without actual operation. However, in general, probably fewer measures are needed to safeguard the supply of magnesium than the supply of most other critical materials. Plant capacity could be increased quickly, as was done during the war, and domestic raw materials for magnesium are unlimited.

The future of the price of magnesium metal is uncertain. Maintenance of Government plants in stand-by condition might help to prevent unreasonable prices. Moreover, on the assumption that Dow and the Permanente Corporation might be the only postwar producers of magnesium, actual or potential competition between the two concerns might keep prices within reasonable limits. Potential competition from new concerns might be another circumstance which would cause prices to be held down. Furthermore, Dow and Permanente might find it to their own long-run interest to keep prices down in order to promote increased consumption of this metal.

The rate of duty on imports of magnesium is 40 cents per pound, which greatly exceeds the average cost of production in this country. Even a substantial reduction of the duty would hardly be sufficient to influence appreciably the price of magnesium in the United States. With the duty entirely eliminated, there would be actual, or at least potential, foreign competition of some significance, provided, of course, that competition is not prevented by restrictive agreements between domestic and foreign producers.

Aluminum.--During World War II United States facilities for the production of aluminum were greatly expanded, chiefly because of the large requirements for the metal in the production of military aircraft. Consumption in the future will probably greatly exceed that of prewar years, but is unlikely at least for a fairly long time to attain the volume that the present facilities are capable of producing. Moreover, a larger part of the demand will probably be supplied by secondary metal (metal recovered from scrap) in the future than before the war. The problems respecting the foreign trade in aluminum and materials therefor, however, are intimately related to the structure of the domestic industry and to policies of the Government more directly concerned with the domestic industry than with the foreign trade.

Before 1941 the Aluminum Company of America, commonly referred to as Alcoa, was the sole producer of primary aluminum in the United States and also a substantial producer of secondary aluminum. Alcoa still continues in a predominate position despite the entry of two other minor producers of primary aluminum into the industry. Until 1928 the entire aluminum industry of Canada was also directly controlled by Alcoa; in that year Alcoa's interests in aluminum-producing plants in Canada and elsewhere outside the United States were transferred to a new Canadian corporation, Aluminium Limited. Although that company is distinct from Alcoa, a limited number of individuals hold a controlling part of the stock in both companies. Aluminium Limited has extensive interests in the aluminum industry abroad and before the war was a member of the cartel which included practically all aluminum-producing concerns outside the United States.

The great bulk of the wartime expansion in the United States aluminum capacity is accounted for by plants built by the Government and still owned by it. The Government-owned plants now account for over half the total capacity. All but one (and that the smallest) of the Government plants were operated by Alcoa under contract. These contracts have now been terminated and the plants are shut down.

The financial control of the domestic industry and intercorporate and other business relationships were in the past factors which probably affected the foreign trade in aluminum and in materials for its production more than did the tariff. It is for this reason measures to be taken by this Government with respect to two closely related matters now pending are of particular importance to the future foreign trade. These matters are, first, the disposal of the Government-owned plants and, second, implementation of the recent court decision which found Alcoa to have been, before the war, a monopoly within the meaning of our antitrust laws.

Bauxite is the material from which practically all aluminum is now derived and is used in substantial quantities for other purposes. Aluminum-bearing materials other than bauxite are plentiful and widely distributed, but the feasibility of using them in competition with even low-grade bauxite has thus far not been demonstrated.

There are large deposits of bauxite in many parts of the world. In this hemisphere, deposits in the Guianas, as well as in the United States, have for some time been extensively drawn upon, and important deposits are known also to exist in Jamaica, Haiti, and Brazil. The bauxite deposits of France, Hungary, and China are large and those of several other countries in Europe, Africa, and the Far East are substantial. Most of the more accessible and higher-grade deposits of bauxite throughout the world are under the control of large companies already firmly established in the aluminum industry.

The United States bauxite reserves, mostly in Arkansas, were, even originally, of only moderate size and they have been heavily drawn upon, particularly during the war when the production of aluminum was greatly expanded and when submarine activity endangered deliveries of bauxite from the Guianas. Before the war the proportion of the consumption of bauxite supplied by imports had been increasing and in the immediate prewar years was more than half the total. If the consumption of aluminum should in the future attain anything like the level now anticipated, the known domestic reserves of bauxite would not cover for more than a few years even the proportion of our consumption that they supplied before the war.

Besides the mining of bauxite, there are two basic operations in the production of aluminum metal: (1) the production of alumina from bauxite and (2) the reduction of alumina to aluminum. About 4 tons of high-grade bauxite yields about 2 tons of alumina which in turn yields about 1 ton of aluminum. With low-grade bauxite the reduction in weight in the alumina process is greater. Production of alumina requires, in addition to bauxite, substantial quantities of coal or other fuel, chemical lime, and soda ash. The reduction of alumina to aluminum requires considerable quantities of carbon electrodes, cryolite, and aluminum fluoride, but the most important requirement for low-cost operation is access to cheap and abundant power. The economies of location of alumina plants are more complex, but location is mainly influenced by the combined transportation costs of bringing bauxite and fuel together and of delivering alumina to reduction plants.

The two alumina plants owned by Alcoa are in East St. Louis, Ill., and at Mobile, Ala. Both of these plants will probably in the postwar period use chiefly bauxite imported from the Guianas, but the East St. Louis plant has used Arkansas bauxite

also. One of the two large new alumina plants built by the Government is situated at Hurricane Creek in the Arkansas bauxite field. The other was located with a view to the use of Guiana bauxite at Baton Rouge, La. The alumina plant of the Reynolds Metals Company (built during the war), which is much smaller than the four already referred to, is at Listerhill in northeastern Alabama where one of the company's two aluminum reduction plants is also located.

Alcoa's four prewar reduction plants were at Niagara Falls and Massena, N. Y., Badin, N. C., and Alcoa, Tenn. All of these plants have moderate power costs and are reasonably well situated to be supplied with alumina from one or the other of the company's alumina plants. Alcoa's plant at Vancouver, Wash. (built during the war) obtains power at reasonably favorable rates from the Bonneville system, but may be at some disadvantage as regards the transportation costs of alumina from present alumina producing facilities. The same statements hold true for the aluminum reduction plant of the Reynolds Metals Company at Longview, Wash., and for the three Government-owned plants located in the Columbia River area. The Government-owned plant at Jones Mills, Ark., is not so favorably located with respect to power as the Columbia River plants, but this disadvantage may be partly offset by its nearness to the Hurricane Creek alumina plant. Unless power installations in the area are expanded, the Government-owned plant at Massena, N. Y., cannot obtain low-cost power so long as Alcoa's plant at Massena is in operation.

All of the privately owned aluminum reduction plants, as well as the five Government-owned reduction plants referred to in the foregoing paragraph have reasonable possibilities for economical operation in the future. It may be, however, that economical operation of some of these plants, particularly those in the Columbia River area, will depend upon the operators' abilities to arrange for supplies of alumina on favorable terms. There are four other Government-owned reduction plants (two are in California, one in the New York City area, and one in Burlington, N. J.) which, on account of power conditions, are not believed to offer prospects of future economical operation. Neglecting these four plants, however, the present capacity for the production of aluminum is still in excess of the most optimistic estimates of consumption for at least a number of years to come.

The postwar prospects regarding imports of aluminum and the materials for its production involve two aspects: (1) the prospects as to the importation of aluminum-bearing materials and aluminum in the aggregate and (2) the forms in which the imports enter—whether as bauxite, alumina, or aluminum.

With respect to the first of these aspects, the outlook is that on account of the limited domestic supplies of bauxite by far the greater part of our requirements of aluminum will be derived from foreign bauxite. There are considerations which would commend a program of enforced conservation of the limited domestic reserves of bauxite for future emergencies. Such a program would, of course, result in greater immediate dependence on the foreign supplies. On the other hand, there are arguments in favor of a program of promoting, for the immediate future, the use of domestic aluminum-bearing ores with a view to aiding "independent" concerns to compete with Alcoa. This would, for the time being, decrease the proportion of our aluminum requirements which would be derived from foreign ores.

In the long run the volume of imports of aluminum-bearing materials and aluminum as an aggregate will be influenced primarily by the volume of consumption of the metal in this country. Consumption will be much affected by the general levels of income and industrial activity and also by the price of the metal, particularly its price relative to the prices of other metals and nonmetallic materials which may be alternatives for aluminum in various uses. So far as concerns aluminum, the tariff and Government policies with respect to the future organization of the domestic industry may have an important bearing on prices.

With respect to the forms in which aluminum will be imported, the relative tariff treatment accorded respectively to bauxite, alumina, and aluminum can be fixed so as to confine imports almost exclusively to the raw material, or so as to allow considerable quantities of alumina and aluminum to be imported. But within the limits set by tariff levels and relationships other factors also, particularly corporate control and intercorporate connections in the industry here and abroad may materially influence the character of the imports.

As regards the matter of corporate control, it is not certain at this time (that is, at the time the report was published) what action will be taken by the Government with respect to the disposal of the Government-owned aluminum plants or the implementation of the recent court decision holding Alcoa to be a monopoly. The Commission's report does not undertake to appraise the possible alternatives. It does, however, briefly summarize reports of the Surplus Property Board and the Attorney General on these matters, as submitted to the Congress in September 1945. The Surplus Property Board recommended the disposal of the Government-owned plants to concerns other than Alcoa, and further recommended various measures which would encourage the purchase or lease of such plants by independent concerns. The Attorney General recommended that the disposal of the Government-owned plants should be effectuated in connection with the dissolution of Alcoa and its replacement by several separate companies.

Bauxite is subject to a duty of \$1 per long ton, equal to 0.18 cent per pound of recoverable aluminum contained. This duty has probably not been in a substantial degree restrictive of imports. The duty on alumina is 1/2 cent per pound, equivalent to about 1 cent per pound of recoverable aluminum; it is relatively much higher than the duty on bauxite and for that and other reasons imports of alumina have been insignificant.

The duty on aluminum metal in ingots and similar forms is 3 cents a pound. It was raised from 2 to 5 cents a pound by the Tariff Act of 1922, reduced to 4 cents under the act of 1930, and further reduced to 3 cents by the trade agreement with Canada, effective January 1, 1939. The duty on aluminum shapes, sheets, and so forth, was reduced from 7 to 6 cents a pound by the trade agreement with the United Kingdom, effective January 1, 1939. Imports of aluminum have been primarily in unfabricated forms. The domestic fabricating industries have the advantages of efficiency arising from mass production for the large domestic market, and will be at little, if any, disadvantage in competing with imports so long as the duty on the fabricated products compensates for the difference between the price of aluminum ingot in the United States and in foreign markets.

Canada, which has greatly expanded its aluminum capacity during the war, is likely to be the predominant source of whatever imports of unfabricated aluminum hereafter come into the United States, for the reason that costs in Canada will probably be lower than in any other foreign country, and because of the proximity of the Canadian industry to United States markets.

Such data as are available indicate that (neglecting the four Government-owned plants which are not expected to be capable of economical operation) the cost of production of aluminum in United States plants may be on the average about 3 cents a pound greater than the cost in Canada; the present rate of duty is 3 cents. The available estimates of future costs, however, vary considerably for the different domestic plants, and unavoidably are subject to error; moreover, they do not allow for certain measures which may be taken to reduce costs in some of the plants.

The most obvious measure to reduce costs would be the removal of the duty on bauxite, but on account of the lowness of the rate this would not be a matter of major importance. A greater reduction in the costs at some domestic plants might result from removal or substantial reduction of the duty on alumina; the benefit, however, would probably be confined to a minor part of the domestic industry since the larger part of the alumina used will presumably continue to be produced in alumina plants in the United States, whether from domestic or imported bauxite.

More important possibilities for the reduction of costs in several of the domestic plants lie in the reduction of rates charged for power purchased from Government-owned power plants. The rates charged by those plants (the Tennessee Valley and Bonneville systems) have, however, been established under laws of Congress and major adjustments in such rates would require changes in these laws.

The effectiveness of any level of tariff duties on aluminum in restricting competition from imports cannot be divorced entirely from the question of whether and by what means the maintenance of substantial domestic production of aluminum, independent of Alcoa, is to be encouraged—a matter which lies outside the scope of this report. If, however, it should be the purpose of the Government to reserve the bulk of the United States market for domestic producers, whether or not as an accompaniment of a policy of promoting competition in the domestic industry, ways can, of course, be found to accomplish that result. If the present duty should prove to be less than the cost disadvantage of the domestic industry as compared with the Canadian, the competition of imports can be limited to the desired extent by increasing the duty, by imposing quantitative restrictions, or by subsidizing domestic production. It may be, however, that the present level of tariff duties is adequate, or more than adequate, to prevent any large inroads of foreign aluminum into the domestic market. Particularly would this seem likely if it should prove feasible to effect a substantial lowering of domestic costs by measures such as reduction of power rates charged to the aluminum plants and removal or reduction of the duties on bauxite and alumina.

Cigarette paper.--For many years France was the world's leading producer of cigarette paper, and the United States was the principal importer and consumer. At the outbreak of World War II, however, exports from France to the United States practically ceased, and a large domestic mill, under construction for some time before war, began to supply the greater part of the requirements of the United States. This domestic paper, made from fiber obtained from seed-flax straw, is reported to be equal in quality to that previously imported, which was made from high-grade rags.

Before the outbreak of the war in Europe, United States consumption of cigarette paper was largely supplied by imports. Production during the period 1936-39 averaged 8.4 million pounds annually, of which 4.4 was exported; imports averaged 16.8 million pounds, very largely by France. French mills at that time accounted for from 40 to 45 percent of world output. Approximately 80 percent of the cigarette paper produced in France was exported, principally to the United States. World production of cigarette paper at the present time is probably between 100 million and 120 million pounds annually, of which the United States makes approximately 50 million pounds.

Cigarette paper is made in the same general manner as most other kinds of paper, and on essentially the same type of machine. Formerly the paper made in the United States was made almost exclusively from linen rags, most of which were imported. For the past several years, however, it has nearly all been made from fiber obtained from the straw of flax grown domestically for seed. About 2,500 persons are employed in the production of cigarette paper in the United States.

During 1929-38 the United States produced about one-fourth as much cigarette paper as it imported. Exports, which were nearly three-fourths of production, consisted largely of paper made by one concern and shipped to cigarette factories in the Far East. In 1939 there was a marked increase in domestic production, which was further augmented in 1940 and succeeding years. By 1942 production was over 61 million pounds, more than 12 times that of 1937. Exports more than doubled between 1939 and 1942 and became still greater in 1943 and 1944, American paper supplying major markets which had formerly relied on the French paper.

From 1897 to 1913 the rate of duty on cigarette paper was 60 percent ad valorem; under the Tariff Act of 1913 the rate was reduced to 50 percent; in the act of 1922 the rate was again increased to 60 percent and it remained at that level in the act of 1930; this rate was reduced in the trade agreement with France, on June 15, 1936, to 45 percent, equivalent to 10 or 11 cents a pound.

For many years before the war imports averaged about 15 million pounds annually valued at approximately 4 million dollars. After 1939 imports drastically decreased, and by 1944 they had practically ceased. France was by far the most important source of the prewar imports, but Spain, Italy, Portugal, and Finland supplied relatively small quantities. The dominant position of France as a source of imports was due principally to the financial interest of certain large United States cigarette producers in some of the French cigarette paper mills.

Exports of cigarette paper from the United States probably averaged more than 3 million pounds annually from 1930 to 1937, most of it going to cigarette factories in China. Since 1938 exports have greatly increased and averaged over 13 million pounds a year from 1942 to 1944.

Consumption of cigarette paper in the United States closely follows the production of cigarettes; from 80 to 85 percent of the cigarette paper consumed in this country is used in the manufacture of machine-made cigarettes; the remainder is sold as booklets. Production of machine-made cigarettes decreased from 122 billion in 1929 to 107 billion in 1932; thereafter it rose to 181 billion in 1939 and to 331 billion in 1944. Consumption of cigarette paper increased proportionately.

Cigarette paper is much higher priced than most other kinds. Before 1940 the price of the domestic paper was based largely on the duty-paid cost of the imported French paper, which ranged between 36 and 43 cents a pound. The price of domestic paper was about 30 cents a pound in 1943 and 1944.

The prospective postwar competitive position of the United States industry in both domestic and foreign markets will be considerably influenced by the complete independence of the leading domestic cigarette manufacturers from the necessity of importing their paper and by the ability of the United States cigarette paper mills to produce more than the total domestic requirements from domestic raw materials at a lower cost than before the war. It is probable that imports will furnish only a small proportion of our domestic requirements and that price rather than quality will be the deciding factor in markets outside the United States. How soon a sufficiency of raw material, adequate manpower, restored transportation facilities, and available repair materials will permit the French mills to resume production will probably determine their competitive position. No decision has been reached as to what will be done with those mills in which United States capital has been invested and which since the end of the war have been returned to their original owners. It may be assumed, however, that most French producers will again bid vigorously for the markets they held before the war, but recent developments tending to reduce unit costs may

result in the domestic industry supplying the great bulk, if not all, of our future requirements so long as the tariff remains in effect on cigarette paper, and possibly regardless of the tariff.

Refractory magnesia (magnesite).—This report deals only with refractory magnesia, which is used in metal-melting furnaces, particularly basic open-hearth and electric steel furnaces. Before World War II refractory magnesia, in the United States and elsewhere, was obtained chiefly from the natural ore known as magnesite (magnesium carbonate, $MgCO_3$); other sources were sea-water magnesia and the ores brucite (magnesium hydroxide) and dolomite (calcium magnesium carbonate), which became increasingly important during the war. Three grades of refractory magnesia are distinguished—grain or maintenance grade, brick grade, and periclase grade—each having a particular use in the construction and maintenance of metal-melting furnaces.

During the prewar period approximately 70 percent of the refractory magnesia used in the United States was produced from domestic crude magnesite, but most of this output consisted of the maintenance grade, about 30 percent was imported, largely from Austria, and practically all of the imports were of the brick grade. The principal domestic deposits of magnesite ore then being exploited were of lower quality than the deposits in Austria, the principal foreign producer of refractory magnesia, and could be converted into the brick grade only by considerable additional beneficiation costs.

In an indictment returned by a Federal grand jury in 1941, it was charged that certain domestic producers had made an agreement with Austrian producers of refractory magnesia which provided that they would be the sole importers of the Austrian material and that no magnesite brick would be exported to the United States by Austria. To this suit the American defendants, pleaded *nolo contendere*, and fines were imposed upon them.

The United States duty on crude magnesite under the Tariff Act of 1930 is $15/32$ of 1 cent per pound (\$9.37 per short ton). The equivalent *ad valorem* rate on imports, which have been insignificant, ranged from a low of 23 percent in 1932 to a high of 102 percent in 1937. The duty on dead-burned and grain magnesite and periclase under the 1930 act is $23/40$ of 1 cent per pound (\$11.50 per short ton), which was equivalent, on the basis of 1937 price levels, to 81 percent of the foreign value of imports. Imports of these three grades throughout the 1920's and 1930's were large, though varying widely with the business cycle. The duty on magnesite brick under the same act is $3/4$ of 1 cent per pound (\$15 per short ton) plus 10 percent *ad valorem*; imports have generally been negligible.

The entrance of the United States into World War II resulted in a great increase in demand for refractory magnesia, especially in the steel industry. As imports practically ceased, the domestic industry expanded its facilities, and new companies entered the field. This expansion, involving investment of 7 to 8 million dollars, was financed both by private capital and, on a somewhat smaller scale, by Federal funds. Production of the three grades of refractory magnesia from crude magnesite and other raw materials, which averaged 50,000 tons a year before the war, was thereby increased to 300,000 tons in 1943. This increase in production included sufficient brick-grade magnesia for domestic requirements.

Annual consumption of refractory magnesia for a number of years before the war averaged about 84,000 tons. During this period the steel industry produced an average of 33.7 million tons of basic open-hearth and electric steel a year. About 4.8 pounds of refractory magnesia were consumed per ton of steel produced. In 1943, when about 82 million tons of steel were produced, about 311,000 tons of refractory magnesia, or 7.6 pounds per ton of steel, were consumed. The construction of many new furnaces, which required large initial quantities of refractories, inexperienced labor, and the poor quality of steel scrap used in the furnaces were among the principal causes of this marked increase in the amount of refractories consumed per ton of steel.

The postwar problems relating to refractory magnesia differ from those in many other war-expanded industries in that there are no Government-owned plants to be disposed of. The principal postwar problems involve (1) the relation of capacity to demand; (2) the degree of competition in the domestic industry; and (3) the competition from imports.

Both in the immediate postwar period and in later years capacity will much exceed the probable demand. The excess, however, will be relatively less than in many other war-expanded industries, the civilian demand for whose products is but a small fraction of the war demand. It is possible that, by reason of the huge deferred civilian demand for both consumers' and producers' capital goods, consumption of steel in the immediate postwar period may approximate that during the war itself. In that case the annual output of basic open-hearth and electric steel would be about 80 million to 85 million tons. Production of this quantity, at the prewar ratio, would require 200,000 to 215,000 tons of refractory magnesia. There may be in the immediate postwar period some demand for exports to help rehabilitate the steel industries of foreign countries. Exports, if any, will be mostly in the form of magnesite brick, and they seem unlikely to exceed 20,000 to 30,000 tons annually even during this period. Immediate postwar demand, therefore, will be much less than the capacity of the domestic industry, which is at least 335,000 tons and might become considerably larger if

plants now making chiefly caustic calcined magnesia or magnesium metal should convert a part or all of their facilities to refractory magnesia. In the later postwar period, say during the years 1950-55, national income, or the degree of prosperity in this country, will largely determine the requirements for steel. With a high national income, production of steel and consequently the consumption of refractory magnesia, may be about as great as in the immediate postwar period, but the export market is likely to be lost to Austria. Under these conditions, capacity of the domestic refractory magnesia industry might exceed demand by as much as 50 percent.

Employment in the production of refractory magnesia, including the mining of crude magnesite and other materials for magnesia in the United States approximates 3,000 persons. Whatever reduction in the consumption of this product takes place after the war will doubtless reduce, more or less proportionately, the number employed.

Competition from imports of brick-grade magnesia from Austria or other countries may, under certain conditions, serve as a restraint on the price policies of domestic producers. The extent of this influence would depend, of course, on relative costs of production in the United States and in foreign countries and on the rate of duty. Before the war the superior quality of the Austrian magnesite and the relatively low ocean freight to eastern consumers in the United States were important. The proceedings by the Department of Justice make it improbable that a cartel arrangement will be reestablished after the war, at least so far as the United States market is concerned. Apart from Austria, the principal potential foreign competitors in the United States market in the postwar period will presumably be Manchuria and the Soviet Union. When normal conditions of production are established, Manchuria will probably have greater quantities of magnesia available for shipment to the United States than before the war, since the steel and magnesium metal industries of Japan will presumably be smaller and have less need for this material. The ability of Manchuria to compete with domestic producers will, of course, depend on relative costs of production and delivery, taking account of the duty. For a time the reestablishment of ruined steel mills in the Soviet Union will probably call for most or all of that country's output of magnesia. In the longer term the steel industry of the Soviet Union will probably be larger than before the war and require more magnesia; nevertheless considerable quantities of that material may possibly be available for export.

Hides and skins and leather.—This report covers United States and world production and foreign trade in hides, skins, and leather in the prewar period, the changes in the industry caused by the war, and the problems confronting the United States industry in the postwar years.

For many years the United States has been the world's largest producer and consumer of hides and skins, leather and leather manufactures. It is the world's leading producer of three of the four principal kinds of hides and skins, accounting for about one-sixth of the world production of cattle hides and calf and kip skins and for about one-tenth of the world production of sheep and lamb skins. Domestic production of the fourth kind—goat and kid skins—has been negligible.

The United States has consumed much larger quantities of hides and skins than it produces and has had to import roughly one-fifth of its requirements of cattle hides and calf and kip skins, over one-half of its requirements of sheep and lamb skins, and virtually all of its requirements of goat and kid skins. Imports of leather have been relatively small, accounting for less than 3 percent of domestic consumption; exports usually have exceeded imports.

The principal economic characteristics of hides and skins and leather, especially in normal times, are these:

(1) Most hides and skins are byproducts of the meat, dairy, and wool-growing industries, and output depends essentially on the slaughter of animals for meat, not on the demand for leather products. Changes in demand for leather products, though ordinarily small, often cause marked variations in the prices of hides, skins, and leather.

(2) Tanning adds only a moderate amount to the cost of the basic materials; the industry is less highly mechanized than many others, but much of the labor involved is highly skilled.

(3) Both production and tanning of hides and skins are widely distributed throughout the world; they do not, however, generally occur in the same areas so that there is a very large international trade in hides and skins, and a fairly large international trade in leather.

(4) The great bulk of the leather produced is consumed in the manufacture of footwear.

In the immediate prewar years the average annual production of cattle hides, calf and kip skins, and sheep and lamb skins in the United States was somewhat larger than during the 1920's; imports and exports of the principal kinds of hides and skins were smaller in quantity. In 1937-39, the number of hides and skins produced averaged about 16 million cattle hides, 11 million calf and kip skins and 19 million sheep and lamb skins; imports during the same period averaged 3 million, 3½ million and 22 million, respectively. Imports of goat and kid skins, produced in the United States in negligible quantities, averaged about 40 million skins. Exports of hides and skins were much smaller than imports.

The value of United States production of leather was smaller during the thirties than in the late twenties. In 1939 the gross value of the output of regular tanneries (not including contract tanners) was 322 million dollars. Almost 25 percent of this amount represented sole or related types of leather; almost 50 percent, upper and lining leather, mostly used for shoes; 7 percent, glove and garment leather; and 20 percent, miscellaneous leather.

Classified according to the material used, about 59 percent of the output in 1939, in terms of value, consisted of leather made from cattle hides, 12 percent of calf and kip leathers, 8 percent of sheep and lamb leathers, 11 percent of goat and kid leathers, and 10 percent of other or unspecified leathers.

In the period 1936-39, imports of leather averaged 9.5 million dollars a year. They were relatively less important in the thirties than in the preceding decade. In 1939 they were equal to 2.8 percent of domestic production in terms of value. Imports consisted largely of upper and lining leathers and, to less extent, of sole and belting leathers, specialty leathers not produced domestically, and semifinished or rough-tanned leathers. Most of them came from the manufacturing countries of Europe and from Canada.

Under the Tariff Act of 1909 all hides and skins were free of duty, whereas all leather was dutiable. Under the acts of 1913 and 1922 all kinds of hides and skins continued duty-free, and most types of leather were transferred to the free list. The Tariff Act of 1930 placed a duty of 10 percent on bovine hides and skins (cattle and buffalo hides, and calf and kip skins) but continued other kinds of hides and skins duty-free. It placed duties also on all kinds of leather, including those made of duty-free skins. Under the trade agreements with France, Canada, and the United Kingdom, the rates on most kinds of leather were reduced, and under the trade agreement with Argentina, the rate on bovine hides and skins was reduced.

During 1936-39, exports of leather averaged only about 15 million dollars a year, or less than one-third as much as in 1926-30. Part of this decline in exports was due to lower prices, but for most kinds of leather there was also a decided quantitative reduction.

During World War II the demand for hides and skins in the United States was unprecedented. Military requirements for shoes could be met only by strict rationing of civilian consumption. All phases of the leather business came under strict Government control, including allocation of materials, limitations of the end uses of leather, rationing of shoes, and price control.

United States production and slaughter of cattle and calves increased during the first years of the war, and the output of bovine hides and skins was exceptionally high. Moreover, during 1941 and 1942 imports of hides and skins were the largest in many years. Since 1942 domestic production of hides and skins has increased still further. Imports, however, have declined considerably. This decline has been due to increased tanning in the principal hide-and-skin-exporting countries, hoarding for speculative purposes, and allocation of a greater proportion of the foreign supplies of cattle hides and calf skins to the United Kingdom under the Joint Hide Control Plan.

The considerable expansion in the production of leather in the United States during the war was accomplished with very little addition to plant capacity and with no Government advances of capital. Existing facilities were utilized to the maximum, the work week was lengthened, and the process of tanning was speeded up.

Some of the United States wartime demand for leather, especially during 1942-44, was met by increased imports of leather. Imports of leather in 1944 amounted to 14.5 million dollars, or over 50 percent more than in 1939. Most of this increase in imports was on Government account, chiefly sole leather for reshipment under lend-lease.

Problems relating to hides, skins, and leather in the postwar period, generally, will be quite different from those confronting many of the war-expanded industries. There was little expansion of plants to increase production of leather, and consequently there are no postwar problems of excess capacity or disposal of plants. The principal problems which will confront the United States tanning industry in the immediate postwar period will probably be the difficulty of securing adequate supplies of hides and skins in view of the strong domestic and foreign demand. In the long-term postwar period this problem will gradually diminish and may perhaps disappear altogether, but two other problems are likely to appear, namely (1) greater competition than before the war, both in the domestic market and in the foreign markets, from leather produced in major hide-and-skin producing countries, such as Argentina, Brazil, and India; and (2) greater competition from substitutes for leather.

APPENDIX 1

Reports on Latin America

The Commission has in preparation four series of reports on trade problems of the 20 Latin American Republics. These deal, respectively, with economic controls and commercial policy; mining and manufacturing industries; agricultural, pastoral, and forest industries; and recent developments in foreign trade. The reports provide basic economic data on these countries, including the effect of the war on their economies and trade, and a discussion of the postwar problems which they are now facing. A total of 30 reports has now been released; about 15 are in process, and work is soon to be started on the remainder. Some of these reports were prepared prior to 1945, but were not released to the public until this year.

Economic controls and commercial policy.--Reports in this series have been issued for Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Paraguay, Peru, Uruguay, and Venezuela. In all these countries the customs tariff (including in some instances export duties as well as import duties) is an important source of governmental revenue; in many countries it is the most important single source. Most of the revenue thus derived is from import duties, but in Bolivia levies on exports are even more important than those on imports. Export duties are, or have been until recently, important also in Brazil, Chile, Colombia, Paraguay, and Peru.

During the decade ending in the middle thirties, Latin American countries turned more and more to the imposition of protective tariffs, quantitative import controls, and exchange regulations, usually with the purpose of encouraging domestic production within their respective countries or of maintaining monetary and fiscal stability. Most of the countries have protective tariffs of substantial height.

In the past decade there was an increasing tendency among the Latin American countries to adopt the unconditional most-favored-nation policy, subject usually to an exception permitting the granting of preferential treatment to imports from contiguous countries. In Argentina, most-favored-nation treatment is usually limited to tariff duties, and extensive discriminations and preferences have been employed in the administration of exchange control. Most of the other countries follow more completely the practice of nonpreferential treatment, although several--notably Chile, Uruguay, and Venezuela--have at times resorted to bilateral trade-balancing arrangements. Since 1940 bilateral balancing in Venezuela has gradually given way to unconditional most-favored-nation treatment.

Extensive use of wartime regulations, such as rationing and price control, has been general. Export controls have also been employed by most of the countries to prevent strategic materials from reaching enemy destinations, as well as to husband essential supplies.

During the war the coffee-producing nations of Latin America participated in the Inter-American Coffee Agreement, under which export quotas were allotted to the participants and virtually the whole of the United States market allocated among them.

Direct intervention by the Government in the national economy has, of course, been more extensive in some countries than in others; such control appears to have been the most prominent in Brazil, Uruguay, Argentina, and Chile. In Brazil there has been increasing use of governmental and quasi-governmental agencies (the "defesa" institutes), which exercise far-reaching regulatory powers over the production and marketing of numerous commodities including coffee, cacao, sugar, maté, tobacco, rice, petroleum, lumber, fruit, and fish. In Uruguay, the characteristic feature of economic policy is the extent to which government-owned and operated corporations supply public services and engage in manufacturing. In Argentina the most important controls over domestic industry are those administered by the various agricultural control boards; these agencies have been concerned primarily with the stabilization of distressed industries and the long-run development of agriculture. A few countries, notably Chile, have made extensive use of development ("fomento") corporations, with the objective of encouraging local enterprise as well as promoting exports. Governmental or quasi-governmental monopolies have also been used in many cases for the primary purpose of raising revenue. The Government of Bolivia, as well as the tin producers in that country, have participated directly in the International Tin Agreement, which was continued during the war notwithstanding the Japanese occupation of the most important tin-producing areas in southeastern Asia. In 1934 the producers of quebracho in Argentina and Paraguay combined to control production and in 1942 the governments of these countries established quebracho export quotas for individual producers.

Mining and manufacturing industries.--Reports issued in this series are those for Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Haiti, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela.

The development of mining and manufacturing industries in Latin America has been very uneven, not only as among the several countries, but as among the various regions within the same country, and as among individual industries. Although production of certain light manufactures has long taken place in some

APPENDIX 1

of these countries, many of them have recently developed substantial light consumer goods industries, particularly in the period between 1929 and the outbreak of World War II. Moreover, a few countries—Argentina, Brazil, Chile, and Mexico—have developed on a significant scale the manufacture of producers' goods and durable consumer goods. Most of the other countries, however, possess little large-size industry; their manufacturing consists principally of processing of agricultural, pastoral, and forest products, the production of light consumer goods, and the assembly or further processing of imported semifabricated articles.

Individual industrial establishments in Latin America are generally small in terms of number of workers, capital investment, and value of production, and they usually employ much simpler techniques than those used in the more advanced industrial countries.

Taken as a whole, the textile industry is the principal manufacturing enterprise in Latin America. Other industries which are prominent in most of the countries are those producing foodstuffs, leather and leather products, tobacco products, chemical and related products, wood products, ceramic and related products, and rubber products.

Manufacturing in Latin American countries has been retarded by a number of factors, but notably by the lack of certain basic materials necessary for the development of heavy industries, by inadequate transportation facilities, and by the lack of technically trained personnel. Chief among the problems relating to raw materials has been the inadequacy of the coal and iron resources, the inaccessibility of those which exist, and the fact that the deposits of the two minerals are usually not found in close conjunction. Hampered by the lack of coal, some of the Latin American countries have turned to a considerable use of hydroelectric power for manufacturing industry, although several of them have large water-power sources which are as yet but little exploited.

Although Latin America possesses abundant resources of certain important industrial raw materials, many of these are not now available for exploitation, and in many countries manufactured articles must be produced not only with imported machinery but also with imported raw materials. Most of the countries, however, are endeavoring by various devices, governmental and private, to promote greater utilization of domestic raw materials in local manufacturing.

During the depression of the early 1930's the drastic decline in prices of raw materials, depreciation of currencies, development of other world sources of supply, and the emergence of substitute or competitive products substantially altered the relationship of Latin America to the world economy. As a result, many of the countries were forced to effect changes in their internal economies. These took the form of attempts to build up manufacturing industry and to diversify agriculture, usually with the assistance of protective tariffs, exchange control and other nontariff import controls, subsidies, loans, tax exemptions, and other types of government assistance.

Until quite recently, direct participation by the Government in industry was confined in most of the countries of Latin America to fiscal monopolies and public utilities. The most notable exception has been Uruguay, where the characteristic feature of economic policy for some time has been the extensive use of publicly owned commercial and industrial enterprises. At present, however, a wide range of direct governmental assistance is being given to mining and manufacturing industries.

During the war, mining and manufacturing industries were subjected to two opposing sets of forces. On the one hand, shortages of goods ordinarily imported led many countries to expand certain manufacturing industries in order to supply their domestic requirements and, in some cases, in order to satisfy export markets in other Latin American countries. Moreover, in some countries mining output was greatly stimulated by the requirements of the United Nations for strategic minerals. The development of manufacturing and mining during the war was directly assisted by the Governments of certain Latin American countries and by the United States Government.

Latin America is one of the world's richest mineral areas in respect both to petroleum and to nonferrous metals. Certain countries--notably Bolivia, Chile, Venezuela, and Mexico--have come to depend greatly on the extraction and export of one or several mineral products. In ordinary times, nine-tenths of the value of Bolivian exports consists of minerals; two-thirds consists of tin alone, the rest being accounted for by silver, lead, wolfram, zinc, antimony, and copper. The international trade of Chile is closely associated with copper mining and the production of nitrates; before the war, mineral products accounted for nearly four-fifths of the country's exports, in terms of value, copper alone accounting for more than half. Perhaps the best example of a "one-product-export" country, however, is Venezuela; before the war, petroleum and asphalt and their products constituted about nine-tenths of the country's total exports in terms of value.

While most of the mineral-producing countries of Latin America export only a small range of mineral products, Mexico is one of the most diversified mineral producing areas in the world; its output includes gold, silver, lead, zinc, copper, antimony, crude petroleum, and refined petroleum products. Before the war, about three-fourths of the country's exports consisted of minerals, precious metals alone accounting for more than a fourth. Apart from Mexico and Chile, Latin American countries in which mining is important are Colombia (petroleum, gold, and platinum), Ecuador (petroleum and gold), and Peru (petroleum, copper, gold, silver, lead, and bismuth). In mineral resources Brazil is one of the richest countries of the world; for the most part, however, mining industries there are in the exploratory stage, and intensive commercial development is limited to a few minerals.

As a result of the increased wartime requirements of the United Nations for minerals, certain Latin American mining industries expanded considerably during the war; new mines were opened and exploitation of existing mines was intensified. Among the minerals which were the subject of purchase agreements between the United States and Latin American countries were antimony, bauxite, beryllium, chromite, cobalt, copper, industrial diamonds, lead, manganese, mercury, mica, nickel, quartz crystals, tin, titanium, tungsten, zinc, and zirconium.

Agricultural, pastoral, and forest industries.--Three reports have been issued in this series--those for Chile, Colombia, and Venezuela.

Although Chile is best known abroad for its mineral resources, it is essentially an agricultural country. Agricultural, pastoral, and forest products account for only about a fifth of all exports, but production for the domestic market is important. Among the principal commodities produced are wheat, rice, barley, oats, corn, beans, peas, chickpeas, lentils, fruits, meat, wool, and wine. About two-fifths of the beans, peas, chickpeas, and nearly the entire output of lentils are usually shipped abroad, as well as about half the oats and 10 to 20 percent of the barley.

The war brought little basic change in the pattern of Chilean agricultural, pastoral, and forest industries. Although there has recently been a trend toward a more intensive type of farming, with a greater diversity of crops, the fundamental problem of Chilean agriculture is the prevailing system of land tenure, which tends to perpetuate outmoded techniques and the uneconomic utilization of land. The success of any program for more efficient land use would depend not only on a solution of the problem of land tenure, but also on the creation of more efficient systems of transportation and marketing and more adequate storage facilities.

Colombia is predominantly an agricultural country; about three-fourths of the gainfully employed workers are in agricultural, pastoral, and forest industries. Two agricultural products, coffee and bananas, are raised principally for export; in ordinary times they account for about three-fifths of the total value of merchandise exports. Commodities produced principally for domestic consumption include corn, wheat, rice, sugarcane, beans, potatoes, cacao, cotton, tobacco, and hard fibers (particularly figue). The raising of livestock, especially cattle, has been a major industry since the colonial period. The country's extensive forest resources are little developed.

During the war, coffee became increasingly important in Colombia's foreign trade. As a result of the appearance of the Sigatoka disease in the prewar period and shipping difficulties during the war period, exports of bananas, formerly important, virtually ceased. Some of the land formerly planted to bananas has been devoted to the production of rice.

The major problems of Colombia's agricultural, pastoral, and forest industries include inadequate transportation and storage facilities; insufficient credit facilities; incomplete land utilization; limited use of improved techniques; and an insufficient number of technicians. These problems are recognized by the Government, and some progress has already been made in solving them.

In Venezuela, the prominence of petroleum and its products in foreign trade has tended to obscure the importance of agricultural and pastoral industries in the national economy. About three-fourths of the population designated as gainfully employed is in these industries, which before the war together accounted for more than two-fifths of the total national wealth. Coffee and cacao are the principal agricultural export products. Crops grown chiefly for domestic consumption include sugar, corn, yams, beans, peas, onions, garlic, coconuts, tobacco, cotton, and a wide variety of fruits. Despite its agricultural output, however, Venezuela depends on foreign sources for a large fraction of its foodstuffs. Pastoral activities, especially the cattle industry, are a significant source of national wealth. The country's forest resources are extensive, but little developed.

During the early part of the war, Venezuela was faced with the loss of continental European markets, particularly for coffee and cacao. As the war continued, however, American markets, especially the United States, absorbed most of the share which customarily went to Europe. During the war, the development of forest resources, particularly rubber, balata,

and medicinal plants, was stimulated to some extent by the requirements of the United Nations. As a result of reduced imports of foodstuffs during the war, the Government endeavored to increase the output of foods.

Agricultural techniques in Venezuela on the whole are not advanced, yields are low, costs of production are high, and transportation, storage, and marketing facilities are inadequate. Government assistance, however, has resulted in considerable progress during the past decade. Heretofore, the Venezuelan Government has depended to a considerable extent upon subsidies to maintain exports of agricultural products. These subsidies have tended to nullify, at least in part, the efforts of the Government to improve the efficiency of agriculture.

Recent developments in foreign trade.--Reports in this series have been issued for Chile and Venezuela.

The ratio of the value of foreign trade to the total value of production is higher for Chile than for most other Latin American countries. The vital role of foreign trade in that country's economy is accounted for, in large part, by the importance of the copper and nitrate industries, which ordinarily supply about three-fourths of total exports. Chile ranks second only to the United States as a producer of copper and is the world's largest exporter of that metal. Before World War I, it was the predominant world source of nitrates, but, with the development in several countries of fixation of nitrogen from the air, and of byproduct nitrogen manufacture, the Chilean mined product ceased to be such an important factor in world markets. Chile remains, however, a substantial source of this important material. Agricultural and pastoral products usually account for nearly a sixth of the total export trade, and manufactured goods (excluding processed foods) for about a tenth.

For many years before the war the United States was the most important single market for Chilean exports. The United Kingdom usually ranked second and Germany third. Other important markets were Belgium, France, Italy, and Sweden. After the outbreak of the war there was a marked decline in the importance of European markets, and a corresponding increase for Western Hemisphere markets. Of the total value of exports in 1942, exclusive of nitrates and iodine (for which data by countries are not published), the United States took 80 percent compared with 40 percent in 1939.

The Chilean import trade is characterized by the predominance of manufactured goods, by the comparatively minor importance of mineral products other than crude petroleum, and by the virtual constancy in the value of the relatively small imports of agricultural products. Before the war, three-fourths of Chilean foreign purchases consisted of manufactured goods; of these, textiles and textile manufactures were the most important. Before 1940 about two-thirds of Chilean imports came from three countries--the United States, Germany, and the United Kingdom. In 1937 about half of them came from Europe and 47 percent from the Western Hemisphere. After September 1939 the importance of Europe as a supplier declined sharply. The United States, the most important source in the period 1937-39, occupied an even more prominent position after the outbreak of the war. In 1941, 57 percent of total imports came from the United States, compared with 29 percent in 1937. In 1942, however, Chilean imports from the United States declined to 45 percent of the total, and imports from Latin American countries increased.

In proportion to its population, the foreign trade of Venezuela is larger than that of most other Latin American countries. Certain of its products, including petroleum, coffee, and cacao, play an important role in world commerce. Recently these three commodities have accounted for nearly 95 percent of the total value of Venezuelan exports. During the period 1937-39, crude petroleum alone accounted for about 88 percent of the total. Venezuela ranks third among the petroleum-producing countries of the world, and first among countries exporting crude petroleum. In 1937, according to official Venezuelan statistics, shipments to the Netherlands West Indies (nearly all of which consisted of crude petroleum) accounted for about 65 percent of total exports; the United States ranked second in the export trade, taking 14 percent of the total. Other important markets were the United Kingdom, Canada, and France. Although much of the trade of the world ultimately is of an indirect character, seldom does so striking an example of this appear as in the case of exports of petroleum from Venezuela through the Netherlands West Indies to other countries. The Netherlands West Indies are, in effect, an entrepot station for the reshipment (after refining) of petroleum. When the trade statistics are adjusted for such reshipments, the principal markets for Venezuelan exports in 1937 were as follows: The United Kingdom, 30 percent; the United States, 23 percent; the Netherlands, 7 percent; and Germany, 6 percent. After the outbreak of the war there was a steady decline in the importance of Europe as a market for exports, and a corresponding increase

in the importance of the Western Hemisphere. In the period 1940-42, the United States displaced the United Kingdom as the most important market (including both direct and indirect exports).

The Venezuelan import trade is characterized not only by the predominance of manufactured goods but by the increasing importance, in recent years, of imports of agricultural products, principally foodstuffs. Machines, instruments, apparatus, vehicles, and accessories constituted the most important subgroup of manufactured goods, followed by metals and manufactures, and textiles. Agricultural products (principally foodstuffs) accounted for about one-fifth of the total. The steady decline in imports into Venezuela after 1939 resulted from a combination of factors, including the closing of European sources of supply, shortages of shipping, and the restrictions imposed on exports of critical articles from the United States and other countries. Imports in 1942 were only about two-thirds as much as they were in 1939. In 1943 they began to increase; in the first 6 months of that year, they were 23 percent greater than in the first half of 1942. The most prominent changes in the composition of the Venezuelan import trade from the beginning of the war through 1941 were the increasing proportions of foodstuffs and chemical products and the decline in the importance of the two groups--machines, instruments, apparatus, vehicles, and accessories, and metals and manufactures. In the years preceding the outbreak of the war, about three-fourths of all imports into Venezuela came from three countries--the United States, Germany, and the United Kingdom. After the outbreak of the war, Europe declined rapidly in importance as a source of imports. In 1941 and 1942 less than a tenth came from Europe, and nearly nine-tenths from the Western Hemisphere. The United States, already by far the most important source of Venezuela's imports, assumed an even more important position. Of total imports, 79 percent came from the United States in 1941 and 73 percent in 1942, compared with 53 percent in 1937.

Memorandums concerning trade agreements

Before and during Congressional consideration of the extension of the Trade Agreements Act, the Tariff Commission prepared several statements and statistical memorandums relating to trade agreements. Summaries of these memorandums follow.

Effect of Trade Agreement Reductions on Tariff Levels in the United States (revised April 1945).--This is an analysis of the influence of reductions in rates of duty made by reciprocal trade agreements on the average ad valorem equivalents of duties on imports into the United States. It indicates that if all of the imports in 1939 had paid non-trade-agreement rates, the equivalent ad valorem on dutiable imports for all tariff schedules combined (including articles not subject to reductions) would have been about 48 percent. On the other hand, if the reduced rates in effect on April 1, 1945, were applied to the 1939 imports, the average rate on all dutiable imports would have been 33 percent ad valorem. The apparent reduction resulting from trade agreements was thus about 15 percent ad valorem or 31 percent of the rates previously in force.

The report shows furthermore that 63 percent in value of all dutiable imports in 1939 would have been subject to the reduced rates in effect on April 1, 1945. A measure of the magnitude of the reductions actually made, rather than their effect on the average rate for all dutiable imports, is obtained by averaging the rates on this 63 percent group of commodities. Before reduction, the average equivalent ad valorem on them would have been 55 percent; after reduction, 32 percent. This is an average difference of 23 percent ad valorem, or an apparent reduction of 43 percent from the rates previously in force.

The analysis contains information similar to the above for each individual schedule of the tariff act.

Major Import Articles in Relation to Trade Agreements (revised April 1945).--This is a list of all dutiable products imported into the United States in 1939 having a value of \$500,000 or more each. The items are grouped according to their size (in value), the height of their equivalent ad valorem rates, and whether the rates have been reduced by trade agreements.

The report covers 272 commodities. Of these the duty was reduced by trade agreements on 161, accounting in value for 86 percent of all imports on which the rates have been reduced by trade agreements. The remaining 111 items represent 70 percent of the total imports on which no reductions were made. The

two groups together represent 80 percent of all dutiable items imported in 1939.

The average equivalent ad valorem rate after reduction on the 161 reduced rate commodities was identical with the rate on the 111 commodities which were not subject to reduction, viz, 32 percent.

Rates were reduced by over 45 percent but not over 50 percent (the legal maximum) on 88 of the 161 large items, accounting for 70 percent of the value of imports in that group.

Tariff Reductions under Trade Agreements, by Economic Classes (February 1945).--This analysis shows the value of United States imports subject to reductions under trade agreements, and the percentage of the reductions, for each of 10 economic classes (i.e., crude materials, agricultural; crude materials, nonagricultural; crude foodstuffs, agricultural; etc.)

It indicates that of the 552 million dollars of the imports in 1939 that would have been subject to the reduced trade agreement rates in effect on April 1, 1945, 267 million was the value of agricultural products and 285 million was the value of non-agricultural products. The average rates of duty on these two groups before reduction would have been 58 percent and 53 percent, respectively, whereas after reduction the average for each group would have been 32 percent ad valorem.

Of all the 10 classes that of manufactured foodstuffs and beverages, nonagricultural had the highest ad valorem rates--namely, 103 percent before reduction and 52 percent after reduction. These high averages are explained principally by the rates on whisky (116 and 58 percent, respectively), by far the leading item in the class, accounting for 40 million dollars of the total value of 57 million for the class as a whole.

For each class there is a table showing the principal commodities in that class on which rates were reduced, and the rates before and after reduction; a table showing the cumulative value of imports according to the height of the rates before and after reduction; and a chart showing the tariff levels before and after reduction. There is also a summary table and chart for all the 10 classes combined.

Trade Agreements - A Miscellany of Information (April 1945).--This 8-page leaflet aims to supply the answers to the questions most frequently asked with respect to the operation and effect of trade agreements and their effects on rates of duty.

It indicates the salient features of the act itself; the procedure followed in making agreements; the countries with which agreements have been made; the number of rates reduced; the value of imports subject to reduced rates; and the extent of reduction in the rates of duty.

United States Imports from Trade Agreement and Non-Trade-Agreement Countries (April 1945).—These data consist of two tables summarizing material prepared for the hearings on the extension of the Trade Agreements Act in 1943. In one of the total imports into the United States are grouped according to whether the products are free or dutiable, are agricultural or nonagricultural, and come from countries with which trade agreements have been signed or not. In the other table dutiable imports only are given and the grouping is primarily by continents and secondarily by trade-agreement or non-trade-agreement countries. In both tables values are shown for the years 1934 and 1937-42, together with trends based on 1934 as 100.

Costs of production of wool, sheep and lambs in 1944

A Subcommittee of the Committee on Agriculture of the House of Representatives requested that the Commission arrive at estimated costs of wool, and of sheep and lambs produced in 1944.

Pursuant to this request, cost schedules were prepared and sent to field offices of the Farm Credit Administration, to banks making loans to sheep ranchers in competition with those field offices, and to a few leading ranchers. Completed schedules returned to the Commission provided estimates for 1,038 ranches in 11 of the 13 States in the western region, i.e., South Dakota, Montana, Wyoming, Colorado, Texas, New Mexico, Nevada, Utah, Idaho, Oregon, and California. These States account for over 96 percent of the stock sheep in the western region. Inclusion of the other two States, Arizona and Washington, with less than 4 percent of the stock sheep, could not have caused a significant change in results.

The estimated costs for 1944 were compared with the costs reported for the western region for 1940 to 1943, inclusive, by field offices of the Farm Credit Administration, in order to show the apparent trend of income and cost for the 5 years ending in 1944. The report shows that combined income from wool, and from sheep and lambs, per head of sheep in the flock, increased sharply in 1940-42 but declined thereafter although in 1944 was probably 26 percent higher than in 1940. Income from sheep and lambs rose faster than that from wool in the period 1940-42 but then declined somewhat more; in 1944 it was about 25 percent higher than in 1940 compared with 28 percent for wool.

Costs of production for wool and for sheep and lambs increased throughout the period: costs per head in 1944, excluding all items of interest, were about 64 percent higher than in 1940; including interest they were 50 percent higher in 1944 than in 1940.

The following table compares income, approximate costs excluded, and profit or loss, in 1940 and in 1944. These data are shown per head of sheep for (1) wool, and sheep and lambs combined; (2) sheep and lambs; and (3) wool. Wool costs, income, and profit or loss are also shown per pound of wool. The costs are shown both with and without imputed interest; interest actually paid is included in all of the costs.

Wool, sheep, and lambs: Cost (including and excluding interest), income, and profit or loss, 1940 and 1944

Item	Cost		Income		Profit (+) or loss (-)	
	1940	1944	1940	1944	1940	1944
	Per head					
Excluding interest	:	:	:	:	:	:
from costs:	:	:	:	:	:	:
Wool, sheep	:	:	:	:	:	:
and lambs -----	\$4.10	\$6.71	\$5.26	\$6.66	+\$1.17	-\$0.05
Sheep and lambs -	2.04	3.24	2.74	3.42	+ .70	+ .18
Wool -----	2.06	3.47	2.52	3.24	+ .46	-.23
Including interest	:	:	:	:	:	:
in costs:	:	:	:	:	:	:
Wool, sheep	:	:	:	:	:	:
and lambs -----	5.32	7.88	5.26	6.66	-.06	-1.22
Sheep and lambs -	2.68	3.84	2.74	3.42	+ .06	-.42
Wool -----	2.64	4.04	2.52	3.24	-.12	-.80
	Per pound of wool produced					
Wool:	:	:	:	:	:	:
Excluding inter-	:	:	:	:	:	:
est from costs -	\$0.246	\$0.469	\$0.30	\$0.438	+\$0.054	-\$0.031
Including inter-	:	:	:	:	:	:
est in costs ---	.315	.546	.30	-.438	-.015	-.108

Japanese trade studies

Late in 1944 the Tariff Commission was requested to aid in the preparation of material principally for the general use of those concerned with the occupation and control of Japan in the period after the war.

In response to this request, the Commission's staff outlined and prepared a project intended to cover as fully as possible the prewar trade of Japan with foreign countries and with the Japanese colonies. Emphasis was given in these studies to the effects which dismemberment of the Empire would have on Japanese trade and industry, the importance of imports of certain commodities to the everyday life of the Japanese civilian, and probable postwar Japanese requirements for imports. Studies of the export industries emphasized the difficulties and problems which Japan would face in export markets in the postwar period, and the extent to which exports would depend on imports of raw materials and semi-finished goods rather than on domestic raw materials.

These reports included the following:

1. Special industry analyses.--Detailed surveys of Japan's production, imports, exports, and consumption of the following commodities were prepared, in each of which much statistical information not previously assembled into one volume was included.

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| 1. Cement | 19. Wheat and Wheat Flour |
| 2. Aluminum | 20. Salt |
| 3. Lead | 21. Zinc |
| 4. Copper | 22. Sugar |
| 5. Coal | 23. Lumber and Timber |
| 6. Rice | 24. Textile Machinery |
| 7. Pottery | 25. Sulfur and Sulfuric Acid |
| 8. Toys | 26. Wool |
| 9. Glass and Glassware | 27. Marine Products |
| 10. Raw Silk | 28. Soda Ash and Caustic Soda |
| 11. Menthol | 29. Chemical Nitrogen |
| 12. Tea | 30. Rayon and Staple Fiber |
| 13. Soybeans | 31. Bicycles |
| 14. Phosphate Rock | 32. Electrical Equipment |
| 15. Fats, Oils, and Oil-Bearing
Materials | 33. Silk Fabrics |
| 16. Hides and Skins, Tanning
Materials, Leather and
Leather Manufactures | 34. Cotton Textiles |
| 17. Dyes | 35. Rubber and Manufactures |
| 18. Potassium Salts | 36. Rayon Fabrics |
| | 37. Raw Cotton |

2. Annotated tabular survey.--A detailed tabulation of import and export trade of Japan proper with all areas, including Korea and Formosa, and covering many more commodities than those covered under the Special Industry Analyses. The survey covers the trade from 1928-39, and includes pertinent comments--as to description and uses, importance of the trade to Japan, problems of the industry involved, and the like-- for each commodity or group of closely related commodities.

3. General summary survey of the foreign trade of Japan.--A summary of the foreign trade position of Japan proper, including the trade with Korea and Formosa, which relates the trade in various commodities to the total trade of the country and has as its chief purpose the outlining of the problems which Japan will face in its international and domestic economy in the postwar period, both as a result of the war and of general developments in the technology of production.

4. The shipping industry of Japan.--This is a very detailed statistical and analytical survey of the shipbuilding and overseas shipping of Japan, showing the position of shipping in the economy of the country, the degree to which the business was encouraged by the Japanese Government for military purposes, the economic adaptability of it, and the effects of the war on it. Particular attention is given to the part which the shipping business played in the international economy and the problems which the virtual elimination of the Japanese merchant marine and the control of its shipping will create for the country. To some extent replacement of the Japanese merchant marine by the vessels of other nations on overseas shipping routes may serve as an outlet for the large tonnage built especially by the United States during the war.

5. The foreign trade of Korea.--In this summary of the economy of Korea particular emphasis is given to the problems involved in the dismemberment of the Japanese Empire and the establishment of Korea as an independent state. The investments of Japanese and foreigners in Korea are covered, as well as the nationality of those operating its rapidly developing industries at the beginning of the war with the United States. Detailed tables and discussions of the trade of Korea in particular commodities are presented. The chief purpose of the study was to fill a serious gap in the information available regarding Korean trade, so that those concerned with the occupation and liberation of that country might be better able to act in particular situations in relation to the economy of the country.

Synthetic organic chemicals, United States
production and sales, 1944

The Commission in September released a preliminary report of its twenty-eighth annual compilation of statistics of production and sales of synthetic organic chemicals and their raw materials. The report includes statistics on chemical crudes derived from coal tar and petroleum, intermediates, dyes, color lakes and toners, medicinals, flavor and perfume materials, materials for plastics, rubber-processing chemicals, and miscellaneous chemicals. Detailed statistics for surface-active agents and for plasticizers were shown in separate tables for the first time in these reports. The report was compiled from data on about 5,000 items supplied by about 600 companies. A final report for 1944 will be issued in printed form later.

Production and sales of tars, tar crudes, intermediates, and finished coal-tar products continued in 1944 the upward trend of the past decade. The quantity of tar produced in 1944 was estimated at 968 million gallons, compared with the 928 million gallons estimated for 1943; coal tar produced at byproduct coke-oven and coal-tar retort plants accounted for 788 million gallons and water-gas and oil-gas tar for the remaining 180 million. About 601 million gallons of tar were distilled or topped in 1944, compared with 682 million in 1943. Of the remaining tar, 248 million gallons was consumed chiefly as fuel, and 109 million gallons was consumed for other purposes.

The total output of toluene from all sources (excluding plants under Ordnance control) was 134 million gallons in 1944, compared with 96 million in 1943 and 43 million in 1942. Most of the toluene, however, was produced synthetically from petroleum--96 million gallons in 1944 and 58 million in 1943. Toluene was used chiefly to manufacture the high explosive trinitrotoluene.

The output of crude naphthalene totaled 301 million pounds in 1944, slightly less than in 1943 but 20 percent more than in 1942. Production was maintained at this high level chiefly because of the great demand for naphthalene as a raw material in the production of alkyd resins for use in surface coatings and of phthalate plasticizers for processing plastics materials.

The report for 1944 contained statistics, initiated in the report for 1943, for chemical raw materials derived from petroleum. Production of these chemicals totaled 3 billion pounds; sales totaled 2.8 billion pounds, valued at 200 million dollars. A great part of these chemical raw materials was used in the manufacture of synthetic rubber.

In 1944, the output of intermediates and finished products, combined, reached 15.5 billion pounds, the largest output on record. Production of cyclic intermediates totaled 2.2 billion pounds, an increase of 34 percent over the previous peak of 1943. Production of all finished products and acyclic intermediates totaled 13.3 billion pounds, an increase of 28 percent over 1943.

Sales of intermediates and finished cyclic products were 4.0 billion pounds, valued at 880 million dollars; sales of all acyclic organic chemicals were 6 billion pounds, valued at 1 billion dollars. For all synthetic organic chemicals combined, sales accounted for 65 percent of the total quantity produced, the remainder being consumed in further processing by the producers.

Imports of coal-tar products

The analysis of imports for consumption under paragraphs 27 and 28 of the Tariff Act of 1930 issued by the Commission in November is a continuation of similar reports which were previously released jointly by the Department of Commerce and the Tariff Commission. These releases were discontinued during the war for security reasons.

Imports of coal-tar intermediates entered under paragraph 27 in 1944 consisted of 17 items (8 competitive and 9 non-competitive), having an aggregate weight of 9,034,482 pounds, valued at \$1,395,163, compared with 4,423,521 pounds, valued at \$650,656, imported in 1943. The average unit foreign value of imported intermediates was 15 cents per pound in 1944, the same as in the previous year. The chief intermediates imported in 1944 were ethylbenzene and styrene from Canada. Both of these materials were needed for the synthetic rubber program. Dibutyl phthalate, also imported from Canada, was another important item. This material was needed as a plasticizer for nitrocellulose propellant powders.

Imports of a finished coal-tar product entered in 1944 under paragraph 28 consisted of 325 items, having an aggregate weight of 5,454,906 pounds, valued at \$2,593,037, at an average unit foreign value of 48 cents per pound. In the previous year, imports totaled 1,282,872 pounds, valued at \$2,334,419, at an average unit foreign value of \$1.82 per pound. The marked decrease in the unit value shown for 1944 reflected the large imports of the high explosive trinitrotoluene from Canada. This material has a much lower unit value than most other finished coal-tar products.

Imports of dyes, the principal group of finished coal-tar products in imports, amounted to \$1,514,214, or 58 percent of the total value of all imports entered under paragraph 28 in 1944. Statistics according to competitive status are shown for the 291 dyes that were imported in that year.

Medicinals and pharmaceuticals ranked next to dyes in importance among imports of the chemicals entered under paragraph 28 in 1944. The items (3 competitive and 7 non-competitive) had an aggregate weight of 20,964 pounds, with a total foreign invoice value of \$68,729, or 2.7 percent of the total value of imports entered under this paragraph. The largest import item was sulfapyridine (a sulfa drug) and its sodium salt, which together totaled 20,382 pounds, or 97 percent of the total quantity of all the medicinals and pharmaceuticals imported. This important anti-infective drug was imported from Canada to help meet the large military requirements. Other medicinals and pharmaceuticals imported during 1944 came from England, Brazil, and Mexico.

Flavor and perfume materials entered under paragraph 28 in 1944 originated entirely in Switzerland and were largely withdrawals from warehouse of merchandise which had previously been shipped to this country. Entries consisted of 11 items (9 competitive and 2 noncompetitive), aggregating 4,916 pounds, valued at \$31,187, at an average unit foreign value of \$6.34 per pound. Musk ambrette and musk ketone, both widely used perfume fixatives, were the chief import items, together accounting for 96 percent of the total quantity of all perfume and flavor materials entered under the paragraph.

Analysis of general imports of miscellaneous chemicals and medicinal preparations

This report analyzes imports of certain classes of chemicals and medicinal preparations dutiable under paragraph 5 of the Tariff Act of 1930 for 1942 and 1943. This analysis was prepared primarily for the war agencies. It consists of a tabulation of import items in certain specific "basket classes" by quantity, value, and country of origin; for 1942 the analysis covers entries through the port of New York only but for 1943 entries through all districts.

The value of imports analyzed was \$627,316 in 1942, and \$1,144,289 in 1943. Switzerland was the principal source in 1942, supplying slightly less than 46 percent by value of all the items analyzed. In 1943, Canada and Mexico were the most important sources, supplying 36 percent and 25 percent, respectively. During 1942, medicinals accounted for most of the imports in terms of value, but in 1943, nonmedicinals were the most important.

Analysis of general imports of miscellaneous crude drugs for 1942, 1943, and 1944

This analysis, prepared primarily for the war agencies, consists of a tabulation for 1942, 1943, and 1944 of all items in the six basket classifications of paragraph 1669, entered through all ports, by quantity, value, and country of origin.

The analyzed imports amounted to \$2,411,240, \$3,065,342, and \$4,184,142, in 1942, 1943, and 1944, respectively. Drugs of animal origin accounted for 79 percent of the total value of the analyzed imports in 1942, for 84 percent in 1943, and 86 percent in 1944. Of the items analyzed, those having the greatest value were shark, tuna, and various other fish livers. In 1942 these livers accounted for 66 percent of the total value of the crude drugs analyzed, and in 1943 and 1944, for 67 and 55 percent, respectively. Mexico ranked first among sources of the imports, supplying 49 percent by value of the crude drugs analyzed in 1942, 51 percent in 1943, and 39 percent in 1944. Canada ranked second in importance in all three years, supplying 10 percent, 15 percent, and 24 percent, respectively.

United States imports from China: An analysis of the prewar trade

Covering United States prewar imports from China, inclusive of Hong Kong and the Kwantung Leased Territory, this report supplies detailed information to assist in plans for postwar trade with that area.

The report digests information on all articles imported from China, Hong Kong, and Kwantung to a value of \$25,000 or more in either 1936 or 1940, provided that this area ranked first or second among United States foreign suppliers of the article in at least 3 years in the period 1936-41. Information on a few other commodities is also included. Among them are tin, carpet wool, and tea; United States imports of each of these commodities from the area exceeded \$25,000 annually, but the area did not rank as either first or second supplier. Among them also are certain minor commodities, such as those which are closely related to the major products selected, and those which are distinctive, for example, antique Chinese objects of art.

The individual digests show the tariff status of the commodities since 1930, together with the statistics of United States imports from China, Hong Kong, and Kwantung combined, and from each of the other principal foreign supplying countries, in the period 1936-41. United States production and foreign trade in similar or competitive articles are also described, and for some articles--Philippine embroideries, for example--the production and export trade of third countries is discussed.

The commodities which are individually reviewed accounted for imports of 81 million dollars in 1936 and 88 million dollars in 1940, or for approximately 95 percent of total United States imports from China, Hong Kong, and Kwantung in each of those years. Of these selected imports, about two-thirds, in terms of value, were duty-free and one-third, dutiable. Imports from this area constituted about one-fifth of the total imports of these articles from all countries, in both 1936 and 1940.

Twenty leading articles accounted for about three-fourths of the value of all United States imports from China, Hong Kong, and Kwantung in 1936 and 1940. The principal duty-free imports were tung oil, raw silk, tin, carpet wool, goat and kid skins, lamb and sheep furs, weasel furs, raw cotton, goat and kid furs, and sausage casings; and the principal dutiable imports were bristles, handkerchiefs, embroidered articles, sesame seed, feathers, perilla oil, fur plates and mats, dried eggs, peanut oil, and tungsten ore and concentrates. Tung oil was by far the most important article, accounting in both 1936 and 1940 for about 20 percent of the value of all imports from that area; this area supplied the United States with almost all of its imports of tung oil in 1936 and 1940.

APPENDIX 2

SUMMARY OF WAR-RELATED ACTIVITIES OF THE UNITED STATES TARIFF COMMISSION

Although primarily a peacetime branch of the United States Government, the Tariff Commission converted to national defense and later to war activities from 1940 to 1945 during which time its work largely concerned national defense and economic problems of the war.

The contribution which the Commission made to the war effort grew out of its ability to supply economic and factual information not available from any other one source. The experience gained in a quarter century of organizing for investigational and research work; the accounting, statistical, economic, and technical knowledge of its staff; and its direct contacts with and knowledge of the principal industries of the country, as well as the wealth of material in its commodity, country, and transportation files, all led the war-created branches of the Government to call on the Commission for assistance.

This appendix summarizes briefly the major war activities of the Commission. It includes a list of war projects which were requested by other agencies and those which the Tariff Commission undertook on its own initiative. Each project is listed under the agency for which it was principally undertaken. Most of the information furnished was also of value to one or more other agencies, some of which are shown in the list. Work done for a defense or war agency that was afterward superseded or renamed is listed under the name used on VJ-day.

In addition to the work here summarized, the Tariff Commission was represented on many of the interdepartmental committees sponsored by the various war agencies and executive departments of the Government in order to prepare and analyze pertinent economic and industrial information. Further, the Commission loaned members of its staff to the war agencies for various periods, for the purpose of aiding them directly in handling their problems. In many instances the groundwork was thus laid for continued cooperation throughout the war.

Practically all of the material listed in this summary was for Government use only, and copies are not available for distribution.

Foreign Economic Administration

The Tariff Commission placed its facilities at the disposal of this war agency shortly after it came into existence late in 1941. (It was then the Economic Defense Board and later the Board of Economic Warfare.)

Maximum Foreign Supply Surveys

The first major request received from the Board of Economic Warfare in 1942 was to compile data pertinent to the Government's program of securing in the shortest possible time the maximum foreign supply of materials needed for national defense. The 99 surveys made under this project covered commodities classified by the Army and Navy Munitions Board as being either strategic or critical. The surveys were also made available to the War and Navy Departments and other Government agencies concerned with the war effort.

Estimated Supply Position of Axis Europe

This series of reports, prepared in 1942, covered the position of enemy countries, including Axis-dominated countries, as to supplies of 25 strategic commodities. In these reports consideration was given to: (1) The prewar Axis position; (2) the existing (1942) Axis position; (3) the position the Axis would hold with respect to supply if it should conquer new territories such as the Near East, parts of Africa, and the Soviet Union.

International Air Transport

In 1942 it became increasingly apparent that the airplanes returning from war zones could bring back strategic materials needed in this country. It was necessary to develop plans that would assure efficient use of the available space in these planes. As a result the Tariff Commission was requested to prepare reports on strategic materials suitable for air transport. Reports were written on 36 commodities. Each report was accompanied by a map of the country of origin showing the geographic sources of the commodities, the location of warehouses, and transportation facilities available to landing fields along the routes of transport planes.

The Current Foreign Trade of India

The purpose of this report, prepared in 1942 and 1943, was to indicate what articles important for war use could be supplied by India for export in large amount and what articles would probably be available in India for local use if an expeditionary force should go there from the United States. The report was in

three parts. Part I supplied background information about the supply situation in India. Part II consisted of statistics and a summary analysis of the foreign trade of India. Part III presented for more than 100 selected commodities all available statistics and basic information as to grades and uses, Indian production, consumption, exports, and imports. The Quartermaster Corps of the Army and other war agencies were also interested in this report.

Suspicious Exports

Early in 1942 a study was undertaken to determine whether it seemed probable that any product exported from the United States to a neutral country might have been, or thereafter might be, diverted to the Axis Powers or used for their benefit. The study involved the examination of approximately 1,700 United States export classes and the selection of those believed to be needed by the Axis Powers of which there was in 1940 and 1941 a marked increase in the exports to nonbelligerent countries.

Japanese Industrial Survey

Early in the war the Tariff Commission was requested to compile source material for studies of Japan and Japanese-controlled territory. Abstracts were made from material found in sources such as the English language press of the Japanese Empire, consular reports, Library of Congress, and the files of the Tariff Commission and other Government agencies. About 1,000 articles and reports were reviewed to obtain pertinent information on raw material supplies, resources, capitalization of enterprises, employment, productivity, location, and Government controls of the industries of the Japanese Empire. The information furnished was to facilitate the determination of bombing objectives, military potentials, and related matters.

Economic Vulnerability of Japanese Heavy Industries

In 1941, at the request of the Administrator of Export Control interdepartmental committees were set up to prepare a series of reports on Japanese heavy industry. Though completed before the United States entered into war with Japan, the material was used by the Military Intelligence Service in evaluating Japanese industry from the strategic standpoint. The Tariff Commission took a very active part in the preparation of the reports for these committees.

Japanese Trade Studies

This project, compiled in 1945, covered, in five parts, the prewar Japanese trade situation, including the trade with foreign countries and with the Japanese dependencies.

1. Special industry analysis.—This part of the report includes detailed information on production, imports, exports, and consumption of 35 commodities.
2. Annotated tabular survey.—This is a tabulation for over 250 commodities of import and export trade of Japan (including Korea and Formosa) with all countries, whether foreign- or Japanese-controlled.
3. General summary survey of the foreign trade of Japan.—The purpose of this summary of the trade position of Japan was to outline the problems that face Japan in its international and domestic economy in the postwar period.
4. The foreign trade of Korea.—This is an economic summary regarding Korea, with particular emphasis on its overseas trade. The purpose of the study was to fill a serious gap in information needed by those concerned with the liberation of the country.
5. The shipping industry of Japan.—This is a detailed statistical and analytical survey of the shipbuilding industry and overseas shipping business of Japan, showing their position in the economy of the country and the effects of the war on them.

The Commodity Position of Malaysia

This was a series of studies prepared during 1943 and 1944 of 49 commodities important in the economy or export trade of the Malaysian area. Among the subjects discussed was the possibility of increased yield of Malaysian products and the value of some of the commodities to the Japanese war economy. The United States does not produce in significant quantity many of the commodities covered.

The Mining Industry of the Philippines

This is a brief survey on the products and problems of the mining industry in this area, prepared in 1944.

Industry in French Indochina

This report, prepared in 1943, deals with the industries already developed in French Indochina and the problems of further development. It was designed to supplement other available information for use in connection with possible occupation of the area by the Allied forces.

The Economic Structure of the Netherlands Indies and British Malaya

The two monographs, prepared in 1943 and 1944, contain, for the areas covered, information on agriculture, mining, foreign

investments, industrialization, and foreign trade, and a section discussing possible postwar problems. This material was intended for use of those concerned with the wartime economic conditions existing in that area or with postwar planning.

Chemical Industries in Japan

Reports were prepared in 1943 on the industries in Japan producing sulfur and sulfuric acid, soda, chemical nitrogen, chlorine, calcium carbide, and petroleum. These reports contained among other things the names and location of plants, processes used, and, where important, a discussion of byproducts and of related industries. Most of the information was used also by the Army Air Forces and other branches of the military.

Industry Studies Regarding Belgium-Luxembourg, and the Netherlands

The purpose of this series, prepared in 1943 and 1944, was to indicate what industries existed in the Low Countries before the war that might be of use to the Allied forces on reoccupation and for quick rehabilitation in those countries after reoccupation. Twenty-nine industries of Belgium-Luxembourg and 25 of the Netherlands were covered. The War Department also had an interest in this project.

Aluminum and Aluminum Compounds

This report, prepared in 1943, described the various aluminum compounds, their method of manufacture, and the importance of each from a military and civilian point of view. It also surveyed the position of Axis-dominated countries (France) regarding bauxite, the manufacture of aluminum in Japan, and the production of aluminum from kaolin and clay in Germany.

Chemicals, Swedish Blockade

Early in the war a report was prepared on certain chemicals and related materials passing through the German blockade to Sweden. It included specific information on the Swedish chemical industry and on the import and export trade of Sweden. From the report could be determined the minimum quotas of chemicals and related raw materials necessary to maintain the Swedish economy, and still not permit excessive imports which might find their way to the enemy or be used to manufacture goods for export to the Axis Powers.

Iron Ore and Antifriction-Bearing Industries, Sweden

In September 1942 report was made on the output of the antifriction-bearing industry in Sweden with the object of finding possible procedures for cutting off shipments of bearings to Germany. A similar analysis was made of Swedish iron ore.

Spanish Industrial Survey

A series of 12 reports on certain metals industries and on the power and railroad systems in Spain were prepared in 1942. They included descriptions of and specific information on locations of various industrial units.

Obstacles to Importation from Latin America

In 1942 a study was made of obstacles that had to be surmounted in the importation of certain products from five Latin American countries. Each of 35 abstracts showed the extent to which a particular commodity was subject to export-permit requirements or other export barriers on the part of the foreign countries, or to price regulations and import duties in the United States. Modification of foreign export restrictions because of contracts with the Metals Reserve Corporation or Defense Supplies Corporation were indicated.

Preclusive Purchasing in Latin America

In 1943 the Tariff Commission prepared reports for the purpose of consideration of the desirability of preclusive purchasing in Latin America to check reported purchasing and smuggling by the Axis Powers. The reports covered two groups of commodities—(1) minerals and metals and (2) chemicals and sundries.

Chemical Industry, Mexico and Colombia

Reports were prepared in 1943 analyzing the economic status and potentialities of the chemical industry in both Mexico and Colombia. These reports furnished background material for use of industrial missions organized to visit each of the countries.

Trade of Argentina With Other American Republics

This report, which was prepared in 1942 as background material for export control, examined both the import and export trade of Argentina for the period 1937-41.

Mexican Industries

In 1942 the Foreign Economic Administration requested the Tariff Commission to prepare reports on certain aspects of the Mexican economy. The reports covered seven important Mexican industries. Each report included description of the industry, reference to the principal enterprises, and data relating to production, labor, raw materials, imports, and exports.

Mica

The nearness of the Japanese to the important mica fields of India made it advisable for the United States to explore and develop deposits in other countries which ordinarily would have been considered uneconomical to operate. Because of the possible need of new sources, the Tariff Commission's specialist on mica was sent by the Foreign Economic Administration to Colombia to explore the possibility of developing a mica industry in that country. This work was done during 1943 and 1944.

World Mineral Survey

The Tariff Commission has collaborated for several years past with the Foreign Economic Administration, Bureau of Mines, and other interested Government agencies in this project. The study was designed to locate and facilitate wartime procurement of strategic and critical materials in such a way that available production and transportation facilities might be utilized with maximum effectiveness. The project is being continued by the Bureau of Mines and should be of value in planning rehabilitation and reconversion work and also in developing stock-piling programs.

World Food Supply and Requirements

As part of a world survey of food products made by a committee organized by the Board of Economic Warfare, the Tariff Commission in 1943 compiled data on some 30 food products, consisting of high-protein vegetables, dehydrated vegetables, fruits and fruit juices, edible nuts, and cereals and starchy foods.

Cement

In 1943 a report was prepared on the European cement industry, covering 15 different countries of Europe.

Import Requirements from United Kingdom

In 1941 and 1942 studies were made on the situation in this country with respect to a few items that are customarily supplied largely from England. By considering our own facilities and past requirements, it was possible to estimate minimum requirements from abroad.

Tunisian Food Requirements

A report was prepared by the Commission in 1943 on production, trade, and consumption of food in Tunisia for the use of a representative of Lend-Lease detailed to that country.

Miscellaneous Material

In addition to the projects summarized above, the Tariff Commission also supplied information on numerous other specific requests from the Foreign Economic Administration. Some of the more important are: (1) Estimated capacity of the British pottery industry; (2) possibilities of expanding postwar import trade in pottery, glassware, graphite, magnesite, and asbestos; (3) estimates of the potential production of strategic grades of asbestos in Turkey; (4) prices of ceramic building material in North Africa; and (5) consumption of and substitutes for asbestos in European Axis countries. .

War Production Board

Shipping Information

Almost from the beginning of the war the Tariff Commission was engaged in making studies for the Bureau of Stockpiling and Transportation of the War Production Board. A senior member of the staff served as consultant and adviser to that division, was a regular member of the Interdepartmental Shipping Priorities Advisory Committee and the Interdepartmental Air Cargo Priorities Advisory Committee, and was Chairman of several commodity sub-committees of these committees. Information that was supplied fell under the following three categories:

Ocean shipping priorities.--Because of shortage of ocean shipping space, Government control of imports was imposed during the war. The principal instrument in the exercise of this control was the Shipping Priorities Schedule. This schedule, which was reviewed periodically, established a preference rating system in the movement of off-shore (ocean-borne) imports. The Tariff Commission had one of the principal parts in determining shipping quotas and preference ratings on imported commodities.

Air cargo priorities.--Early in 1942 the War Production Board was authorized to establish preference ratings and quotas for the movement of commodities by air from foreign countries. The plan devised was about the same as that for the Shipping Priorities Schedule. The Tariff Commission made a series of studies for use in connection with the Air Cargo Priorities Schedule.

Stockpiling.--In 1941, at the request of the Shipping Imports Advisory Committee, the Tariff Commission made a study to determine the commodities of which stock piles might be needed. For the 50 commodities included in the Commission's study, information was given on the principal uses, imports since 1939, the sources of the imports, the extent to which the United States was dependent on the imports, the size of the existing stock in the United States, and the kind of transportation and storage facilities required.

Domestic Transportation Studies

The heavy traffic load on domestic transportation facilities created concern over the possibility that future increases in the burden would cause bottlenecks that would endanger the war effort. It was estimated that a safety margin of some 10 to 15 percent of total ton-miles could be obtained by the restriction of the movement of civilian goods. Studies conducted by the Tariff Commission indicated that this margin could be provided without decreasing the total civilian supply in any area. These studies include data on certain fresh fruits and vegetables, beverages, ceramic materials, chemicals, lumber, and metallic ores. Fortunately the carriers were able to carry the load successfully, but if an emergency had developed the War Production Board had in the Commission's report data necessary to organize and administer controls over transportation.

Distribution of Petroleum and Petroleum Products

In 1943 a report was prepared for the Division of Stockpiling and Transportation of War Production Board to show the prewar pattern of transportation of crude petroleum and petroleum products in the United States by pipe line, water, and rail.

Primary Products and Their Manufactures in Certain Strategic Foreign Areas

This series of reports was prepared in 1942 and 1943. It dealt with some 30 foreign areas covering their resources, the degree of their development, and the surpluses of materials which might be available either for shipment to the United States for use in the war effort or for shipment to one of the other Allied Nations. In addition to the War Production Board, which was concerned with supplies available in accessible foreign areas for use in United States, other agencies found the information in this series useful; the Foreign Economic Administration was interested in the purchase of such materials; and the War and Navy Departments and the Joint Chiefs of Staff were concerned from the standpoint of the availability of materials in areas that might be in the line of offensive operations by the United Nations, as in North Africa and the Pacific area.

Foreign Production of Strategic and Critical Materials

These surveys of 10 scarce commodities vital to our war effort contained information on availability of supplies, problems of production, and possibility of increasing production. Like the foregoing series, these surveys were utilized also by the War Department, the Navy Department, and such international groups as the Combined Production and Resources Board.

Synthetic Organic Chemicals, Monthly Data

During the war the Tariff Commission collected and compiled monthly and quarterly data of production, consumption, and stocks of some 300 organic chemicals of special importance during the war.

Fatty Acids

For use in connection with promulgating regulations to conserve supplies for essential uses, a survey was made in September 1942 dealing with processes, production, and uses of fatty acids.

Sulfonated Fats and Oils

A report was prepared in August 1942 on sulfonated fats and oils. It dealt with the types of product, processes of manufacture, production by kinds, uses by kinds in various industries, and interchangeability. It was intended for use in ensuring the necessary supplies and allocating them according to their essentiality.

Glycerin

The war in the Pacific closed areas which normally supplied the United States with raw material for products of which glycerin is a byproduct. This raised problems relative to the supply of glycerin, an essential product in time of war. A report was made in May 1942 with special reference to ways of meeting essential requirements, particularly by obtaining greater recovery of glycerin and by restricting nonessential civilian uses.

Lumber

The Commission was called upon by the National Defense Advisory Commission early in 1941 to make a study of operating conditions in the Douglas fir lumber industry of the West Coast. The data were used jointly by the NDAC, the Bureau of Labor Statistics, and the National Defense Mediation Board. The study was concerned principally with the relations between the trends of prices, costs, wages, and profits in the industry.

Wood Pulp

The war in Europe cut off the important Scandinavian sources of pulp, leaving the domestic paper industry dependent solely upon North American pulp producers; the curtailed supply and the increasing demands for paper and board made it necessary to devise a system to insure equitable distribution. The Tariff

Commission in 1942 was called upon to assist the War Production Board in setting up machinery for allocation of pulp. In this connection a report was prepared showing the distribution of each of the principal grades of pulp and the States to which shipments were made.

Fishery Products

The data contained in a report prepared by the Tariff Commission in 1942 on the import trade of Latin American countries in fish and shellfish enabled the Fisheries Committee of the Food Requirements Committee to determine the allocations for export of these products to the different countries.

Fiber and Fiber Products

In order to make an equitable allotment under conservation and limitation orders covering certain hard and soft fibers and their products and covering industrial wiping cloths, the Tariff Commission submitted to the War Production Board monthly statements based on nearly 1,800 replies made to questionnaires sent out by the War Production Board. Information was supplied on monthly stocks of both raw materials and finished products, the quantities of raw material put in process during the month, and the quantities of finished products manufactured. The Tariff Commission also assisted in the establishing of procedure in allocating fiber to the cordage industry.

Raw Wool

Early in 1942 the Tariff Commission was requested to make a monthly analysis of commercial imports of raw wool, beginning with entries in December 1941. This study was essential to the war effort because of the large increase in wool requirements, uncertainty of continuity of imports of types in demand by the armed forces, and the possibility that rationing of wool textiles for civilian consumption might become necessary.

In 1941 the then Office of Production Management and the Quartermaster Corps asked the Tariff Commission to assign members of its staff to examine the cost of the wool clip in 1941, as compared with the cost in 1940. The study was wanted to determine to what extent price differentials in favor of domestic wool, as established in March 1941, should be modified in making further contracts.

Miscellaneous Material

In addition to the foregoing projects, the Tariff Commission also supplied information on numerous other specific requests from the War Production Board. Some of the more important of these were: (1) World production statistics (1940) for graphite, mica, fluorspar, and asbestos; (2) international trade statistics on carbon and graphite electrodes for Germany, Sweden, and France; (3) Canadian imports and requirements for magnesite brick and other refractory products; (4) possibility of utilizing Indian magnesite for refractory purposes; (5) distribution and productive capacities for gypsum plasters by areas in the United States in 1942; (6) location of domestic deposits of Iceland spar and possibilities of importing this material from South Africa; (7) estimates of postwar requirements for Rhodesian and South African asbestos; and (8) utilization and availability of kyanite from domestic and foreign sources.

War Department

(Including Army and Navy Munitions Board)

Pertinent Information Series Regarding Certain Foreign Areas

These studies prepared in 1942 and 1943 dealt with little-known areas in Africa and the Near East and with certain Pacific Ocean Islands. Effort was made to give in detail the whole aspect of these areas, including information on climate, population, physical features, water supply, and the building materials which might be available locally. The studies served the purpose of indicating, for example, where certain scarce war materials might be found, where airfields might be located in emergency, and gave general information regarding the area.

Purchase of Strategic and Critical Materials

In 1940 the Army-Navy Munitions Board was the only agency directing Government purchases of strategic and critical materials. The Tariff Commission was asked by that Board to supply all available information that would aid in carrying out this program. It supplied information on foreign capacity and production of the several materials, quantities imported by United States, domestic production, and stocks in the United States. This information was used to revise the lists of strategic, critical, and essential materials and to determine the procurement program.

Chemicals

In 1941 in response to a specific request from the Army-Navy Munitions Board the Tariff Commission prepared a report on 200 inorganic and organic chemicals important in the war effort, giving data on production, sales, imports, and exports in 1940 and production for 1937-39.

Wool Requirements

In 1941-43 an analysis was made of the raw wool requirements per soldier, by all the principal items issued, and by the grades of wool used.

Woolens and Worsteds

In July 1942 the Commission initiated a study for the Quartermaster Corps of woolen and worsted fabrics. This assistance was continued while the Quartermaster Corps developed procedures and formed an organization to take over the work.

Crude Drugs, Imports

A report was prepared showing the quantity and value of United States imports of 55 crude drugs, herbs, leaves, and roots during 1937-40 and January to April 1941. The data were used by the Army and Navy Munitions Board in its study of medicinals required during the emergency.

Bombing Objectives in Japan

At the request of the Army Air Forces Intelligence Service a series of reports were prepared beginning in 1941 on the Japanese heavy industries. They presented the background of each industry and gave the latest information on production and trade, together with all available photographs of the principal installations. Wherever possible, the precise location of facilities was carefully outlined as an aid to the selection of bombing targets.

Japanese Supplies of Raw Materials

Late in 1942, at the request of the Military Intelligence Service, the Tariff Commission prepared a series of reports on Japanese supplies of raw materials. The series covered metals, metallic ores, nonmetallic minerals, and nitrates in both the Japanese Empire and Japanese-dominated territories.

Technical Industrial and Intelligence Committee
of United States Army

The Committee was made up of regular Army staff and civilian experts who planned for surveys of various industrial plants in conquered countries to inspect equipment and learn other valuable information concerning research conducted and methods of operation. Several Government agencies including the Tariff Commission were asked to prepare lists of questions for the purpose of obtaining technical, economic, and other factual information regarding the chemical industry of Germany and the Tariff Commission was asked to outline the information needed from Japan covering textiles, dyestuffs, furs, pottery, hides and skins, leather, and tanning materials.

Assistance to the Army Industrial College

Members of the staff of the Tariff Commission have been called upon to participate as technical consultants in seminars conducted by this college for the purpose of instructing its faculty in certain industrial fields. Special reports on quartz crystals and mica were prepared for the use of this college.

Italian Economy

At the request of the School of Military Government, United States Army, Charlottesville, Va., the Tariff Commission began work on the preparation of a comprehensive survey of Italian economy. The survey was designed to be used for instruction of Military Government Officers who would serve as Civil Affairs Officers in Italy after its occupation. Five sections of the report were completed by March 1943. Before the remaining sections could be completed, the function of preparing such reports was assigned to the Office of Strategic Services. The Commission thereupon turned over the completed information and other pertinent data to that agency.

Foreign Trade Policy of Austria

The Tariff Commission was asked to prepare a report on the foreign trade policy of Austria in the interwar period, for use in connection with a series of handbooks designed to supply basic information to officers who were being trained for the postwar administration of occupied territories.

Miscellaneous Material

In addition to the projects just summarized, the Tariff Commission supplied information on numerous specific requests from the War Department. Some of the more important of these were: Summary reports for Military Intelligence on the mica situation and world resources of mica; (2) postwar status of the pumice industry in Italy; (3) production of and trade in strategic ceramic materials in various parts of the world.

General information on refractories and quartz crystals, emphasizing the problem of supply, was submitted to the Army-Navy Munitions Board.

Navy Department.

Lumber and Rattan

In the early stages of the war the Tariff Commission supplied the Navy with information on the sources, availability, uses, and stocks of mahogany, the concerns handling them, and substitutes for them. It also supplied vital information on rattan and teak, two commodities of importance to the Navy.

Resources of Pacific Islands

The Commission also assisted in the preparation of a series of reports on physical characteristics and resources of some of the smaller islands of the Pacific. This material was used by the Navy in planning for the occupation of these islands.

Inter-American Defense Board

Industrial Installations in Latin America

This Board composed of delegates from the 20 Latin American countries and the United States asked the Tariff Commission to prepare an extensive survey of the vital industrial installations in the 20 Latin American countries. The survey, which covered seven subjects, focused attention on (1) industrial and other installations, the preservation of which was of vital importance to the United States; (2) industrial and other installations which, if captured or destroyed, would be of material advantage to the enemy; and (3) industrial and other installations which, if captured or destroyed by the enemy, would adversely affect primarily the economies of the foreign countries.

Strategic Raw Materials

In order to have a quick reference to the possibilities of developing within the Western Hemisphere adequate sources of strategic raw materials, this Board requested the Tariff Commission to prepare a series of reports on certain oils, fibers, rubber, and important chemical items. The project consisted of 11 reports on United States consumption, prewar and wartime sources of United States supply, prewar production and potential productive capacity in the Western Hemisphere, and related information.

Office of Price Administration

From early in 1941 into the postwar period the Tariff Commission rendered active and continuous assistance to the Office of Price Administration. This service consisted largely of investigations of costs and cost-price relations in designated industries. These investigations contributed to the solution of pricing problems and in some instances to the solution of rationing problems.

Cost of Producing Crude Petroleum

This cost investigation, initiated late in 1941, extended over a period of more than 2 years. Data were collected and analyzed as to costs and other factors affecting production for 1939, 1940, 1941, and the first 7 months of 1942.

Textiles

The work on textiles began in the fall of 1941 and consisted of investigations relative to costs, prices, and margins, in the combed cotton yarn, coarse cotton goods, and fine cotton goods industries. A comprehensive study was also made of the costs of production and of conditions of operation in the carded cotton yarn industry. Less extensive studies were made of the rayon and mixed yarn industry and the marquisette industry.

In the fall of 1942 during the course of the cost study of woolen and worsted fabrics carried out for the Quartermaster Corps certain summarizations of data respecting these military fabrics were made for the Price Administration. Following this the Commission's staff carried out for the Price Administration a comprehensive study of costs and earnings in the production of civilian woolens and worsteds and also in the production of wool tops and wool-knit coatings. In late 1943 the study of cost-price relationships in the woolen and worsted industry was continued by further examination of the influence of construction details on prices.

In 1944 an investigation was undertaken of costs, prices, and margins of the print-cloth-yarn fabrics to provide data bearing on changes in ceiling prices that might be necessary in accordance with the Bankhead Amendment to the Stabilization Act of 1942. This work was followed by a similar investigation of fine cotton goods.

In 1945 an investigation was made of the cost, price, and earning conditions in the cotton garment industry.

Sugar

Important among nontextile investigations for the Office of Price Administration were three relative to sugar. The first of these concerning sugar refining, was conducted early in 1942, and was directed toward determining refinery costs under current and prospective conditions, and margins between the prices of raw and refined cane sugar. The two subsequent sugar investigations relative to beet sugar and Puerto Rican cane sugar, were conducted jointly for the OPA and the Department of Agriculture.

Fruits and Vegetables, Coffee and Tea

Early in 1942 the Office of Price Administration requested the Tariff Commission to supply basic information regarding these commodities urgently needed to assist in price regulations. The Commission supplied for coffee, tea, and about 15 fruit and vegetable products summaries containing essential statistics; information on marketing, imports, exports, and production; price history; and an outline of competitive conditions.

Glass Containers

The Tariff Commission conducted two cost studies on glass containers. One concerned the cost of production of glass containers in the United States. The information thus obtained was used as a basis in establishing price ceilings on these articles. The other study was on the cost of packaging in the paint industry and resulted in a report on the possible conversion from tin to glass containers in packaging paint.

Chemicals

The Chemical Division has continuously provided the Office of Price Administration with data on production and prices of chemicals and drugs for use in determining price schedules.

Department of Agriculture

Department of Agriculture and
Related Organizations

Extensive investigations and office projects relating to foods were undertaken to assist the Department of Agriculture, Office of Food Distribution, the War Food Administration, and the Commodity Credit Corporation. Most of the work was done for the Cost Analysis Division of the Compliance Branch of the Department, with which a standing arrangement for office and field work was made early in 1943.

Sugar

Two sugar investigations were conducted jointly for the Department of Agriculture and the Office of Price Administration. They related to beet sugar produced in the United States and cane sugar produced in Puerto Rico. The beet sugar investigation was designed to provide information to enable the Department to establish prices to be paid to growers of sugar beets, and the Office of Price Administration to set ceiling prices for sugar. The objective of the Puerto Rican investigation was to derive information which would assure coordination of prices of the Puerto Rican product with prices of sugar of other origins.

Fluid Milk

Investigations directed toward providing information for the improvement of subsidy programs were conducted as to fluid milk.

The operations of fluid milk distributors were examined to determine whether subsidies tentatively granted to the distributors in certain areas were justified and whether these subsidies should be identical with the increases in prices being granted to milk producers.

Processed Fruits, Vegetables, and Juices

Beginning in the fall of 1943 and extending into the summer of 1944 the Commission undertook, at the request of the Department, a program which developed into four field studies to obtain information on unusual contractual situations respecting concentrated orange juice. The first three studies related to production in Florida, the fourth to production in California. The problems involved were occasioned by rapid expansion in the output of highly concentrated orange juice.

In the spring of 1944 at the request of the Commodity Credit Corporation the operations of grapefruit-juice canners in Florida, Texas, and California were investigated to test the correctness of subsidy payments being made to them by the CCC.

In the summer and fall of 1944 field work was done at the offices of 50 processors of vegetables and fruits to verify claims for benefit payments to which the processors were entitled from CCC. The reviews related to the processing (principally canning) of various vegetables and fruits, most particularly, tomatoes, corn, peas, and snap beans.

In the spring of 1945 accountants were assigned at the request of the Department to a detailed study of production of dehydrated tomato products.

This group of investigations resulted in important improvements by the War Food Administration in contractual and benefit-payment procedures.

General Problems of Procurement of Foods and Related Products

The work on general procurement problems was begun in the spring of 1943 with a statistical analysis of purchases by commodity classification from the records of the cooperating procurement branches. This was followed by an analysis of purchases from the principal individual companies. Thereafter several office surveys were made relative to important procurement situations. In the first group of these surveys purchases of meats, linseed oil, oleomargarine, milled rice, wheat flour, and dried eggs were reviewed. Subsequently, there were surveys on purchases of soybean products, dehydrated vegetables, cornstarch, canned salmon, California fish products, vitamins, and fish oils. In terms of volume of Government purchases, three of the most important categories covered by the surveys were meat products, dried eggs, and milk products.

A comprehensive investigation was conducted in the fall of 1944 into costs and margins on canned meats, particularly luncheon meats, Tushonka (a product sent to the Soviet Union), chopped ham, vienna sausage, bulk pork sausage, and canned bacon. In this analysis members of the staff examined the records of 15 representative canners.

Two extensive investigations were made, one in 1944 and one in 1945, respecting dried eggs; they included costs, prices, and margins affecting the production of dried egg powder using shell eggs, liquid eggs, or frozen eggs as raw materials.

Also in 1944 a large-scale investigation was made on costs, prices, and margins for milk products, including butter, cheddar cheese, condensed milk, evaporated milk, dried whole milk, and nonfat dry-milk solids.

In mid-1945 an examination was undertaken of the costs, prices, and margins for canned salmon. Data were obtained for various species and can sizes produced in three West Coast areas ranging from western Alaska to the Columbia River area. Concurrently, an investigation was conducted into the costs of California canned fish products, particularly pilchards (so-called sardines).

State Department

Problems Involved in United States Trade with Latin America

To aid the State Department in formulating a statement of the more urgent postwar problems involved in the trade between the United States and Latin America, that Department asked the Tariff Commission to submit brief statements concerning the supply of various United States import and export commodities that were likely to constitute problems after the war. The report, which included material on 32 import items and 8 commodity groups, was supplied for inclusion in the agenda for the Inter-American Conference held in 1943.

International Cartels

Upon request received in the latter part of 1943, the Tariff Commission prepared brief analyses of cartels or concentrations of international control in about 50 industries the products of which were of major importance to our wartime economy.

German Reparations

The Tariff Commission was called upon to supply data necessary for guidance in formulating policy as to German reparations. Studies were made of selected groups of commodities which figured in United States imports from Germany.

War Manpower Commission

Chemicals

When the manpower situation became critical, the Tariff Commission was requested to cooperate in preparing a list of chemicals vital to the war effort and to the civilian economy, which would serve as a guide in granting deferments from Selective Service. The Commission developed a classified list of about 500 critical chemicals and classified essential activities, thereby screening out nonessential manpower in the chemical field. The report was issued as a War Manpower Bulletin and was the basic document used throughout the war in determining the essentiality of workers in the war effort.

Sugar-Refining Industry

In response to a request of the Industry Program Division of the War Manpower Commission, a report was submitted on the geographic concentration of the sugar-refining industry. The object was to determine the possibility of transferring part of the refining operations from labor-deficit centers to those having adequate labor supply, assuming power and fuel were adequate in the latter centers.

United Nations Relief and Rehabilitation Administration

Much of the work appearing under this heading was done at the request of the Department of State during the time relief and rehabilitation problems were under the jurisdiction of that Department.

Chemicals and Medicinals for Relief and Rehabilitation

Reports were prepared showing the quantity of basic and synthetic chemicals and medicinals deemed indispensable for relief and rehabilitation in liberated areas. This study included commodities, to be supplied by neutral or Allied countries, which are most urgently needed for health and hygienic purposes, and for industrial purposes, as well as petroleum products essential for transportation.

Metals and Related Industries

Upon request, the Tariff Commission furnished maps and information which located and described the natural resources, the metallurgical industries, and the heavy industries in the four Scandinavian countries.

Clothing and Accessories

A member of the staff of the Tariff Commission was chairman of a committee that was assigned the task of preparing data of the anticipated emergency relief requirements for clothing and accessories. The findings of this committee were used as a basis in the buying and storing of many million dollars worth of clothing and accessories for use in North Africa and in Europe.

Miscellaneous Materials and Equipment

In participation in the work of the various committees working on relief and rehabilitation, the Tariff Commission made estimates of the probable needs in European countries of industrial equipment, building materials, electrical supplies, transportation equipment, and related items.

Petroleum Administrator for War

Petroleum

In July 1941 the Commission undertook at the request of the Petroleum Coordinator a review of petroleum refining costs from 1934 to 1941. This was accomplished by extension of the Commission's previous review of similar information for 1934-38. The report to the Petroleum Coordinator contained information respecting the costs of petroleum refining, quantities of crude oil processed, yield of products, wage rates, employment, and related data.

Defense Supplies Corporation

Storage Practices

A study was made of the storage practices necessary to ensure safekeeping of certain goods owned by this corporation. Individual reports were prepared on 14 commodities.

Lumber

To aid in insuring adequate supplies of mahogany logs and lumber, the Tariff Commission furnished information on differences in quality of mahogany originating in various countries, availability, grades, weights, and other matters. The Defense Supplies Corporation was also supplied with monthly analyses of United States imports of mahogany logs and lumber.

Miscellaneous Memorandums

Some of the other material submitted to this agency covered (1) the possibility of using magnesium metal plants in Texas for the production of refractory magnesia; (2) storage facilities and warehousing methods for storing South African asbestos; (3) the necessity of obtaining foreign refractory magnesia to supplement domestic production; and (4) the competitive position of dolomite, lime, and brucite with respect to refractory magnesia produced from magnesite or sea water.

Combined Production and Resources Board

Textiles

This Board set up a Textile Subcommittee consisting of members from the United States, the United Kingdom, Canada, and India, and asked the Tariff Commission to detail a member of its staff to act as Chairman and direct the work. This Subcommittee was asked to assemble as quickly as possible information on production, capacity, and material requirements in the cotton, wool, and rayon industries of the non-Axis countries. Four questionnaires were drawn up, each to cover a particular textile group. These were sent to the Governments of all the non-Axis countries. The Tariff Commission assisted in checking and analyzing the replies to these questionnaires as they came from the respective countries. This information was of importance to the Board, as it afforded a basis for allocation of machinery and production to meet current and future needs.

Office of Strategic Services

Among the material prepared for the Office of Strategic Services was a report on the European cement situation and prices of various ceramic building materials in France and North Africa.

This office also made extensive use of material prepared by the Commission at the request of other agencies.

Department of Justice

Among the information submitted to the Department of Justice was a report on the production, distribution, and location of mines of magnesite, gypsum, graphite, and asbestos in the United States.

Bureau of the Budget

Standard Commodity Classification

Early in 1941 a survey by the Bureau of the Budget revealed 16 different commodity-classification systems in use by various Federal agencies. None of these classifications were found to be comprehensive enough to fill the requirements of all the agencies. To meet over-all needs, the Bureau of the Budget organized committees of representatives from the agencies concerned, and they jointly sponsored the development of the Standard Commodity Classification. The Tariff Commission actively participated in the actual development of the classification.

Extensive use of the Classification, especially in connection with the disposal of surplus property, disclosed the need for expansion, and the Tariff Commission contributed extensively to this work in 1944 and 1945.

Industrial Productivity

In 1941 estimates of production at various levels of industrial activity were made in order to cast light on deficiencies in capacity during the war and also to aid in the regulation of exports of both defense and civilian supplies. The estimates included products for use in shipbuilding, aircraft, consumers' durable goods, and other kindred industries.

National War Labor Board

In 1942 the Commission's staff conducted four investigations for the National War Labor Board with the object of providing information to assist in the settlement of labor disputes.

Furniture and Gloves

The first two studies were limited investigations of certain local situations regarding furniture and glove producers. One was to determine the financial condition of certain furniture companies in the Rockford, Ill., area; the other was to determine the financial condition of certain tanning companies, principally glove leather tanners in Fulton County, New York.

Western Pine Lumber

The third investigation undertaken for the Labor Board was an extensive study of costs in the Western pine lumber industry. This is a striking example of work carried on by the Tariff Commission for a number of agencies jointly. The work, although originally requested by the Labor Board, was planned so as to obtain information needed by the War Production Board, the Office of Price Administration, and the Forest Service. Upon completion of the report, the working papers were turned over to the Office of Price Administration for detailed reference.

Pine-Box Shook Industry

The fourth investigation carried out in connection with the Western pine lumber study covered costs in the pine-box shook industry of the West Coast.

General

The Tariff Commission maintains a small force in New York that is engaged principally in analyzing import entry papers. During the war extensive use had been made of this service by the war agencies who found the information provided by these analyses which supplements the statistics of the Department of Commerce, to be of great help in carrying out their duties. The analyses provide a full description (grades, qualities, types, etc.) of the product, the gross and net weight, quantities, values, country of origin, country of shipment, names and addresses of importers, and, in many cases the names and addresses of foreign exporters and manufacturers. During the course of the war the Commission analyzed more than 1,600 commodity classifications, for periods varying from a few months to several years.

Work Done on Initiative of the Tariff Commission

Importance of United States Imports

From the beginning of the National Defense program, the Tariff Commission was drawn on extensively by the defense and later the war agencies inasmuch as the Commission had gathered over a long period of research and investigation a fund of information on commodities, domestic industries and international trade. Of particular interest to those agencies was the series of compilations of basic data prepared by the Commission to show the importance of United States imports. These compilations, which covered several thousand commodities arranged in three

separate groups, indicated the importance of the commodity to national defense and to the civilian population, the extent to which the United States depended upon imports, current and alternate sources of imports, availability of substitutes, domestic production, and other significant data.

Import Duties on War Materials

On its own initiative the Tariff Commission undertook the preparation of a study of import duties on war materials, the purpose of which was to determine the effect of the removal, for the duration of the war, of these duties. This included all dutiable commodities of interest to the war effort. Statistics and digests relating to 365 commodities or groups of commodities, embracing approximately 800 import classifications, were prepared.

Dependence of the United States on Imports

Late in 1940 the Tariff Commission made a study of the dependence of the United States on imports and the extent to which the Western Hemisphere could supply United States requirements if the need arose. For those products, the imports which generally accounted for more than 25 percent of consumption in the United States, the tabulation showed the principal sources; whether adequate supplies could be obtained then or in the future in the United States or other Western Hemisphere countries; and whether satisfactory substitutes were available.

War and its Effect on United States Imports

Believing that changes in imports which occurred during the first year of the European war would be of interest to those concerned with foreign trade and national defense, the Tariff Commission issued a two-volume report on the effects of the war on United States imports. The report covered 228 commodities selected on the basis of their importance in international trade, plus a large group of strategic or critical materials.

Synthetic Organic Chemicals, Annual Data

Synthetic organic chemicals have many important uses in wartime. Since 1918 the Tariff Commission has been assembling annual data on United States production and sales of this type of chemicals, and it continued to collect the annual information during the war. Detailed reports of this information were made to interested war agencies of the Government. The War Production Board used statistics from the annual reports in its allocations programs; the Office of Price Administration studied the sales values in determining ceiling prices; and the Lend-Lease Administration consulted these reports in preparing its requirements. This is an example of peacetime work of the Tariff Commission which found an essential wartime use.

Fats and Oils in Food

During the war, questions arose concerning fat and oil requirements of the United States and certain other countries. In order to set forth the facts and to aid Government agencies in dealing with food problems, a report was made showing the available supplies of the United States and its requirements of fats and oils for food use. The report had a bearing on shipments to Allied and neutral countries.

Nutrient Study

When food became scarce and rationing necessary, there was need for information on the total supply and demand for food in terms of specified nutrients. In order to make such information available to those responsible for planning and administering food programs, the Tariff Commission undertook such a survey. Foods were divided into 10 major groups. United States production, imports, exports, and consumption of each item in a group were converted to the equivalents in terms of fats, proteins, carbohydrates, and caloric content.

Glycerin Substitutes

A study was made showing data on glycerin supplies and requirements and indicating the substitutes which might be used in place of glycerin. Many of the substitutes themselves were also scarce during the war.

Recoverable Metal Content of Imported Nonferrous Raw Materials

The Commission has prepared a series of memoranda covering imports of nonferrous raw materials from August 1943 to date. Memoranda incorporate the information obtained from an analysis of the imports of nonferrous raw materials (United States imports) through all the customs districts. The data shows the gross weight of each type of material imported, the country of origin, the metal content, and the estimated recoverable metal. The data were used by the war agencies in making estimates of future requirements and for making allocation of materials in this country.

Silver in Wartime

Several war agencies used the Commission's report on Silver in Wartime in making allocations of silver to the silver-manufacturing industries, as silver had to be used to a considerable extent in place of other metals, especially tin, and also had to be used in brazing alloys, parts of electrical apparatus, and bus-bar conductors in aluminum plants.

Salted Fish

A survey of salted fish was made in anticipation of a curtailment of the production of canned fish, because of the shortage of tin. The report was prepared for the purpose of determining the possibilities in the salting industry, as this method of preservation appeared to be the best alternative for canning.

Raw Wool

Early in 1940 the Commission prepared a memorandum reviewing our experiences in 1917-18 in stock-piling wool in this country and analyzing the problems involved in connection with stock-piling during World War II should that be deemed advisable.

Foreseeing that shortages of wool might develop, the Commission in 1942 prepared a summary and analysis of the wool situation and suggested methods whereby domestic production might be increased if war developments made such action necessary.

Early in the war the British Government agreed to take over for the duration the wool clip in the producing countries of the British Empire. The Commission, foreseeing that similar action might be necessary in the United States, prepared a memorandum dealing with this question for the use of interested Government agencies, particularly the Department of Agriculture.

In 1943 the Tariff Commission, in cooperation with the Farm Credit Administration, made an analysis of the costs of wool and of sheep and lambs in South Dakota, Texas, and the Far West. The period covered was 1940-42 with estimated costs for 1943. Because of the continuing interest in the wool situation, similar analyses were prepared in 1944 and 1945.

