WHEAT STUDIES

OF THE

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DECLINE IN WHEAT-FLOUR EXPORT DURING THE DEPRESSION

IN A TIME of prolonged and intensive decline in production and trade, it is natural that those engaged in enterprises should undertake to measure their trade losses and contrast them with those of others. A business depression is associated with recession in the outturn, distribution, and consumption of goods and services. It is natural to undertake to measure the recessions in both domestic and foreign trade, with the full realization that these cannot be expected to be parallel. The recession in trade of a particular commodity is, of course, affected by local and general influences, by commodity and monetary reactions. The study of recession in trade of a particular commodity is at such a time, therefore, naturally placed against the background of the general depression.

The export flour trade of the world has undergone pronounced decline during the past five years, as revealed in imports of the deficiency countries and exports of the surplus countries. The decline in international commerce in flour has been much more pronounced than the decline in movement of wheat. In particular, the export flour trade of the United States has suffered heavily, indeed disproportionately. In this study we endeavor, without going into the local details, to explore the extent and causes of the general decline in export trade in wheat flour, and the particular recessions suffered in the outbound movement of wheat flour from the United States. The unfavorable factors influencing this decline in outbound trade are described in some detail, together with reference to the few influences which in the future may favor recovery. Insistence is placed on the point that a relatively high wheat price in the United States is a direct deterrent to export of American flour.

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DECLINE IN WHEAT-FLOUR EXPORT DURING THE DEPRESSION

The export trade in flour throughout the world has suffered very heavily during the past five years. Indeed, the recession in export of flour has been one of the most pronounced declines to be observed over the entire field of commodities. A number of comparisons to be given below will illustrate the extreme extent of the decline in export of flour. But we do not hold that these recessions are merely parts of the trade cycle and will disappear with it. On the contrary, most of the adverse factors existed before the depression and were intensified by it. It is not to be assumed in advance for any country that decline in import of flour implies decline in per capita use of flour or cereal; it is much more likely to imply increase in domestic outturn of flour in the importing country or substitution with other cereal. In some countries, however, the dependence on imported flour is so heavy that decline in imports of flour means decline in per capita consumption.

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With the return of eventual prosperity, these impediments will remain, many of them in exaggerated form, because they have become parts of political systems in various countries. The objectives for agriculture under the AAA will tend to perpetuate the high position of the Chicago wheat future (if the Chicago Board of Trade remains active) relative to the Liverpool wheat future. Agricultural policy in foreign countries will tend to support enlarged wheat growing. Whatever monetary reforms are accomplished throughout the world, the depreciation of many currencies will not quickly be recovered from and the stabilization of foreign exchange rates will not rapidly be restored. The doctrine of self-sufficiency will remain to restrain the import of flour, especially in countries where wheat growers and wheat millers can join their political influences. It is therefore not to be believed that the flour exports of the United States during the foreseeable future of, let us say, five years will rise rapidly from the low level of less than four million barrels in 1933 toward a moderate volume of eight or nine million barrels, to say nothing of the figure of, let us say, thirteen million, which in the years prior to the depression was regarded as the "normal" international movement of flour from the United States. With recovery, however slow, it is to be anticipated that the most efficient milling units will participate most heavily, except to the extent that unbridled competition, and some one or another form of dumping, may enter into the picture.

The loss of foreign outlets has a direct and inevitable effect upon the domestic market. The mills which lose their export trade do not drop that proportion of the grind, but tend to continue it and endeavor through intensified salesmanship to dispose of the flour on the domestic market. The net effect is that when export trade is lost, the exporting mills exert intensified competitive pressure on the non-exporting mills. This has been illustrated indubitably during the past year. Time was when over a million barrels of United States flour went to China in a year; it has fallen to less than a hundred thousand. The Pacific mills, deprived of the Chinese outlet, sought other markets and found them in eastern and southeastern United States, to which regions their flour was shipped through the Canal at low freight rates. Presumably the loss of foreign markets for flour, lowering the wheat purchases of the mills, has a depressing influence on the domestic wheat price.

It would be to little purpose at this early

date to try to indicate the order of importance of the factors we shall discuss that have influenced foreign countries to drop American flour. Restrictions in importing countries are spectacular, and the tendency is to exaggerate their effects. Price relations are less spectacular. One must ask oneself the question: what might have been the exports of flour from the United States during 1933 without excessive import tariffs and other restrictions in importing countries so long as the price of wheat at Chicago stood above the price at Liverpool? Consideration of this question will serve to introduce orderliness into the appraisal. Certainly the outstanding obstacle to export of wheat and flour from the United States is the bare circumstance that the price of wheat is higher in Chicago than is foreign wheat in the importing countries which seek wheat and flour. So long as the demands of the importing countries can be satisfied in markets whose prices are notably lower than those in the United States, imports will be shifted from our country to other wheat-surplus countries. Perhaps the best way to put the race of wheat and wheat-flour exports is as follows: to go abroad, American wheat and wheat flour must go over a series of hurdles, and the first hurdle is the high price of wheat in the United States.

We shall first draw a background picture of the general decline of international trade in the world, followed by a description of the decline in international trade in wheat and wheat flour. Thereafter we shall present the data of decline of export of American flour to different foreign countries, the decline in total imports of flour into different foreign countries, and the proportions held by the United States in the reduced flour imports of foreign countries. We shall conclude with a survey of the many factors tending to reduce exports of American flour and the few factors tending to restore it.

General Decline in World Trade

In recent years an outstanding incident in the foreign trade of this country has been the decline in the export of wheat and wheat flour. It has not required international wheat conferences to impress this loss of a special foreign trade upon the minds of politicians, officials, grain merchants, millers, and wheat growers. The causes of the decline and the prospects of recovery especially concern those interested in the economic adjustment of agriculture. It ought to be realized that every such phenomenon of loss of trade is associated with general and particular factors, with influences on the side of commodity relations and of monetary relations.

It seems advantageous to consider the current widespread decline in international commerce before proceeding with the analysis and appraisal of the decline in export trade in flour. The outstanding feature of the business depression is recession in production and consumption of goods and services. In the ordinary trade cycle of moderate proportions, such recession, measured by appropriate indexes, is usually not over 10 per cent. In the present world-wide depression, the reduction is clearly a multiple of that proportion. The declines may be stated either in quantities or in values. It is possible to measure the recessions within individual countries (at least in those with developed analyses of business) and to separate the declines in foreign trade from those in domestic trade; but it is not yet possible to appraise the domestic recessions by continents or regions, except perhaps in Canada and the United States, and in western Europe. Finally, it is practicable in many countries to break down the gross structure into individual goods and services (domestic, imported, and exported), within countries and between countries. Assuming that it is feasible to secure comparable estimates in monetary units, one is in position to measure roughly the extent and progress of the recession in economic activities. Much depends on the comprehensiveness and accuracy of the statistical data; much depends on the meaning and comparability of the index numbers used.[1]

Such studies of the present world-wide depression have been attempted under the auspices of the League of Nations. Broadly stated, the recessions in production, movement, and

[1] Parenthetically remarked, the ease of making index numbers exceeds the reliability and interpretability of this device.

consumption of goods and services, within countries and between countries, represent relative or absolute deteriorations from the standards of living which existed in 1929. The standard of living may for our purpose be defined for each country as the level of per capita participation in the use of goods and services created at home and imported from abroad.

The statistical treatment of the available data leaves much to be desired. Production and trade are not unities, but consist of aggregates of a large number of entities. The weighting in the aggregation can only be more or less arbitrary. For most of the goods and services the period of previous observation has been short, at most five or ten years; the break of the World War and the technological changes connected with and flowing from it make the pre-war and post-war data almost incomparable. The striking decline in prices during 1920–21 and the liquidation of large collections of materials accumulated in direct or indirect consequence of the war made the data up to about 1924 quite abnormal. Following 1924, the changes in currencies in various countries continued to introduce variations and uncertainties. The onset of the present world-wide depression in 1929 began after a relatively short period of stability, which was not comparably experienced throughout the world and was in itself not pronounced. The period 1924–28, as base-line, was therefore both short and uncertain; yet this is the only base-line with which the extraordinary recessions of the five-year period 1929–33 are to be contrasted.

When one tries to measure the declines in available goods and services (within countries and between countries), one may proceed with the use of quantities or values. One should of course employ both, but in many cases values alone are reported, and this holds true particularly for international commerce. The use of quantities has the advantage of invariability of the measuring unit; the use of values has the disadvantage of almost kaleidoscopic variations of monetary measures in a world of depreciated currencies and fluctuating foreign exchange rates. The pre-war device of reduction of values to the gold basis has become misleading in a world in which gold no longer reigns. With certain assumptions, however (certainly within countries, though to a less extent between countries), it is possible with the use of quantities and values over a term of five years to obtain an informative and broadly approximate picture of the decline in activities during the world-wide depression. One must of course avoid the bias of the most elastic and the most inelastic variables.

During a prolonged and extensive recession of trade, the consumers' classification of goods into necessaries, semi-necessaries, semi-luxuries, and luxuries continues to hold; indeed, such classification may tend to be sharpened. But this often does not persist with depreciation of currencies, when consumers prize all goods over falling paper money; and glaring exceptions occur. As a population suffers progressive loss of purchasing power, the standard of living declines toward a subsistence level. This point is of especial importance to agriculture the world over—in relation both to volume of outturn and to price. On, or near, a subsistence level, elemental considerations predominate. One may well doubt whether the per capita consumption of table salt in the world has been measurably changed in amount during the depression. This is an illustration at one extreme. At the other extreme, the use of exotic delicacies has suffered heavily. We assume that the relative inelasticities of demand on the part of consumers of foods persist in a depression, though here and there modified, perhaps profoundly, by local circumstances.

No statement of the volume of world trade can be prepared because many goods and services are reported only in values. The tabulation below presents the values of the world trade for the five calendar years 1929–33 inclusive, in million American pre-devaluation gold dollars, as compiled and computed by the Economic and Financial Organisation of the League of Nations,[1] together with indexes in which 1929 is taken as equal to

[1] *Review of World Trade* (Series of League of Nations Publications, II. Economic and Financial, 1934, II. A. 12).

100. We employ 1929 as base without implication of "normalcy."

	Imports		Exports	
	Value	Index	Value	Index
1929	35,601	100.0	33,040	100.0
1930	29,087	81.7	26,495	80.2
1931	20,818	58.5	18,908	57.2
1932	13,996	39.3	12,902	39.0
1933	12,485	35.1	11,694	35.4

The progressive decline is most significant and the extent of recession very impressive; but the concordances in the percentage movements of the declining values of imports and exports from year to year is less significant than is suggested by the figures and is, indeed, partly accidental. A gross value-figure of imports and exports of merchandise is the cumulative product of volume and value; but volume and value vary independently. It is not to be inferred, therefore, that in 1933 the volume of goods in international trade approximated only 35 per cent of that in 1929, as did the value. With numerous outstanding commodities it is easy enough to show that this is not the case; the broad fact is to the contrary, and quantities have declined less than values for many, probably for most, primary goods in most countries. Nevertheless, the large fact of progressive decline over the past five years is made clear by the tabulation, though the recession has been considerably more pronounced in monetary terms than in quantities. It is not implied, because goods in international trade declined in value about 65 per cent from 1929 to 1933, that within the included countries (considered individually or cumulatively) the values of all goods and services declined 65 per cent.

To some extent the picture changes with the currency into which the data from all reporting countries are converted. The following tabulation shows the value of world trade during the years 1929–33 in pounds sterling, together with index numbers, taken from the same source:

	Imports		Exports	
	Value	Index	Value	Index
1929	7,315	100.0	6,789	100.0
1930	5,976	81.7	5,444	80.2
1931	4,591	62.8	4,169	61.4
1932	3,992	54.6	3,680	54.2
1933	3,767	51.5	3,529	52.0

Here the lowest figures in 1933 do not touch 50 per cent, whereas in the gold-dollar table above they approach 35 per cent. Sterling prices have fallen less than gold prices. It is perhaps appropriate to remark that future investigations—if and when national currencies are more properly valued—may serve to establish the inference that the true decline lies somewhere between the figures of the gold-dollar tabulation and those of the sterling tabulation.

The gross picture of decline in the value of world trade in monetary terms, sought to be presented in the tables above, is too coarse and panoramic to serve for any other than the most distant background, and of course does not serve to indicate domestic changes in production and trade. A review of international commerce in particular commodities gives more pertinent information. The commodities available for selection as illustrations are numerous. Perhaps a fairly representative compilation may be limited to eight primary materials: seven are agricultural, of which five are foodstuffs (corn, wheat, refrigerated meat, butter, and coffee) and two are raw materials (cotton and rubber); and one is a metal (copper). With the exception of refrigerated meat, all of these commodities may be bought and sold in futures on commodity exchanges. These data, expressed in thousand metric tons (as exports) and pre-devaluation gold dollars per ton, are again drawn from the compilations of the Economic and Financial Organisation of the League of Nations.

	1929	1930	1931	1932	1933[a]
Wheat tons	19,056	16,775	20,347	17,295	15,600
Wheat price	*45.5*	*36.9*	*22.8*	*21.9*	*15.9*
Corn tons	7,719	8,107	12,120	10,593	8,100
Corn price	*31.7*	*19.1*	*11.6*	*11.7*	*9.9*
Butter tons	519	543	584	556	560
Butter price	*843*	*690*	*547*	*352*	*273*
Meat tons	1,023	1,103	1,061	965	960
Meat price	*186*	*171*	*128*	*87*	*83*
Coffee tons	1,443	1,556	1,685	1,363	1,530
Coffee price	*381*	*219*	*154*	*178*	*138*
Cotton tons	3,215	2,923	2,871	3,040	3,200
Cotton price	*434*	*318*	*198*	*160*	*159*
Rubber tons	1,044	990	945	817	900
Rubber price	*413*	*239*	*118*	*65*	*80*
Copper tons	956	757	666	498	512[b]
Copper price	*395*	*293*	*203*	*134*	*119*

[a] Data for 1933 partially estimated.
[b] Trade estimate.

The movement of wheat in tons declined in 1933, after three irregular years, to 81

per cent of the volume of 1929; but the average price declined progressively in 1933 to about 35 per cent of the price in 1929; low price may have operated to minimize the decline in movement of quantities. The volume of international trade in corn was not reduced but instead somewhat increased, with the price in 1933 only 31 per cent of that in 1929; here the low price probably had the influence (among others) of increasing the movement of quantities. The movement of butter in quantities was relatively stable, but the price in 1933 was only 32 per cent of that in 1929; here also we infer that the low price of butter tended to prevent a decline in quantity movement. There was a small decline in the trade in refrigerated meat; the decline in price, to 45 per cent, was much more pronounced; it was less relatively than in the case of wheat, corn, and butter. The movement of coffee in international trade was fully sustained; the price in 1933, however, fell to 36 per cent of that in 1929; here again we infer that low price stimulated foreign demand.

Cotton and rubber are two comparable and rather closely interrelated industrial raw materials derived from the soil. The United States is the heaviest exporter of cotton and the heaviest importer of rubber. The gross movement of cotton in international trade did not really decline significantly during the five years; but the price declined in 1933 to 37 per cent of the price of 1929. The volume of trade in rubber declined only about 10 per cent in tonnage, mostly in the United States; the price, however, fell in 1933 to 19 per cent of the price in 1929; quite certainly the extraordinary decline in price must have served to stimulate the demand for rubber in importing countries. The heavy decline in the amount of copper moving in international trade was still much less than the decline in price, which fell in 1929 to 30 per cent of that of 1933. There is a significance, which ought not to be exaggerated however, in the fact that as a class the prices of industrial raw materials fell more than did the prices of materials used for food and feed.

As the final exhibit in this introductory background, it is appropriate to contrast the values of United States merchandise imports and exports with the imports and exports in world trade, as given in the first two tabulations above. The following tabulation[1] presents the balance of merchandise trade of the United States in monetary units first as reported in million dollars, then as deflated to 1926 dollars, together with corresponding index numbers of the deflated figures with 1929 taken as the base year.

	Exports			Imports		
	Reported	Deflated	Index	Reported	Deflated	Index
1929	5,241	5,499	100.0	4,400	4,617	100.0
1930	3,843	4,448	80.9	3,061	3,543	76.7
1931	2,424	3,321	60.4	2,090	2,863	62.0
1932	1,612	2,488	45.2	1,323	2,042	44.2
1933	1,675	2,542	46.2	1,450	2,200	47.6

Deflation of the reported values possibly introduces a misleading element; but this is far less disturbing than the deviations which would arise through the direct use of the reported values. From the tabulation it is clear that United States exports declined in 1933 to 46 per cent of the value of the exports in 1929, while imports in 1933 were valued at 48 per cent of the value in 1929. The declines in this tabulation are significantly less than those indicated in the tabulation on page 42, which shows values of world trade in gold dollars. But it will be observed that these figures for the United States are not much different from those given in the tabulation showing the values of world trade in pounds sterling. If similar tables were prepared for a long list of foreign countries, it would presumably be found that, although pronounced declines in export and import trade held more or less true in all of them, there would be a wide range between the countries suffering the greatest recession and the countries showing the least. Much would depend on the prominence of primary materials in the outturn of the country. It is ever to be kept in mind that decline in international trade in foodstuffs does not imply decline in production; and continuity in food production must be separated from discontinuity in in-

[1] Based on data from U.S. Department of Commerce, Bureau of Foreign and Domestic Commerce, *The Balance of International Payments of the United States in 1933* (Trade Information Bulletin No. 819), p. 97.

dustrial production. In a recent publication of the Economic Intelligence Service of the League of Nations[1] is the following table, illustrating the varying relations:

WORLD TRADE AND WORLD PRODUCTION, 1929–33, QUANTUM INDICES

(Base: 1928 = 100)

Year	World trade	Industrial production	Production of raw materials	Production of foodstuffs
1929	105	107	107	100
1930	97	94	98	101
1931	90	83	88	99
1932	78	73	78	101
1933	79	82	85	100

These indexes suggest indirectly that international trade has suffered more than domestic activities.

It would not be difficult with the available import and export figures of the several countries, together with their currency valuations, to explain why imports or exports (as a whole and for certain goods), or both, declined relatively more in some countries than in others. These variations, however, would not in the least invalidate the broad conclusion that over the entire world the decline in foreign trade had been profound when judged by values, considerably less extreme when judged by quantities. These four tabulations justify the broad statement that international trade, in monetary terms, declined during the five years 1929–33 by something close to one-half. The same large fact is revealed in the records of ocean tonnage.

This decline in foreign trade is unprecedented in history. And whether one views the decline in absolute terms from the high level of the largest trade in history, or in relative terms, the extraordinary recession in foreign trade may be taken as indicative of an extreme decline in the cumulative domestic production and trade of the countries of the world. A gross cumulative figure for the domestic trade of the countries of the world is not available to confirm or modify this inference. Wholesale domestic trade and wholesale foreign trade can be safely appraised and compared in but few countries. The declines have been heavy in both domestic and foreign fields, but certainly have not been parallel. Consumers' attitudes equivalent to the "buyers' strike" develop in both foreign and domestic trade.

In the meantime the technologist has not been idle. Every commodity internationally commerced occupies a range of utilities in the importing countries. It may be technically irreplaceable or readily replaceable. The extent of substitution is limited only partly by technical considerations, but depends also on price. It may be possible to do without the commodity, without replacement. It may be possible to change the art. For example, there is no metallic substitute for tin in a can to hold foods, but there are other containers than tin cans in which to pack foods. In the case of fibers, the substitutions cover a wide field. In the case of fats and oils, the substitutes cover a wide range both in industrial applications and in foodstuffs. Among the cereals, wheat occupies the premier position, is usually regarded as having an inelastic demand, and the range of substitution is relatively narrow. But we have learned in war as well as in profound trade depressions that the premier position of wheat and the inelasticity of demand are not maintained, even within a country but more particularly between countries. Over the period of five years, replacements and substitutions have been developed and perfected, in the field of wheat as in all other fields, aided by the onerous import restrictions more or less prevalent both in net-debtor and net-creditor countries. We must therefore be prepared, in a detailed analysis of import and export trade, to find that a historical survey, valuable as it is, does not contain all the guiding precedents; the trade of the world contains much that is new, without precedent for purposes of interpretation. With recovery, technical surprises will be revealed.

Following this cursory panoramic survey, we turn now to a consideration of the decline of international trade in wheat flour during the five years 1929–33, using for purpose of direct comparison the previous five years

[1] *World Economic Survey, Third Year, 1933–34* (Series of League of Nations Publications, II. Economic and Financial, 1934, II. A. 16), p. 45.

1924–28, upon the background of the pre-war exports.

Decline in World Wheat and Flour Trade

It is to no advantage to make an extended review into wheat and flour exports before the World War. For purposes of reference, the wheat and wheat-flour exports of the six principal wheat-surplus–producing countries are given in Tables I and IV, in terms of five-year averages. A few comments will suffice as preparation for the consideration of exports during the past ten years.

The United States export of wheat flour in substantial volume began after the Civil War, and in the beginning of the 'eighties averaged over 7 million barrels a year, using averages of five-year periods. In the last half of the 'eighties the export passed the mark of 10 million barrels. Early in the 'nineties over 14 million barrels were exported on the average, and this rose late in the 'nineties to over 15 million barrels. During the first five-year period of this century the export of flour reached its peak with an average of about 19 million barrels. In the next five years the export of flour declined almost to an average of 13 million barrels, and in the last five years before the war declined still further, nearly to 10 million barrels. After the war there was a heavy export for the first five years (1919–23)—over 18 million barrels per year on the average—declining in the next five years (1924–28) to below 13 million barrels, and again in the last five years (1929–33) to about 9 million barrels, on the average.

In the earlier years (from 1884 up to the war) the proportion of United States wheat exported in the form of flour was usually over 40 per cent, quite often over 60 per cent, and in one year over 80 per cent; the average of the highest five-year period was 52 per cent. Many influences determined these proportions; but quite generally there was a tendency for the percentage exported as flour to be low when the total export was high, whereas when the total export was low the percentage of flour tended to be high. Flour exports were more stable and less variable than wheat-grain exports. For illustration: in the five-year period from 1904 to 1908, in one year when the total export was low the percentage exported as flour was 81 per cent; four years later, when the total export was high, the proportion reported as flour fell to 40 per cent. Since the war a much lower proportion has tended to be exported in the form of flour than was the case before the war, influenced during the decade of the 'twenties by the high volume of total exports. The proportions exported as flour during the three five-year periods since the war have ranged considerably below the averages before the war.

Canadian exports of flour rose rapidly and progressively from the beginning of the century to 1928–29, but slumped rather heavily during recent years. The proportion of the total export sent out as flour has never been very high in Canada; highest of all during the first five years of the century, and then only 20 per cent. Australian exports of flour rose rapidly from the beginning of the century to the five-year period 1924–28 and have further risen during recent years. The proportion of the total export sent out as flour has never been very high. Argentinian flour exports rose slowly from the beginning of the century until the war, stood relatively high during the 'twenties, and declined during recent years practically to the level of the first five years of the century. Before the war, India resembled Argentina in export of flour, only a small percentage of the total export being sent out milled; in those years the export of wheat was considerable. Since the war, while the export of wheat has declined, the export of flour has increased. Finally, in Russia we have a country where before the war only 3 or 4 per cent of the total export of wheat was sent out in the form of flour. Since the war, with the exception of occasional years (six in all), the export of wheat has been small and the export of flour almost negligible, much below the pre-war volume.

The extent of the decline in wheat and flour trade between the five-year periods 1924–28 and 1929–33 is shown by the following tabulation. This tabulation shows the 1929–33 average exports as percentages of the 1924–28 average exports for each of the six prin-

cipal wheat-surplus countries and for all six together:

Area	Wheat and flour	Wheat grain	Flour
Six countries	87	89	76
United States	56	49	73
Canada	77	79	64
Argentina	102	105	61
Australia	136	142	117
Russia	256	256	229
India	24	16	56

The averages for the five-year period 1924–28 are taken as 100 merely as a basis for contrast with the exports of later years, without any implication that the exports of the earlier period are to be regarded as "normal." It is merely the exports of five prosperous years with which the five depression years are contrasted.

This tabulation indicates clearly that in total, and in three of the six countries, all wheat export has declined heavily and in general the export of flour has declined more than export of wheat. The exceptions among particular countries are not significant. The maintenance of American flour exports above wheat exports reflects in addition the fact that the flour exports here include flour milled in bond from Canadian wheat. Indian flour exports were so small in absolute amount that the relatively better maintenance of this trade has no meaning. Similarly, it is of no importance for present purposes that the total wheat and flour trade of Argentina, Australia, and Russia was larger in 1929–33 than in the previous five years; the increases represent especially the distribution of good and poor crops between the two periods, and some practice of dumping. Total trade was mainly determined by import requirements, which declined; the reflection of this decline was naturally different as between different exporting countries, given the actual and relative variations in size of crops and export surpluses. It is of course to be kept in mind that these changes in trade do not imply a corresponding reduction in the total wheat supply of importing countries, many of which were increasing their domestic production of wheat during this time.

It is to be emphasized that the data for the six major wheat-exporting countries, as presented above, are employed merely to provide a broad background, without implications of any kind that the changes in the different exporting countries were the results solely of variations in foreign demand and the direct expression proportionately, from country to country, of the world-wide depression in trade. It is not possible at this time to analyze the circumstances in the other major wheat-exporting countries, such as is sought for the United States in succeeding parts of this study. It is important to bear in mind that all of the wheat-surplus–producing countries have excess wheat-growing capacity and excess wheat-milling capacity beyond their domestic needs plus maximum export demand. That is, declines in exports of wheat and flour were not related to limitations of supply in the exporting countries, except for occasional crop shortages.

Decline in American Flour Exports

Appraisal of the recent decline in United States flour exports can be made adequately by reference to a base period consisting of the five calendar years 1924–28, without further reference to the exports in the fifteen years before the war.

Measurement is to be attempted (1) by comparison with total value of merchandise exports, (2) by comparison with exports of wheat grain, (3) by study of regions to which the flour exports go, (4) by appraisal of exports to particular importing countries, and finally (5) by determination of the proportion of American flour in the flour imports of the important countries of the world during the five years 1929–33. In the present section we are concerned with comparisons under the first two categories; studies of exports by destinations and of import statistics of foreign countries are presented below (pp. 49–52).

We assume in general for purpose of comparison that the flour exports of the years 1924–28 may fairly be called exports of a prosperous period, without making use of the term "normal." The exports of the five years 1929–33 are taken merely as the exports of an unprosperous period; here, however, with acceptance of the idea that the circumstances have been very abnormal.

The following tabulation presents a contrast between the values of total domestic merchandise exports and of exports of wheat flour, in values as reported (million dollars) and as deflated to the dollar of 1926, with indexes (1929 base) of the deflated values:

	Total Domestic Exports			Flour Exports		
Year	Reported	Deflated	Index	Reported	Deflated	Index
1929	5,157	5,411	100	81	85	100
1930	3,781	4,376	81	69	80	94
1931	2,378	3,258	60	34	47	55
1932	1,576	2,432	45	18	28	33
1933	1,647	2,499	46	14	21	25

The data might be judged in the monetary units as reported, but we find it preferable to use deflation to a common dollar; the significance of the figures would be about the same in either case, though with greater declines in the undeflated values.

In 1930 the deflated figure for value of total exports of merchandise was 81 per cent of 1929, whereas in the case of flour it was 94 per cent. This high figure was due mostly to well-sustained volume of flour export, since there was a decline in the wholesale-price index number. In 1931 the indexes both of total export values and of flour export values fell sharply, but more heavily in the case of flour. In 1932, the indexes again declined heavily, and again most markedly in the case of flour. In 1933 there was no further decline in the index of the deflated value of the total exports of merchandise, but a still heavy decline in the case of flour. The disproportionate decline of export of flour in terms of value is clearly revealed in the contrast between the final rounded figures of *46 per cent in the case of all exports and 25 per cent in the case of flour exports.* This represents a very substantial difference.

The next tabulation presents for the ten calendar years 1924–33 United States exports of wheat and flour separately, in quantities (million bushels of wheat and million barrels of flour) and in values (million dollars, undeflated). Immediately following is a tabulation giving the index numbers of quantities and values of wheat and wheat flour, respectively, for the five calendar years 1929–33, with 1924–28 taken as 100 per cent.

Calendar year	Wheat		Wheat Flour	
	Quantity	Value	Quantity	Value
1924	166.3	237.1	15.99	91.2
1925	86.5	148.7	11.12	85.1
1926	138.3	201.7	11.85	83.1
1927	168.3	239.5	12.82	85.3
1928	96.3	119.9	11.85	73.9
Average 1924–28	131.1	189.4	12.73	83.7
1929	90.1	111.5	13.66	80.8
1930	87.8	88.1	13.06	69.4
1931	80.3	49.8	9.65	34.5
1932	54.9	32.7	5.80	18.5
1933	8.9	4.8	3.96	13.8

Calendar year	Wheat		Wheat Flour	
	Quantity index	Value index	Quantity index	Value index
1929	68.7	58.9	107.4	96.5
1930	66.9	46.5	102.6	82.9
1931	61.2	26.3	75.9	41.2
1932	41.8	17.3	45.5	22.1
1933	6.8	2.5	31.1	16.5

It is to be observed that the exports of wheat during the first five years were high, though varying and without trend, as was to be expected under the circumstances of varying crops and prices. The wheat exports of the three years 1929, 1930, and 1931 were not greatly below those of two of the years in the previous five-year period. The decline was pronounced in 1932 and still more marked in 1933. The dollar indexes of the export of wheat displayed, in a very illuminating manner, a combined influence of fall in quantity and fall in price. In the case of wheat flour, the barrel exports in 1929 and 1930 were above the average of the previous five years and were exceeded only in one year, 1924; therefore the indexes of 1929 and 1930 stood above 100, only to be followed by heavy progressive declines during the next three years. In the case of the dollar indexes of the export of flour, the highest in 1929 was below the base-line of the previous five years, largely as the expression of two years of relatively high prices in the earlier period. These indexes then declined progressively in an extreme manner. A comparison of the 1933 dollar index for export of flour (16.5) with that for export of wheat (2.5) shows that the heavy decline was much greater for wheat, and this is the same with reference to the

indexes of quantity. That the export of flour declined proportionally less than the export of wheat is just what was to be expected, confirming older experiences.[1]

It is also interesting to view the decline in exports on the basis of segregation into exports by customs districts. Such data are presented in Table II covering ten years, in barrels and in dollars. Striking of course is the decline in Atlantic shipments, the expression of the declining imports into Europe. The percentage decline from northern ports is very heavy, but the volume of transactions was initially small. The recent decline in Pacific shipments corresponded with the decline in Asiatic takings. The decline in Gulf shipments was heavier than in those of the Atlantic or Pacific regions and reflected declines both to Europe and to the Western Hemisphere.

Finally, it is appropriate to consider here the question of *origin of the export flours.*[2] That is, it is important to separate the export of flour ground from domestic wheat from the export of flour classed in the reports as domestic, but ground from imported wheat and milled in bond for export. Such exports proceed only from Buffalo. The reported figures for export of domestic flour are misleading in so far as is inferred from them that a corresponding export of American wheat occurred. To a considerable extent, Canadian wheat milled in bond at Buffalo and exported under the designation of "domestic flour" exaggerates the export of the true domestic product. It is of course an advantage from every point of view to carry out this improvement-trade in flour by importing the raw material and exporting the finished product; but in an appraisal of the strictly American position, such flour must be segregated.

The following tabulation, in rounded million barrels, presents flour exports for the past five calendar years, separated into flour ground from domestic and from Canadian wheat:

Year	Total flour	From Canadian wheat	From domestic wheat
1929	13.66	3.02	10.64
1930	13.06	3.93	9.13
1931	9.65	3.71	5.94
1932	5.80	2.18	3.62
1933	3.96	2.21	1.75

The reported total export of domestic flour is reduced to flour export from domestic wheat by subtraction of the flour equivalent to the wheat imported duty-free and milled in bond at Buffalo for re-export of the flour. The figures of flour ground from Canadian wheat are based upon the customary extractions in each year, applied to the official figures of the wheat introduced for that purpose.[3]

The figures for flour export from domestic wheat illustrate the progressive and extreme decline in export of the flour. In 1933 this figure represented a million and three quarters barrels of flour passing into export which was ground from American wheat. This is the figure which is to be contrasted with the 8,883,000 bushels of domestic wheat exported during that year. Since 1.75 million barrels of flour correspond to about 8,225,000 bushels of wheat, it follows that, even in this year of extraordinary depreciation of wheat and wheat products, approximately 48 per cent of the combined export was in the state of flour. The gross figure of 17,108,000 bushels for the combined wheat and flour export from the United States, of which 8,883,000 bushels were in the state of grain and 8,225,000 in the state of flour, illustrates the

[1] During the first six months of 1934, the export of wheat from the United States was 14,017,143 bushels and of flour 1,903,561 barrels. If these exports had been unsubsidized, directly or indirectly, the figure for export of flour might perhaps suggest 4 million barrels as the minimum level of flour export for this country for the time being. The flour exports of Canada for the same first half of 1934 totaled 2,533,611 barrels, illustrating the absolute as well as relative decline of the American exports during the depression.

[2] Domestic export of wheat means outbound movement of wheat raised in the United States. Domestic export of flour means outbound movement of flour manufactured in the United States from either home-grown wheat or from foreign wheat milled in bond for re-export as flour. This distinction rests on the established procedure of customs house nomenclature. We have, therefore, what might be termed endogenous and exogenous wheat flour exports.

[3] Ordinarily, the export flour ground from wheat in bond contains a variable proportion of flour from domestic wheat; but latterly the price of American wheat has been so high as to have precluded this.

low record of exports of the strictly endogenous products.

A final calculation brings together the foregoing measures of decline in United States trade. With reference to quantities, exports in 1933 represented the following percentages of exports in 1929: wheat grain, 10; all flour, 29; flour ground from Canadian wheat, 73; flour ground from domestic wheat, 16. These percentages cannot be compared with percentages applicable to quantities of total merchandise exports which are not available. As to the undeflated values, however, total domestic merchandise exports in 1933 were 32 per cent of those of 1929; while wheat-grain export values were 4 per cent, total flour export values 17 per cent, values of flour ground from Canadian wheat roughly 44 per cent, and values of flour ground from domestic wheat only about 10 per cent. Amongst all of these declines, the trade in wheat grain and that in flour ground from domestic wheats were relatively the heaviest. Special as well as general trade influences therefore clearly bore very strongly upon the reduction of American wheat and flour exports of endogenous origin.

Declines by Regions and Countries

Out of the war grew very anomalous conditions, particularly in relation to the food supply of Europe. In a very real sense, it may be said that food imports into Europe during the five years following the war represented a sort of indirect relief operation, largely on borrowed money. Agriculture was disorganized, communities feared for their food supplies, new boundaries set up obstacles to the natural flow of goods; during these years, depreciated currencies had to be revalued and/or stabilized and import regulations established, in accordance with the military, political, and supposedly economic circumstances of the countries. Europe provisioned herself, almost frantically, partly on money borrowed abroad, with supplies thus secured abroad. Beginning with 1924, however, Europe entered a more orderly period. Therefore, we may confine ourselves to a review of the flour movements to individual countries during the ten calendar years 1924–33.

There are two ways of approaching such a survey: from the side of exporters and from the side of importers. A survey from the side of flour-exporting countries is concerned largely with six—United States, Canada, Australia, Argentina, India, and Russia,[1] and was broadly considered in an earlier section. This simple method of appraisal has, however, several defects: first, diversions occur in the destination of both wheat and flour, after leaving the country of origin; second, several countries which are heavy net-importing states for wheat have an extensive improvement-trade in flour, that is, flour is ground from imported wheat and is exported. The sum total of flour imported and re-exported and of flour ground from imported wheat and exported is relatively large in countries like the United Kingdom. Over the ten-year interval, such countries as France, Italy, and Germany have in favorable years been prominent in the export field, with or without support of export subsidy. Indeed, in some years it has been surprising how far flour ground in the countries of western Europe has penetrated into central Europe — precisely the opposite of the normal movement of the trade. The first five of these ten years (1924–33) may reasonably be regarded as years of fair stability and growing improvement; the second five years represent the first semi-decade of the extraordinary recession which is known as the world depression.

Table V contains detailed data on United States gross domestic exports of wheat flour to foreign countries during the calendar years 1924–33, in quantities and values.

The reduction of United States flour exports to all destinations amounted between 1929 and 1933 to no less than 9.7 million barrels, or 71 per cent—certainly a startling record of loss. This loss, however, was by no means apportioned evenly between the many different countries of destination. The rate of decline from year to year varied from country to country; the extent of decline over the five-year period 1929–33, as between succes-

[1] Hungary and Japan are also important exporters of flour—more so, in fact, than either Argentina, India, or Russia. But Hungary lies within Europe, and Japan exports flour ground from imported wheat.

sive years, also varied. The declines of exports to some countries of destination during 1929–33 were not much different from occasional declines during the period 1924–28. In a few instances the flour trade to foreign countries was well maintained. Indeed, there are instances of increase in American export of flour, of which Italy is an outstanding example. We ought indeed to consider both absolute and relative changes; a heavy decline in a country of large imports is more important than a corresponding proportional, or larger, decline in a country of small imports.

The following tabulations, in thousand barrels, represent a selection of outstanding examples of declines in United States flour exports:

Year	United Kingdom	Cuba	China	Brazil	Denmark
1929	1,317	1,266	1,175	781	482
1930	1,536	1,056	794	849	571
1931	1,151	924	1,142	340	396
1932	239	779	1,098	33	95
1933	70	746	41	167	43

Year	Netherlands	Germany	Japan	Brit. W. Africa	Colombia
1929	909	409	277	195	138
1930	1,473	368	68	171	119
1931	558	173	49	133	52
1932	145	58	5	90	14
1933	112	23	1	100	3

When one considers the large number, size, and variety of countries in this list, the extent of the declines in flour exports from the United States is nothing less than extraordinary. There are few parallel declines in the history of modern trade.

The following tabulation shows United States flour exports (quantities) to large regions and in total, in terms of index numbers in which the 1924–28 average represents 100, and arranged in order of the magnitude of decline:

Regions	1929	1930	1931	1932	1933
Europe	77	95	58	18	11
North America ..	113	84	50	47	25
South America ..	108	111	62	28	31
Asia	172	126	115	91	37
Africa	117	101	74	53	51
West Indies	104	88	79	66	59
Central America.	115	107	111	81	80
Australasia	138	129	83	138	117
All regions	107	103	76	46	31

The declines of exports to the several regions would of course be larger in terms of value than in terms of quantity; the value indexes for 1933 (see Table VII) range from 6 in exports to Europe to 58 in exports to Australasia, the total being 17.

It is significant that the decline was greatest in exports to Europe. That the declines in the case of the West Indies and Central America were relatively small is not to be wondered at, considering the proximity of the markets, their long-established familiarity with American flour, and the preference accorded by Cuba. The relatively slight decline in exports to Africa probably has an explanation quite comparable to that applying to the West Indies. The heavy decline in exports to Asia is rather surprising, in view of the customary experience that Asiatics increase their purchases of flour with declining price. Involved in these regional shipments are also considerations of established ocean sailings. Further, to the West Indies, Central America, and West Africa flour represents in a sense a more important foodstuff than holds true of imported flour in other countries. It is probably in these regions that the most relatively rapid rate of recovery is to be anticipated. Table II, giving exports by customs districts, furnishes confirmatory evidence of the relative relations of exports to importing regions.

For purposes of close analysis, it would be desirable to collect flour import statistics from each of the hundred-odd countries to which United States flour exports are shipped, and from these statistics to ascertain to what extent United States flour has lost ground relative to other sources of supply. This procedure is not feasible statistically, partly because of the magnitude of the task of collation, and the lack of up-to-date statistics, but partly also because import statistics themselves could not be expected to show accurately the countries from which imports were derived. We limit ourselves, therefore, to presentation of data which show on the one hand the total flour imports of flour-importing countries, in contrast with exports of flour from the United States to those countries. These data, in absolute quantities, are given in Tables V and VI, the latter containing for

each country in each of the ten years covered the percentage relationship of United States flour exports recorded as shipped to that country to the total flour imports of that country.

The table is unfortunately incomplete, at the moment, on account of lack of reported figures for some countries for total imports during the year 1933. Nevertheless a comparison of the percentages contributed by the United States during the four years 1929–32 yields striking results in the case of certain countries, without full explanations being at the moment available. For example, in 1929 United States flour represented 66 per cent of the flour entering Denmark but only 19 per cent in 1932; in Sweden the proportion of United States flour fell from only 61 per cent to 46 per cent; in Greece the proportion of United States flour rose somewhat; and in Belgium a much larger proportion of flour came from the United States in 1932 than in 1929. In China the proportion of United States flour fell from 15 to 2 per cent over the five years 1929–33; but in the Philippines it declined from 89 to 65 per cent. The Belgian Congo in 1929 drew less than 10 per cent of the imported flour from the United States, but 67 per cent in 1932. In Brazil our proportion of imported flour rose over the four years from 43 to 59 per cent, whereas in Chile it declined from 91 to 42 per cent. We have in each country two sets of variables for both extent and rate of decline: that of the total import of flour and that of the import of United States flour. A close scrutiny of the data in Table VI will reveal many interesting occurrences, for which the explanation must be sought in a study of particular local circumstances in the importing country, which we do not here attempt.

Let us finally consider the declines in the importation of flour into the importing countries. These declines are of particular significance in the net wheat-importing countries. Table VI contains the available data on flour imports over the period. Again it is advantageous to tabulate outstanding examples of declines. In contrast with the tabulations on page 50, which present outstanding examples of decline in United States flour exports to particular countries and regions, the following tabulations present outstanding examples of declines in total flour imports (in thousand barrels) into the named countries during the same years. Since the United States exports to these countries are available in Table V, one is in position to check directly the proportion of the total imports of flour, as given in Table VI, occupied by United States flour in each year.

Year	Egypt	Brazil	Netherlands	Brit. S. Africa	Belgium
1929	2,790	1,832	1,408	409	314
1930	2,366	1,713	1,797	275	120
1931	1,883	690	1,289	144	76
1932	839	56	352	65	30
1933	59	..[a]	507	..[a]	77

Year	Sweden	Turkey	Peru	Mexico	Japan
1929	187	188	106	115	80
1930	140	7	87	61	221
1931	22	4	80	3	73
1932	13	0	41	1	29
1933	3	0	..[a]	..[a]	10

[a] Data not yet available.

Certainly striking is the decline of over 80 per cent in the importation of a staple foodstuff in a set of scattered countries.

Leaving these outstanding examples and considering the detailed reports more minutely, one observes wide and extremely irregular variations. The imports of United States flour may fall roughly proportional to the decline in total flour imports; or the importation of United States flour may decline disproportionally; or it may decline less than proportionally. Indeed, in some countries the proportion of United States flour has risen during the period of decline of total import of flour. Here, again, one must consider both absolute and relative values. The factors within a country which favor or disfavor the importation of flour from the United States correspond more or less with those which favor or disfavor the importation of flour from all sources; but in a particular country these factors may apply much more to imports from one country than from another country. It would require an intricate analysis of local conditions to explain, country by country, the divergences in the importation of United States flour contrasted with those of other

foreign flour. But isolated examples are easily found in an examination of the factors tending to reduce the importation of flour into importing countries.

The tabulated data tend to support the observation that dumping of flour has been a prominent source of disturbance, especially during the last three years. Germany, France, and Australia, and latterly Argentina, have been conspicuous in the dumping of flour. The importation of Australian flour into the Philippines is a pertinent illustration on the Pacific; the importation of German flour into the West Indies, a still more glaring illustration on the Atlantic. Dumping also plays a rôle in the imports of a country like China: China used to import mostly flour with a little wheat, whereas now it imports mostly wheat with a little flour, because of flour duties raised in part in protection against dumping. It may be said, both for wheat and for flour, that importing countries have shifted uses in order to secure cheaper products in terms of net domestic currency; the real questions are why, in some countries, the flours of certain exporting countries have become cheaper or dearer relative to those of their competitors.

For each country presenting a greater or lesser rate of decline in importation of United States flour, more or less satisfactory and adequate explanations can doubtless be found if the internal circumstances of the importing countries are studied. In most countries there was a trend toward lower import of United States flour, a trend which was exaggerated or restrained in different countries through the operation of particular local influences. It would lead us too far afield to enter here into the various explanations in the different individual countries. It seems preferable to consider below the several factors which operate to restrain the importation of American flour in different countries — to present the subject through discussion of the factors rather than through discussion of the importing countries, since in the latter procedure much repetition would be inevitable. Particular comments will be made on particular countries, to be sure. With recovery from the trade depression throughout the world, it will be possible to study the prospects of recovery through a study of the removal or lessening of the factors inhibitory to imports of flour from this country. In fact, for many countries it will become possible to study the causes of decline of flour imports best through the steps of the recovery of imports or the reasons for non-recovery.

In summary, the period of recession, 1929–33, presents mostly heavy but irregular declines in imports of wheat flour into most countries, with occasional increases; and mostly heavy but irregular declines in the proportions contributed by the United States, again with occasional increases. The variations and exceptions do not change the broad fact of a progressive lowering of the importation of flour in most countries of the world. And with this lowering of flour imports has generally occurred a proportionally heavier lowering of flour exports from the United States. With details we need not be concerned. It seems preferable to consider next and more thoroughly the several factors which operate to restrain the importation of American flour in different countries.

Factors Reducing Export of United States Flour

It will be of advantage, in advance of discussion, to list the factors which have tended to reduce United States flour exports. They are as follows:

1. Position of the wheat price.
2. Purchasing power in importing countries.
3. Discriminatory freight rates and other costs of movement.
4. Influence of milling interests and of millfeed demands in importing countries.
5. Discriminatory tariff import duties; British Empire preference.
6. Discriminatory import restrictions outside of tariff rates.
7. Government monopolies.
8. Restrictions on foreign exchange.
9. Depreciation of currency of importing countries.
10. The propaganda of self-sufficiency.

1. *Position of the wheat price.*—Wheat cannot be exported in volume from this country

unless the Chicago future is sufficiently below the Liverpool future to make feasible the transfer of the grain from this country to Europe at a profit to the exporter. Small trickles of export wheat persist even when the Chicago future stands relatively above the Liverpool future; indeed, occasional parcels of special wheat pass to export when the absolute figure of the Chicago future stands above that of Liverpool. The wheats of the Panhandle of Texas and Oklahoma, which go to export through the Gulf, and the wheats of the Pacific Northwest, which go to export from the Columbia River and Puget Sound, are only partly subject to this rule. That is, even though the Chicago future be too high relative to Liverpool to permit export through the Atlantic ports, local crop conditions in these two stated areas may be such as to permit wheat to pass to export through Gulf and Pacific ports, though usually in reduced volume.[1] To a certain extent the Orient is independent of the rule; flour goes from Australia to the Orient, and sometimes from Argentina, in apparent disregard of the relative positions of the wheat prices in Australia and Argentina contrasted with Liverpool. Such cases, however, on analysis are found susceptible of a particular explanation, for example dumping. Apart from these special cases, it remains true that the position of the Chicago future, relative to Liverpool, exercises a commanding influence over the export of wheat.

This influence of the prices of wheats in the exporting countries, contrasted with the prices of wheats in the importing countries, applies also to flour. The influence of the wheat price on export flour is very direct in the case of mills in exporting countries which routinely hedge their operations; it is less direct in the case of mills in countries like Argentina and Australia, which do not hedge. Nevertheless, the influence holds—in some countries and at some times to less extent than in the case of the grain, in other countries and at other times to even greater extent than in the case of wheat. There is an old trade rule that "flour will move where wheat cannot," and there are many instances which illustrate this rule. But when these instances are analyzed, the limited nature and special reasons of the operation of the exception to the rule become apparent. Broadly stated, neither wheat nor flour can pass to export *in volume* unless the wheat price in the exporting country stands far enough below the wheat price in the importing country to furnish a margin of safe, if not always profitable, operation.[2]

During the past five years it has been observed, on the Chicago grain exchange, that a bullish tendency has prevailed to bid the price of the Chicago future relatively above the price of the Liverpool future, that is, without regard to the exporter's margin. This has had a direct influence on the volume of export of wheat, especially during the last three years. It is of course paradoxical to see the Chicago future far out of line with the foreign (export) price, even above it, at a time when huge amounts of carryover wheat lie in the United States in excess of domestic requirements. It is almost ludicrous to observe the Chicago future stand all the way from 15 to 20 cents above the Liverpool future; indeed on a few occasions in recent years the Chicago future has stood so far above the Liverpool future as almost to permit of the importation of duty-paid Argentine wheat into Atlantic ports, despite huge domestic wheat stocks; and now duty-paid imports of Canadian wheat are beginning to come in.

To serve as a rough picture of the relation

[1] The movement is essentially similar to that which occurs in some years, whereby Texas and Oklahoma flour is shipped into Atlantic Coast states and Pacific Coast flour into southeastern states.

[2] It is not our intention to enter into the relation of the Winnipeg future to the future of Liverpool, which is an important question. However, it seems to us of interest here to compare the exports of flour from Canada and the United States during the years 1929–33 and the first six months of 1934, in barrels.

	Exports from Canada	Exports from United States
1929	9,573,880	13,663,457
1930	7,514,778	13,059,618
1931	5,697,224	9,654,237
1932	5,131,781	5,795,462
1933	5,570,424	3,963,615
First six months of 1934	2,533,611	1,903,561

Over these years the decline in export of United States flour is much more pronounced than in export of Canadian flour. But, as is shown in the tabulation on page 46, the index (on the 1924–28 base) of average exports of United States flour during 1929–33 was higher than that of Canada.

of the Chicago price to the Liverpool price during the five years under consideration, we have prepared Table III, which gives the days in each month when the near Chicago wheat future was above the near Liverpool wheat future, or below it, by the amount indicated. In these five years were some 1,439 trading days, on 453 of which the Chicago price was equal to or above the price in Liverpool. The number of days during the five years when the price in Chicago stood 10 or more cents below the price in Liverpool was only 242, and these were mostly during the earlier part of the period. Without question, the rising carryover of wheat and the falling export of wheat and flour in 1929–33 were directly related to the fewness of the days on which the difference of wheat price between Chicago and Liverpool offered to the trader the possibility of working an export sale.

It would lead too far afield to enter into a discussion of the causes of this anomalous position of the Chicago future. Suffice to say that, to a very substantial extent, in recent years the American farmer has sold his wheat above its export value because of this behavior of the wheat price on the Chicago grain exchange.

The prospect in this direction for future exports of wheat and flour is not encouraging. If with large crops the wheat future in Chicago is bid up by speculators over the relative Liverpool position, then certainly it is to be expected that this bullishness will continue with short crops. If wheat growers under the AAA raise only a safe margin over domestic requirements each year, then obviously it is to be expected that the Chicago future will stand too high above the Liverpool future to permit of export in volume of flour or wheat. This position of the Chicago future is probably the most important single factor in the reduction of flour exports from the United States.

2. *Purchasing power in importing countries.*—The severe decline in value of international merchandise trade represents essentially a limitation of buying power in the importing countries; something more, but certainly that. Later on, exporters may restrain production and withhold supplies, in the hope of stimulating effective demand; but primarily the initial change is a decline in effective demand in importing countries. This decline in effective demand in importing countries proceeds mainly from three phases of the business depression: (*a*) there is contraction in the volume of domestic trade, which implies a smaller amount of purchasing power available for importation of foreign goods; (*b*) most of the importing countries are debtor countries, and the level of service charges on debts due from them is not reduced at the time when trade is declining; that is, a larger proportion of exports than otherwise is required to pay old debts than is made available to purchase new goods; (*c*) the purchasing power of the debtor countries is sequentially the expression of their sales to the creditor countries. Since these export sales have progressively declined (in value more than in volume), this implies that each year the debtor countries buy less as the expression of their lowered exports of the previous year. In a word, the depression results directly from shortage of demand in terms of money.

In the narrow sense, this explanation of contraction of purchasing power does not apply to the net-creditor countries, as buyers, in their trade relations to the net-debtor countries throughout the world. But it does apply to their relations with the United States. In a real sense (exaggerated by trade policies and political monopolies) the United Kingdom, France, and Belgium react in this respect toward the United States just as the net-debtor countries react toward us. Also Switzerland and Holland are in effect driven into, or take, the same position. The effects of lessened purchasing power on direct trade soon radiate into triangular and quadrangular trade. It must be realized how widely in international commerce cause and effect react and interact upon each other in multangular relations.

Whenever an importing country finds its effective purchasing power reduced, absolutely or relatively, it endeavors, more or less directly and openly, to choose, among the various imports, and countries, those to which this reduced purchasing power seems best applied. That is, under sharp restrictions of purchasing power, in practically no country of the world are imports free. There are clearly both indi-

rect and direct effects. Under these circumstances, in these importing countries various other factors find added scope for application. Other cereals may be preferred over wheat; and in the case of wheat, the grain may be preferred over flour. Quite generally, the imports of necessaries are supported more than the imports of semi-necessaries and luxuries. At the same time, it must be recognized that the milling and baking interests in the importing countries have through these years developed techniques in the direction of self-sufficiency, which they did not previously possess. Exports of flour will be most easily maintained, other things equal, in those countries which sell to us more than they buy from us—that is, in countries that have a natural balance of dollar exchange. Of such countries, Brazil is the best illustration. We shall return to this point below.

3. *Discriminatory freight rates and other costs of movement.* — This difficulty is of course not new. Almost uniformly, it is to be said that wheat moves at a lower relative freight rate than flour—in the country of origin, across the ocean, and in the country of destination. Further, the fact which holds for freight rates holds generally also for loading and unloading charges, carrying charges, insurance, and other distribution charges. It is partly through these several factors that milling interests in the importing countries implement discriminations against imported flour. These discriminations are sufficiently obvious under circumstances of what might be termed normal export prices, that is, when the wheat prices in the country of origin are sufficiently below those in the country of destination to provide a reasonable margin for the export movement. When, however, the price of the Chicago future is out of line with that of Liverpool, these traffic discriminations become very much more onerous. In the present condition of ocean shipping, there seems little hope of amelioration. A casual survey of railway freight rates in this country and Canada, and in the importing countries of Europe, gives little hope that these discriminations against flour will be relaxed.

4. *Influence of milling interests and of mill-feed demands in importing countries.*—A few importing countries in the world have no flour mills of consequence and have in their animal husbandry little demand for mill feed. But for the most part, the importing countries have well-established flour mills; and their animal husbandries offer a large market for mill feed. This being the case, these two factors join to bring about widespread discrimination against imported flour. Up to a few years ago, many countries, for example Holland, were free of restrictions attributable to domestic millers and the agricultural demand for mill feed; but today one must search through the world to find such exceptions. If a country needs mill feed, usually the efficient method of securing it is not to import this bulky article but to produce the offal from imported grain. There is indeed a certain export trade in mill feed; but for the most part, the bulkiness and perishability of the product make it much less desirable as a shipping transaction than importation in the unground state of the grain. Naturally the mills in the importing countries offer good arguments: they engage capital in construction and operation, they employ labor, they use other products such as bags and barrels—every argument commonly applied to protection here is vigorously applied by flour mills in importing countries. Even countries dependent for a large part of their cereal supply upon imported wheat and wheat products may disregard the interests of their working classes ("cheap bread") in order to favor the operations of domestic flour mills. Perhaps the best illustration of monopolistic organization of flour milling is to be found in the United Kingdom. During these years of development of self-sufficiency, flour mills in importing countries, more or less the world over, have entrenched themselves firmly in their positions; and with the restoration of prosperity, it is hardly to be expected that they will tamely retire to a less commanding position.

5. *Discriminatory tariff import duties.* — The most common method of favoring importation of wheat as grain lies in the application of discriminatory import duties. The duty on a barrel of flour is set to exceed the duty on the wheat required to make a barrel of

flour, with or without duty on the offal. In some countries the extent of discrimination is small; in many countries it is moderate; but in many countries it is so heavy as practically to amount to an embargo. Under these circumstances, importation of flour for routine purposes is severely repressed, and imports consist largely of special flours bought for particular purposes; thus the British tariff on flour does not keep out soft flours which for generations have been imported for special uses. In the case of China, the discriminatory flour duties have been heavily and unexpectedly burdensome on foreigners.

The system of higher import duties on finished goods, with lower import duties on raw materials, is one which holds more or less nowadays in all protectionist countries. With the return of prosperity, efforts will be made to reduce these discriminations. Against these efforts manufacturers will combine; and under these circumstances the flour mills in importing countries may find themselves occupying a position whose strength far exceeds the otherwise strength of the milling industry. Under such circumstances, the removal of discriminatory import duties may be expected to proceed slowly and indeed in some countries will not occur at all.

A particular form of tariff discrimination is to be found in the United Kingdom, that of Empire preference. The United States, like Russia and Argentina, stands outside of preference; Canada, Australia, and India enjoy preference. The preference applies to both wheat and flour, which has the indirect effect of modifying to some extent the export of flour ground in the United Kingdom from imported wheat. Until 1931, the proportion of total flour imports secured from the United States did not fall below 20 per cent. Following a moderate decline in percentage in 1931, the percentage of the total flour imports coming from the United States fell during 1932 and 1933 to an unprecedentedly low position. The extent of this loss of trade is really quite astonishing, as is revealed in the contrast between 1,815 thousand barrels in 1930 and 68 thousand barrels in 1933. With free trade in wheat and flour it seems clear that flour exports from the United States to the United Kingdom might have been fairly well sustained, even despite the high position of the Chicago future relative to Liverpool, on account of special characteristics of the flours.

The case of the United Kingdom merits an amplified statement, because Empire preference and the so-called rationalization of their milling industry place that country in the position not merely to import less flour but possibly to export more. In the following tabulation are given for the ten years 1924–33 the total imports, the imports from the United States, our percentage of their total imports, the domestic exports (ground of course from imported wheat), and the re-exports of imported flour, in thousand barrels:

Year	Total	From U.S.	Percentage from U.S.	Exports	Re-exports
1924	6,312	2,062	32.7	3,646	241
1925	5,207	1,577	30.3	3,932	338
1926	6,092	1,562	25.6	2,307	62
1927	6,263	1,666	26.6	2,391	60
1928	5,101	1,094	21.4	2,501	65
1929	5,545	1,449	26.1	2,469	50
1930	6,702	1,815	27.1	2,299	99
1931	6,141	1,187	19.3	2,350	99
1932	4,874	264	5.4	2,735	58
1933	5,625	68	1.2	1,773	55

From these data it is apparent that the total imports of flour during 1929–33 were not significantly lower than during 1924–28, but the imports from the United States have fallen to a very low figure. At the same time, British exports of domestic flour were well maintained until 1933, when a sharp decline was noted; no significant changes have occurred in re-export of flour since 1926. Up to the present, therefore, there has been some reduction in import of flour, especially from the United States; but there has been no expansion in export of domestic flour. However, it would be safer to reserve judgment as to the real outcome under resumption of normal conditions; it still remains the expectation of the British milling industry to contract importation of foreign flour and expand exportation of British flour.

6. *Discriminatory import restrictions outside of tariff rates.*—In various countries and for several reasons (one of which is depreciation of currency) it has been found that

impediments to importation other than tariff duties are called into operation to check imports. Such restrictions have been widely applied both to wheat and to flour. In three of the erstwhile heaviest wheat importers of the world (France, Germany, and Italy) not only have tariff duties been high on wheat and still higher on flour, but milling regulations have restricted the amount of imported wheat that could be mixed with domestic wheat. The various further regulations have limited the ways in which domestic bakers might use imported flour. There are licenses, permits, blending regulations, mill-feed preferences and quotas, contingents, allocations, pre- and proscriptions, even embargoes — an almost endless list, to which the ingenuities of vested domestic interests have been effectively applied. The efforts of recent international wheat conferences to secure withdrawal of all such special impediments, leaving alone the import duties, have resulted in failure. These restrictions are today especially effective in Europe, outside of the United Kingdom.

With recovery from the depression, efforts will of course be made to remove these special restrictions, many of which were applied in the name of "emergency" measures. It will be found, however, that "emergency" measures tend to become incorporated into continuing regulations. From the political point of view, these special restrictions constitute the greatest bar to the recovery of the international flour trade.

7. *Government monopolies.* — In certain countries, either openly or indirectly and either partially or completely, governments have reverted to monopolistic control of flour such as existed during the war. Norway is perhaps the best illustration. This form of control is naturally susceptible of abuse, and such regulations easily become a form of embargo, directly under the control of those in determination of state policy. At the same time it is probable that such regulations can be maintained only in a few countries and in all probability will be suspended with the recovery of trade. It is natural for a government to wish to safeguard the food supply of its people; but this argument is easily overstretched, and there are signs that even in Norway this system of government monopoly will be dropped when their export trade reexpands.

8. *Restrictions on foreign exchange.*—The countries of notable significance in international trade are some sixty-six in number.[1] Of these sixty-six countries, sixty are net-debtor countries. Only six are net-creditor countries—the United States, United Kingdom, France, Belgium, Holland, and Switzerland.[2] These circumstances are of fundamental importance in tracing the influence of invisible transfers upon the movements of visible goods and services in international commerce. We must bear in mind that of all the countries of the world now only eight countries have currencies with fixed parities, and are without exchange restrictions imposed on imports, viz., Albania, Dutch East Indies, the Netherlands, Switzerland, Belgium, Danzig, France, and Lithuania. Since all the others have restrictions of some kind, direct or indirect, the effects on transfers of goods are very widespread. At the same time, it is incorrect to attribute the decline in foreign trade mainly to fluctuating exchanges. It may not be inappropriate to point out that all of the net-creditor countries, except the United States, are net importers of wheat and wheat flour, disregarding occasional and abnormal years in France.

Grouping the transactions into a gross figure and disregarding war debts, these six net-creditor countries have loaned to, or invested in, the sixty debtor countries something like the equivalent of forty billion dollars, whose interest charges may be adjudged at approximately two and one-half billion dollars; annual payments are also due on principal. These foreign investments fall into two groups: "portfolio" securities and "direct" investments in enterprise and properties. In the case of the United States, the fairly accurate tabulation of the Department of Com-

[1] In *Foreign Commerce and Navigation of the United States* are listed 111 reporting countries or subdivisions of countries. Sixty-six countries were registered at the last International Economic Conference.

[2] A few states, like Sweden and Denmark, approach the net-creditor position, or at least they did so in 1929.

merce[1] indicates that we have outstanding (as of January 1, 1934) the equivalent of almost fourteen billion dollars in foreign investments, of which less than half are in the form of "portfolio" securities (6,032 million), and over half are "direct" investments in various enterprises and properties (7,642 million).

A crucial difference between the two classes lies in the fact that on portfolio securities the service charges must be paid in terms of the currency of the lending country and delivered within the lending country; that is, our foreign loans are dollar bonds with interest payable in dollars in the United States. In the case of direct investments, however, the earnings which accrue to the enterprises abroad are deposited in banks in the borrowing countries and are there available to the individual lenders (in the creditor countries) in terms of the domestic currencies of the borrowing countries. In the one case, the problem of transfer from the debtor to the creditor country is the direct responsibility of the foreign borrower; in the case of a direct investment, the transfer is the responsibility of the individual lender in the creditor country. To give a direct illustration: The American who owns a Brazilian dollar bond receives his dollars in the United States; if he owns shares in a Brazilian railway company his dividends will be deposited to his account in a Brazilian bank and it will be his individual problem to get them transferred into dollars in the United States. Obviously, default in the one case is a very different thing from default in the other.

The necessity, on the part of the borrowers classified under "portfolio" securities, of making their annual payments to lenders in the creditor countries in the terms of the moneys of those countries has during the past five years exerted a continuous one-sided pressure on foreign exchange in the debtor countries. In the broad sense, reciprocal trade in goods (that is, simultaneous exchange of goods from one country to another) between debtor country and creditor country has been restrained by the existence of private international debts. More and more with each year during the past five years, the existence of debt-payment obligations has operated to stimulate exports from debtor countries and restricted imports into debtor countries. To help their debt payments abroad, the governments of debtor countries restrain imports of goods. The circumstance of foreign investment necessarily produces a one-sided trade, decade after decade, since the goods flowing back from debtor to creditor countries represent both principal and interest, whereas the original goods flowing out from creditor to debtor countries represented principal only. In a very real sense, the current export of goods from creditor countries has been directly reduced by the necessity imposed on debtor countries of using their foreign exchange for the payment of old goods and not for the purchase of new goods. The particular bearing of this circumstance has been abundantly revealed in the movements of merchandise during the past five years. Of this broad influence, continually operating in one direction, the international trade in flour has had its full share.

Every sale of flour abroad is attended with two risks—a *credit risk* and an *exchange risk*. The *credit risk* involves the commercial integrity and financial standing of exporters in the exporting country and of importers in the importing countries. To some extent, flour millers have established branch houses in foreign countries, but for the most part independent importers are active in the field. The dealings with each such independent involve a credit risk. This risk lies within the business experience and competence of the larger mills. The credit risks during recent years have been higher than was previously the case, and considerably larger than existed before the war. Many trading houses in importing countries have gone to the wall, and the commercial rating of many others has been lowered. Their banking connections are less stable; and in particular, when there are exchange regulations, it is found that the credit risk is increased, because the importer bringing in goods on credit is easily embarrassed. The system of doing foreign business on bankers' acceptances is to a considerable extent hampered by exchange regulations. Therefore, it is to be accepted that, with the decline

[1] *The Balance of International Payments of the United States in 1933* (Trade Information Bulletin No. 819), p. 53.

in volume of export of flour, there has been a more or less general increase in credit risk per barrel.

The *exchange risk* has been greatly enlarged in consequence of depreciation of currency and foreign exchange regulation, particularly in debtor countries. A bill payable in 30 days is frequently held back for 90 or 120 days. Insurance or hedging of exchange becomes impracticable. The importer is anxious to bring in goods and does so before he has specific promises of foreign exchange to pay for them. In many countries are systems of priorities between commodities. In other countries are quotas which may be employed within a range of commodities; but the importer of a particular commodity may not know in advance how heavily the quotas will be drawn on. The policies of the exchange control offices are frequently inconsistent; in many countries, favoritism and even graft exist in the distribution of foreign exchange. Flour is classified almost everywhere as a necessity, and therefore in most countries stands high on the list of foreign exchange rating. At the same time, the importing country may give preference to wheat over flour, for the simple reason that a smaller amount of foreign exchange is required to cover the importation of a stated amount of flour in the form of wheat rather than in the manufactured state —that is, the c.i.f. price of a barrel of flour in most importing countries is higher than the c.i.f. price of four and a half bushels of wheat. Since those in control of foreign exchange are trying to stretch the limited supply, they naturally favor the importation of cheaper rather than dearer articles. All rationing of foreign exchange by an importing country has the tendency, and often for specific purposes, of limiting imports. There can be little question that the imports of flour in many South American countries have been reduced below the otherwise level, indeed below the level of customary need, by the operations of exchange restriction. This holds true even in a country like Brazil, which sells far more to the United States than it buys from us and which, therefore, is never in the direct sense short of dollar exchange. But since other uses of dollar exchange (in the purchase of imports from other countries or in the payment of service charges on debt) are pressing, the final effect is that importers of flour in Brazil may have almost as much difficulty in securing foreign exchange as is encountered in a country which does not possess a natural balance of dollar exchange.

There is little hope for the restoration of imports of flour in accordance with customary need, throughout the world of debtor countries, until definitive systems of priority are established or until, in the larger sense, a restoration of prosperity is secured and the exchequers of these countries are relieved of the necessity of exchange control. There is no prospect in most of the debtor countries that these desired improvements will occur quickly. Whether it would be advantageous, under these circumstances, to set up branch houses, is a question worthy of consideration. A number of manufacturers in the United States have recently done this in South America. In this manner they hope, firstly, to conduct a more active development of the market and, secondly, to secure a better status in respect of exchange control than can be secured by a large number of small importing houses.

9. *Depreciation of currency of importing countries.*—Countries with depreciated currencies tend to favor imports from countries whose currency relations are such as to enable them to secure the largest volume of imports in return. So long as the United States was on the gold standard, this meant that the importing countries with depreciated exchanges tended, other things equal, to favor other exporting countries whose currencies were below par. This circumstance seemed then to favor, in many small European countries, the importation of flour from Germany, France, and Italy instead of from the United States, and more recently favored entry of Australian flour into China. With the depreciation of the dollar, this disability has been reduced, but without improvement in our flour exports. At present, as between France and the United States, other things equal, the currency positions would favor importation, into a country of depreciated currency, of flour from the United States rather than from

France. The factual importance of such influence is hard to appraise, since subsidies often enter to obscure the picture.

10. *The propaganda of self-sufficiency.*— Quite generally throughout the world the doctrine of self-sufficiency has been employed by domestic manufacturers, using appeals to consumers to restrain importation of foreign goods. Just as Americans were appealed to not to purchase the textile products of Japan, so in many European countries bakers and housewives have been appealed to not to purchase imported flour but instead to use flour ground from domestic grain or flour ground from imported grain, thus placing imported flour in a third category. Sometimes these appeals center around particular imports. For example, upon bakers it is urged that when they use imported flour this should come from a particular country rather than from another, because the first-named country is a larger user of the products of the importing country under consideration. Such policies frequently lead to quotas; but apart from this, the policy also finds expression in propaganda appeals to consumers.

There is, however, another kind of self-sufficiency which is rooted deeply in a people under stress. Examples are especially to be noted in central Europe. In these cases the manifestations do not spring from the merchant class, but the exclusions are forced on them by social and political pressure. In such countries it is almost a religion to raise their own bread. It is important to distinguish the serious from the trivial cases of self-sufficiency; restoration of prosperity will bring relief to the latter cases, but can hardly affect the cases that have arisen out of war, new boundaries, and offended nationalism.

Influences Favoring Revival of Flour Export

The experiences prior to 1930 justify the view that under favorable general conditions of trade, with comparable wheat prices and absence of special restrictions, American millers might look forward to a revival of export of flour, probably beyond the 10 million barrel level and possibly approaching the 15 million barrel level. Since the level of exports was around four million barrels in 1933 and can hardly be larger this year,[1] this is a recovery of lost trade well worth fighting for. At the same time, it is clear that the repressive influences now in operation will not be rapidly eliminated; in any event, a considerable lag in revival of exports is to be anticipated. There are few definite influences of a favorable nature, and these apply particularly to the flour exports of large companies, especially companies geographically in position to furnish different types and grades of flour from different ports to foreign buyers.

a) Countries which do not have important milling industries and which do not require large amounts of mill feed will return naturally to their accustomed use of imported flour so soon as the factors now inducing or compelling substitution of imported flour with domestic flour or other cereals are abated. This applies especially to the importing countries of Central America, Africa, and the West Indies. In particular, the flour imports of a country like Cuba ought to be restored promptly with increase in the price of sugar. In a historical sense, the flour trade of Central America and the West Indies belongs to the United States.

b) The demand for special types of flour, with long-established uses, ought to revive as early as demand for other well-known commodities. At the same time it remains true that the longer a brand is off a foreign market, the harder will it be to get it re-established.

c) The importing countries have been forced to use poorer flours, and so soon as expedient, or practicable, they will turn with renewed interest to the use of higher-grade flours, and especially to imported flours to which they were previously accustomed. Beyond this lie the old influences of good-will, established brands, and long-continued merchandising representation. These positive forces will act in favor of clear flour perhaps quite as much as in favor of special grade flour. In any event, *when other conditions make the revival of importation of flour into foreign countries again more expedient,* we

[1] A total of 1,903,561 barrels in the first six months of 1934.

may be sure that the American mills possessing these important but intangible advantages will promptly show signs of recovery of foreign trade. Whether considerations of volume of total grind will influence American mills to sell flour abroad at cost, or less, remains to be seen. Many foreign mills (especially those in large associations or syndicates) are in position to do this; and probably do so.

d) When all is said and done, however, it is clear that a significant recovery in export of American flour must wait on a lower relative United States wheat price, an increase in purchasing power abroad, stabilization of depreciated currencies, and facilitation of payments through free, or at least less controlled, foreign exchange.

e) Along political lines, finally, the proposed reciprocity treaties offer some additional promise. In the trade of some forty-five foreign countries with the United States, we purchase more from them than we sell to them; in the trade of some sixty-six foreign countries, however, we sell to them more than we purchase from them. The trade with the sixty-six outweighs in values the trade with the forty-five. The countries which sell to us more than they purchase from us have, so far as *merchandise* trade is concerned, a natural overage of dollar exchange. Unfortunately, the countries in this list are mostly lesser countries, of which perhaps Brazil is the most prominent. In negotiating bilateral treaties with countries to which accrue natural positive balances of dollar exchange, it is possible (following the post-war precedents of Great Britain) to influence the use of this balance of dollar exchange to the end of increasing current importations from the United States.

For example, it is possible so to write a bilateral treaty with Brazil as favorably to influence the importation of American flour into Brazil. There are two ways, in a bilateral treaty, of accomplishing this aim. One is by positive direction; that is, by earmarking the excess of the dollar exchange. The other is by offering to importers in such countries a limited preference in the use of dollar exchange. For example, the balance of dollar exchange accruing to Brazil in each quarter of the calendar year might by agreement be reserved over the succeeding quarter for the use of Brazilian importers bringing in goods from the United States, thereafter to revert to such uses to which the government of Brazil might desire to apply the remaining excess of dollar exchange. Such limited preference would lower both the credit risk and the exchange risk of an importation. With such a system under way, it would definitely favor export of goods from the United States to the countries which possess naturally a balance of dollar exchange. It is an important coincidence that many of these countries are traditionally importers of American flour.

Whether it pays, in the long run, thus to channelize foreign trade, is an entirely different question. Such channelization is being favored actively in trade negotiations between other countries in the world, which of course does not prove that it is wise long-term policy. Our country, in the past, has been prone to favor the policy of no preference in trade relations, outside of Cuba and the Philippines, and has tended to withdraw from relations of preference where such existed, as in the case of Brazil. Whether the present abnormal conditions of trade throughout the world will induce us, as an emergency measure, to make use of the trade weapon of preference, now so widely used in many foreign countries, remains to be decided in the bilateral treaties now being successively negotiated. Also, it remains to be seen whether the world-wide bilateral negotiations do not stir up more discord in trade than they allay.

The future of *subsidy of export* of flour from the United States is in the hands of climatic influences and political policies applied to agriculture. To date, the operations and results of state subsidy of export of flour have been both inconsequential and unsatisfactory, from the standpoint of the major objectives of such policies.

All in all, the prospect of early and significant recovery of foreign trade in flour is not immediately bright if this depends on the favoring factors considered above.

This study is the work of Alonzo E. Taylor

APPENDIX

TABLE I.—TOTAL DOMESTIC WHEAT AND FLOUR EXPORTS OF SIX CHIEF EXPORTING COUNTRIES, AND RELATION OF FLOUR EXPORTS TO TOTAL, FIVE-YEAR AVERAGES FROM 1899–1903*

(Thousand bushels; percentages)

Period averages	United States		Canada		Argentina		Australia		Russia		India		Total	
	Total wheat and flour	Percentage exported as flour	Total wheat and flour	Percentage exported as flour	Total wheat and flour	Percentage exported as flour	Total wheat and flour	Percentage exported as flour	Total wheat and flour	Percentage exported as flour	Total wheat and flour	Percentage exported as flour	Total wheat and flour	Percentage exported as flour
1899–1903	207,061	42.9	25,757	20.4	53,593	5.7	10,507	26.6	100,414	3.7	21,761	7.6	419,093	25.0
1904–08	117,725	52.3	43,745	16.6	107,634	6.1	33,477	21.1	128,645	4.0	38,762	5.6	469,988	19.0
1909–13	102,453	47.9	90,871	18.3	95,469	6.7	50,352	16.6	161,987	3.9	51,390	5.5	552,522	16.2
1919–23	270,705	32.8	196,553	19.6	135,256	5.3	87,908	22.7	2,526	1.9	12,105	23.6	705,053	22.3
1924–28	190,956	31.3	308,545	15.2	147,460	5.6	92,922	24.6	18,648	3.0	18,966	18.3	777,497	18.3
1929–33	107,763	40.2	236,883	12.7	150,807	3.4	126,615	21.2	47,676	2.7	4,482	43.1	674,226	16.1

* Data from Table IV. Footnotes to that table apply also to this table.

TABLE II.—UNITED STATES DOMESTIC EXPORTS OF WHEAT FLOUR, BY CUSTOMS DISTRICTS, 1924–33*

(Thousand barrels; thousand dollars)

Year	Atlantic		Gulf		Northern		Pacific		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1924	6,237	36,822	4,971	29,508	52	271	4,716	24,520	15,976	91,121
1925	5,709	43,915	2,981	23,680	26	200	2,380	17,074	11,096	84,869
1926	5,944	42,975	3,296	22,800	27	198	2,555	16,946	11,822	82,919
1927	5,723	40,102	3,921	26,076	25	174	3,115	18,716	12,784	85,068
1928	5,253	34,855	2,714	16,808	65	356	3,792	21,649	11,824	73,668
Total	28,866	198,669	17,883	118,872	195	1,199	16,558	98,905	63,502	417,645
1929	5,699	35,914	3,076	17,628	73	448	4,785	26,611	13,633	80,601
1930	5,715	33,285	3,614	18,233	34	209	3,665	17,496	13,028	69,223
1931	4,456	16,044	1,618	6,005	11	76	3,535	12,196	9,620	34,321
1932	2,435	8,512	774	2,599	1	6	2,550	7,219	5,760	18,336
1933	2,332	8,651	414	1,470	3	23	1,191	3,592	3,940	13,736
Total	20,637	102,406	9,496	45,935	122	762	15,726	67,114	45,981	216,217

* Based on data from *Foreign Commerce and Navigation of the United States* and U.S. Department of Commerce.

TABLE III.—NUMBER OF DAYS IN EACH MONTH WHEN THE NEAR CHICAGO WHEAT FUTURE WAS ABOVE THE NEAR LIVERPOOL WHEAT FUTURE, OR BELOW IT BY AMOUNT INDICATED, 1929–33*

Range of spread *(cents per bushel)*	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Above or equal to Liverpool	42	44	55	47	49	24	22	25	24	25	35	61	453
Below Liverpool:													
0.1 to 0.9	6	13	7	4	..	..	..	..	1	..	4	5	40
1.0 to 1.9	16	10	7	9	3	1	..	..	3	..	2	2	53
2.0 to 2.9	7	..	12	9	5	6	3	..	5	2	3	2	54
3.0 to 3.9	2	1	7	4	9	20	12	5	4	7	9	9	89
4.0 to 4.9	2	3	3	2	5	17	11	5	3	11	8	4	74
5.0 to 5.9	..	5	7	2	..	11	12	5	11	18	6	4	81
6.0 to 6.9	..	12	7	8	1	3	9	14	12	35	11	3	115
7.0 to 7.9	..	4	2	6	1	4	1	7	19	14	22	1	81
8.0 to 8.9	4	7	3	6	9	5	5	9	10	11	11	1	81
9.0 to 9.9	10	9	4	10	10	2	7	10	5	4	4	1	76
10.0 to 10.9	8	1	1	7	9	5	8	12	2	..	..	2	55
11.0 to 11.9	10	1	1	4	12	6	5	3	..	1	..	10	53
12.0 to 12.9	6	1	1	2	3	5	2	3	3	..	..	5	31
13.0 to 13.9	6	..	..	..	1	10	5	2	3	..	..	1	28
14.0 to 14.9	3	..	1	..	1	5	1	..	4	..	..	1	16
15.0 to 15.9	5	..	..	..	..	..	2	2	2	..	..	..	11
16.0 to 16.9	..	..	..	..	..	..	5	7	2	..	..	..	14
17.0 to 17.9	..	..	..	..	..	..	5	6	6	..	..	..	17
18.0 to 18.9	..	..	..	..	..	..	5	7	3	..	..	..	15
19.0 to 19.9	..	..	..	..	..	..	..	2	..	..	..	..	2
Total trading days	127	111	118	120	118	124	120	124	122	128	115	112	1,439

* Spreads between lowest daily price of near Chicago future and close of near Liverpool future. Chicago data from *Annual Reports* of Board of Trade; Liverpool from *London Grain, Seed and Oil Reporter,* converted at daily exchange.

TABLE IV.—DOMESTIC WHEAT AND FLOUR EXPORTS OF SIX CHIEF EXPORTING COUNTRIES, FIVE-YEAR AVERAGES FROM 1899–1903*

(Thousand bushels; percentages)

Average of period	Total wheat and flour	Wheat grain	Flour as wheat		Total wheat and flour	Wheat grain	Flour as wheat	
			Quantity	Percentage of total			Quantity	Percentage of total
	A. UNITED STATES				B. CANADA			
1899–1903	207,061	118,151	88,910	42.9	25,757	20,493	5,264	20.4
1904–08	117,725	56,154	61,571	52.3	43,745	36,462	7,283	16.6
1909–13	102,453	53,370	49,083	47.9	90,871	74,248	16,623	18.3
1919–23	270,705	181,931	88,774	32.8	196,553	158,073	38,480	19.6
1924–28	190,956	131,140	59,816	31.3	308,545	261,517	47,028	15.2
1929–33	107,763	64,395	43,368	40.2	236,883	206,744	30,139	12.7
	C. ARGENTINA				D. AUSTRALIA			
1899–1903	53,593	50,512	3,081	5.7	10,507[a]	8,337[a]	2,170[a]	20.7
1904–08	107,634	101,104	6,530	6.1	33,477	26,413	7,064	21.1
1909–13	95,469	89,101	6,368	6.7	50,352	41,997	8,355	16.6
1919–23	135,256	128,036	7,220	5.3	87,908	67,932	19,976	22.7
1924–28	147,460	139,137	8,323	5.6	92,922	70,104	22,818	24.6
1929–33	150,807	145,740	5,067	3.4	126,615	99,834	26,781	21.2
	E. RUSSIA				F. INDIA			
1899–1903	100,414	96,729	3,685	3.7	21,761	20,101	1,660	7.6
1904–08	128,645	123,533	5,112	4.0	38,762	36,579	2,183	5.6
1909–13	161,987	155,750	6,237	3.9	51,390	48,560	2,830	5.5
1919–23	2,526[b]	2,479[b]	48[b]	1.9	12,105	9,252	2,853	23.6
1924–28	18,648	18,096	552	3.0	18,966	15,498	3,468	18.3
1929–33	47,676	46,411	1,265	2.7	4,482	2,549	1,933	43.1

* Based on data obtained from the following sources: For the United States, for 1899–1913 from December issues of *Monthly Summary of Foreign Commerce;* for 1919–33 from *Foreign Commerce and Navigation of the United States.* For Canada, for 1899–1908 from Dominion Bureau of Statistics, *Monthly Bulletin of Agricultural Statistics,* September 1933, XXVI, 271; 1909–13 and 1919 from *International Yearbooks of Agricultural Statistics;* 1920–26 and 1933 from *Summary of the Trade of Canada,* December issues; 1927–32 from *Trade of Canada.* (The data for Canada for 1899–1904 are for years beginning in July, for 1905–08 for years beginning in August, and for calendar years thereafter.) For Argentina, for 1899–1906 from U.S. Bureau of Statistics, *Statistical Abstract of Foreign Countries* (Washington, 1909), p. 345; 1907–08 from Ernesto Tornquist & Co., Ltd., *The Economic Development of the Argentine Republic in the Last Fifty Years* (Buenos Aires, 1919), pp. 31 and 52; 1909–33 from *International Yearbooks of Agricultural Statistics* and *Monthly Crop Report and Agricultural Statistics.* For Australia, for 1900 from U.S. Bureau of Statistics, *Statistical Abstract of Foreign Countries,* p. 415; 1901–13 from *Official Yearbook of the Commonwealth of Australia, Statistics for Period 1901–11,* V, 369, and subsequent volumes; 1919–33 from *International Yearbooks of Agricultural Statistics* and *Monthly Crop Report and Agricultural Statistics.* For Russia, for 1899–1905 from I. M. Rubinow, *Russian Wheat and Wheat Flour in European Markets* (U.S. Bureau of Statistics, Bulletin 66, June 1908), pp. 26 and 83; for 1906–08, for wheat, from V. P. Timoshenko, *Agricultural Russia and the Wheat Problem* (Stanford University, 1932), p. 552; 1909–32 from *International Yearbooks of Agricultural Statistics;* 1933 from Russia, Chief Customs Directorate, *Statistical Review of the Foreign Trade of the USSR,* December 1933. For India, 1899–1908 from C. P. Wright, "India as a Producer and Exporter of Wheat," WHEAT STUDIES, July 1927, III, 405; 1909–33 from *International Yearbooks of Agricultural Statistics* and *Monthly Crop Report and Agricultural Statistics.* (The data for India for 1899–1908 are for years beginning in April, and for calendar years thereafter.)

[a] Average 1900–1903.

[b] Average 1920–23.

TABLE V.—UNITED STATES DOMESTIC EXPORTS OF WHEAT FLOUR,

(*Thousand barrels;*

Country	1924		1925		1926		1927		1928		Average 1924–28
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity
Grand total	*15,990*	*91,210*	*11,119*	*85,067*	*11,850*	*83,133*	*12,823*	*85,332*	*11,852*	*73,855*	*12,727*
Europe	7,781	44,501	5,066	38,307	5,003	34,143	5,474	36,647	3,849	24,020	5,435
Austria	0	0	1	7	9	60	23	152	10	60	9
Azores, Madeira	5	32	27	213	28	179	65	418	45	261	34
Belgium	113	646	34	249	42	290	53	369	16	93	51
Bulgaria	1	8	1	12	0	0	0	0	0	0	1
Czechoslovakia	1	5	1	5	1	7	2	11	—	3	1
Denmark	177	1,097	215	1,624	321	2,301	507	3,565	462	2,938	336
Estonia	17	105	9	77	3	16	5	41	2	12	7
Finland	486	3,076	432	3,393	452	3,462	471	3,574	384	2,771	445
France	3	17	1	12	9	58	11	74	5	35	6
Germany	1,861	10,750	1,085	8,574	657	4,554	656	4,369	341	2,060	920
Gibraltar	2	12	1	12	4	29	3	23	4	29	3
Greece	451	2,275	361	2,535	348	2,083	138	829	80	434	276
Hungary	2	11	0	0	—	2	0	0	—	2	1
Iceland	2[a]	8[a]	1[a]	8[a]	1	12	3	21	1	8	2
Irish Free State	240	1,429	56	430	82	595	72	513	43	277	98
Italy	109	589	50	396	15	115	19	123	21	127	43
Latvia	3	22	24	191	—	3	1	10	1	6	6
Lithuania	0	0	0	0	1	8	1	9	1	4	1
Malta, Gozo, Cyprus	49	297	33	251	31	219	20	134	28	169	32
Netherlands	2,221	12,333	907	6,620	1,225	8,279	1,538	9,910	1,208	7,193	1,420
Norway	187	1,177	165	1,300	267	1,897	340	2,405	226	1,463	237
Poland, Danzig	54	357	74	612	4	30	21	140	1	5	31
Portugal	4	23	1	14	1	9	4	32	3	24	3
Rumania	0	0	1	3	0	0	—	2	—	—	—
Russia	0	0	290	2,423	2	11	—	2	0	0	59
Spain	—	2	0	0	1	7	—	3	—	2	1
Sweden	88	516	63	470	52	378	80	554	93	587	75
Switzerland	0	0	8	51	0	0	—	—	0	0	2
Turkey	2	10	0	0	1	5	1	4	0	0	1
United Kingdom	1,700	9,699	1,210	8,742	1,439	9,498	1,438	9,347	873	5,441	1,332
Yugoslavia, Albania	1	5	13	87	6	35	2	12	3	15	5
North America	492	2,864	276	2,165	307	2,251	188	1,332	215	1,398	296
Canada	82	466	51	423	62	451	65	456	92	590	71
Mexico	388	2,247	201	1,555	206	1,514	88	623	84	559	193
Newfoundland, Labrador	22	150	24	186	38	284	35	252	40	249	32
Miquelon, St. Pierre	—	1	—	1	—	1	—	2	0	0	—
West Indies	2,033	12,900	1,856	15,034	1,817	13,645	1,934	13,582	1,925	13,027	1,913
Bermudas	3	18	5	44	3	25	10	73	7	51	6
Barbados	19	116	11	93	14	100	13	92	14	97	14
Jamaica	161	932	143	1,072	117	801	114	780	61	438	119
Trinidad, Tobago	15	86	7	55	9	61	4	30	6	42	8
Other British W. Indies	39	238	21	178	11	82	8	62	12	83	18
Cuba	1,187	7,541	1,198	9,815	1,146	8,734	1,239	8,692	1,140	7,638	1,182
Dominican Republic	81	549	86	734	109	856	113	862	123	910	102
Netherlands W. Indies	28	176	24	208	32	241	32	228	39	278	31
French W. Indies	127	749	97	745	78	539	113	746	89	557	101
Haiti Republic	350	2,350	239	1,909	279	2,057	265	1,869	411	2,780	309
Virgin Islands	24	146	23	182	19	149	22	148	22	152	22
Central America	585	3,561	561	4,486	580	4,267	635	4,300	733	4,768	619
British Honduras	22	139	15	129	19	148	20	144	14	105	18
Costa Rica	93	578	107	881	96	740	116	807	126	812	108
Guatemala	142	892	126	1,035	139	1,086	151	1,082	208	1,418	153
Honduras	52	347	46	392	43	333	56	410	59	398	51
Nicaragua	74	425	71	549	67	470	80	517	88	590	76
Panama	87	504	94	741	95	700	99	654	105	666	96
Salvador	115	676	102	759	121	790	113	686	133	779	117

* Data for 1924–32 from *Foreign Commerce and Navigation of the United States;* data for 1933 supplied through the courtesy of the U.S. Department of Commerce. Continental totals and averages for the years 1924–28 were obtained by using unrounded

[a] Including Faroe Islands.

QUANTITIES AND VALUES, BY DESTINATIONS, 1924–33*

(thousand dollars)

Average 1924-28	1929		1930		1931		1932		1933		Country
Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
83,719	*13,663*	*80,791*	*13,060*	*69,401*	*9,654*	*34,456*	*5,795*	*18,460*	*3,964*	*13,825*	*Grand total*
35,523	4,201	24,673	5,178	27,786	3,174	10,837	960	2,931	597	1,962	Europe
56	22	121	65	332	60	192	9	24	13	43	Austria
221	43	240	37	263	12	37	2	6	3	15	Azores, Madeira
329	12	65	49	231	26	119	9	32	7	25	Belgium
4	0	0	0	0	0	0	1	2	0	0	Bulgaria
6	4	26	4	15	0	0	0	0	0	0	Czechoslovakia
2,305	482	2,862	571	2,991	396	1,305	95	287	43	129	Denmark
50	3	19	3	12	—	—	—	1	0	0	Estonia
3,255	346	2,397	375	2,450	183	627	41	133	21	70	Finland
39	4	30	6	50	5	25	4	20	1	6	France
6,061	409	2,360	368	2,060	173	533	58	164	23	70	Germany
21	1	10	1	8	—	1	0	0	0	0	Gibraltar
1,631	45	233	26	132	7	21	3	9	3	10	Greece
3	0	0	—	1	0	0	0	0	0	0	Hungary
11	1	8	2	18	1	6	—	1	—	1	Iceland
649	84	522	142	833	168	516	90	273	60	205	Irish Free State
270	26	162	58	289	56	184	52	153	82	274	Italy
46	1	4	—	1	—	—	0	0	0	0	Latvia
4	—	—	—	3	0	0	0	0	0	0	Lithuania
214	34	201	34	174	35	102	18	53	24	73	Malta, Gozo, Cyprus
8,867	909	4,830	1,473	7,104	558	1,878	145	443	112	353	Netherlands
1,648	336	2,014	350	1,894	323	1,095	186	526	131	402	Norway
229	1	7	1	6	—	1	0	0	—	—	Poland, Danzig
20	4	23	6	39	3	10	1	4	2	6	Portugal
1	0	0	0	0	0	0	0	0	0	0	Rumania
487	1	4	2	8	—	—	0	0	—	1	Russia
3	0	0	—	—	—	1	0	0	1	2	Spain
501	114	678	64	366	16	56	6	17	3	8	Sweden
10	0	0	1	5	0	0	0	0	—	—	Switzerland
4	0	0	0	0	0	0	0	0	0	0	Turkey
8,545	1,317	7,852	1,536	8,488	1,151	4,128	239	783	70	267	United Kingdom
31	1	6	3	11	—	1	—	1	—	—	Yugoslavia, Albania
2,002	334	2,104	249	1,494	149	748	140	498	74	303	North America
477	123	757	85	518	56	305	5	21	6	33	Canada
1,300	122	734	76	437	15	76	6	26	3	18	Mexico
224	90	613	87	531	77	363	127	445	63	244	Newfoundland, Labrador
1	0	0	2	8	1	4	2	6	3	9	Miquelon, St. Pierre
13,638	1,983	12,702	1,692	10,047	1,510	6,088	1,262	4,719	1,137	4,378	West Indies
42	10	70	7	46	2	8	—	2	—	1	Bermudas
100	16	97	18	100	12	44	1	3	1	2	Barbados
804	56	404	51	360	32	105	8	28	3	10	Jamaica
55	14	84	8	47	8	37	3	11	2	7	Trinidad, Tobago
129	13	86	13	77	10	38	19	77	6	21	Other British W. Indies
8,484	1,266	7,990	1,056	6,231	924	3,748	779	2,948	746	2,923	Cuba
782	120	865	97	617	75	338	70	280	64	249	Dominican Republic
226	55	383	58	385	47	199	44	163	36	133	Netherlands W. Indies
667	135	803	145	779	123	452	140	453	141	474	French W. Indies
2,193	277	1,777	217	1,276	255	1,035	179	687	123	494	Haiti Republic
155	22	144	22	131	21	86	19	66	16	64	Virgin Islands
4,276	709	4,382	660	3,618	690	2,578	500	1,749	494	1,664	Central America
133	18	116	21	112	21	84	6	23	2	6	British Honduras
764	119	727	123	658	125	442	92	320	86	307	Costa Rica
1,103	185	1,208	158	939	157	614	118	427	120	384	Guatemala
376	56	369	48	269	55	220	32	122	30	110	Honduras
510	79	494	74	404	87	327	50	180	56	199	Nicaragua
653	116	693	130	709	127	473	117	393	122	447	Panama
738	137	775	107	527	118	417	83	284	78	212	Salvador

figures and they therefore do not always check with the rounded data given for individual countries. Dashes (—) indicate figures under 500.

TABLE V.—

(*Thousand barrels;*

Country	1924		1925		1926		1927		1928		Average 1924-28
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity
South America	1,098	6,683	1,312	10,543	1,671	12,594	1,571	10,932	1,556	10,124	1,442
Argentina	—	—	1	9	1	6	2	13	—	2	1
Bolivia	113	605	90	672	121	851	143	902	82	499	110
Brazil	634	3,893	757	6,193	988	7,574	854	6,036	820	5,179	810
Chile	17	91	24	170	36	235	45	264	21	123	29
Colombia	60	409	64	548	122	951	86	648	154	1,144	97
Ecuador	86	531	123	938	91	655	127	850	110	678	107
British Guiana	2	17	5	38	3	23	3	21	2	13	3
Dutch Guiana	32	194	31	250	36	266	31	223	27	189	31
French Guiana	11	70	11	87	6	45	6	39	5	31	8
Paraguay	0	0	0	0	0	0	0	0	1	3	—
Peru	68	396	82	621	120	839	103	667	109	668	97
Uruguay	—	—	—	1	0	0	—	—	—	1	—
Venezuela	73	476	125	1,015	148	1,150	173	1,269	227	1,593	149
Asia	3,602	18,085	1,547	10,714	1,794	11,496	2,253	13,270	2,973	16,528	2,434
Arabia	0	0	0	0	0	0	0	0	—	1	—
Aden	0	0	0	0	0	0	—	1	0	0	—
British India	—	—	—	—	—	—	—	1	0	0	—
British Malaya	—[b]	1[b]	—[b]	3[b]	25	176	33	194	42	231	20
Ceylon	0	0	0	0	0	0	0	0	0	0	0
China	1,246	5,971	220	1,446	506	3,066	608	3,443	825	4,510	681
Java, Madura	0	0	0	0	—	—	—	1	10	57	2
Other Neth. E. Indies	0	0	0	0	—	2	1	12	13	79	3
French Indo-China	—	—	—	—	1	3	—	3	—	1	—
Hong Kong	1,001	5,031	393	2,827	436	2,809	774	4,585	938	5,113	708
Iraq	0	0	0	0	0	0	0	0	0	0	0
Japan[c]	123	634	38	239	19	104	25	137	64	401	54
Kwantung	516	2,392	286	1,761	165	982	128	677	193	945	257
Palestine	13[d]	76[d]	42[d]	256[d]	17	119	27	217	31	204	50[d]
Philippine Islands	702	3,978	564	4,148	610	4,137	635	3,878	769	4,557	656
Russia	—	—	5	34	1	9	1	6	3	19	2
Syria	...[c]	...[c]	...[c]	...[c]	16	88	20	114	86	409	...[c]
Turkey	—	—	0	0	0	0	—	2	—	—	—
Other Asia	0	0	0	0	0	0	—	—	0	0	—
Africa	375	2,456	481	3,645	654	4,540	744	5,093	573	3,806	565
Belgian Congo	1	8	—	3	1	5	1	6	1	11	1
British E. Africa	—	3	1	10	1	5	3	18	4	30	2
British S. Africa	4	28	10	84	3	26	5	36	8	48	6
British W. Africa	148	1,133	138	1,254	145	1,242	176	1,427	198	1,505	161
Egypt[f]	140	779	258	1,715	359	2,220	221	1,462	181	1,088	232
Algeria, Tunisia	0	0	1	6	0	0	1	5	0	0	—
Other French Africa	19	149	19	168	16	137	21	169	24	184	20
Italian Africa	0	0	0	0	—	1	0	0	—	—	—
Liberia	1	9	1	11	1	10	1	9	3	20	1
Morocco	29	158	7	52	40	258	128	763	39	229	49
Mozambique	—	2	3	26	—	3	—	3	2	12	1
Other Portuguese Africa	9	61	13	105	14	109	16	101	17	99	14
Canary Islands	12	70	14	118	31	237	35	250	42	273	27
Other Spanish Africa	9	58	14	92	43	287	137	843	53	307	51
Australasia	24	160	20	171	25	197	24	175	27	184	24
Australia	—	2	—	—	—	3	—	2	1	7	—
British Oceania	1	3	—	2	—	3	—	2	1	7	—
French Oceania	24	155	19	166	24	188	23	170	23	160	23
New Zealand	0	0	—	2	1	3	—	2	1	11	—

[b] Straits Settlements. [c] Including Chosen and Formosa. [d] Including Syria.

Continued

thousand dollars)

Average 1924-28	1929		1930		1931		1932		1933		Country
Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
10,175	1,552	9,583	1,602	8,649	892	3,304	398	1,406	441	1,665	South America
6	1	7	1	3	—	1	—	—	—	—	Argentina
706	84	487	82	413	37	122	3	10	2	7	Bolivia
5,775	781	4,682	849	4,386	340	1,239	33	125	167	657	Brazil
177	15	82	23	110	1	3	12	30	8	18	Chile
740	138	1,003	119	750	52	213	14	51	3	15	Colombia
730	101	580	107	528	101	344	66	208	37	127	Ecuador
22	4	25	8	63	5	21	1	3	—	1	British Guiana
224	34	208	33	186	33	122	28	93	25	85	Dutch Guiana
55	7	42	8	41	2	9	1	2	1	3	French Guiana
1	—	3	0	0	0	0	0	0	0	0	Paraguay
638	109	618	101	510	62	205	31	100	11	43	Peru
—	0	0	—	—	—	—	—	1	0	0	Uruguay
1,100	278	1,845	270	1,658	259	1,023	208	782	187	709	Venezuela
14,018	4,190	22,939	3,078	14,331	2,801	9,279	2,207	6,064	905	2,723	Asia
—	0	0	0	0	—	—	—	—	—	—	Arabia
—	0	0	0	0	—	1	—	1	1	2	Aden
—	0	0	0	0	—	—	—	—	0	0	British India
121	19	105	20	96	10	31	—	1	2	6	British Malaya
0	10	52	—	1	0	0	0	0	0	0	Ceylon
3,687	1,175	6,471	794	3,508	1,142	3,747	1,098	2,974	41	122	China
12	20	111	8	45	2	6	0	0	0	0	Java, Madura
19	26	139	18	100	5	19	2	6	1	4	Other Neth. E. Indies
1	0	0	1	4	1	4	1	3	1	2	French Indo-China
4,073	834	4,417	858	3,842	754	2,289	479	1,233	298	751	Hong Kong
0	2	13	0	0	0	0	0	0	0	0	Iraq
303	277	1,704	68	354	49	150	5	16	1	4	Japan[e]
1,352	905	4,601	585	2,604	138	423	44	103	34	141	Kwantung
296[d]	46	287	37	229	16	50	2	5	19	58	Palestine
4,140	778	4,523	670	3,452	678	2,540	574	1,718	507	1,631	Philippine Islands
14	3	13	5	25	1	2	0	0	0	0	Russia
...[e]	43	207	8	52	3	9	1	4	—	2	Syria
—	51	293	5	21	2	6	0	0	0	0	Turkey
—	0	0	—	—	0	0	—	—	—	—	Other Asia
3,908	661	4,193	569	3,290	420	1,543	297	979	288	1,026	Africa
6	4	26	8	55	7	32	8	29	7	26	Belgian Congo
13	2	11	3	15	1	4	—	1	0	0	British E. Africa
44	14	80	21	108	3	13	1	3	—	2	British S. Africa
1,312	195	1,416	171	1,097	133	564	90	327	100	391	British W. Africa
1,453	235	1,414	191	991	180	562	140	411	129	411	Egypt[f]
2	1	4	—	—	0	0	0	0	0	0	Algeria, Tunisia
161	39	288	58	399	39	158	30	111	35	136	Other French Africa
—	—	3	0	0	0	0	0	0	—	1	Italian Africa
12	1	9	2	11	1	3	—	1	1	2	Liberia
292	91	471	23	100	1	3	—	1	—	1	Morocco
9	3	18	8	56	7	25	5	19	2	8	Mozambique
95	9	61	15	106	14	50	10	37	5	19	Other Portuguese Africa
190	35	209	39	210	26	104	11	38	6	22	Canary Islands
317	33	182	31	142	7	25	—	2	2	9	Other Spanish Africa
178	33	215	31	186	20	79	33	115	28	104	Australasia
3	6	36	2	11	—	1	—	—	—	1	Australia
3	3	20	1	8	—	3	—	1	—	1	British Oceania
168	21	137	19	107	6	27	—	2	—	1	French Oceania
4	4	22	10	60	13	48	32	112	27	101	New Zealand

[e] Included with Palestine.

[f] Including Anglo-Egyptian Sudan.

TABLE VI.—TOTAL IMPORTS OF WHEAT FLOUR BY IMPORTING COUNTRIES, AND

(*Thousand barrels;*

Country	1924		1925		1926		1927		1928		Average 1924-28 Quantity
	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	
Grand total	*48,366*	...	*41,172*	...	*38,041*	...	*36,381*	...	*37,377*	...	*40,267*
Europe	29,620	...	25,391	...	19,881	...	18,752	...	17,728	...	22,274
Austria	2,592	.0	1,135	.1	1,625	.5	1,809	1.3	1,357	.8	1,704
Azores, Madeira	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...
Belgium	131	86.1	234	14.3	289	14.4	132	40.4	188	8.6	195
Bulgaria	20	6.9	43	3.4	—	.0	—	.0	—	.0	13
Czechoslovakia	3,661	.0	3,141	.0	2,464	.0	1,969	.1	1,969	.0	2,641
Denmark	415	42.8	445	48.3	623	51.6	723	70.1	874	52.8	616
Estonia	106	15.9	118	7.8	78	3.7	70	7.4	81	2.5	91
Finland	1,156	42.1	1,260	34.3	969	46.6	977	48.2	1,523	25.2	1,177
France	266	1.1	75	1.7	54	15.8	82	13.5	219	2.1	139
Germany	6,380	29.2	4,427	24.5	1,368	48.0	669	98.1	433	78.6	2,655
Gibraltar	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...
Greece	1,546	29.2	1,259	28.7	1,670	20.8	751	18.3	553	14.4	1,156
Hungary	2	100.0+	—	.0	—	100.0+	—	.0	—	100.0+	—
Iceland[a]	51	3.0	52	2.3	46	3.1	45	5.7	49	2.1	...
Irish Free State	2,149	11.2	1,807	3.1	1,826	4.5	1,932	3.7	1,814	2.3	1,906
Italy	36	100.0+	135	37.2	25	61.3	20	91.9	41	52.4	51
Latvia	14	23.4	4	100.0+	3	10.8	6	22.4	5	15.0	6
Lithuania	7	.0	1	.0	—	100.0+	0	100.0+	0	100.0+	2
Malta, Gozo, Cyprus	255	19.1	262	12.5	249	12.4	280	7.0	279	10.1	265
Netherlands	1,967	100.0+	1,547	58.6	1,597	76.7	1,854	83.0	1,964	61.5	1,786
Norway	653	28.7	589	28.0	663	40.3	779	43.7	810	27.8	699
Poland, Danzig	1,308	4.2	2,631	2.8	10	37.9	146	14.1	33	2.0	826
Portugal	53	7.6	201	.7	75	1.2	74	5.4	135	2.4	108
Rumania	—	.0	64	.0	—	.0	—	100.0+	...	100.0+	16[b]
Russia[c]	...	.0	...	100.0+	...	100.0+	...	100.0+	...	.0	...
Spain	0	100.0+	—	.0	—	100.0+	—	100.0+	0	100.0+	—
Sweden	267	32.9	149	42.5	140	37.5	165	48.5	217	43.0	187
Switzerland	...	.0	...	100.0+	...	.0	...	100.0+	...	.0	...
Turkey	33[d]	5.9	...	.0	...	100.0+	...	100.0+	...	.0	...
United Kingdom	6,312	26.9	5,207	23.2	6,092	23.6	6,263	23.0	5,101	17.1	5,795
Yugoslavia, Albania	241	.5	603	2.2	14	42.3	6	29.5	82	3.2	189
North America	819	...	609	...	649	...	546	...	553	...	635
Canada	79	100.0+	52	98.9	54	100.0+	64	100.0+	76	100.0+	65
Mexico	332	100.0+	208	96.4	228	90.3	107	82.3	82	100.0+	192
Newfoundland[f]	401	5.4	342	6.9	361	10.6	368	9.5	389	10.2	373
Miquelon, St. Pierre	6	1.9	7	1.5	5	3.7	7	3.8	6	.0	6
West Indies	3,008	...	2,640	...	2,621	...	2,747	...	2,825	...	2,768
Bermudas	37	7.2	38	14.0	36	9.3	36	27.7	39	19.1	37
Barbados[g]	61	31.4	59	19.3	56	24.8	53	24.2	61	22.5	58
Jamaica	348	46.1	284	50.4	290	40.4	332	34.4	409	14.9	333
Trinidad, Tobago	290	5.3	275	2.6	283	3.2	286	1.4	311	1.9	289
Other British W. Indies	165	23.5	174	12.3	163	6.6	180	4.7	167	7.4	170
Cuba	1,383	85.9	1,275	93.9	1,234	92.9	1,301	95.2	1,245	91.5	1,288
Dominican Republic	108	74.8	102	84.7	119	91.3	123	92.1	135	90.7	117
Netherlands W. Indies	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...
French W. Indies	151	83.8	144	67.0	125	61.9	153	73.9	91	97.7	133
Haiti Republic	465	75.3	288	83.1	316	88.5	282	94.0	367	100.0+	343
Virgin Islands	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...
Central America	578	...	565	...	633	...	667	...	785	...	646
British Honduras	28	77.2	27	54.0	30	62.6	32	63.4	28	51.3	29
Costa Rica	112	83.4	113	93.9	111	86.9	119	96.9	131	96.7	117
Guatemala	145	97.9	145	87.3	150	92.5	152	99.2	207	100.0+	160
Honduras	...	100.0+	...	100.0+	42	100.0+	50	100.0+	59	99.2	50[e]
Nicaragua	77	96.6	69	100.0+	69	97.5	79	100.0+	101	87.3	79
Panama	103	84.1	102	92.1	109	87.4	116	85.6	119	88.4	110
Salvador	113	100.0+	108	93.9	122	98.7	119	94.9	141	94.6	121

* For years 1924–32 based on data from *Foreign Commerce and Navigation of the United States* and *International Yearbooks of Agricultural Statistics;* for 1933 based on data (partly preliminary) supplied by U.S. Department of Commerce and from International Institute of Agriculture, *Monthly Crop Report.* Continental totals and averages for 1924–28 were obtained by using unrounded figures and they therefore do not always check with the rounded data given for individual countries. Percentages are

[a] Includes Faroe Islands in 1924 and 1925; therefore the average for 1924–28 is omitted.

[b] Four-year average.

[c] Wheat flour not separately reported.

[d] Ten months.

[e] Albania only.

"PERCENTAGE IMPORTED" FROM THE UNITED STATES, 1924–33*

percentages)

1929		1930		1931		1932		1933		Country
Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	
41,725	...	*36,579*	...	*30,169*	...	*23,116*	...	...	...	*Grand total*
17,200	...	18,540	...	14,659	...	10,570	...	9,693	...	Europe
1,617	1.3	1,741	3.7	1,319	4.5	544	1.7	322	4.0	Austria
...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	Azores, Madeira
314	3.7	120	41.0	76	34.1	30	28.7	77	9.1	Belgium
—	.0	—	.0	—	.0	0	100.0+	0	.0	Bulgaria
1,842	.2	2,142	.2	306	.0	407	.0	164	.0	Czechoslovakia
734	65.7	787	72.5	759	52.1	491	19.4	400	10.8	Denmark
75	4.3	62	4.0	23	.1	2	10.3	0	.0	Estonia
1,539	22.4	1,187	31.6	923	19.8	617	6.7	576	3.6	Finland
163	2.5	289	2.2	187	2.8	188	2.3	341	.3	France
341	100.0+	250	100.0+	121	100.0+	92	63.6	37	62.2	Germany
...	100.0+	...	100.0+	...	100.0+	...	.0	...	.0	Gibraltar
351	12.9	161	16.4	61	10.9	17	17.5	8	37.5	Greece
0	.0	1	29.0	—	.0	—	.0	0	.0	Hungary
44	2.3	66	3.6	46	3.1	...	...	...	...	Iceland[a]
1,779	4.7	1,904	7.4	1,930	8.7	1,694	5.3	793	7.1	Irish Free State
42	62.6	75	77.3	144	38.9	134	38.5	196	41.8	Italy
3	18.2	1	19.7	1	16.0	—	.0	0	.0	Latvia
0	100.0+	0	100.0+	—	.0	0	.0	0	.0	Lithuania
308	11.1	269	12.8	385	9.0	433	4.1	...	...	Malta, Gozo, Cyprus
1,408	64.6	1,797	82.0	1,289	43.3	352	41.4	507	22.1	Netherlands
806	41.7	733	47.7	758	42.6	544	34.2	565	23.2	Norway
19	7.3	15	9.0	9	1.9	—	.0	0	100.0+	Poland, Danzig
73	4.8	90	6.7	137	2.0	138	.8	75	2.7	Portugal
—	.0	—	.0	—	.0	—	.0	1	.0	Rumania
...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	Russia[c]
0	.0	—	100.0	0	100.0+	0	.0	0	100.0+	Spain
187	60.8	140	45.8	22	74.5	13	45.8	3	100.0	Sweden
...	.0	...	100.0+	...	.0	...	.0	...	100.0+	Switzerland
...	.0	...	.0	...	.0	...	.0	...	.0	Turkey
5,545	23.8	6,702	22.9	6,141	18.7	4,867	4.9	5,628	1.2	United Kingdom
7	16.2	10	25.6	21	2.0	8	4.6[e]	...	...	Yugoslavia, Albania
577	...	495	...	412	...	387	...	...	...	North America
85	100.0+	55	100.0+	22	100.0+	16	31.2	41	14.6	Canada
115	100.0+	61	100.0+	3	100.0+	1	100.0+	...	...	Mexico
371	24.2	372	23.4	380	20.2	369	34.3	...	...	Newfoundland[f]
6	.0	6	25.4	7	11.1	...	...	...	...	Miquelon, St. Pierre
2,997	...	2,546	...	2,104	...	922	...	...	...	West Indies
39	26.1	69	9.9	45	4.5	2	22.3	...	...	Bermudas
56	27.8	55	33.3	63	18.9	63	1.4	...	...	Barbados[g]
385	14.5	320	16.0	343	9.2	367	2.3	...	...	Jamaica
325	4.2	303	2.6	...	...	...	...	...	...	Trinidad, Tobago
191	6.8	184	7.0	178	5.7	173	10.8	...	...	Other British W. Indies
1,260	100.0+	1,084	97.4	934	99.0	...	...	...	...	Cuba
120	100.0+	92	100.0+	74	100.0+	...	...	69	92.6	Dominican Republic
...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	...	Netherlands W. Indies
200	67.5	215	67.2	203	60.8	92[h]	...	...	...	French W. Indies
421	65.8	224	97.0	265	96.2	224	80.0	128	95.9	Haiti Republic
...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	...	Virgin Islands
764	...	639	...	649	...	295	...	...	...	Central America
29	60.6	29	71.7	29	71.9	28	22.2	...	...	British Honduras
133	89.0	128	95.5	130	95.7	97	95.0	97	89.0	Costa Rica
202	91.6	162	97.6	160	97.8	...	...	134	89.6	Guatemala
59	94.2	...	100.0+	...	100.0+	...	100.0+	...	...	Honduras
80	98.9	72	100.0+	85	100.0+	55	91.5	...	...	Nicaragua
122	95.0	127	100.0+	127	99.5	30[i]	...	86	100.0+	Panama
139	98.9	119	89.8	116	100.0+	85	97.9	76	100.0+	Salvador

also based on unrounded figures. No percentages are given for the continental totals because of the lack of comparability of the countries included in the totals. Dots (...) indicate that data are not available; dashes (—) indicate imports under 500 barrels; 100.0+ indicates that the United States exports reported exceeded the imports reported by the importing country, or that no data are available for the importing country.

[f] The United States figures for Newfoundland include Labrador.

[g] Total imports include rye flour in 1929–33.

[h] Guadeloupe only.

[i] Three-year average.

[j] Canal Zone only.

TABLE VI—

(Thousand barrels;

Country	1924		1925		1926		1927		1928		Average 1924-28
	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity
South America	3,208	...	3,017	...	3,766	...	3,638	...	3,627	...	3,451
Argentina	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...
Bolivia	371	30.5	265	33.8	304	39.9	310	46.1	192	42.9	289
Brazil	2,041	30.6	1,845	41.0	2,490	39.7	2,296	37.2	2,353	34.8	2,205
Chile	1	100.0+	78	30.6	66	54.5	121	36.7	57	37.1	65
Colombia	59	100.0+	58	100.0+	92	100.0+	104	81.9	169	91.0	96
Ecuador	102	84.6	123	99.5	100	90.9	127	100.0+	127	86.6	116
British Guiana	172	1.4	152	3.0	184	1.5	158	1.6	176	1.1	168
Dutch Guiana	42	77.1	35	88.8	45	78.5	39	79.2	41	66.1	40
French Guiana	21	51.5	28	38.5	29	20.9	28	20.3	25	18.2	26
Paraguay	113	.0	134	.0	84	.0	89	.0	76	.7	99
Peru	76	90.2	73	100.0+	83	100.0+	100	100.0+	97	100.0+	85
Uruguay	0	100.0+	—	100.0+	0	.0	0	100.0+	0	100.0+	—
Venezuela	211	34.8	225	55.5	288	51.2	265	65.4	316	71.8	261
Asia	7,270	...	4,962	...	6,330	...	6,179	...	7,958	...	6,540
Arabia	...	.0	...	.0	...	.0	...	.0	...	100.0+	...
Aden	88	.0	95	.0	91	.0	113	.1	114	.0	100
British India	2	3.4	1	.4	1	.5	1	7.8	2	.0	1
British Malaya	488	.0	554	.1	586	4.3	669	4.9	637	6.6	587
Ceylon	183	.0	183	.0	206	.0	223	.0	234	.0	206
China	4,527	27.5	1,912	11.5	2,914	17.4	2,601	23.4	4,070	20.3	3,205
Java, Madura	380	.0	344	.0	410	.0	427	.0	491	2.1	410
Other Neth. E. Indies	192	.0	256	.0	283	.1	310	.4	330	3.9	274
French Indo-China	217	.0	200	.0	214	.2	241	.2	256	.1	226
Hong Kong	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...
Iraq	...	.0	...	.0	25	.0	14	.0	8	.0	15[k]
Japan[l]	137	89.7	65	57.4	85	21.7	231	10.8	96	66.4	123
Kwantung	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...
Palestine	145	4.3[m]	190	9.9[m]	226	7.3	204	13.3	242	12.7	498[m]
Philippine Islands	701	100.0+	783	72.0	754	80.9	759	83.6	854	90.2	770
Russia	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...
Syria	167	...[m]	228	...[m]	366	4.3	247	8.3	474	18.0	...[m]
Turkey	...	100.0+	...	.0	1	.0	—	100.0+	1	.9	1
Other Asia	42	.0	150	.0	169	.0	140	.0	151	.0	130
Africa	3,718	...	3,765	...	3,729	...	3,550	...	3,637	...	3,680
Belgian Congo	20	4.5	19	1.5	27	2.0	33	2.1	36	4.2	27
British E. Africa	191	.2	196	.6	162	.4	212	1.2	242	1.8	201
British S. Africa	489	.9	376	2.7	358	1.0	335	1.5	391	2.0	390
British W. Africa	169	87.6	153	90.6	169	85.4	309	56.9	241	82.1	208
Egypt[o]	1,948	7.2	2,323	11.1	2,319	15.5	1,889	11.7	1,901	9.5	2,076
Algeria, Tunisia	125	.0	101	1.1	111	.0	76	1.2	32	.0	89
Other French Africa	193	10.1	181	10.3	178	9.0	193	10.8	239	10.1	197
Italian Africa	347	.0	198	.0	113	.2	191	.0	286	.0	227
Liberia	3	42.1	2	51.7	...	100.0+	...	100.0+	...	100.0+	2[p]
Morocco	142	20.4	126	5.9	195	20.4	209	61.2	167	23.5	168
Mozambique	50	.6	45	6.7	47	.8	52	.9	48	4.1	48
Other Portuguese Africa	40	23.1	45	29.3	51	28.1	50	31.4	55	30.6	48
Canary Islands	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...
Other Spanish Africa	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	...
Australasia	145	...	223	...	432	...	302	...	263	...	273
Australia[q]	8	3.0	9	.1	12	3.2	10	3.0	9	12.9	10
British Oceania	71	.8	68	.3	81	.3	82	.3	86	1.3	78
French Oceania	66	36.0	62	31.5	64	37.1	64	35.5	71	32.3	65
New Zealand	—	.0	84	.3	274	.2	146	.2	97	1.5	120

[k] Three-year average.

[l] Including Chosen and Formosa.

[m] As the United States reports a combined figure for Palestine and Syria in 1924 and 1925, we have combined the total import figures for these two countries in computing the percentages for the two years, and in the 1924-28 average.

Continued

percentages)

1929		1930		1931		1932		1933		Country
Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	Quantity	Percentage from United States	
3,043	...	2,833	...	1,620	...	708	...	...	...	South America
...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	Argentina
238	35.4	217	37.9	102	36.5	33	9.0	...	...	Bolivia
1,832	42.6	1,713	49.6	690	49.3	56	59.0	547	30.5	Brazil
17	90.6	6	100.0+	1	41.6	29	41.7	294	2.7	Chile
149	92.3	128	92.9	55	93.5	...	...	...	...	Colombia
100	100.0+	117	92.2	100	100.0+	78	84.6	54	67.5	Ecuador
177	2.2	156	5.4	168	2.8	161	.5	...	...	British Guiana
41	82.6	37	89.5	37	90.1	37	77.7	...	...	Dutch Guiana
27	25.5	26	31.4	19	12.4	28	2.3	...	...	French Guiana
66	.6	39	.0	53	.0	...	.0	...	.0	Paraguay
106	100.0+	87	100.0+	80	77.1	41	76.9	8	100.0+	Peru
0	.0	0	100.0+	0	100.0+	0	100.0+	...	.0	Uruguay
291	95.7	308	87.7	315	82.1	245	85.0	22.3	83.8	Venezuela
12,256	...	7,167	...	6,787	...	7,788	...	...	...	Asia
...	.0	...	.0	...	100.0+	...	100.0+	...	100.0+	Arabia
94	.0	85	.0	88	.5	84	.3	...	...	Aden
1	.0	2	.0	—	5.3	1	23.0	1	.0	British India
684	2.8	664	3.0	600	1.7	542	.1	...	...	British Malaya
227	4.4	229	.1	214	.0	208	.0	177	.0	Ceylon
8,116	14.5	3,528	22.5	3,325	34.3	4,513	24.3	2,203	1.9	China
520	3.8	575	1.5	603	.3	522	.0	527	.0	Java, Madura
327	8.0	317	5.8	293	1.6	278	.6	...	...	Other Neth. E. Indies
248	.0	252	.4	207	.7	185	.5	169	.6	French Indo-China
...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	Hong Kong
12	21.0	2	.0	—	.0	—	.0	...	.0	Iraq
80	100.0+	221	30.9	73	67.6	29	18.6	10	10.0	Japan[l]
...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	Kwantung
310	14.9	156	23.6	190	8.3	226	.7	...	...	Palestine
873	89.1	793	84.4	889	76.3	779	73.7	780	64.9	Philippine Islands
...	100.0+	...	100.0+	...	100.0+	...	.0	...	.0	Russia
406	10.6	162	4.8	111	2.9	231	.6	479	.0	Syria
188	27.2	7	70.8	4	56.1[n]	—	.0	0	.0	Turkey
171	.0	173	.0	190	.0	192	.0	...	...	Other Asia
4,619	...	4,098	...	3,652	...	2,167	...	...	...	Africa
38	9.1	44	18.9	38	19.4	12	67.2	...	...	Belgian Congo
235	.8	232	1.2	229	.4	177	.2	...	.0	British E. Africa
409	3.3	275	7.6	144	2.2	65	1.3	...	...	British S. Africa
217	89.6	214	79.8	162	82.1	124	72.5	100.0	100.0+	British W. Africa
2,790	8.4	2,366	8.1	1,883	9.6	839	16.7	...	...	Egypt[o]
40	1.7	13	.4	46	.0	35	.0	73	.0	Algeria, Tunisia
238	16.6	311	18.5	205	19.3	216	14.1	...	...	Other French Africa
317	.2	352	.0	587	.0	380	.0	...	...	Italian Africa
...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	Liberia
209	43.3	159	14.7	201	.5	203	.1	...	...	Morocco
59	4.8	66	12.8	74	9.9	65	8.3	...	...	Mozambique
66	14.4	66	22.3	84	16.3	52	19.7	...	...	Other Portuguese Africa
...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	Canary Islands
...	100.0+	...	100.0+	...	100.0+	...	100.0+	...	100.0+	Other Spanish Africa
268	...	261	...	286	...	278	...	...	...	Australasia
9	69.1	9	19.0	9	2.5	10	.3	...	...	Australia[q]
93	2.9	87	1.0	93	.3	77	.1	...	...	British Oceania
67	30.7	68	27.5	63	9.8	59	.7	...	...	French Oceania
100	3.6	97	10.1	121	10.8	133	24.3	114	23.7	New Zealand

[l] The United States figure includes Turkey in Europe.
[n] Including Anglo-Egyptian Sudan.
[p] Two-year average.
[q] Includes Papua except in 1924 and 1925 when the United States includes Papua with British Oceania.

TABLE VII.—INDEX NUMBERS OF QUANTITIES AND VALUES OF UNITED STATES DOMESTIC EXPORTS OF WHEAT FLOUR, BY DESTINATIONS, 1929–33*

(Average 1924–28 = 100)

Region or country	Average 1924–28		1929		1930		1931		1932		1933	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Grand total	*100*	*100*	*107*	*97*	*103*	*83*	*76*	*41*	*46*	*22*	*31*	*17*
Europe	100	100	77	69	95	78	58	31	18	8	11	6
North America	100	100	113	105	84	75	50	37	47	25	25	15
West Indies	100	100	104	93	88	74	79	45	66	35	59	32
Central America	100	100	115	102	107	85	111	60	81	41	80	39
South America	100	100	108	94	111	85	62	32	28	14	31	16
Asia	100	100	172	164	126	102	115	66	91	43	37	19
Africa	100	100	117	107	101	84	74	39	53	25	51	26
Australasia	100	100	138	121	129	104	83	44	138	65	117	58
Denmark	100	100	143	124	170	130	118	57	28	12	13	6
Finland	100	100	78	74	84	75	41	19	9	4	5	2
Germany	100	100	44	39	40	34	19	9	6	3	3	1
Netherlands	100	100	64	54	104	80	39	21	10	5	8	4
Norway	100	100	142	122	148	115	136	66	78	32	55	24
Sweden	100	100	152	135	85	73	21	11	8	3	4	2
United Kingdom	100	100	99	92	115	99	86	48	18	9	5	3
Canada	100	100	173	159	120	109	79	64	7	4	8	7
Mexico	100	100	63	56	39	34	8	6	3	2	2	1
Cuba	100	100	107	94	89	73	78	44	66	35	63	34
Dominican Republic	100	100	118	111	95	79	74	43	69	36	63	32
French West Indies	100	100	134	120	144	117	122	68	139	68	140	71
Haiti Republic	100	100	90	81	70	58	83	47	58	31	40	23
Costa Rica	100	100	110	95	114	86	116	58	85	42	80	40
Guatemala	100	100	121	110	103	85	103	56	77	39	78	35
Panama	100	100	121	106	135	109	132	72	122	60	127	68
Salvador	100	100	117	105	91	71	101	57	71	38	67	29
Brazil	100	100	96	81	105	76	42	21	4	2	21	11
Colombia	100	100	142	136	123	101	54	29	14	7	3	2
Ecuador	100	100	94	79	100	72	94	47	62	28	35	17
Peru	100	100	112	97	104	80	64	32	32	16	11	7
Venezuela	100	100	187	168	181	151	174	93	140	71	126	65
China	100	100	173	176	117	95	168	102	161	81	6	3
Hong Kong	100	100	118	108	121	94	106	56	68	30	42	18
Japan	100	100	513	562	126	117	91	50	9	5	2	1
Kwantung	100	100	352	340	228	193	54	31	17	8	13	10
Philippine Islands	100	100	119	109	102	83	103	61	88	41	77	39
British West Africa	100	100	121	108	106	84	83	43	56	25	62	30
Egypt	100	100	101	97	82	68	78	39	60	28	56	28

* Based on data in Table V. The countries listed above are those to which United States wheat-flour exports in 1929 equaled or exceeded 100,000 barrels.

TABLE VIII.—INDEX NUMBERS OF QUANTITIES OF WHEAT-FLOUR IMPORTS, BY CONTINENTS AND BY SELECTED COUNTRIES, 1929–33*

(Average 1924–28 = 100)

Region or country	Average 1924–28	1929	1930	1931	1932	1933
Grand total	*100*	*104*	*91*	*75*	*57*	..
Europe	100	77	83	66	47	44
North America	100	91	78	65	61	..
West Indies	100	108	92	76	33	..
Central America	100	118	99	100	46	..
South America	100	88	82	47	21	..
Asia	100	187	110	104	119	..
Africa	100	126	111	99	59	..
Australasia	100	98	96	105	102	..
Denmark	100	119	128	123	80	65
Finland	100	131	101	78	52	49
Germany	100	13	9	5	3	1
Netherlands	100	79	101	72	20	28
Norway	100	115	105	108	78	81
Sweden	100	100	75	12	7	2
United Kingdom	100	96	116	106	84	97
Canada	100	131	85	34	25	63
Mexico	100	60	32	2	0	..
Cuba	100	98	84	73	..	..
Dominican Republic	100	103	79	63	..	59
French West Indies	100	150	162	153	..	..
Haiti Republic	100	123	65	77	65	37
Costa Rica	100	114	109	111	83	82
Guatemala	100	126	101	100	..	84
Panama	100	111	115	115	..	79
Salvador	100	115	98	96	70	63
Brazil	100	83	78	31	3	25
Colombia	100	155	133	57	..	..
Ecuador	100	86	101	86	67	47
Peru	100	125	102	94	48	10
Venezuela	100	111	118	121	94	85
China	100	253	110	104	141	69
Japan	100	65	180	59	24	8
Philippine Islands	100	113	103	115	101	101
British West Africa	100	104	103	78	60	48
Egypt	100	134	114	91	40	..

* Based on data in Table VI. The same countries have been used in this table as were selected for inclusion in Table VII, with the exception of Hong Kong and Kwantung, for which import data are not available.

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