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## WHEAT STUDIES

OF THE

## FOOD RESEARCH INSTITUTE

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## WORLD WHEAT SURVEY AND OUTLOOK, MAY 1935

**D**EVELOPMENTS in the world wheat situation during January-mid-May were dominated by the continued failure of European import buying to improve as anticipated. World wheat shipments in August-April were about as large this year as last; but shipments to Europe were 14 million bushels smaller, and the smallest on record since 1917-18. Although in some European countries reduced imports merely reflected heavier domestic supplies, in other countries they reflected more stringent governmental control over imports and were associated with reduction in wheat consumption. Liverpool wheat futures prices, influenced mainly by the slow European import demand, drifted gradually downward to mid-March. This decline was checked by disturbing political developments in Europe which focused attention on the stronger elements in the immediate wheat position and carried wheat prices upward by more than 10 cents to a peak in about mid-April. From this peak there has recently been a moderate decline influenced in part by the continued poor European demand.

World net exports of wheat in 1934–35 now seem likely not to exceed 555 million bushels, as contrasted with our January forecast of 575 million. World wheat stocks on about August 1, 1935, may be expected to approximate 870 million bushels, a reduction of only 285 million from last year's peak. Such a reduction would leave world stocks about 260 million bushels above the average for pre-depression years and still far above "normal." A carryover of around 175 million bushels appears to be in prospect in the United States, one of 168 million in Canada. Although existing conditions suggest a Northern Hemisphere crop considerably larger in 1935 than in 1934, Liverpool wheat futures prices seem likely to be well supported through July by strength in the immediate wheat supply position—strength which rests mainly upon reduced supplies of wheat in the Southern Hemisphere and minor exporting countries and upon pegged prices in Canada.

#### STANFORD UNIVERSITY, CALIFORNIA May 1935

## WHEAT STUDIES OF THE

#### FOOD RESEARCH INSTITUTE

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There were no sensational developments in the world wheat situation during Januarymid-May. Probably the factor of greatest importance was the continued slow European import demand for wheat. Continental European importing countries took less wheat than had earlier been anticipated, and in several of these countries wheat consumption was severely contracted. Largely in reflection of

this development, Liverpool wheat futures prices drifted downward to mid-March; world wheat stocks were reduced less than had been anticipated and hoped; and the present outlook for reduction of the world wheat surplus is less encouraging than our mid-January forecast suggested.

Wheat shipments to Europe in August-April 1934-35 were the smallest on

record since 1917-18-14 million bushels smaller even than last year. This was due partly to the extraordinarily heavy wheat supplies in importing Europe, partly to the influence of governmental policies upon wheat prices, trade, and consumption in several countries, particularly Italy, Czechoslovakia, and France. In Italy and Czechoslovakia domestic wheat consumption appears to have been considerably restricted through governmental control of wheat imports. France, with the aid of an export subsidy, shifted from her usual position as a net wheat importer to become a larger net exporter of wheat in August-March than any other European country, including the Danube countries and Russia. British wheat imports were also heavily reduced in the first eight months of the current year, but the reduction reflected the bumper domestic crop of 1934 rather than contraction of consumption.

Although ex-European countries, especially Manchuria and the United States, took more wheat in August–April this year than last, the total volume of world wheat trade was no

larger than in 1933-34 and was considerably
below early-season forecasts. Argentina and
Australia together supplied the major por-
tion of the total shipments. Russian and
Danubian exports, drawn from reduced do-
mestic supplies, were strikingly small; the
United States was a net importer for the first
time in at least 75 years; and Canadian net
exports were below average despite large

available supplies, because prices of Canadian wheat were held far above export parity.

Influenced by the disappointingly slow import buying of European countries and by further depreciation of sterling exchange, prices of Liverpool wheat futures drifted downward by about 6 cents (United States currency) from mid-January to early in March. After

March 12, however, a marked rise carried Liverpool prices upward, about 10 cents in three weeks. Political and military developments in Europe served to attract attention to the improved statistical position of wheat-to the reduced wheat supplies in Argentina and Australia; to the small exportable supplies in minor exporting countries; and to the fact that Canadian wheat was being held firmly at a considerably higher level of prices than was then prevailing on the British import Buenos Aires futures prices remarket. sponded quickly to the new strength at Liverpool, and the prices of Australian wheat export offers were also raised. North American futures markets, where prices already stood at extraordinary premiums, lagged behind Liverpool and Buenos Aires on the advance; but by mid-April substantial price increases had been scored in these markets also. Although all futures prices weakened after about April 20 in all leading markets except Chicago, price levels in mid-May were 4-7 cents higher than in either mid-March or mid-January.

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On the basis of trade developments in August-April, and with reference to special considerations which seem likely to influence wheat trade and consumption in May-July, we reduce our forecast of total net exports in 1934-35 from 575 million bushels to 550-555 million. Since world wheat shipments this year are likely to be larger than usual in relation to total net exports, the present forecast of net exports is consistent with world wheat shipments of 545 million bushels in 1934-35 (53 weeks). This implies average weekly shipments of 10.5 million bushels during the last 14 weeks of the crop year.

"World" wheat stocks, which in January seemed likely to be reduced about 315 million bushels during the course of 1934-35, will probably be maintained at a higher level than earlier seemed indicated. The prospective reduction now seems unlikely to exceed 285 million bushels. This would leave "world" wheat stocks at a level of about 870 million bushels on August 1, 1935, some 260 million bushels above the average for the pre-depression years 1923-27 and still far above normal. This implies lower wheat disappearance in the world ex-Russia in 1934-35 than in any of the five preceding years except perhaps 1933-34. North American wheat carryovers will be strikingly reduced from recent peak levels, though present forecasts indicate less reduction than earlier appeared to be in prospect. The United States carryover now seems likely to approximate 175 million bushels, the Canadian carryover 168 million.

Although it is still too early to make even an approximately reliable forecast of the world wheat crop of 1935, present indications are that the crop in the Northern Hemisphere will be around 300 million bushels larger than the short crop of 1934. Changes in this outlook will presumably have an important influence upon the course of world wheat prices in May-July.

But because of strength in the immediate wheat statistical position, we doubt that even extraordinarily favorable crop developments would cause Liverpool wheat futures to sell for any considerable time before the end of July at prices as much as 8 cents under prices in mid-May. On the other hand, with prospective world year-end wheat stocks reduced almost 300 million bushels from last year, leading wheat futures markets would probably be more responsive this year than in most recent years to reports of heavy crop damage.

#### THE SUPPLY POSITION

Appraisals of the world wheat supply position for 1934-35 have not been significantly altered over the past four months. Although crop estimates for the two chief exporters of the Southern Hemisphere were revised downward by 16 million bushels, this change was about offset by an upward revision of 13 million bushels in the Polish crop—a crop much less important for the international wheat position, however, than the crops of Argentina and Australia. The net effect of these and other smaller revisions reported during the past few months (Table I) is shown in the following tabulation of total wheat supplies (including estimated inward carryovers) in the principal producing regions ex-Russia, in million bushels:

C					<u>-</u>		
		Crop	s and sto	eks		Rus-	Total
	Import- ing Europe	Danube basin	Canada, United States	Argen- tina, Aus- tralia	World ex- Russia	sian ex- ports	sup- plies world ex- Russia
1927-28	1,204	318	1,527	504	4,227	2	4,229
1928-29	1,255	392	1,695	640	4,607	a	4,607
1929-30	1,387	378	1,499	461	4,305	9	4,404
1930-31	1,223	397	1,747	560	4,627	114	4.741
1931-32	1,248	427	1,733	551	4,676	65	4,741
1932-33	1,452	271	1,727	570	4,698	17	4,715
1933-34	1,612	394	1,424	591	4,709	34	4,743
1934-35:		ļ	1				
Jan. est.	1,568	303	1,265	592	4,420	5	4,425
May est.	1,594	303	1,265	576	4,437	2	4,439

" Net imports.

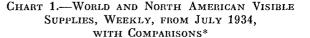
Wheat supplies available to the world ex-Russia for 1934–35 still appear to be 275–300 million bushels smaller than supplies in any of the four preceding years, all of which were characterized by burdensome wheat surpluses. The reduced supplies of the present season point to heavy reduction of year-end stocks from recent high levels; but it is now evident that the supplies will suffice not only to cover the total consumptive demand in 1934-35 but also to afford a year-end carryover substantially above the average for predepression years (see p. 347). It is now certain that world wheat stocks will not be reduced to a "normal" level by the end of the crop year.

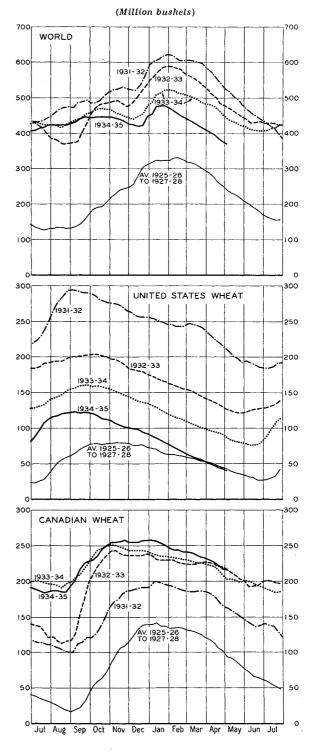
Distribution of the wheat supplies of 1934-35 as between exporting and importing countries clearly points to a small volume of international trade in wheat during the current season, with present supply estimates indicating smaller exports than seemed probable in the light of estimates generally accepted in the first few months of the crop year (see p. 344). The fact that the world's exportable supplies of wheat for 1934-35 have been held almost wholly by three countries—Argentina, Australia, and Canada-has been an important influence in world wheat markets during August-April and is likely to have a further significant bearing upon the course of prices during the next few months (see p. 350).

#### VISIBLES AND OTHER STOCKS

Visible supplies.—With total supplies of wheat in the world ex-Russia some 275–300 million bushels lower in 1934–35 than in any of the four preceding years, wheat supplies in visible positions would also be expected to stand lower this year. Up to mid-December the reduction of visible supplies from the high levels of other recent years, and particularly from the level of 1933–34, was not striking; but since then, and particularly after the middle of January, world visibles have stood substantially and progressively lower relative to levels in previous depression years (Chart 1, top section).

The peak in world visible supplies came earlier and was sharper this year than usual. In addition, the decline from the peak in late January to the first week of May was notably steep. Near the first of May, therefore, world visibles were at the lowest level in seven years and about 150 million bushels below the record-high visibles of May 1932 (Table III). Despite heavy reduction, however, these supplies continued to stand about 125 million bushels above what may reasonably be considered an approximately "normal" level—the average for 1926–28.







The sharp decline in world visible supplies from mid-January to the first of May primarily reflected an unusually large reduction in commercial wheat stocks in the United States and Canada (Chart 1), an exceptionally small increase in stocks afloat to Europe, and approximately average seasonal changes in stocks in the various other visible positions (Table III).

The recent course of the United States visible is of interest chiefly because the decline of January-March carried visible stocks of United States wheat to a level after early April that was slightly below the average for 1926-28—a development which has not been witnessed for eight years. Since United States wheat (including flour) exports have been of negligible size during the past four months, light wheat marketings and resulting unusual heavy drafts upon commercially stored wheat for milling, feed use, and maintenance of mill stocks were the primary factors underlying the rapid decline of the United States visible to May 1.

As of that date, only Canadian visibles continued to stand far above a "normal" level, though visible stocks in Australia, Argentina, and British ports remained somewhat higher than on the average in pre-depression years (Table III) and consequently are subject to greater than average seasonal reduction during May-July. That Canada alone should continue to hold extraordinarily large stocks of wheat in visible positions is a circumstance related on the one hand to the unusual distribution of the world wheat crop of 1934 and the customary free-selling policy of the Southern Hemisphere exporting countries, and on the other hand to Mr. McFarland's activities and the price-pegs in the Winnipeg market.

Total world stocks, April 1.—World visible supplies constitute only one element (though important) of total wheat stocks in the world ex-Russia. Because of this, and because visibles bear no constant percentage relationship to total stocks from one year to the next, visible supplies do not furnish a very satisfactory basis for estimating wheat disappearance or for forecasting year-end wheat carryovers. It seems preferable to base such estimates and forecasts upon rough appraisal of total world stocks<sup>1</sup> from incomplete official data and current trade information on crops, trade, stocks, and consumption in the various individual countries.

Such information as is now available indicates that total wheat stocks in the world ex-Russia on April 1 were somewhat less than 300 million bushels smaller this year than last. Such a reduction would mean that total world wheat stocks stood at a considerably lower level on April 1, 1935, than on the same date of any of the six preceding years. On the other hand, it would still leave world wheat stocks substantially above the level in any pre-depression year.

Among the various countries, the United States stands out as the one wherein the largest reduction in stocks was recorded-a reduction, as compared with April 1, 1934, of 108 million bushels, 40 per cent of which was reflected in the visible supply (Table IV). Smaller yet sizable decreases presumably occurred in Argentina, Australia, Canada, France, Italy, the four Danube exporting countries, and Czechoslovakia. Only in the United States is reduction of stocks to be traced in any substantial measure to increase of domestic wheat disappearance (see below, p. 331), though in Canada and France there has probably been some small increase in wheat disappearance this year, particularly for animal feed.<sup>2</sup> In Italy, Czechoslovakia, and the four Danube exporting countries, on the other hand, consumption of wheat has apparently been sharply contracted in 1934-35. Even with allowance for more than average seasonal increase in net wheat imports into Italy and Czechoslovakia during April-July,

<sup>2</sup> The Dominion Bureau of Statistics has estimated that 18.9 million bushels of wheat will be fed in 1934-35, as compared with 17.0 million in 1933-34. More Canadian wheat will probably also be lost in cleaning this year, because of the larger percentage of damaged and light-weight grains. In France, governmental measures designed to encourage a lower extraction rate in wheat milling and heavier use of wheat for animal feed have probably resulted in some small increase in consumption, as compared with 1933-34.

<sup>&</sup>lt;sup>1</sup> As here used, "total world stocks" refer to wheat afloat to both Europe and ex-Europe, and stocks in the countries listed in Table I, except the USSR, Mexico, Chosen, South Africa, Chile, Uruguay, and New Zealand.

per capita wheat consumption in these two countries will be lower in 1934–35 than in any other year of the past decade (if standing official crop estimates and our rough stocks estimates for these countries are not seriously in error).

Spain, Portugal, and the three French dependencies of northern Africa appear to be about the only countries which held significantly larger wheat stocks on April 1 this year than last; and probably only in Spain and Algeria was the increase as much as 5 million bushels. In all of these countries expansion of consumption presumably went hand in hand with the building up of stocks, so that the estimated increase in stocks was somewhat less than the increase in supplies of wheat available from crop, carryover, and trade. The situation in Germany is not clear. Available August-March supplies were about the same size this year as last, and wheat stocks on farms and in second hands on April 1 are reported to have been about 5 million bushels larger. If standing crop and stocks estimates are reasonably accurate and April 1 stocks in unreported positions in Germany were not significantly reduced from last year, the inference is that wheat consumption has been reduced this year despite abundant wheat supplies and short supplies of feed grains. But since this inference is not borne out by other information relating to consumption, we defer interpretation until the end of the crop year, when evidence may be clearer.

Reduction of world ex - Russian wheat stocks, as we calculate them, has been augmented by increased disappearance of wheat in 1934-35 to countries in outside areas, particularly Manchuria.

North American stocks, April 1.—Inclusive data on United States and Canadian wheat stocks as of April 1 make possible more precise comparisons for these than for other countries. The tabulation on this page, in million bushels, shows official estimates of April 1 stocks in the United States and Canada and calculated domestic disappearance in August-March of each of the past five years.

In the United States, April 1 stocks were more than 100 million bushels smaller this year than last and about 250 million bushels below the record-high stocks of April 1932. Although stocks in visible positions and in city and country mills (Table IV) were about as low as or lower than had been anticipated, stocks on farms remained relatively high. In fact, farm disappearance of wheat between January 1 and April 1 was lower this year than in any of the five preceding years-a relationship which cannot be explained wholly on the basis of reduced farm marketings.<sup>1</sup> If the calculated farm disappearance figures are taken at their face value, it is to be inferred that less wheat was consumed on farms in the United States during January – March 1935 than in the corresponding months of any of the five preceding years-an inference not substantiated by recent reports on wheat feeding in 1934–35.<sup>2</sup>

	A	pril 1 stoc	ks	Domestic disappearance July-Mar. (AugMar.) <sup>b</sup>		
Year	U.S. wheat in United States	Cana- dian wheat in Canada	Other North Ameri- can stocks <sup>a</sup>	United States	Canada	Total
1930-31	490	280	16	614	68	682
1931-32	547	246	39	611	69	680
1932-33	525	314	12	573	65	638
1933-34	402	304	8	498	56	554
1934–35	294	283	17	493	61	554

<sup>a</sup> Canadian wheat in United States ports, and United States wheat in Canadian ports.

<sup>b</sup> July-March for the United States; August-March for Canada; crop plus inward carryover minus April 1 stocks and net exports through March.

Total domestic disappearance in the United States during July-March, as calculated from data on available wheat supplies, net trade, and April 1 stocks, appears lower this year than last. Actually, however, there seems to be little question that the amount of wheat used in milling, for seed, and for feed was larger this year—a situation which suggests that the United States crop of 1934 and/or the carryover on July 1, 1934, were substantially underestimated (Table X).

Canadian wheat stocks as of April 1, though reduced less than had been anticipated by some, do not suggest extraordinarily light

<sup>2</sup> See Clement, Curtis and Company, Monthly Grain and Cotton Report, March 5, 1935.

<sup>&</sup>lt;sup>1</sup> At this time of the year we have no satisfactory index of monthly farm marketings of wheat; and inferences about farm marketings must be based upon reported receipts at primary markets.

domestic disappearance of wheat during August-March. In fact, they imply some increase in domestic consumption (including wheat fed and wasted) in 1934-35 over disappearance in the same months last year. This implication is in line with official and other forecasts of Canadian wheat consumption in 1934-35 (Table X).

#### EXPORTS

Volume of trade.--In the early months of 1934-35 students of the world wheat situation were agreed that international trade in wheat in 1934-35 could reasonably be expected to exceed trade in 1933-34 by almost 10 per cent. Before mid-January, however, this view was recognized as too optimistic. Crop revisions for a number of European countries had increased the 1934 wheat production estimate for importing Europe by over 75 million bushels, and trade developments in August-December had not been such as to indicate a substantially heavier movement in 1934-35 than in 1933-34. Trade forecasts were accordingly revised downward; but they still pointed to some improvement in world wheat trade this year as compared with last. It now seems probable that even the revised trade forecasts of January-February are around 20 million bushels too high. Our reasons for this conclusion will be apparent from the following discussion of August-April trade and from subsequent discussion of the trade outlook in mid-May (pp. 344-46).

World trade in wheat, as indicated by Broomhall's shipments, has not been significantly larger in the first nine months of 1934– 35 than in the same period last year. This may be seen from the following tabulation of August-April shipments by sources, for five years, in million bushels:

Aug.~Apr. (39 weeks)	Total	North America	Argen- tina	Aus- tralia	Russia	Danube	Other
1930-31	584	260	79	109	91	30	14
1931-32	602	242	110	114	70	54	12
1932-33	479	230	84	126	18	6	16
1933-34	396	168	97	67	26	25	12
1934-35	398	129	141	87	2	13	26

The total reported for August-April 1934-35 is, with the single exception of last year, the smallest since 1918–19. This year as last. international trade in wheat has been depressed mainly by large European wheat supplies, by nationalistic measures which have restricted imports, raised wheat prices, and curtailed wheat consumption in importing countries, and by generally low purchasing power in certain areas. Although domestic wheat supplies in importing Europe are calculated to be slightly smaller for 1934-35 than for 1933-34, with increases and decreases so distributed as to seem to warrant expectation of larger European net imports in the present crop year, the fact remains that trade and price developments to date suggest contraction of wheat consumption and reduction of stocks rather than any large increase in wheat importation in countries with reduced supplies. As compared with 1933-34, shipments to European countries have thus far been 14 million bushels smaller in the current season. This reduction, however, was completely offset by an increase in ex-European takings.

An outstanding feature of the trade this year in August–April was the unusually large proportion of total shipments drawn from the Southern Hemisphere. Argentine shipments represented a larger fraction of the total than in any year since 1919-20, and Australian shipments a larger fraction than in any postwar year except 1932-33. Moreover, despite the small volume of world trade, shipments from Argentina were larger in absolute quantity than in any year of the preceding decade except 1928-29, and shipments from Australia slightly exceeded the ten-year average. Although Southern Hemisphere shipments were relatively larger than usual in both August-December and January-April, this situation was somewhat more marked in the earlier period when Argentina and Australia were disposing of the large exportable supplies of old-crop wheat they had left at the beginning of August 1934. While this old-crop wheat was being exported (during August-December from Australia and during August-January from Argentina), the wheat shipments of these countries were considerably above average in size; but after exports of new-crop wheat became general, both Argentine and Australian shipments fell substantially below average (Chart 2, middle sections).

### CHART 2.---WORLD SHIPMENTS OF WHEAT BY SOURCES, WEEKLY, FROM JULY 1934.

WITH COMPARISONS\* (Million bushels; 3-week moving average) 12 12 NORTH AMERICA 10 10 8 AV. 1924-25 TO 1933-34 1933-3 4 1934-3 2 0 o ARGENTINA 1934-3 4 AV. 1924-25 TO 1933-34 **1**933-34 n 6 AUSTRALIA 4 1934 -3 2 AV. 1924-25 TO 1933-34 1933-34 0 4 ALL OTHERS AV. 1924-25 TO 1933-34 2 0 Sep Aug Oct Nov Dec Jan Feb Mar Apr May Jun Jul \* See Table VI.

Although the important trade positions occupied by Argentina and Australia in August-April 1934-35 were in considerable measure simply a consequence of the large Argentine crop of 1933 and of the holding movement which developed in Australia in the spring of 1934,<sup>1</sup> they were also partly the result of poor 1934 wheat crops in the Danube basin and Russia, and, probably in lesser degree, of

Mr. McFarland's market activities and the price-pegs at Winnipeg. Shipments from the Danube countries and Russia were in the aggregate smaller in August-April 1934-35 than in the same period of any year of the preceding decade. And if 1934 crop estimates for these countries are reasonably accurate, even these small shipments must have been made at the expense of domestic wheat consumption. "Other" countries (mainly those of northern Africa and France) shipped larger quantities of wheat than usual; but these relatively large shipments did not make up for the much greater absolute reduction in Russian and Danubian exports.

North American wheat shipments in August-April (Chart 2, top section) were the smallest since 1910-11, not only because the United States exported such a negligible amount of wheat (including flour) but also because Canadian exports were restricted as a result of the premium prices at which Canadian wheat was held during a considerable part of this period (see below, p. 341). August-March net export figures for Canada and the United States, as reported and as adjusted, are shown below for five years, in million bushels:

		Reported		Adju	sted <sup>a</sup>
Aug.–Mar.			United		United
		Canada	States	Canada	States
1930-31		184	74	189	74
1931 - 32		141	82	134	70
1932-33	• • • • • • • • •	196	29	193	38
1933-34		133	<b>20</b>	133	<b>22</b>
1934-35	• • • • • • • •	126	(2) <sup>b</sup>	110	(1) <sup>b</sup>

<sup>a</sup> Adjusted for changes in stocks of Canadian wheat in the United States and of United States wheat in Canada. » Net import.

Reported Canadian net exports, though strikingly small in August-March 1934-35, were larger than in the same period of 1929-30 and not much smaller than last year or than in a couple of earlier post-war years. Moreover, reported August-March exports represented about the same percentage of available Canadian wheat supplies in 1934-35 as they did in 1929-30 and 1933-34 (Table X). These comparisons, however, tend to exaggerate the size of Canadian wheat sales to foreign countries in August-March 1934-35; for an unusually large portion of the Cana-

<sup>&</sup>lt;sup>1</sup> See "The World Wheat Situation, 1933-34," WHEAT STUDIES, December 1934, XI, 133-34.

dian exports went to build up bonded stocks of Canadian wheat in the United States. Canadian net exports adjusted for changes in these stocks were smaller in August-March 1934-35 than in any other post-war year, and they represented a significantly smaller percentage of available domestic supplies than in any other year. Whether these exports would or would not have been considerably larger in the absence of government-sponsored operations in the Winnipeg market (including the establishment of price-pegs) is not entirely clear. Without price support, Winnipeg futures, following Chicago futures, would have remained high in relation to Liverpool. That adjusted Canadian exports would have been larger in the absence of government price support is fairly certain; but that the increase would have been *large* is questionable, in view of the heavy stocks of wheat remaining in the Southern Hemisphere on August 1, 1934, the customary free-exporting policy of these countries, and the rigid trade restrictions and wheat trade agreements in force in Europe. The effect of government-sponsored operations upon Canadian exports is likely to be more important in April-July than was the case in August-March.

Special interest attaches this year to the trade position of the United States, since this country now ranks as a net importer of wheat for the first time since around the middle of the nineteenth century. A summary of the wheat and flour trade of the United States in July-March 1934-35 is presented below, with comparisons, in million bushels:

	W	heat gra	in	$\mathbf{Flo}$	leat	
Year	Ex- ports≉	Im- ports	Net exports	Ex- portsª	Im- ports	Net exports
1930-31	58	15	43	46	0	46
1931-32	74	11	63	35	0	35
1932-33	19	7	12	18	0	18
1933-34	13	10	3	16	0	16
1934-35	3	20	(17)b	16	0	16

" Includes re-exports and shipments to possessions. <sup>b</sup> Net imports.

Gross imports of wheat grain in July-March 1934-35 were only 5 million bushels larger than in the same period of 1930-31; but this year gross imports of wheat grain have not been offset as they were four years ago by heavier grain exports. Rather, the United States has so far this year imported net some 17 million bushels of wheat grain. On the other hand, United States flour exports (including shipments to possessions and flour milled in bond from Canadian and other foreign<sup>1</sup> wheat) have not been further reduced from their low level last year, with the result that net exports of flour have been almost, but not quite, as large as net imports of wheat grain.

The sizable imports of wheat grain into the United States in the first nine months of 1934– 35 came mainly from Canada and appear to have been distributed about as follows, in million bushels:

For milling in bond for Cuba	3
For milling in bond for other countries	<b>5</b>
For United States flour trade	5
For feed (ad valorem duty)	6

The 6 million bushels of Canadian wheat imported on an ad valorem basis for feed use in July-March are in sharp contrast with estimates of last November which suggested imports of 25-50 million bushels of Canadian feed wheat in July-June 1934-35. The expected government ruling on the kinds of wheat eligible for admission into the United States on an ad valorem basis was postponed until mid-February; and even when published did not immediately help to clarify the practical question as to what portion of Canadian grades Nos. 4-6 could be admitted under the lower duty.

#### IMPORTS

Although total shipments of wheat and flour in August-April 1934-35 did not differ much in size from shipments in the same period last year, those destined for Europe were smaller and those for ex-Europe substantially larger in the current year. The following tabulation, in million bushels,

<sup>&</sup>lt;sup>1</sup> This year, probably for the first time in history, stocks in bond in the United States are reported to include significant quantities of Argentine wheat (855,000 bushels on May 1) which has been imported to be milled by American millers apparently mainly for shipment of flour to Central America.

shows the primary distribution of August-April shipments for five years:

Aug.–Apr. (39 weeks)	Total		urope Adjustedª	To ex- Europe
1930–31	584	450	442	134
1931–32	602	446	429	156
1932-33	479	345	336	134
1933-34	396	300	301	96
1934–35	398	286	294	112

<sup>a</sup> Derived by subtracting from the reported figure the amount of increase in stocks afloat, or by adding the amount of reduction in these stocks.

Wheat shipments to Europe (both as reported and as adjusted) have been unexpectedly small this year and smaller than in the corresponding months of any year since 1917–18. Shipments to ex-Europe, on the other hand, have been larger than was earlier expected and about equal to the post-war average.

The relative levels and the seasonal course of shipments to Europe and to ex-Europe in 1934-35 as compared with 1933-34 and with the average for the ten preceding years are shown in Chart 3, lower section. Shipments to Europe and also total shipments were this year relatively lower in January-April than in August – November, reflecting relatively heavy pressure of Southern Hemisphere shipments on European markets in August-November, as contrasted with light shipping pressure from all countries in general and from Argentina and Australia in particular in January-April. Shipments to ex-Europe were also relatively larger in the earlier period, but they were better maintained in January-April than were shipments to Europe.

Incomplete net-import data for August-March (Table VII) indicate that the reduction in European takings this year as compared with last may be wholly attributed to reduction in British rather than continental imports. Supplemented by our rough import estimates for March 1935 for a number of countries, the figures in the next column show the approximate distribution of August-March net imports into European net-importing countries in 1934-35, with comparisons, in million bushels.

In 1934-35, for the third successive year, net wheat imports into the United Kingdom

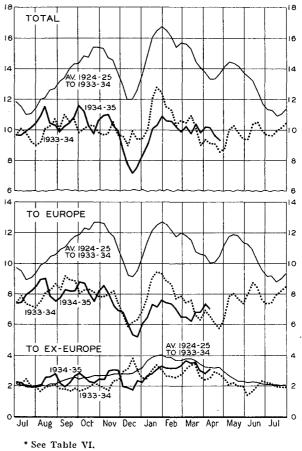
Aug Mar.	Total	British Isles	Conti- nentª	France, Ger- many, Italy <sup>a</sup>	Bel- gium, Hol- land	Seandi- navia	Other conti- nent <sup>a</sup>
Av. 1929-34	332	162	170	53	48	18	51
1933-34	264	157	107	19	44	15	29
1934-35	247	141	106	14	44	22	26

"Without subtraction of the net exports of net-exporting countries.

and the Irish Free State constituted over half of the total net imports of Europe. The reduction in British takings from last year—15 million bushels—was strikingly large, but not

CHART 3.—WORLD SHIPMENTS OF WHEAT BY DES-TINATION, WEEKLY, FROM JULY 1934, WITH COMPARISONS\*

(Million bushels; 3-week moving average)



far out of line with earlier expectations based partly upon the large size of the domestic wheat crop of 1934. Nor has this reduction apparently resulted in decrease in British wheat consumption from the high level of 1933–34. Prices of corn and other feed grains have continued to rule high in relation to prices of low-grade wheats, standing relatively even higher this year than last. But although these price relationships have doubtless encouraged wheat feeding, they appear not to have resulted in any further significant increase in British wheat consumption.

Continental net imports, though maintained this year at about the same level as in 1933–34, have been lower than was anticipated last fall. Early underestimation of the crops of several countries for which upward revisions have since been published, and perhaps some understatement in current appraisals of crops and inward carryovers, account in part for the failure of continental imports to increase as expected. But in the main this failure must be attributed to changes in governmental policies and in the enforcement of old policies, the effects of which could not well be foreseen. Of the four European countries for which our September trade forecasts were principally in error-France, Italy, Czechoslovakia, and Poland--underestimation of wheat supplies was clearly the dominant factor only in the case of Poland, for which estimates of the 1934 crop have been raised by 26 million bushels. Had the Polish crop been estimated in September at the figure now standing, most students of the world wheat problem would then have anticipated small Polish net exports<sup>1</sup> rather than possible net imports in 1934-35a development which can now be accepted as certain.

France apparently *exported* net almost 10 million bushels of wheat in August-March 1934-35—net exports larger than those of any other European exporting country, even including the Danube countries and Russia (Table VII). In contrast, France *imported* net about 14 million bushels in the same period

of 1933-34, when supplies of wheat available from domestic crop and carryover were as large or larger. This shift in the French trade position is clearly traceable to a change in governmental policy which found expression in the French Wheat Act of December 24, 1934.<sup>2</sup> Under the provisions of that Act and of subsequent supporting decrees, substantial government bounties, amounting to 65-70francs per quintal (\$1.16 to \$1.25 per bushel) and financed mainly by taxes on wheat production and milling, have been paid for authorized exportation of French wheat. As a result, French wheat exports have considerably more than offset imports of wheat into France from northern Africa-the only imports allowed except under the provisions for "temporary admission."

Italian and Czechoslovakian net wheat imports, which last September seemed likely to reach 40–60 million bushels in the crop year 1934–35, totaled only about 6 million bushels through March — barely a million bushels more than in the same period of 1933–34, when domestic wheat supplies in these countries appear to have been much larger. It is possible, of course, that currently accepted estimates of 1934–35 wheat supplies in Italy and Czechoslovakia are too low; but unless the error is larger than now seems probable, one must conclude that wheat imports into these countries have been severely restricted this year by direct governmental controls.

In Italy, the form of governmental control over wheat imports was substantially the same in the early months of 1934-35<sup>3</sup> as it was in 1933-34. But by decree of January 17 a Committee on Cereals was established for the purpose of completely regulating the importation, trade, and distribution of cereals. After January 28 wheat was subject to importation only under license granted by the Committee; and after February 5 the license system was extended to include even the "temporary admission" of wheat, which previously had been allowed without limit. These various governmental measures together with the reduced supplies of wheat available in Italy in 1934-35 raised Italian wheat prices to a level in April 1935 that was about 17 per cent higher than the level a year earlier (Chart 6, p. 343),

<sup>&</sup>lt;sup>1</sup> The Polish government has continued to subsidize wheat exports at approximately 31 cents per bushel.

<sup>&</sup>lt;sup>2</sup> A résumé of this Act is available in Bullelin de l'office de renseignements agricoles, January 1, 1935, pp. 4-6. A summary, in English, may be found in Foreign Crops and Markets, February 18, 1935, pp. 157-81.

<sup>&</sup>lt;sup>3</sup> Only 1 per cent of foreign wheat could legally be used in milling mixtures; and the tariff on wheat remained at 75 lire per quintal (\$1.72 per bushel).

and resulted in further reduction of Italian wheat consumption from the low level of 1933–34.

A similar reduction in wheat consumption has apparently been effected in Czechoslovakia, to a large extent through the operations of the Czechoslovakian Cereal Company, a government grain monopoly established in July 1934. This company has had the exclusive right to purchase domestic grain from farmers at prices fixed by the government, to import and export cereals and flour, and to sell the purchased domestic and imported cereals to Czechoslovakian mills and other buyers on the basis of prices determined by the monopoly. Under these arrangements, Czechoslovakian net imports amounted to only 1 million bushels in August-March 1934-35 and presumably will be maintained at a low level during the remainder of the crop year.

Net imports into other continental importing countries have been about in line with earlier expectations, and in the aggregate around 23 million bushels larger in August-March 1934-35 than in the same period last year. This net increase is primarily attributable to increase in the takings of Denmark and the shift of Germany from a net-exporting position in 1933-34 to an important netimporting position in 1934-35. Danish net imports, almost 6 million bushels larger this year than last, presumably mainly represent increased buying of low-grade foreign wheat for feeding purposes-a tendency apparent, but less marked, in several other importing countries of northwestern Europe.

Shipments to ex-European countries.—Netimport data for ex-European countries are, as usual, fragmentary and very incomplete. Yet such official records as are available (Table VII), as well as Broomhall's shipment data, clearly establish the fact that ex-European countries in general have been importing wheat more actively this year than last.

According to Broomhall's data, ex-European takings were about 16 million bushels larger in August-April this year than last, reflecting increase in aggregate shipments to "China and Japan" and reported shipments of 10 million bushels to the United States,<sup>1</sup> a country never before listed by Broomhall as a significant ex-European importer. The following tabulation, in million bushels, shows the distribution of shipments to ex-European countries in August-April for the past five years:

Aug Apr. (39 weeks)	Total	China and Japan	Central Americaª	Brazil		United States	Others <sup>b</sup>
1930-31	134	49	45	19	9		12
1031~32	156	75	46	25	7		3
1032-33	134	77	27	21	3		6
$1933 - 34 \dots$	96	39	26	24	3		4
193435°	112	49	21	25	2	9	6

<sup>a</sup> Includes Venezuela, West Indies, Dutch East Indies, etc. <sup>b</sup> India, North and South Africa, Chile, Peru, Uruguay, Bolivia, Syria, Palestine, New Zealand. <sup>c</sup> Thirty-ninth week estimated.

Until the middle of January Broomhall made no attempt to report weekly wheat shipments to the United States. And not until February 13 did the cumulative shipment totals published in the Corn Trade News include the 8 million bushels of Canadian wheat which had been imported into the United States in previous months of the crop year. These shipments have never appeared in the weekly totals and consequently are not shown in Charts 2 (p. 333) and 3 (p. 335). Because a considerable if not major fraction of these shipments was actually made in August-December, the cumulative shipment totals reported for August–December (21 weeks)<sup>2</sup> are too low and the cumulative totals for January-April (39 minus 21 weeks) are too high. With approximate adjustment for this situation, it becomes clear that shipments to ex-Europe were relatively higher this year in August–December than in January–April both as compared with the movement last year and as compared with the ten-year average seasonal movement.

The increase of 10 million bushels in shipments to China and Japan appears mainly to reflect an increase in Manchurian imports. In August-February Japanese gross imports of wheat and flour were less than 1 million bushels heavier than last year; and Japanese

<sup>&</sup>lt;sup>1</sup> The unusual trade position of the United States in 1934–35 is discussed above, p. 334.

<sup>&</sup>lt;sup>2</sup> These totals were reproduced in our "World Wheat Survey and Outlook, January 1935," WHEAT STUDIES, January 1935, XI, 204–08.

net imports were actually lower (Table VII). Moreover, to judge from incomplete import data and the expressed opinions of close observers of Oriental trade, wheat imports into China were probably only about as large as or a little smaller than last year.<sup>1</sup> On the other hand, Manchurian imports were presumably 6 million bushels or more heavier,<sup>2</sup> partially compensating for the small Manchurian crop of 1934. Despite the increased Manchurian takings in 1934–35, reported shipments to China, Manchuria, and Japan did not reach as high a level this year as in August-April 1931-32 or 1932-33, when Chinese imports of wheat and flour were not subject to duty<sup>3</sup> and when China was feeling the effect of the world economic depression less keenly than she has in recent months.

Australia and Argentina supplied most of the wheat (including flour) imported by these Oriental countries in August-April 1934-35; but Canada shipped substantial quantities of low-grade grain and flour, and even the United States furnished a significant amount of flour ground from Pacific Northwest wheat which had become located in distressed positions largely as a result of the subsidy operations of last year. Moreover, as an interesting commentary on the disturbed state of the world wheat situation, it is worthy of note that during the past few months French, Swedish, and Danubian wheats (presumably in distress) were offered for sale on the Shanghai market in competition with wheats from Australia, Canada, and Argentina.

Shipments to other ex-European countries in August-April 1934-35 were not markedly different from last year. The largest change was a reduction of 5 million bushels in shipments to the group of countries included under the general heading "Central America."

<sup>1</sup> In August-February China imported net about 4 million bushels less wheat this year than she did last; but since Chinese imports are reported to have been larger in March 1935 than in March 1934, the total for August-April may have been almost as large this year as last.

<sup>2</sup> In August-January 1934-35 Manchurian net imports of wheat and flour totaled 17 million bushels, as contrasted with 13 million in the same months last year.

<sup>3</sup> An import duty was placed on flour in May 1933, on wheat in December 1933. What particular countries of this group were responsible for the reduction is not clear. Indeed, it is possible that the reduction was apparent rather than real, as appears to have been the case with Egypt. Although reported shipments to Egypt were lower this year than last, net-import data indicate a slight increase in Egyptian takings, which probably mainly represents imports of Australian wheat by the Egyptian government.

#### COURSE OF PRICES

January to mid-March.—From early January to about the middle of March price movements in leading futures markets were far from spectacular (Chart 4). May futures at

CHART 4.---WHEAT FUTURES PRICES IN LEADING MARKETS, DAILY, FROM DECEMBER 1934\*

(U.S. cents per bushel) 110 10 hicago 100 ioc 90 90 Winnipeg 80 80 iverpoo. 70 70 60 Buenos Aires Ma May 50 ا 50 Dec Feb Mar May Jan Apr

\* Daily closing prices mainly from Daily Trade Bullelin, Chicago; Grain Trade News, Winnipeg; London Grain, Seed and Oil Reporter; and Revisla Oficial, Buenos Aires. Conversions at noon cable transfer rates at New York.

Winnipeg and Buenos Aires sold within extremely narrow limits at levels a few cents above the officially established minimum prices for those markets; Liverpool prices drifted slowly downward, the decline for the May future not exceeding 8 cents (United States currency) at a maximum; and Chicago May wheat moved more or less erratically within a maximum price range of 11 cents.

The general firmness of Winnipeg and Buenos Aires prices over this period was primarily a reflection of the invisible price-pegs in those markets and of the improved statistical position of Argentina this year as compared with last. Only once—on January 15 did the Winnipeg May future close practically at the minimum level. This represented the culmination of a sharp decline attributable to liquidation by discouraged holders who were impressed with the continued poor export demand for Canadian wheat, in the face of increasing world shipments, and with the disturbed monetary situation in the United States. The latter factor was important not only directly but also through its marked depressing effect upon wheat and other commodity markets in the United States.

Liverpool wheat futures prices responded to the mid-January dip and partial recovery in North American markets, then gradually drifted downward through the first week in March. This decline, approximately 6 cents in United States money, was associated primarily with the failure of European import buying to improve as expected (pp. 335-37), and secondarily (to the extent of 2 cents or less) with further depreciation of sterling exchange in terms of the United States dollar.<sup>1</sup> Although Southern Hemisphere wheat was not pressed heavily on European markets during these weeks, and although the general wheat situation was brightened by unexpectedly large sales to the Orient and by increasing evidence that the Argentine crop was overestimated, Liverpool grain traders were apparently more impressed by the lagging European import demand, by the fairly large stocks of wheat in British ports, and by the fact that the exportable wheat supplies of Argentina and Australia were freely available and adequate for current requirements.

At Chicago, the course of futures prices through mid-March was more irregular than in any of the other three markets. Speculative interest in wheat was at a low ebb, and political developments and rumors exerted an important influence upon prices. Early in this period the pending decision of the United States Supreme Court on the gold clause overshadowed all other market factors; and Chicago wheat prices fluctuated more or less erratically, as is usually the case in a market in which there is only a narrow interest. The gold clause decision itself, finally rendered on February 18, appears not to have affected Chicago wheat prices significantly. Moreover, the anticipated increase in speculative interest in wheat, which many market observers had expected to witness after the gold clause case was settled, did not appear. Rather, trade continued notably dull and the open interest in Chicago wheat futures continued to decline. Finally, in spite of good mill buying, more talk of inflation, and increasing complaints of dry weather in certain parts of the Southwest, Chicago wheat prices moved downward some 7 cents between March 1 and 18.

This price decline appears to have been due partly to general rains or snow throughout most (but not all) of the winter-wheat and also spring-wheat territories, and partly to factors relating to the international monetary situation. From February 25 to March 7, sterling exchange fell from \$4.86 to \$4.75. A decline of this magnitude is obviously of some importance in itself; but under recent international financial and exchange conditions it assumes added importance. Thus, the drop in sterling was generally regarded in foreign exchange and commodity markets as a possible forerunner of devaluation by members of the gold bloc and perhaps of further currency depreciation by other countries. Partly because of this interpretation, stock markets and sensitive commodity markets generally tended downward. The decline in wheat prices during March 1-18 may accordingly be regarded as only one price decline among many, and as one which was neither strikingly small nor strikingly large. On the other hand, the wheat price decline clearly differed from concurrent declines in a number of other commodity markets in that it was partly due to factors bearing directly on the specific commodity position.

Mid-March to mid-April.—From the crop year's lowest price recorded on March 12, Liverpool May wheat rapidly advanced 10

<sup>&</sup>lt;sup>1</sup>Since in this period Great Britain was deriving the bulk of her wheat imports from Argentina and Australia, whose currencies are tied to sterling, the depreciation of sterling in terms of gold and of United States and Canadian money was probably not associated with significant relative improvement of Liverpool wheat prices in shillings and pence.

cents to a level after April 3 about as high as in early December (Chart 4, p. 338). The Liverpool advance was paralleled by a corresponding rise in Buenos Aires, but North American markets, which usually are more bullishly inclined than either Liverpool or Buenos Aires, in this period appeared more hesitant about establishing higher prices. Nevertheless, by April 13 substantial price increases had been recorded in all markets. From the lows of around mid-March, Liverpool May wheat had advanced about 12 cents, Buenos Aires May about 11 cents, Chicago May approximately 10 cents, and Winnipeg May less than 8 cents.

Leadership in the upward movement of March 12–April 13 appears to have rested mainly with Liverpool. In some small part, the increase in Liverpool prices (expressed in United States currency) merely reflected a partial recovery in the value of sterling. But in the main, it appears to have represented the response of Liverpool traders to political developments in Europe and to the various elements of strength in the international statistical position of wheat.

Actually, the wheat statistical position was then calculated to be about the same as it had been a month earlier when Liverpool prices were drifting downward; but the general political and market situation facing traders after mid-March was such as to encourage them to interpret in a more bullish manner facts which had been known for some time before. Reichsführer Hitler's announcement (March 16) that Germany was about to reestablish compulsory military training and the official replies of other European countries to that announcement appear to have resulted in a mild war scare at Liverpool and on certain other European markets. Speculative trading in Liverpool wheat futures increased, there was some improvement in the spot demand, and European merchants and traders began to pay more attention to the reduced supplies of wheat available for export in Argentina and Australia and to the continued firm holding of Canadian wheat. Argentine exporters, with considerably smaller wheat supplies to draw on this year than last, and with Australian competition reduced this

year by a good Oriental demand, were easily encouraged to raise the price of their export offers. This in turn tended to stimulate speculative buying of wheat at higher prices in Liverpool and other markets. After the beginning of April, bullish sentiment was partially sustained and even further increased by substantial improvement in the import demand of continental countries and by reports of severe dust storms and heavy damage to the United States winter-wheat crop.

The latter factor was of relatively little importance at Liverpool or Buenos Aires, of moderate importance at Winnipeg, and of dominant importance at Chicago. Private forecasts of the United States winter-wheat crop published on April 1 suggested that an outturn of 470-508 million bushels (average 490 million) was indicated by existing conditions. These forecasts were about in line with current market ideas and consequently had little price effect. But publication nine days later of an official crop forecast of only 435 million bushels was a distinct surprise to the trade; and Chicago wheat prices rose 5-6 cents in a few days. Public buying of Chicago wheat futures appears not to have been an important market factor at this time, despite widely circulated newspaper accounts of dust storms and crop damage from drought in the winter-wheat territory. In fact, it is noteworthy that the open interest in Chicago wheat futures continued to decline irregularly throughout April.

Price developments at Winnipeg during March 12-April 13 are of little special interest except in so far as they appear to have affected Canadian exports and in so far as they may be taken as an index of the governmental wheat policy executed by Mr. McFarland. One fact stands out as of primary importance-Winnipeg wheat prices, contrary to precedent, did not rise as rapidly nor as much as did wheat prices at Liverpool or Buenos Aires. This situation naturally improved the competitive trade position of Canada with respect to Argentina and made Canadian wheat a more attractive purchase for Europeans than it had been for several months. To determine to what extent the Winnipeg price rise was modified by the market operations of Mr.

McFarland is patently impossible; but various Winnipeg market reviews suggest that as prices rose Mr. McFarland made more or less extensive sales of wheat futures at Winnipeg.

Mid-April to mid-May.—After fluctuating for a couple of weeks at the higher levels established in early April, wheat futures prices moved generally downward. Up to mid-May the declines at Liverpool, Winnipeg, and Buenos Aires amounted to only a few cents; but at Chicago, the May future declined by 12 cents, mainly under the influence of improved new-crop prospects in the United States. Market reports from Liverpool and Winnipeg suggest that price weakness in those two markets rested primarily upon the failure of European import buying to improve after mid-April as much as had been expected.

#### SIGNIFICANT PRICE RELATIONSHIPS

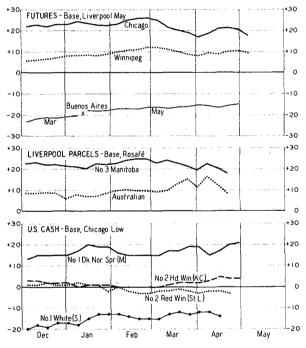
Spreads between leading futures markets.— Price spreads between the four leading wheat futures markets changed little during the period under review (Chart 5, top section). North American wheat futures continued to command large premiums over Liverpool futures, while futures at Buenos Aires continued to sell 18–20 cents below corresponding futures at Liverpool, a difference which probably about corresponded with the full costs of transfer.

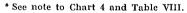
From January to early March Liverpool was relatively weaker than any of the other markets, presumably mainly because of the official price-pegs at Winnipeg and Buenos Aires and the strong domestic wheat position of the United States, but probably partly because Liverpool traders were more impressed than traders in other markets with the disappointingly weak wheat situation on the continent.

The following month brought some decrease in the premiums on North American futures. Again, developments on the European continent—this time political and military—were of considerable importance. With attention directed by these developments to the more or less immediate wheat supply position, and with Winnipeg futures prices not only above export parity but indeed above Liverpool futures, it is not surprising that Liverpool and Buenos Aires prices rose more rapidly than corresponding prices in either of the North American markets. However, during the second week of April, when United States crop news came to the fore as an important market factor, Chicago futures advanced in price relative to futures in other markets and almost regained the high premium position which they had held in early March. But again, this position was held only temporarily. After mid-April, improved prospects for the new North American spring-wheat crop carried Chicago futures prices downward relative to futures prices in other markets; and in the second week of May the Chicago-Liverpool price spread was the smallest that has been recorded for May futures this year.

CHART 5.—SIGNIFICANT WHEAT PRICE SPREADS, WEEKLY, FROM DECEMBER 1934\*

(U.S. cents per bushel)





Spreads between near and distant futures.— At Liverpool and Buenos Aires the more distant futures continuously commanded premiums over the nearer futures during January-April; but Winnipeg July wheat sold fractionally below Winnipeg May from mid-January to early April, while at Chicago newcrop futures rose from discounts of 8 to 10 cents under the May future in mid-January to small premiums over the May after late April.

The reversed carrying charges on Winnipeg futures were particularly striking in view of the existing heavy stocks of Canadian wheat and of a pegged price for the July future higher than that for the May. If ownership of Canadian wheat had been predominantly in private hands, and if Winnipeg wheat prices had been free rather than pegged, the Winnipeg July future would presumably have ruled at a premium over the May throughout January-April; the opposite price relationship which actually prevailed mainly reflected Mr. McFarland's important position in the Winnipeg market.

Narrowing of the May-July and July-September spreads at Chicago during January-April was associated to some extent with reduced prospects for the United States wheat crop of 1935 but primarily with changes in currently accepted estimates of the prospective carryover in the United States. At the beginning of January many traders apparently believed that the United States carryover would be down to a "normal" level-say 120-125 million bushels-by July 1, 1935; and our own forecast of 155 million bushels, published late in January, appears to have been above ideas then current by at least 20 million bushels. Two months later, however, carryover estimates of 150-175 million bushels (more generally near the lower figure)<sup>1</sup> were reported to be common. And now, in mid-May, after the appearance of official April 1 stocks estimates higher than was generally anticipated, the prospect seems to be for year-end stocks of about 175 million bushels (see below, p. 346).

Spreads on the British import market.— Spreads between prices of Manitoba and Rosafé parcels at Liverpool (Chart 5, middle section) roughly corresponded during January-April with the changing spread between Winnipeg and Buenos Aires futures, and may be explained on the same basis.

Parcels of Australian wheat (f.a.q.) commanded about a 10-cent premium over Rosafé wheat (duty unpaid) until mid-March, when the premium temporarily increased about 4 cents. This changed relationship appears to have been due on the one hand to the encouragement afforded Australian farmers and exporters by the continued good Oriental demand, and on the other hand to stronger holding of wheat by farmers who, particularly in New South Wales, were partly influenced by poor seeding conditions for the new crop.

Price spreads in the United States.—Price spreads between leading wheat markets in the United States were fairly stable during January-April, except that there was some tendency for white wheat at Seattle to advance and for soft red winter wheat at St. Louis to weaken relative to basic wheats in other markets (Chart 5, bottom section). The strength of Pacific white wheat rested mainly upon expectations (not yet realized) that the United States government would take measures this year as it did last to relieve the wheat surplus position of the Pacific Northwest;<sup>2</sup> whereas the weakness of soft red winter wheat was due partly to increased evidence that supplies of that type of wheat were being reduced more slowly than had been anticipated and partly to the more favorable outlook for the winterwheat crop in territory east of the Mississippi River than in territory lying to the west.

United States spring wheats-both hard red and durum-continued to sell at extraordinary premiums over prices of other basic United States wheats (Table VIII), reflecting the extreme shortage of wheat supplies in the Northwest. With the premiums on these wheats so high, it was often possible for Canadian hard red spring and durum wheats to be imported at a profit, despite the 42-cent tariff on such imports and a spread between Chicago and Winnipeg futures prices that seldom exceeded 15 cents. Minneapolis wheat futures naturally commanded high premiums over corresponding Chicago futures; and cash wheat at Minneapolis sold at prices substantially higher than the near future in that market.

Basic cash wheat prices at Minneapolis,

<sup>1</sup> See the Southwestern Miller, April 2, 1935, p. 27.

<sup>&</sup>lt;sup>2</sup> The form of relief most generally expected was governmental subsidy on wheat shipped to the East and/or exported. Late in February announcement was made of a reduction in railroad rates on eastern shipments of soft white wheat, cracked and sacked or with privilege of cracking and sacking in transit. These rate reductions were subsequently extended to June 30.

Kansas City, St. Louis, and Seattle were all more stable during January–April than was the price of Chicago low contract cash wheat which necessarily reflected the principal changes in Chicago futures prices. Thus, in periods when Chicago futures prices were tending downward (as in the first half of January, early March, and the latter part of April), prices of basic wheats in outlying markets were less weak than Chicago low contract cash wheat, whereas in periods characterized by marked strength in Chicago wheat futures (as in early February and early April), cash wheat prices in other markets were less strong than in Chicago.

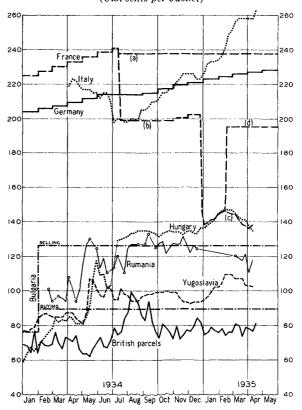
European wheat prices.—Chart 6 shows the course of domestic wheat prices in selected European countries in recent months and, for purposes of comparison, through 1934. In most of these countries wheat prices have continued to be dominated by some sort of governmental control-by government monopoly or price fixing as in Germany, Bulgaria, and France (modified since December 24, 1935); by direct purchases of wheat by some governmental agency as in Rumania and Yugoslavia; or, more indirectly, by control over imports as in Italy (see above, p. 336). In Hungary, market prices have recently ruled above minimum levels, and the minimum price system was abolished from April 10.

Price developments in France have been of special interest since December 24 when the former minimum price system was abandoned and indirect price-supporting measures were introduced. The new law provided that the wheat market should be supported not only through subsidized exportation and denaturation of domestic wheat (see above, p. 336), but also through (1) guarantee of higher prices for wheat stored under contract, and (2) stipulation that the government will purchase all stocks of old-crop wheat remaining on July 1, 1935. As a result of these provisions, the price of French wheat of the 1934 crop on the re-established "free" market approximated \$1.43 per bushel in early January, as contrasted with a legal minimum price of \$1.96 and a "bootleg" price of \$1.25-\$1.791 per bushel in mid-December. But even in January French millers had to continue to

supply 45 per cent of their requirements (as contrasted with 65 per cent in mid-December)

CHART 6.—PRICES OF EUROPEAN DOMESTIC WHEATS AND BRITISH WHEAT PARCELS, WEEKLY, FROM JANUARY 1934\*

(U.S. cents per bushel)



\* Prices of domestic wheats converted at new pars of exchange; British parcels prices converted at weekly average exchange rates in New York (Table VIII); Italian prices (Rome) from Listino dei prezzi all'ingrosso; French prices (Paris) from Bulletin des Halles; German prices (Berlin) from Deutsche Getreide-Zeitung; prices for Hungary (Budapest), Yugoslavia (Novi-Sad), Rumania (Braila), and Bulgaria (Sofla) direct from the U.S. Department of Agriculture. French prices as follows: (a) prices for stored wheat of 1933 crop; (b) fixed prices for 1934 crop in force until December 24; (c) prices on re-established free market; (d) price for wheat of 1934 crop stored by co-operatives.

through purchase of stored wheat of the 1933 crop at \$2.35 per bushel; and after mid-February they had to supply an additional 15 per cent of their requirements through purchases from co-operatives of stored wheat of the 1934

<sup>1</sup> See Foreign Crops and Markets, February 18, 1935, p. 163. The prices here given are as converted by the U.S. Department of Agriculture; our conversions shown in Chart 6 are based upon new pars of exchange and generally run a little higher. crop at \$1.93 per bushel.<sup>1</sup> Thus, after mid-February millers were allowed to take advantage of the lower prices on the "free" market only to the extent of 40 per cent of their requirements.

#### OUTLOOK FOR TRADE

Total shipments and net exports.—Trade forecasts for 1934–35 published by various organizations in the early months of the crop year have been significantly lowered since January. The following tabulation in million bushels shows the course of these forecasts from last August:

		Net exports	Shipments		
Month	F.R.I.	Wheat Committee	Interna- tional Institute	Broom- hall	F.R.I.
August	• • •	600		576	
September	600				575
October			610		
January	575				550
February				552	
March		565	570		

Even the later revised figures, however, now appear somewhat too high in the light of trade developments through April.<sup>2</sup> Broomhall's shipments in the first 39 weeks of the current crop year, approximately August-April, totaled only 398 million bushels. On the basis of this figure and the 1924-34 average seasonal movement, the total for the crop year (52 weeks) might be expected to approximate only 516 million bushels. But since shipments to Europe in the last quarter of 1934–35 are likely to be proportionally heavier than usual in relation to shipments in earlier months, a figure of 535 million bushels for 52 weeks or of 545 million for 53 weeks appears more reasonable. We expect the 53-week shipments to be distributed about as follows: 400 million bushels to Europe, 145 million bushels to ex-Europe (including the United States). For the remaining 14 weeks of the season this would mean average weekly shipments to Europe of 8.1 million bushels, average shipments to ex-Europe of 2.4 million bushels, and total weekly shipments of 10.5 million. This implies a small increase between third-quarter and fourth-quarter shipments, a relationship that has prevailed during the past ten years only in 1929-30 and 1930-31.

The margin between reported shipments and total net exports is this year likely to be considerably smaller than on the average in 1924-25 to 1933-34, when it equaled 29 million bushels. Broomhall's crop-year shipments for 1934-35 will be on a 53-week basis-a fact which may account for a reduction of about 10 million bushels in this margin; and North American, Russian, and Danubian net exports, which ordinarily are substantially larger than reported shipments from these countries, will this year represent an unusually small proportion of total net exports. On the basis of these considerations, and in line with evidence on the relationship of shipments and net exports in August-March, we conclude that crop-year net exports probably will not exceed reported shipments (53 weeks) by more than 5-10 million bushels in 1934–35. This suggests a total net-export figure of about 550-555 million bushels.

Sources of exports.—Our present forecast of the probable distribution of 1934–35 net exports by sources of origin is as follows, with comparisons, in million bushels:

-	Reported 1933–34	January forecast 1934–35	May forecast 1934–35
Canada	194	210	190
Argentina	147	190	180
Australia	86	120	115
United States	<b>29</b>	• • • <sup>a</sup>	· · · <sup>a</sup>
Danube <sup>b</sup>	35	17	18
Russia	34	5	<b>2</b>
Northern Africa <sup>e</sup>	<b>20</b>	<b>25</b>	<b>28</b>
Others <sup><math>a</math></sup>	8	8	22
Total	553	575	555

<sup>a</sup> Net import.

<sup>b</sup> Hungary, Yugoslavia, Rumania, Bulgaria.

<sup>o</sup> Algeria, Morocco, Tunis.

<sup>d</sup> France, Poland, India, Baltic countries, Spain, Chile in 1934-35; Germany instead of France in 1933-34.

Net exports from the Danube countries, Russia, and northern Africa seem likely to differ but little from the estimates we sug-

<sup>&</sup>lt;sup>1</sup> This provision was originally introduced effective from January 1, 1935, but by decree of January 7 the effective date was pushed ahead to February 16.

<sup>&</sup>lt;sup>2</sup> The Daily Trade Bulletin for May 1, 1935, reports that Broomhall has lowered his forecast of crop-year shipments to 544 million bushels.

gested in January, a small decrease in prospective Russian exports and a small increase in prospective Danubian and northern African exports being indicated by trade developments through March. The fairly large difference between our January and May forecasts of net exports from "other" countries primarily represents an upward revision of estimated net exports from France—a revision clearly indicated by recent French trade figures.

Argentine, Australian, and Canadian net exports all seem likely to be smaller than we anticipated in January, mainly because requirements of importing countries seem certain to fall short of requirements then apparently in prospect. In addition, Argentine exportable wheat supplies now appear to have been overestimated in January by about 14 million bushels, a fact which partially accounts for the sizable reduction in prospective net exports indicated for Argentina.

Our present forecast of 190 million bushels for Canada, though 20 million bushels below the January forecast, appears liberal in the light of Canadian trade developments in August-March. It implies net exports in April-July 1935 slightly heavier than in the same months last year, in spite of considerably larger stocks of Canadian wheat in United States ports and of somewhat higher premiums on Manitoba wheats in European import markets in April 1935. Whether Canadian net exports will actually reach as high a figure as here indicated will undoubtedly depend to a large extent upon the selling policy pursued by Mr. McFarland-this we cannot well foresee. But if Canadian net exports should not attain the suggested level, and if importing countries should require net exports as large as 555 million bushels, it would be reasonable to expect both Argentine and Australian net exports to exceed our present forecasts. Each of these countries could export 5-10 million bushels more wheat than we have suggested without reducing stocks to a minimum level as of August 1, 1935.

Distribution of imports.—Analysis of August-March net-import data (Table VII) for the various countries of Europe and appraisal of the principal factors likely to influence net imports in April-July seem to warrant the conclusion that European net imports (not deducting the net exports of France or any other net exporting country) may approximate 390 million bushels in 1934–35. These may be expected to be distributed about as follows in million bushels, with comparisons:

	Cont	inent	Britis	h Isles	Total			
Year	Aug Mar.	Apr July	Aug Mar.	Apr July	Aug Mar.	Apr July		
1933-34	107	48	157	81	264	129		
1934–35	106	66	141	79	247	145		
Difference	—1	+18	16	-2	17	+16		

Whether continental net imports of wheat will show as much improvement in April-July 1935 as we now anticipate is an open question. Our forecast rests upon the assumptions that (1) no country will import in April–July at a seasonal level lower than that indicated by imports in August-March, and (2) that several countries, particularly Italy and Czechoslovakia, will import more wheat in April-July than is suggested by their recorded net trade through March. As compared with last year, April-July net imports are likely to be 4-6 million bushels heavier this year in Germany, Italy, and Czechoslovakia and one million bushels or more heavier in Belgium, the Netherlands, Denmark, and Switzerland. No sizable reduction in April-July net imports can reasonably be expected except for France, which this year will rank as a net exporter.

Ex-European countries, too, are likely to take a little more foreign wheat in April–July this year than last, provided international wheat prices do not rise to a substantially higher level. In the absence of a strong price advance, it seems reasonable to expect that the recent good Manchurian and perhaps Chinese import demand may continue until new domestic crops are harvested in those areas, and that the imports of other ex-European countries will show no more than a normal seasonal decline. Our forecast of 145 million bushels for shipments to ex-European countries in 1934–35 implies shipments of 33 million bushels in the last 14 weeks of the present crop year, as compared with 29 million bushels in the same weeks last year. This indicates a reduction between third- and fourth-quarter shipments somewhat larger than last year, but proportionally about as large as on the average in 1924–25 to 1933–34.

#### **OUTLOOK FOR YEAR-END STOCKS**

North American carryovers.—Official estimates of United States and Canadian wheat stocks as of April 1 probably furnish the best available basis for forecasting year-end stocks in these two countries. The following tabulation, in million bushels, shows the reduction in wheat stocks in the United States between April 1 and July 1, as compared with estimated disappearance of United States wheat in April–June during the past four years, with our forecast for 1935:

Year	Apr. 1	July 1		April–Ju	ine disa	ppearanc	0
1041	stocks	stocks	Total	Milled net	Seed. feedª	Net exports	Residual
1931	490	325	165	110	55	26	-26
1932	547	385	163	112	60	28	
1933	525	391	133	128	64	3	-52
1934	402	290	112	110	38	7	43 31 <sup>b</sup>
1935	294	1750	1190	110 <sup>b</sup>	43 <sup>b</sup>	(3)00	

<sup>*a*</sup> Seed for spring-wheat acreage estimated at 1.4 bushels per acre sown; and wheat used for feed in April-June estimated at 1/6 of total fed on farms during the crop year. <sup>*b*</sup> Our forecast.

" Net imports.

Reported changes in United States wheat stocks between April 1 and July 1 have not in any recent year been large enough to cover April–June net exports and calculated domestic disappearance (including spring - wheat seed). The residuals shown in the tabulation above are therefore all negative. How large the residual in calculated disappearance will be in April–June 1935 cannot now be determined with reasonable certainty—tentatively we hazard the guess that it will approximate 31 million bushels. If a higher figure were selected, as might seem reasonable to some, the forecast of July 1 wheat stocks would be correspondingly raised.

Even the lower figure that we have chosen to use suggests that there is some element of underestimation in the official 1934 crop estimate and/or in the official estimate of stocks as of July 1, 1934, or that current estimates of the amount of wheat to be fed in the United States in 1934–35 are too high (Table X). In our calculations of disposition for 1934–35 we estimate feeding of wheat at 97 million bushels, a figure 35 per cent larger than the government estimate for last year and in line with the reports of correspondents to Mr. Nat C. Murray on the quantity of wheat fed up to March 1.<sup>1</sup> If this estimate is accepted as reasonable, and if the United States wheat carryover on July 1 proves to be 175 million bushels or larger, some underestimation of the 1934 crop will be indicated.

A statistical comparison similar to the one presented above for the United States is shown below for Canada, in million bushels:

Year	Man 91	T-1-1 01	April-July disappearance									
Tour	stocks	Mar. 31 July 31 - stocks stocks		Milled net	Seed	Net exports	Residual					
1931	280	134	146	18	35	75	+23					
1932	246	132	114	12	80	66	+ 6					
1933	314	212	103	14	81	68	10					
1934	804	193	111	13	27	61	-+-10					
1935	283	168#	1154	13ª	27ª	64a	+11ª					

<sup>*a*</sup> Our forecast.

In this tabulation feed use of wheat is not included as a separate item but remains in the "residual." It is clear that at least in several of the years this item is not large enough to cover wheat used for feed and wheat lost in cleaning in April-July. Nevertheless, except for 1933 the residual items do not differ greatly one from the other; and we select 11 as the residual item for 1935 mainly because there will probably be some small increase in wheat feeding this year as compared with last. On the basis of this calculation the Canadian carryover on July 31, 1935, seems likely to approximate 168 million bushels-a carryover 68 million bushels larger than the maximum suggested by Mr. McFarland in mid-February and 40 million larger than the figure he suggested in April. Our forecast of carryover, combined with forecasts of other items in disposition, independently calculated, tends to support rather than to cast doubt upon the substantial accuracy of the standing Canadian crop estimate for 1934.

<sup>1</sup> See Clement, Curtis and Company, Monthly Grain and Cotton Report, March 5, 1935. "World" wheat stocks.—Our present forecasts of North American wheat carryovers and of wheat stocks on about August 1 in other positions are shown below in million bushels, in comparison with our January forecasts and with our revised<sup>1</sup> estimates of yearend stocks in 1934:

	Revised	January	May
Position	estimates	forecast	forecast
	1934	1935	1935
United States	. 290	155	175
United States in Canada.	. 0	0	0
Canada	. 193	150	168
Canadian in United State	es 10	10	10
Australia	. 85	50	55
Argentina	. 118	85	80
Afloat to Europe	. 35	35	35
Total above	. 731	485	523
Importing Europe	. 315	260	265
Danube basin <sup>a</sup>		<b>20</b>	<b>20</b>
India	. 29	29	<b>29</b>
Northern Africa <sup>*</sup>	. 10	15	15
Japan	. 5	5	5
Afloat to ex-Europe		11	11
Total above	. 424	340	345
Grand total	. 1,155	825	868

« Hungary, Bulgaria, Rumania, Yugoslavia.

<sup>b</sup> Algeria, Morocco, Tunis, Egypt.

Except for United States and Canadian stocks, our present forecasts differ little from those published in January. It now appears that August 1 stocks in Australia may be 5 million bushels higher and stocks in Argentina 5 million bushels lower than we previously anticipated. These differences rest upon revised official crop estimates and our revised forecasts of the domestic utilization and net exports of these two countries (Table X).

Although year-end wheat stocks in importing Europe will again be substantially above any average for pre-depression years, the level will probably be distinctly high only in France, Germany, Spain, Portugal, and Sweden. Many European countries, including such important importers as Italy, Belgium, the Netherlands, Switzerland, Austria, and Czechoslovakia, will presumably have no more than minimum stocks of wheat to carry over next August.

The figure now indicated for "world" wheat stocks on about August 1, 1935—about 870 million bushels—is approximately 285 million bushels smaller than the estimated total for last year. Nevertheless, it is more than 260 million bushels above the average level of these stocks in 1923–27, and stands in sharp contrast with numerous early-season predictions that world wheat stocks would be down to about a normal level by August 1, 1935.

Prospective stocks of 870 million bushels at the end of the current crop year suggest that world wheat consumption has again been reduced (contrary to earlier forecasts), and this time not from a moderately high but from a fairly low level in the preceding year. The following tabulation, in million bushels, shows the indicated level of wheat disappearance in each of the past five years:

Year	Supplies ex-Russia	Year-end stocks	Disappear- ance
1930-31	4,741	1,007	3,734
1931–32	4,741	998	3,743
1932–33	4,715	1,097	3,618
1933–34	4,743	1,155ª	3,588
1934-35:			
Jan. est	4,425	825	3,600
May est	4,439	868	3,571

<sup>a</sup> Revised.

Heavy reduction of consumption this year in the Danube basin, Italy, and Czechoslovakia and some small decline in several other countries appear more than to have offset heavier use of wheat mainly for feed in North America and northwestern Europe, and for food in northern Africa (except Egypt), Spain, Portugal, and a number of other European countries. However, if the United States crop and/or stocks of 1934 are later revised upward by around 20 million bushels, world wheat disappearance in 1934–35 may be calculated about to equal disappearance in 1933–34.

#### **OUTLOOK FOR 1935 CROPS**

While it is still too early to form any but the roughest sort of judgment as to the probable size and distribution of the Northern

<sup>&</sup>lt;sup>1</sup>We have raised our estimate of 1934 European stocks by 14 million bushels: this includes an increase of 10 million bushels for France, 3 million for Italy, and 1 million for Czechoslovakia.

Hemisphere wheat crop of 1935, it seems desirable to present here an appraisal of the available evidence on existing crop prospects. Changes in these prospects during the next few months may be expected to exert an important influence upon world wheat prices.

India is the only country which thus far has published an official estimate of its 1935 crop; and since early Indian crop estimates are often substantially revised during May– July, the standing figure, 379 million bushels, may later appear either considerably too high or moderately too low. Last year's crop, estimated in April 1934 at 370 million bushels, is now reported to have approximated only 349 million. But whether this year's crop is really some 20 million bushels larger or actually a little smaller than the crop of 1934, it will probably have little influence upon international trade and prices.

The United States will harvest in 1935 another wheat crop that is below average in size. The winter crop, officially forecast on the basis of crop condition and acreage remaining for harvest on May 1 at 432 million bushels, will undoubtedly be strikingly small as compared with crops harvested before 1932 but probably larger than the crop of 1934. The area sown to winter wheat for the 1935 crop was 2.5 million acres larger than that sown for the 1934 crop and also significantly larger than areas seeded for the crops of 1932 and 1933. Although early growing conditions were generally somewhat more favorable than in either of the two preceding years, the condition of the crop on December 1 was below average. In the western part of the Great Plains, where crop condition as of December 1 was lowest, continued drought took heavy toll and resulted in unusually heavy acreage abandonment. For the United States as a whole, abandonment to May 1 approximated 31 per cent this year, as compared with 21 per cent in 1934 and a ten-year average (1923-32) of 13 per cent. At present, the outlook is for good-sized crops of soft red winter and Pacific white wheats but for a poor crop of hard winter wheat.

The United States spring-wheat crop was sown later than usual on an area probably slightly larger than that planted last year.

Reports of farmers' intentions, as of March 1. to plant spring wheat were officially interpreted to indicate a probable area for harvest of around 17.8 million acres, a figure which contains allowance for "usual abandonment." Last year abandonment of springwheat acreage was the heaviest on record, and only about 9.3 million acres remained to be harvested. In most of the spring-wheat territory moisture conditions are much better this year than last, and indeed better than for several years. Because of the favorable moisture conditions and the official ruling of March 20 releasing farmers under wheat allotment contracts from the obligation to reduce springwheat plantings this year,<sup>1</sup> the spring-wheat area harvested in 1935 may perhaps be expected to approximate 18.0 to 18.5 million acres. If the yield per acre should turn out to be about an average one (say 12.2 bushels, the average for 1924–33) and if the area harvested should approximate 18.3 million acres, the spring-wheat crop would total 223 million bushels. Probably this figure (somewhat above current trade estimates) is as close an approximation as can now be made.

In Canada, as in the spring-wheat territory of the United States, soil moisture conditions are more satisfactory this year than last, although subsoil reserves are again low. Present indications are that the acreage under wheat will be slightly smaller this year, mainly because of the late spring season, some shortage of wheat seed in last year's drought areas, and heavier planting of coarse grains. On the basis of a sown area of 22.8 million acres, indicated by the official May report on farmers' intentions to plant, the Canadian spring-wheat crop would approximate 360 million bushels if the yield per acre should, as now seems possible, turn out to be about equal to the 1924-33 average of 15.8 bushels. With allowance for a winter crop of around 12 million bushels, the total outturn for Can-

<sup>&</sup>lt;sup>1</sup> Farmers who chose to increase wheat plantings in accordance with this ruling were required to sign a supplementary contract under which they agree to reduce their plantings in 1936 by an additional amount corresponding to the increase made this year. Such farmers are entitled to adjustment payments on the same basis as those who reduce acreage under the requirements of the original contract.

ada would be in the neighborhood of 372 million bushels, a figure about 90 million bushels larger than standing estimates of either of the two preceding crops.

European importing countries as a group again appear to have increased their wheat acreage slightly. Loss of acreage as a result of winterkilling has not been heavy this year; and in early May, crop condition was average or higher in most countries. Although drought has been threatening the crops of Italy, Spain, and Portugal, there is still no clear evidence that yields in these countries will be below the 1930-34 average. On the basis of reported and partially estimated acreage figures and of 1930-34 average yields per acre in the various countries, one might expect an aggregate European crop of about 1,250 million bushels in 1935. While this figure may eventually prove to be either substantially too low or too high, as a result of extraordinarily favorable or extraordinarily unfavorable weather conditions in May-August, it appears to be as close an approximation to the probable European crop as can now be made.

The Danube exporting countries will almost certainly harvest a larger aggregate crop this year than last, perhaps 75–100 million bushels or so larger. Reported acreage figures are larger this year; winterkilling was not unusually heavy; and up to the middle of May crop conditions have been much more favorable. Drought, which last year took such heavy toll of the Danubian crop, has scarcely been a factor in the present season.

Preliminary acreage estimates for the three French dependencies of northern Africa are a little lower this year. Moreover, drought is causing concern in parts of this area, particularly in Morocco and western Algeria; and yields per acre are unlikely to be as high as they were in 1934. The Egyptian crop, on the other hand, was planted on an acreage now estimated to be slightly larger than that sown last year; and reports to date suggest no reason for anticipating that the yield per acre in Egypt will again be below average. Should yields in all these countries approximate the 1930-34 average, we may expect an aggregate outturn of about 110-115 million bushels in northern Africa.

Other Northern Hemisphere producing countries ex-Russia, including Japan, Chosen, and Mexico, may secure a total crop about as large in 1935 as in 1934. Acreage estimates for 1935 are not available for these countries, but little change is expected. Although reports from Japan indicate that weather conditions have been generally favorable, the chances are probably against an average yield per acre as high in 1935 as the record-high figure for last year.

In Russia, winter wheat is reported to have been sown on an area about 2 million acres larger than that sown for the crop of 1934. Winterkilling, however, is thought to have been somewhat above average; and in certain sections the crop has apparently suffered from drought. The Soviet spring-sowing campaign has had a less favorable start this year than last; but subsequent developments will mainly determine the final outcome.

The following tabulation brings together the crop figures discussed above, excluding Russia, in order to arrive at a rough preliminary approximation to the probable size of the Northern Hemisphere crop ex-Russia of 1935. The figures, with comparisons for past years, are in terms of million bushels.

Region		Reported	1	Pros-
Region	1932	1933	1934	pective 1935
United States winter	478	351	405	432
United States spring	267	178	91	223
Canada	443	282	276	372
Importing Europe	1,268	1,378	1,280	1,250
Danube <sup>n</sup>	222	368	249	332
Northern Africa <sup>b</sup>	127	110	128	113
Japan, Chosen, Mexico	50	61	64	64
Northern Hemisphere ex-India,				
ex-Russia	2,855	2,728	2,493	2,786
India	337	353	349	379
Northern Hemisphere ex-Russia	3,192	3,081	2,842	3,165

" Hungary, Rumania, Yugoslavia, Bulgaria. <sup>b</sup> Algeria, Tunis, Morocco, Egypt.

The prospective total indicated for 1935 is more than 300 million bushels larger than the total for last year, because indicated increases in North America and the Danube basin are not offset by indicated reductions in other areas. Thus, unless weather conditions in May–July are strikingly adverse in one of the important producing areas, or moderately unfavorable in several, the prospect for further heavy reduction of the existing world wheat surplus in 1935–36 will not be particularly bright, barring unexpected developments tending to enlarge consumption. After September, of course, developments in the Southern Hemisphere must be taken into account; but until then the changing crop outlook in the Northern Hemisphere will presumably be a dominant factor in world wheat markets.

#### **OUTLOOK FOR PRICES**

Because of inherent strength in the immediate wheat statistical position and despite the possibility of favorable world crop developments in May-July, we hazard the opinion that the Liverpool July future is not likely to suffer a sustained decline of as much as 7.5 cents from the level in mid-May. Such a decline would carry Liverpool July wheat to 72 cents a bushel-the low of mid-March. This opinion rests on assumptions that international exchange relationships will not be significantly altered during the next few months, that Winnipeg July wheat will continue to be pegged at  $81\frac{1}{4}$  cents per bushel, and that the Canadian government will not take any measure which would in effect subsidize Canadian wheat exports.

Our appraisal of the outlook for trade in the remaining months of the crop year suggests that European countries will be dependent upon Canada for quite a substantial portion of their imports. Exportable wheat supplies in the Southern Hemisphere are considerably reduced from last year, French wheat exports must be confined within the limits set by provisions for governmental subsidy, and other exporting countries are probably not in a position to ship out much more wheat in May-July than we have already allowed for in our trade forecast. Consequently, if the import demand in May-July is as large as we anticipate, importing countries will be forced to draw upon Canadian supplies at least to the extent of 40-50 million bushels. Since it seems highly improbable that Canadian net exports of this size in May-July would be associated with a negative Liverpool-Winnipeg price spread as large as 10 cents, and since the Winnipeg July future is now pegged at 81<sup>1</sup>/<sub>4</sub> cents per bushel, it seems reasonable to anticipate that Liverpool July wheat will not sell for any considerable length of time as low as 72 cents per bushel, regardless of bearish new-crop developments.

On the other hand, sensational reports of crop damage in any of the principal wheatproducing regions might well cause a price advance of 15 cents or more at Liverpool before the end of July. Since world year-end wheat stocks now seem likely to be reduced to around 870 million bushels by August 1, 1935, it seems reasonable to expect leading wheat futures markets to be more responsive to reports of crop damage in May–July this year than in any of the past five years which were characterized by considerably heavier year-end stocks. Indeed, with prospective stocks of 870 instead of 1,155 million bushels, crop damage as extensive as that suffered last year would hold the threat of real wheat shortage in 1935-36 and speculators would probably bid up international wheat prices to a level strikingly higher than that now prevailing. Exactly how much Liverpool wheat prices would advance under any given conditions of world crop development is impossible to say; but it seems to us that the stage is set this year for a very substantial and sustained advance of Liverpool prices if crop developments should prove to be notably unfavorable.

This does not imply that a moderate reduction in crop prospects from those of mid-May may be expected to elicit significant price response at Liverpool. Speculative traders there will presumably continue to base their ideas of the importance of possible crop reductions upon estimates of the size of existing surplus wheat stocks. And not until they become concerned about a possible lack of balance between wheat supplies and requirements is there likely to be any major or perhaps even any substantial advance.

The behavior of Winnipeg prices in recent weeks suggests that any large price rise at Liverpool would be partially, though probably not wholly, reflected at Winnipeg. Some reduction of the premiums on Winnipeg futures seems more or less likely if importing countries buy wheat as actively as we now anticipate and particularly if the Canadian springwheat crop should progress favorably during the next few months.

The Chicago July future, which in mid-May stood about 13 cents above the Liverpool July, will presumably be influenced during the next few months by two major factors: (1) changes in the apparent outlook for the United States wheat crop, and (2) price developments at Liverpool and Winnipeg. Should the United States spring-wheat crop encounter notably unfavorable weather conditions, with some resulting question as to the adequacy of domestic wheat supplies for 1935-36, Chicago wheat futures prices might score a substantial advance. But such an advance would presumably be limited by price developments in foreign markets. During the past few years Chicago wheat futures prices have at no time stood more than 33 cents above corresponding futures at Liverpool; and unless the United States becomes an active net importer of wheat-a development not likely to occur before the end of July-we believe that Chicago futures will not command for any considerable length of time a premium of more than 30 cents over corresponding futures at Liverpool. With an existing premium of 13 cents on Chicago July and September futures, any price advance at Chicago would accordingly be limited by the amount of advance or decline at Liverpool plus about 17 cents.

Favorable domestic crop developments, on the other hand, might result in a fairly substantial decline of Chicago prices relative to prices at Liverpool. But because the United States winter-wheat crop of 1935 is definitely below average, and because the carryover on July 1, 1935, will undoubtedly be much smaller than the carryover of any other recent year, we do not anticipate any great reduction of the Chicago-Liverpool price spread, even with later apparent promise of a good crop of spring wheat.

Although our statement of price outlook primarily refers to the July wheat future, it seems desirable to note that the July–September price spread at Chicago, which in the last few days has increased to 1 cent, may reasonably be expected to continue as wide as this or even to increase to  $1\frac{1}{2} - 1\frac{3}{4}$  cents per bushel.

This issue was written by Helen C. Farnsworth, with the advice of M. K. Bennett and Alonzo E. Taylor. The statistical tables were prepared by Rosamond H. Peirce, the charts by P. Stanley King.

## APPENDIX

#### TABLE I.---WHEAT PRODUCTION IN PRINCIPAL PRODUCING AREAS AND COUNTRIES, 1929-34\*

						Million	bushels)							
Year	World ex- Russiaª	Northern Hemisphere ex-Russiaª	Four chief ex- porters	U Total	nited Sta	tes	Canada	Aus- tralia	Argen- tina	USSR	Lower Danube <sup>ø</sup>	Other Europe	North- ern Africa¢	India
		·												
1929	3,424	3,070	1,417	822	586	236	305	127	163	694	303	1,146	77	321
1930		3,214	1,757	890	631	258	421	214	232	989	353	1,006	64	391
1931		3,206	1,664	932	818	114	321	191	220	786	370	1,064	69	347
1932	3,700	3,192	1,644	746	478	267	443	214	241	744	222	1,268	75	337
1933	3,612	3,081	1,272	529	351	178	282	175	286	1,019	367	1,378	70	353
$1934^{a} \dots$		2,827	1,161	496	405	91	276	137	252		249	1,267	87	349
1934°	3,283	2,843	1,145	496	405	91	276	135	238		249	1,279	91	349
		·		l							. <u></u>			 
Year	Hun- gary	Yugo- slavia	Ru- mania	Bul- garia	Morocco	Algeria	Tunis	Egypt	British Isles	France	Ger- many	Italy	Bel- gium/	Nether- lands
1929	75.0	95.0	99.8	33.2	31.8	33.3	12.3	45.2	50.9	337.3	123.1	260.1	13.5	5.5
1930	84.3	80.3	130.8	57.3	21.3	32.4	10.4	39.8	43.4	228.1	129.1 139.2	210.1	$13.3 \\ 13.7$	6.1
1931	72.6	98.8	135.3	63.8	29.8	25.6	14.0	46.1	38.6	264.1	155.5	244.4	14.2	6.8
1932	64.5	53.4	55.5	48.1	28.0	29.2	17.5	52.6	44.4	333.5	183.8	276.9	14.2 16.1	12.8
1933	96.4	96.6	119.1	55.5	28.9	32.0	9.2	40.0	64.4	362.3	205.9	298.0	16.1	15.3
$1934^{d}$	61.4	68.3	77.3	41.6	31.2	39.7	15.8	37.3	73.1	332.0	166.5	232.7	15.2	17.2
1934°	61.4	68.3	77.3	41.6	31.8	43.5	16.0	37.3	73.6	330.7	166.5	232.7	15.4	17.2
	l													
Year	Scandi- naviag	Baltic states <sup>h</sup>	Spain	Portu- gal	Switzer- land	Aus- tria	Czecho- slovakia	Poland	Greece	Mexico	Japan, Chosen	South Africa	Chile, Uru- guay	New Zea- land
1929	31.5	13.7	154.2	10.6	4.21	11.6	52.9	65.9	11.4	11.3	38.8	10.6	46.7	7.24
1930	31.8	15.6	146.7	13.5	3.60	12.0	50.6	82.3	9.7	11.0	38.5	9.3	28.6	7.58
1931	27.7	14.6	134.4	13.0	4.04	11.0	41.2	83.2	11.2	16.2	39.2	13.7	32.4	6.58
1932	38.2	18.3	184.2	23.4	4.00	12.2	53.7	49.5	17.1	9.7	39.9	10.6	31.5	11.06
1933	41.7	19.8	138.2	16.0	4.80	14.6	72.9	79.9	28.4	12.1	49.2	$10.0 \\ 10.2$	50.0	9.04
$1934^{d}$	43.2	23.7	180.0	20.5	5.07	13.2	50.0	63.5	31.4	10.1	54.9	$10.2 \\ 13.5$	40.0	10.00
10040	49.9	00.7	100.0	00.1	F 07	10.0	50.0	70.4	01.4	10.1	54.0	14.0	40.0	10.00

\* Data of U.S. Department of Agriculture and International Institute. Figures printed in italics are unofficial estimates, mainly by the Foreign Service of the U.S. Department of Agriculture. Dots (...) indicate no data available.

50.0

13.2

<sup>a</sup> Excluding also China and southwestern Asia.

180.0

20.1

5.07

<sup>b</sup> Hungary, Yugoslavia, Rumania, Bulgaria.

23.7

° Morocco, Algeria, Tunis.

43.2

1934°....

<sup>d</sup> As of about January 20, 1935.

76.4

f Including Luxemburg.

31.4

10.1

54.4

14.0

46.3

6.50

<sup>g</sup> Denmark, Norway, Sweden.

<sup>h</sup> Finland, Latvia, Estonia, Lithuania.

TABLE II.—WHEAT RECEIPTS IN	North America,	NOVEMBER-APRIL,	1934–35,	with Comparisons*
	(Million i	bushels)		

Year	1	,			United States (14 primary markets)						Canada (country elevators and platform loadings)					
Nov.	Dec.	Jan.	Feb.	March	Apr.	July- Apr.	Nov.	Dec.	Jan.	Feb.	March	Apr.	Aug Apr.			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	21.5 13.8 13.9 11.2	17.5 29.5 17.1 12.8 8.7 5.1	19.9 30.7 25.0 9.9 10.0 3.8	$16.7 \\ 30.8 \\ 13.4 \\ 12.7 \\ 9.1 \\ 4.7$	$13.4 \\ 21.2 \\ 13.2 \\ 15.8 \\ 8.4 \\ 6.4^{\circ}$	390.2 434.3 345.9 230.0 163.1 $141.7^{\circ}$	$19.5 \\ 52.4 \\ 43.1 \\ 36.5 \\ 23.0 \\ 23.6$	$10.9 \\ 17.3 \\ 19.7 \\ 18.5 \\ 10.3 \\ 12.5$	5.8 9.3 10.9 11.3 10.4 3.9	$\begin{array}{r} 4.9\\ 9.8\\ 12.2\\ 11.5\\ 8.3\\ 8.8\end{array}$	$5.5 \\ 9.6 \\ 12.9 \\ 20.8 \\ 9.1 \\ 8.4$	$2.7 \\ 8.4 \\ 6.0 \\ 10.3 \\ 7.3 \\ 6.4^{b}$	225.8 287.0 238.2 329.8 196.0 200.8 <sup>b</sup>			

\* United States data unofficial, compiled from Survey of Current Business; Canadian data computed from official figures given in Canadian Grain Statistics; Monthly Review of the Wheat Situation; and press releases of the Board of Grain Commissioners.

<sup>a</sup> Toledo not included, June 1933 and following.

<sup>&</sup>lt;sup>e</sup> As of about May 15, 1935.

#### WORLD WHEAT OUTLOOK

#### TABLE III.---WHEAT VISIBLE SUPPLIES, JANUARY-MAY 1935, WITH COMPARISONS\*

(Million	bushels)
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	Date	Total	United St	ates grain	Canadia	an grain	Total North America	Afloat to Europe	U.K.	Total U.K. and	Aus- tralia	Argen-
-			States	Canada	Canada	States	America	Europe	ports	afloat		tina
Jan.	1, 1926-28	311.1	71.4	1.9	109.9	28.8	212.0	39.4	6.2	45.6	50.2	3.3
• • • • • •	1930	514.3	182.2	8.2	190.8	38.3	419.5	28.2	15.2	43.4	44.0	7.4
	1931	535.4	199.6	4.8	185.4	31.7	421.5	27.3	20.0	47.3	60.0	6.6
	1932	594.0	226.9	29.1	172.6	19.7	448.3	29.8	23.9	53.7	85.0	7.0
	1933	549.7	168.5	6.9	224.2	13.8	413.2	36.4	7.5	43.9	83.0	9.6
	1934	476.5	132.5	2.3	227.6	14.0	376.4	20.7	19.1	39.8	50.0	10.3
	1935	447.8	91.0	1.0	230.2	27.6	349.8	25.4	16.1	41.5	45.5	11.0
May		252.4	44.5	.6	93.9	8.0	147.0	58.7	7.0	65.7	28.5	11.2
1.1003	1930	422.2	135.5	5.4	159.2	18.3	318.4	34.6	9.6	44.2	50.0	9.6
	1931	503.4	206.5	5.9	156.1	2.8	371.3	48.1	9.9	58.0	67.5	6.6
	1932	525.7	186.5	26.9	159.7	4.6	377.7	54.9	14.4	69.3	62.5	16.2
	1933	478.9	124.4	5.4	217.3	2.5	349.6	40.9	12.5	53.4	61.5	14.4
	1934	454.1	88.8	2.2	207.4	1.5	299.9	30.5	14.4	44.9	88.0	21.3
	1935	377.5°	42.0	1.0	204.5	12.2	259.7	31.9	$11.5^{a}$	$43.4^{a}$	56.0	18.4
	1935		Į								l l	
Jan.	5	455.4	87.8	1.0	230.6	27.1	346.5	23.5	15.0	38.5	59.0	11.4
• ••	12	476.4	84.5	1.0	230.1	26.9	342.5	25.7	13.8	39.5	83.0	11.4
	19	478.7	81.4	1.0	227.8	26.2	336.4	26.8	12.1	38.9	90.5	12.9
	26	478.8	78.7	1.0	224.6	25.8	330.1	30.0	15.2	45.2	90.3	13.2
Feb.	2	471.1	75.3	1.0	222.1	24.0	322.4	33.5	14.4	47.9	86.8	14.0
	9	463.3	72.3	1.0	220.3	24.1	317.7	34.1	14.8	48.9	82.0	14.7
	16	455.5	69.0	1.0	220.8	23.4	314.2	32.5	14.7	47.2	79.0	15.1
	23	447.5	65.6	1.0	219.2	21.9	307.7	33.5	14.4	47.9	76.5	15.4
Mar.	2	439.5	61.8	1.0	219.2	21.5	303.5	33.7	12.9	46.6	74.0	15.4
	9	433.3	59.3	1.0	219.2	20.6	300.1	32.3	12.7	45.0	72.0	16.2
	16	426.0	57.1	1.0	218.0	19.8	295.9	31.7	12.2	43.9	70.0	16.2
	23	417.1	55.2	1.0	216.3	17.8	290.3	29.6	12.1	41.7	68.5	16.6
	30	411.2	51.9	1.0	215.4	16.2	284.5	29.1	12.2	41.3	68.5	16.9
Apr.	6	404.7	49.4	1.0	214.7	15.2	280.3	31.9	12.2	44.1	63.0	17.3
<b>F</b>	13	397.5	47.0	1.0	212.8	14.4	275.2	32.6	11.9	44.5	59.8	18.0
	20	386.4ª	43.8	1.0	207.8	13.9	266.5	32.8	11.7ª	44.5ª	57.0	18.4
	27	377.5*	42.0	1.0	204.5	12.2	259.7	31.9	$11.5^{a}$	$43.4^{a}$	56.0	18.4
May			39.4	1.0	203.9	11.9	256.2	30.1			54.5	18.4
5	11		37.0	.8							51.5	18.4
			1	1	ł	l.			ł	1		ł

\* Commercial Stocks of Grain in Store in Principal United States Markets; Canadian Grain Statistics; Corn Trade News. <sup>a</sup> Our estimate.

TABLE IV.—WHEAT STOCKS IN THE UNITED STATES AND CANADA, ABOUT APRIL 1, 1930-35\* (Million bushels)

	United States (March 31 and April 1)							Canada (March 31)						
Year	On farms	In coun- try mills and ele- vators	Commer- cial stocks	In city mills <sup>a</sup>	Total in four posi- tions	U.S. grain in Canada	On farms	In coun- try mills and ele- vators	In terminal ele- vators	In transit	In flour mills	Total in five posi- tions	Canadian grain in U.S. <sup>b</sup>	
1930         1931         1932         1933         1934         1935	$129.5 \\118.8 \\170.0 \\183.2 \\116.3 \\93.7$	$80.0 \\72.3 \\69.4 \\95.9 \\87.3 \\68.9$	$153.1 \\ 213.6 \\ 207.2 \\ 135.6 \\ 97.1 \\ 51.9$	93.2 85.3 100.6 109.9 101.3 79.5	455.8 490.0 547.2 524.6 402.0 294.0	$5.9 \\ 5.3 \\ 27.6 \\ 6.4 \\ 2.2 \\ 1.0$	$\begin{array}{r} 46.3\\ 93.9\\ 61.8\\ 82.6\\ 72.1\\ 60.5\end{array}$	$\begin{array}{c} 77.2 \\ 82.8 \\ 89.8^{\circ} \\ 113.8^{\circ} \\ 109.9^{\circ} \\ 103.1^{\circ} \end{array}$	92.786.582.5105.7108.6111.5	$ \begin{array}{r} 4.4 \\ 7.3 \\ 8.4 \\ 9.8 \\ 6.7 \\ 5.1 \\ \end{array} $	$8.0 \\ 9.6 \\ 3.7^{a} \\ 2.6^{a} \\ 6.9^{a} \\ 2.5^{a}$	$\begin{array}{c} 228.6 \\ 280.1 \\ 246.2 \\ 314.5 \\ 304.2 \\ 282.7 \end{array}$	$24.4 \\11.1 \\11.7 \\6.0 \\5.7 \\16.2$	

\* Official data, mainly from press releases of U.S. Department of Agriculture and U.S. Burcau of the Census and Dominion Burcau of Statistics.

<sup>a</sup> Census figures for wheat in and in transit to mills and wheat stored for others here raised to 100 per cent. Figures for 1930 and 1931 include our estimates of wheat stored for others, 10 and 18 million bushels, respectively.  $^{\rm c}$  Includes private terminal elevators and flour mills in Western Division.

<sup>*d*</sup> In Eastern Division only. Stocks in Western Division included with stocks in country mills.

<sup>b</sup> In bond for export as wheat; excludes some bonded wheat in transit by rail.

#### **APPENDIX**

					(Thousa	nd barrel	s)					
			Produ	uction			T.	xports an	a		Estimated	
Month	All I	eporting 1	nills	Es	timated to	tal		its to poss			et retention	n
	1932-33	1933-34	1934-35	1932-33	1933-34	193435	1932-33	1933-34	1934-35	1932-33	1933-34	1934-35
July	7,828	8,275	7,325	8,401	8,875	7,868	400	337	322	8,001	8,538	7,546
Aug	9,005	6,719	8,654	9,649	7,225	9,278	460	416	486	9,189	6,809	8,792
Sept	9,395	7,540	8,822	10,062	8,096	9,455	420	362	489	9,642	7,734	8,966
Oct	9,382	8,181	9,181	10,049	8,776	9,836	417	352	434	9,632	8,424	9,402
Nov	8,719	8,116	8,211	9,346	8,706	8,807	537	338	431	8,809	8,368	8,376
Dec	8,323	7,332	7,547	8,926	7,875	8,103	446	428	354	8,480	7,447	7,749
Jan	8,077	8,719	8,316	8,666	9,347	8,918	392	415	318	8,274	8,932	8,600
Feb	7,216	7,867	7,599	7,752	8,442	8,159	344	325	315	7,408	8,117	7,844
Mar	8,867	8,362	7,986ª	9,503	8,967	$8,569^{a}$	392	422	358	9,111	8,545	8,211ª
Apr	9,298	7,455	7,715	9,960	8,006	8,281°	392	469		9,568	7,537	
July-Apr	86,110	78,566	81,356°	92,314	84,315	87,274°	4,200	3,864	•••	88,114	80,451	 

## TABLE V.—UNITED STATES FLOUR PRODUCTION, EXPORTS, AND NET RETENTION, MONTHLY, JULY-APRIL 1934-35, with Comparisons\*

\* Reported production and trade data from U.S. Bureau of the Census press releases, Monthly Summary of Foreign Commerce, and U.S. Department of Commerce, Statement No. 3009. The estimates of total production represent the monthly census reports raised by the estimated output of unreporting merchant mills and by a constant allowance of 100,000 barrels monthly for custom mills.

<sup>a</sup> Preliminary.

<sup>b</sup> Estimates based on production reported to the Northwestern Miller.

TABLE VIINTERNATIONAL SHIP	MENTS OF	WHEAT	AND	FLOUR,	WEEKLY,	JANUARY-MAY,	1935*
	( <i>M</i>	illion bush	els)				

								~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<del></del>						
Week				Shir	oments f	rom			SI	lipments	to Euro	pe	Shipmer	nts to ex	Europ
ending	Total	North America	Argen- tinaª	Aus- tralia	South Russia	Danube	India	Other coun- tries <sup>b</sup>	Total	United King- dom	Orders	Conti- nent	Total	China, Japan	Other
Jan. 5	7.92	1.39	2.94	2.20		.41		.98	5.18	.68	2.30	2.20	2.74	1.26	1.48
$12.\ldots$		2.17	4.25	2.18	1	.61	• • •	.84	7.62	1.88	3.59	2.15	2.43	.74	1.69
$19\ldots$		2.24	3.26	3.18		.18		.63	6.57	1.67	2.99	1.91	2.92	1.34	1.58
$26\ldots$		2.42	4.12	3.16		.45		.58	7.71	1.72	3.72	2.27	3.02	1.82	1.20
Feb. 2		2.60	5.08	2.34	•••	.16	• • •	.44	7.17	1.90	2.82	2.45	3.45	1.77	1.68
9		2.79	4.81	2.83		.32		.55	7.85	2.58	3.49	1.78	3.45	1.93	1.52
16		2.01	4.28	2.26		.28		1.05	7.23	1.84	3.51	1.88	2.65	1.05	1.60
$23.\ldots$		3.39	4.07	2.42		.26	• • •	.38	7.01	2.27	3.06	1.68	3.51	1.62	1.89
Mar. 2	10.19	2.04	4.95	2.68		.32		.20	6.81	1.70	3.08	2.03	3.38	1.86	1.52
9	8.87	2.06	2.78	3.04		.34	• • •	.65	5.67	2.32	1.95	1.40	3.20	2.22	.98
16	11.68	3.13	4.24	3.13	]	.33		.85	7.11	3.01	1.60	2.50	4.57	2.57	2.00
23	8.68	2.49	2.82	2.26	• • • •	.18		.93	5.93	2.14	2.13	1.66	2.75	1.42	1.33
30		2.12	4.87	2.96		.23		.63	7.31	2.70	2.91	1.70	3.50	1.58	1.92
Apr. 6	9.87	2.70	5.08	1.22		.19		.68	7.18	2.92	2.16	2.10	2.69	1.01	1.68
13	9.90	2.74	3.50	2.57		.11		.98	7.53	2.78	2.51	2.24	2.37	1.26	1.11
$20\ldots$	10.62	2.95	2.83	3.67		.22		.95	6.38	3.41	1.49	1.48	4.24	2.10	2.14
$27\ldots$	8.23	2.74	2.34	1.69		.39		1.07	6.66	3.16	1.79	1.71	1.57		
May 4	9.06	2.72	2.81	2.19				1.34			• • • •				
11	10.75	1.86	5.60	1.77		.47		1.05					1		

\* Here converted from data in Broomhall's Corn Trade News. Dots (...) indicate no shipments reported. <sup>a</sup> Including Uruguay. <sup>b</sup> Mainly northern Africa, Germany, and France.

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#### WORLD WHEAT OUTLOOK

TABLE VII.—NET	Exports	AND N	ET IM	IPORTS	OF	WHEAT	AND	Flour,	Monthly	FROM	AUGUST	1934,	WITH
			Su	MMAT	ION	'S AND C	омра	RISONS*	ĸ				

(Million bushels)

A. NET EXPORTS

Month or period	United Statesª	Canada	Argen- tina	Aus- tralia	Four exporters	USSR	Hun- gary	Yugo- slavia	Ru- mania	Bul- garia	Poland	Al- geria	Tunis	India
Aug. Sept Oct Dec Jan Feb Mar. AugMar. 1933-34	2.60 (1.35) (.25) (.30) (1.31) (.39) (.38) (1.08) 20.04	16.44 19.16 23.93 20.85 18.82 6.91 8.56 11.10 132.78	18.99 15.79 14.05 14.45 10.97 17.84 17.54 17.58 89.29	8.52 7.30 10.38 7.85 8.59 12.45 9.20 	46.55 40.90 48.11 42.85 37.07 36.81 34.92  301.78	(.54) .47 .73 .51 .11 .07 .14  32.61	.88 .90 .92 1.45 1.26 .83 .96 1.50 23.01	.21 .73 .93 .69 .54 .07 .01 	.00 .00 .00 .00 (.00) .00  	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.39 .12 .12 .07 .12 .16 .13 .21 <sup>b</sup> .07	3.32 1.37 1.16 .73 .58 1.01  8.86	{.54 {.35 .40 .29   	.28 .10 .11 .09 .07 (.11) .06  .36
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	(2.46) 61.77	125.77 154.32	127.21 87.04	76.60 79.98	325.24 383.11	$1.60 \\ 54.38$	8.70 16.31	3.22 7.75	.00 9.77	.00 3.08	$1.32 \\ 1.05$	9.07 5.53	3.18 2.42	.70 .92

#### B. NET IMPORTS

Month or	Bi	ritish Isle	s	Thr	ee variable	e import	ers	Bel-	Nether-	Den-	Nor-	Swe-	Swit-	Aus-
period	U.K.	I.F.S.	Total	Total	France	Ger- many	Italy	gium/	lands	mark	way	den	land	tria
Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. AugMar. 1933-34	16.39 18.59 16.49 16.01 17.86 11.20 15.59 17.80 144.56	$1.84 \\ 1.26 \\ 1.84 \\ 1.11 \\ 1.96 \\ .22 \\ \\ 12.92$	18.23 19.85 18.33 17.12 19.82 11.42  157.48	2.56 3.85 .77 .61 (1.76) (1.12) (1.08)  11.24	.89 2.54 (.64) (1.15) (3.17) (3.14) (2.68)  13.77	$1.43 \\ .97 \\ 1.47 \\ 1.08 \\ 1.06 \\ .89 \\ .92 \\ .88 \\ (7.33)$	.24 .34 (.06) .68 .35 1.13 .68  4.80	4.72 5.18 4.17 2.67 3.56 2.06 2.90 3.76 28.45	$1.20 \\ 1.66 \\ 2.09 \\ 2.09 \\ 1.97 \\ 1.71 \\ 1.78 \\ 2.00 \\ 15.79$	$1.17 \\ .98 \\ 1.72 \\ 1.94 \\ 2.40 \\ 2.73 \\ 1.91 \\ 1.89 \\ 8.87$	$\begin{array}{c} .62\\ .89\\ .63\\ .68\\ .95\\ .80\\ .71\\ \cdots\\ 5.16\end{array}$	(.02) .04 .15 .16 .14 .14 .11  1.29	$1.28 \\ 1.36 \\ 1.81 \\ 1.44 \\ 1.96 \\ 1.25 \\ .91 \\ 1.05 \\ 11.80$	.65 .67 .72 .74 .71 .64  5.65
1933–34 1934–35° Average <sup>d</sup>	$144.56 \\129.93 \\149.76$	$ \begin{array}{c c} 12.92 \\ 11.21 \\ 12.57 \end{array} $	$157.48 \\ 141.14 \\ 162.34$	$   \begin{array}{r}     11.24 \\     4.10 \\     52.88   \end{array} $	(9.35) 24.68	(7.53) 8.70 10.37	4.80 4.75 17.83	28.45 29.02 28.39	$   \begin{array}{r}     15.79 \\     14.50 \\     19.98   \end{array} $	0.07 14.74 8.67	$5.90 \\ 5.43$	1.29 .86 3.46	$ \begin{array}{c} 11.80 \\ 11.06 \\ 12.76 \end{array} $	5.65 5.64 8.55

Month or period	Czecho- slovakia	Greece	Spain	Portu- gal	Fin- land	Latvia	Esto- nia	Lithu- ania	Egypt	China	Man- chou- kuo	Japan	New Zea- land	South Africa
Aug Sept	.00 .01	1.12 .97	.00 .00	.08 .06	.39 .30	.00. .00	.00. .00	(.00.)	.04 .04	.41 .54	$\begin{array}{c} 1.71\\ 3.43\end{array}$	.06 (.29)	.06 .04	.02 .23
Oct Nov Dec	.01 .00 .08	.67 .68 .90	.00 .00 .00	.05 .03 .05	.34 .38 .33	.00 (.04) (.05)	.00 .00 .00	(.04) (.02) (.04)	.15 .02 .02	.33 .46 .77	$2.58 \\ 3.81 \\ 2.88$	.02 (.02) .29	.03≀ .05∫	.61 .01
Jan Feb	.08 .21 .39	.90 .99	.00 .00	.05	.33 .29 .22		.00 (.12) .00	(.04) (.08) (.08)	.02	$2.94 \\ 1.48$	2.88	.29 (.17) .49	•••	.01
Mar AugMar.		••••					•••	•••				.43	•••	
1933-34 $1934-35^{\circ}$	.16 1.20	7.57 6.73	(.05) .00	.64 .40	$2.84 \\ 2.55$	.00 (.21)	.00 (.12)	(.04) (.30)	.16 .40	13.61 	16.97 	2.09 .81	.12 .34	.04 2.00
Average <sup>d</sup>	8.76	13.42	2.00	1.11	3.36	.72	.35	(.19)	4.37	••••	••••	7.08	.58	1.51

B. NET IMPORTS (continued)

\* Data from official sources and the International Institute of Agriculture. Dots (...) indicate data are not available. Figures in parentheses represent: under A, net imports; under B, net exports. « Net imports in "commerce général."

<sup>a</sup> Includes shipments to possessions.

<sup>b</sup> Preliminary.

<sup>c</sup> Including our approximations to data missing in the monthly figures.

/ Including Luxemburg.
/ Net imports in "commerce spécial."

,

<sup>d</sup> Five-year averages, 1929-30 to 1933-34, except USSR, 1930-31 to 1933-34.

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#### APPENDIX

## TABLE VIII.---PRICES OF REPRESENTATIVE WHEATS, WEEKLY FROM JANUARY 1935\*

(Cents per bushel)

		Liver	pool (Ti	iesday p	rices)			United	States			Wini	nipeg	
Week ending	British parcels <sup>a</sup>	No. 1 Mani- toba	No. 3 Mani- toba <sup>b</sup>	Argen- tine Rosafé	Aus- tralian f.a.q.	Basic cash Chi- cago	No. 2 Hard Winter Kansas City	No. 2 Red Winter St. Louis	No. 1 Dark Nor. Spring Minne- apolis	No. 2 Hard Amber Durum Minne- apolis	No. 1 White Seattle	Wtd. aver- age	No. 3 Mani- toba	Buenos Aires 80-kilo
Jan. 5	74 44	96	86	64	70	100	103	102	116	143	84	74	72	53
12	76 45	96	86	64	72	103	103	105	120	147	85	75	73	54
19		94	82	62	69	99	100	100	119	142	84	74	71	53
26	77 46	95	85	62	69	99	100	100	118	145	86	74	72	53
Feb. 2	76 45	96	85	63	72	- 98	99	96	117	139	85	74	71	53
9	78 46	95	84	61	71	- 98	98	98	114	138	85	75	71	53
16	74 44	95	85	61	71	100	100	98	115	134	86	75	72	53
$23.\ldots$	76 45	97	86	61	71	101	•••	98	116	136	86	76	72	54
Mar. 2	76 45	96	85	60	70	101	101	98	116	135	86	77	73	53
9	81 47	97	84	62	71	98	98	96	113	135	83	76	73	53
16	80 47	96	84	60	70	94	95	92	111	131	81	76	73	53
23	74 44	96	85	63	75	94	96	93	111	126	82	77	74	56
$30.\ldots$		98	87	66	81	96	98	94	115	127	83	80	76	58
Apr. 6	78 46	98	89	70	81	96	98	93	115	130	84	82	78	62
13	77 45	102	92	70	86	98	101	96	116	138	86	84	81	
$20.\ldots$	81 48	103	94	74	86	102	107	100	119	136	88	84	81	
27	80 47	103	95	77	86	101	105	98	121	130	86	84	80	
May 4		•••	••		••	99	103	98	120	130				

\* For sources and methods of computation, see WHEAT STUDIES, December 1934, XI, 194–95. Dots (...) indicate no quotations. Figures in italics are expressed in pre-devaluation gold cents, based on London prices of gold. <sup>a</sup> Parcels of French denatured wheat not included. <sup>b</sup> Parcels from Vancouver.

TABLE IX.—MONTHLY PRICES OF	f Domestic '	WHEAT IN	Europe,	NOVEMBER-MARCH,	FROM 1930-31*
	(Ce	ents per bushe	l)		

Year	Nov.	Dec.	Jan.	Feb.	March	Nov.	Dec.	Jan.	Feb.	March	Nov.	Dec.	Jan.	Feb.	March
		Gre	EAT BRIT	AIN				France				C	GERMAN	Y	
1930–31 1931–32	87 67	80 57	73 54	67 53	67 59	$\begin{array}{c} 176\\ 162 \end{array}$	177 164	179 168	187 173	190 178	$\begin{array}{c} 160\\ 146 \end{array}$	161 138	168 146	177 158	186 161
1932–33 1933–34 1933–34	48 63 40	47 61 <i>39</i>	48 59 37	$49 \\ 60 \\ 36$	47 60 36	119 208 <i>130</i>	116 205 <i>131</i>	$115 \\ 210 \\ 133$	114 222 <i>133</i>	$110 \\ 228 \\ 136$	128 190 <i>11</i> 9	122 187 <i>119</i>	120 190 <i>120</i>	125 198 <i>119</i>	129 204 121
1934–35 1934–35	66 39	64 38	63 38	61 36	59 35	199 118	194 115	140 83	144 86	140 83	219 <i>130</i>	220 131	221 132	223 133	$   \begin{array}{c}     121 \\     226 \\     134   \end{array} $
			ITALY				I	Iungar	x			I	RUMANI	<u> </u>	·
1930-31          1931-32          1932-33          1933-34          1933-34          1934-35          1934-35	163 140 152 180 <i>113</i> 208 <i>124</i>	146 143 153 188 <i>120</i> 212 <i>126</i>	$149 \\ 150 \\ 156 \\ 200^a \\ 126^a \\ 218 \\ 130$	154 163 150° 199 <i>120</i> 219 <i>130</i>	149 167 148 201 <i>119</i> 227 <sup>a</sup> <i>134<sup>a</sup></i>	68 57 62 60 37 133 79	68 65 60 57 36 133 79	68 64 68 61 38 139 83	71 64 73 73 44 146 87	76 67 73 83 49 144° 84°	$51 \\ 49 \\ 102 \\ 100 \\ 63 \\ 126 \\ 75$	56 48 98 98 <sup>b</sup> 63 <sup>b</sup> 122 <sup>a</sup> 73 <sup>a</sup>	56 47 96  	55 47 113 96° 57° 	$\begin{vmatrix} 51 \\ 52 \\ 104 \\ 94^a \\ 56^a \\ 119^c \\ 70^c \end{vmatrix}$

\* For sources and methods of computation, see WHEAT STUDIES, December 1934, XI, 195, except Hungary and Rumania for which prices are furnished by the U.S. Department of Agriculture. Figures in italics represent approximate gold cents per bushel, based on prices of gold in London. Dots (...) indicate no quotations.

<sup>a</sup> Three-week average.

<sup>c</sup> Two-week average.

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#### WORLD WHEAT OUTLOOK

#### TABLE X.—WHEAT DISPOSITION ESTIMATES, ANNUALLY FROM 1929-30\*

(Million bushels)

	Dom Initial   stocks	estic sup New crop	plies	De	omestic d	lisappearanc	20	Surplus		Net export		
1929-30 1930-31			1					over domestie	wh	eat and flo	our	Year-end stocks
1930-31			Total	Milled (net)	Seed use	Balancing item <sup>a</sup>	Totalb	use <sup>o</sup>	Total	To Mar. 31	From Apr. 1	STOCKS
1930-31					A. U1	NITED STATI	ES (JULY	-June)				
1930-31	241	822	1,063	509	84	+ 23	616	447	143	116	27	304
	304	890	1,194	493	81	+180	754	440	$115^{4}$	90	25	325
	325	932	1,257	486	80	+179	745	512	$127^{d}$	99	28	385
	385	746	1,131	493	83	+128	704	427	36	33	3	391
1933–34	391	529	920	449	76	+ 77	602	318	28	21	7	290
1934–35 <sup>r</sup>	200	496	7867	460	78	+103	641	145	$(10)^{g}$			155
	200	426	7867	460	80	+75	615	171	(4) <sup>9</sup>	(1)	(3)	175
1001 00 111111	2000	100	100	100	00		010		(-/		(0)	
[					В.	Canada (A	ugust-J	ULY)				
1929-30	104	305	409	43	44	+26	113	296	185	119	66	111
	104	305 421	405 532	40	39	+20 + 59	$113 \\ 140$	290 392	258	115	60 74	134
	134	421 321	$\frac{552}{455}$	42	39 37	+37	$140 \\ 116$	339	$\frac{238}{207}$	164	66	134
	$134 \\ 132$	443	400 575	42	36	+21	99	476	264	$191 \\ 196$	68	212
	212	282	494	44	33	+30	107	387	194	$130 \\ 133$	61	193
1000-04	212	202	104	11	00	700	101	001	171	100	01	100
$1934-35^{"}$	193	276	469	44	34	+31	109	360	210		••	150
1934-35 <sup>*</sup>	193	276	469	43	34	+34	111	358	190	126	64	168
			· /		C. A	USTRALIA (	August-	JULY)		j <u> </u>		
								· · · · · · · · · · · · · · · · · · ·				
1929–30	41	127	168	32	18	+ 6	56	112	63	41	22	49
1930-31	49	214	263	34	14	+3	51	212	152	85	67	60
1931-32	60	191	251	32	15	-2	45	206	156	103	53	50
$1932 - 33 \dots$	50	214	264	33	15	+11	59	205	150	111	39	55
1933-34	55	175	230	33	13	+13	59	171	86	60	26	85
1934–35°	85	137	222	33	13	+6	52	170	120			50
$1934 - 35^{h} \dots$	85	135	220	33	13	+ 4	50	170	$115^{115}$	77	 38	55
_	1											
					D. A	RGENTINA	(August-	-Jury)				
1929–30	130	163	293	60	26	- 9	77	216	151	118	33	65
1929-30 1930-31	$\frac{130}{65}$	232	$\frac{293}{297}$	63	$\frac{20}{21}$	-9 + 8	92	$\frac{216}{205}$	$151 \\ 125$	$110 \\ 62$	55 63	80
	60 80	$\frac{252}{220}$	297 300	65	$\frac{21}{24}$	+6	92 95	$\frac{205}{205}$	125	02 94	65 46	65
1931-32	$\frac{80}{65}$	$\frac{220}{241}$	$300 \\ 306$	65	$\frac{24}{24}$	+10 +10	99	$\frac{203}{207}$	140	94 73	40 59	75
$1932 - 33 \dots 1092 - 94$	оэ 75	$\frac{241}{286}$	300 361	63 67	$\frac{24}{22}$	+10 + 7	99 96	$\frac{207}{265}$	132	73 89	59 58	118
193334	10	200	501	07	44	- <b>-</b> -	90	200	141	09	00	110
1934–35 <sup>,</sup>	118	252	370	67	23	+5	95	275	190			85
$1934-35^{h}$	118	238	356	67	23	+6	96	260	180	127	53	80

\* Based on official data so far as possible; see WHEAT STUDIES, December 1934, Table XXIX. Data for 1934-35, except initial stocks and new crops, are mainly our preliminary estimates.

" Total domestic disappearance minus quantities milled for food and used for seed.

<sup>b</sup> Total domestic supplies less surplus over domestic use.

" Summation of net exports and end-year stocks.

 $^{\rm d}$  Too low; does not include some wheat shipped to Canada and eventually exported from there.

<sup>e</sup> Estimates as of January 1935.

/ Not including estimated net imports.

" Net import.

" Estimates as of May 1935.

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