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WORLD WHEAT SURVEY AND OUTLOOK

JANUARY 1936

THE international statistical position of wheat has changed little during the past four months. Crop-year supplies available to the world ex-Russia still appear so small as to involve heavy drafts upon stocks. Export surpluses exceed import requirements by the narrowest margin in eight years. Prices have responded to the relative lack of abundance, but in mid-January were little higher than in mid-September. Deterioration, improvement, and subsequent deterioration in Southern Hemisphere crops affected price movements on the world's leading futures markets. So also did fixing of a high minimum domestic price in Argentina (in mid-December), and a shift to freer selling on the part of the Canadian Wheat Board. This board now exercises nearly complete control over Canadian wheat supplies, which include the great bulk of the world export surplus. Its influence on world prices, however, will tend to be exerted with reference to the desirability of working down the Canadian carryover.

A low volume of international trade in 1935-36 seems assured. Our forecast of total net exports of some 545 million bushels implies that trade will be somewhat more active in January-July than it was in August-December. "World" year-end stocks still seem likely to fall to a normal level close to 625 million bushels. Wheat disappearance in the world ex-Russia may be somewhat larger in 1935-36 than in 1934-35, largely because the North American crops of 1935 contained so much low-quality wheat. For two months or more, before new-crop prospects become dominant as price influences, the Winnipeg May future may be held steady by the powerful Canadian Wheat Board. The corresponding future at Liverpool may tend to rise slightly, adjusting to the position of cash wheat. But the Chicago May future is subject to opposing sets of influences affecting its relation to futures in foreign markets, and may either advance or decline.

STANFORD UNIVERSITY, CALIFORNIA

January 1936

WHEAT STUDIES
OF THE
FOOD RESEARCH INSTITUTE

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WORLD WHEAT SURVEY AND OUTLOOK

JANUARY 1936

The international statistical position has changed little during the past four months. The 1935 world wheat crop ex-Russia is still appraised about the same as the short crop of 1934, and world supplies ex-Russia for 1935-36 appear to be the smallest since 1927-28, though some 45 million bushels larger than they were appraised last September. World export surpluses exceed import requirements, but by a relatively narrower margin than in any year since 1927-28. The Southern Hemisphere crops turned out only a little larger than our mid-September forecasts. Improvement in prospects there occurred in October-November, but deterioration followed (in Argentina).

Wheat price levels of September-December in exporting countries and on free import markets reflected the relative tightness in the international statistical position, and in terms of current American dollars were the highest since 1929. Until mid-December, futures prices on leading markets fluctuated largely in accordance with changing Southern Hemisphere crop prospects; rumors of war had only transitory price effects. Canadian Wheat Board operations up to early December tended to strengthen prices; but traders' views of imminent change in policy from "holding" to "free-selling" apparently constituted a price-depressing factor. In mid-December, the markets were surprised by the move of the Argentine government in fixing domestic buying prices far above current levels. At this time, the reorganized Canadian Wheat Board sold freely, perhaps restraining a general price advance; but in leading futures markets except Winnipeg, prices late in December and into January were higher than in mid-September and not much below early-October peaks. Canadian prices thus moved into a relative position favoring

Canadian exports, while Argentine prices moved out of line. At Liverpool, Chicago, and Buenos Aires, September-December was a period characterized by relatively greater strength in cash prices than in the prices of distant futures. Chicago futures ruled at lower premiums over Liverpool than in 1934, despite the tighter domestic supply position this year and the need for larger net imports.

International trade in wheat and flour was at a low level in August-December 1935. The distribution of world supplies was adverse to heavy movement, and there was some tendency for European importers to buy from hand to mouth until policies of the Canadian Wheat Board and crop out-

turns in the Southern Hemisphere became clearer. The volume of trade was also low in relation to current forecasts of probable crop-year trade. Yet it compared less unfavorably with trade during August-December 1934 than statistical series widely used in North America suggest. Shipments to Europe were held to new postwar low levels; ex-European trade, swelled by the emergence of the United States as a net importer on a fairly large scale, was relatively large as compared with preceding years.

As of January 1, 1936, world wheat stocks ex-Russia were much smaller than in any year since 1928. The reduction from 1935 was somewhat larger than the reduction of crop-year total supplies. Canadian stocks were notably heavy, though a little below those of 1935. Argentine and United States stocks were notably small, as were stocks afloat and stocks of import wheat in Europe. Thus far in 1935-36, world wheat disappearance seems to have been a little larger than in 1934-35, reflecting both enlarged use of low-quality feed wheat in North America and enlarged human consump-

CONTENTS

	PAGE
<i>Wheat Supplies</i>	184
<i>Wheat Stocks on January 1.</i>	187
<i>Course and Level of Prices.</i>	191
<i>Significant Price Spreads</i> ..	196
<i>The Canadian Wheat Board</i>	199
<i>Imports and Exports</i>	203
<i>Outlook for Trade</i>	208
<i>Outlook for Stocks and Consumption</i>	211
<i>Outlook for Prices</i>	213
<i>Appendix Tables</i>	216

tion of wheat both in North America and in a few European countries where last year consumption was exceptionally small.

World wheat stocks still seem likely to fall about to a pre-depression average level, perhaps around 625 million bushels, by the end of the crop year. The Canadian carryover will be greatly reduced but will not be small; some European countries will hold large stocks; in the United States, Argentina, and Australia the year-end stocks will be small. World wheat disappearance in 1935-36 now seems likely to exceed that of 1934-35, but will fail to reach the levels of the two peak years 1930-31 and 1931-32. The probable volume of international trade (net exports) in 1935-36 we now appraise at 545 million bushels, 15 million below our forecast of mid-September.

The Liverpool May future seems more likely to advance than to decline to the end of March; but no forces are now apparent which should produce a strong price movement in this future. The mid-January level was apparently not based upon a preceding speculative advance, so that heavy decline seems improbable; and sharp increase would presumably require stimulus from crop scares which seldom occur in February-March. The dominant influences in the Liverpool price movement may well prove to be operations of the grain boards in Canada and Argentina. Price spreads between markets (see p. 214) are likely to show more notable changes than price movements at Liverpool up to the end of March. Thereafter, changing and unpredictable crop prospects may be expected to dominate the course of Liverpool prices.

WHEAT SUPPLIES

The world wheat-supply position of 1935-36 appears in mid-January 1936 only a trifle easier than we appraised it in mid-September 1935. Our appraisal of world supplies ex-Russia shows a net increase of only about 45 million bushels. This change represents mainly revision of 1935 crop forecasts and of our estimate of world wheat stocks about August 1, together with a small increase in our forecast of probable net exports from Russia in 1935-36. Our September appraisal of the 1935 crop was perhaps slightly above

most trade estimates, especially as regards prospective outturn in the Southern Hemisphere. Hence it is possible that the trade has viewed the easing of the crop-year supply position as somewhat more pronounced than our data suggest. In any event the change in the supply position during the past four months has been considerably less striking than in corresponding months of 1933-34 and 1934-35. The change has not been such as to cause much fluctuation in prices, except for a period in October-November when Southern Hemisphere prospects improved and later deteriorated.

Changes in crop estimates.—Numerous, though small, revisions of crop forecasts and estimates have appeared since mid-September; details are given in Table I. The net effect on the world total ex-Russia was enlargement from about 3,290 to about 3,315 million bushels. In the Northern Hemisphere, the largest change was a reduction of 14 million bushels in the Canadian official crop estimate (published January 23). This was somewhat more than offset in net effect on the total by upward revision of the United States estimate and by the appearance of first official estimates or upward revisions of older official estimates in several European countries, of which none was significant.

The Southern Hemisphere crop, which by mid-September promised poorly because of reduced sown acreage and protracted drought in Argentina and parts of Australia, continued to suffer from lack of rainfall through September. But in early October, rainfall was of normal proportions in Argentina, and later in the month very heavy rains fell in both countries. The first official forecast of the Australian crop, 135 million bushels (issued October 18), was apparently above trade expectations. The second, issued November 29, was only moderately larger at 140 million bushels. When in November the growing Argentine crop was showing improvement following the October rains, trade forecasts tended to rise; some were as high as 180 million bushels. But abandonment proved to be rather heavy, excessive rains and heat were injurious in December, and when the first official estimate of the crop appeared on December 21 the figure

of 144 million bushels was received without surprise. Deterioration, improvement, and further deterioration of these Southern Hemisphere crops exerted a substantial influence on the course of futures prices. The estimates now standing exceed our mid-September appraisals by only 9 million bushels; but they exceed trade expectations as of late September by a larger amount and fall below trade expectations as of mid-November. Latest advices suggest that the standing Argentine official estimate may be somewhat too high.

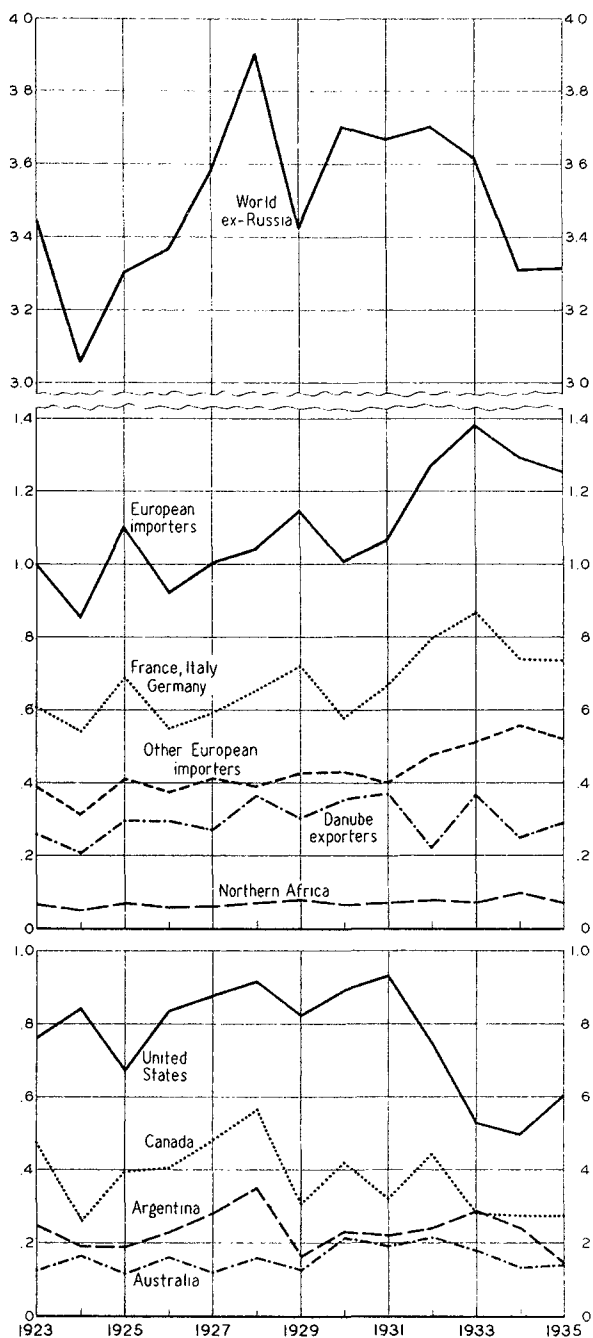
South Africa is now reported to have harvested a record crop, so large as to create a surplus problem. Reports from Chile suggest good yields. Although information on the crops in New Zealand and Uruguay is scanty, it now seems appropriate to allow 64 rather than 60 million bushels (our mid-September figure) for outturn in these four countries.

Size, distribution, and quality of the world crop.—The salient features of the world wheat crop of 1935 remain as they appeared to be last September, and may be summarized briefly (Chart 1). The world crop ex-Russia at 3,315 million bushels is practically the same in size as the poor crop of 1934, otherwise the smallest since 1926, and nearly 600 million bushels (15 per cent) below the bumper crop of 1928. As in 1934, the low level of world output mainly reflects small crops in North America and the Southern Hemisphere. The United States harvested in 1935 her third successive short crop, though a larger one than in 1933 and 1934. Canada also reaped her third successive short crop, now appraised at only about 277 million bushels. The Argentine crop is estimated as the smallest since 1916. The Australian crop, a little larger than that of 1934, otherwise compares favorably only with the crops of 1925, 1927, and 1929 in the past decade but falls much below the good crops of 1930–33. Canada, Argentina, and Australia together—the principal sources of exports for 1935–36—harvested the smallest aggregate crop grown in these countries since 1920.

Of the minor exporting countries, the Danube basin harvested a larger crop than in 1934, but except for 1934 and 1932 the smallest in eight years. The northern African crop

was small, notably in Morocco. The Indian crop was a good one, but has not provided significant exports even at the highest level of prices since 1929. No official estimate of the Russian crop of 1935 has yet appeared; but removal of rationing of domestic bread

CHART 1.—WHEAT CROPS, 1923–35*
(Billion bushels)



* See Table I.

consumption coupled with the fairly substantial export movement since August point toward a good crop, perhaps a very large one, following the big crops of 1933 and 1934.

In importing Europe, the aggregate wheat crop of 1935 was large, though smaller than the bumper crop of 1933. The distribution of the world crop is therefore unfavorable for international trade in wheat and flour; for, although export surpluses of 1935-36 are relatively small, so also are European import requirements. The crop of Manchukuo is appraised above the short crop of 1934; that of China proper is reputed to be relatively small.¹ Wheat crops in Asia Minor were somewhat smaller in 1935 than in 1934, but by no means short.

The quality of the 1935 world crop ex-Russia undoubtedly averages lower than that of the 1934 crop, which was unusually good. Little can be said as yet of Argentine crop quality; early marketings were good, but heat and heavy rains in December may have proved injurious. Australian quality is better this year than last; and in the Danube basin, some other eastern European countries, and northern Africa quality is good and probably up to 1934 standards. Elsewhere in Europe, however, the 1935 crops contain appreciably more lightweight and moist and sprouted wheat than those of 1934.

The quality of 1935 crops is strikingly inferior in North America, particularly in the spring-wheat belt. Here the proportion of lightweight kernels, rusted and frosted, is extraordinarily high. In western Canada, only 53 per cent of the August-December inspections graded No. 3 Northern or better in 1935, as against 72 per cent in 1934; not since 1928 has this proportion run so low. In the United States, August-October inspections of hard red spring wheat graded only 31 per cent No. 3 and above in 1935, in contrast with 96 per cent in 1934. Except Pacific white wheat, which is even better in quality in 1935 than in 1934, other types have graded low, though by no means so low as hard red spring. In protein

content, the higher grades of Canadian wheat average a little lower than in 1934, as does the crop of hard red winter wheat in the United States; but the American hard red spring crop runs somewhat higher. In the price structure, protein content has been much less important than test weight.

All told, much more wheat below customary milling standards, and indeed unfit for milling, was harvested in 1935 than in 1934. Measured in terms of standard milling grades, the world crop of 1935 is undoubtedly the smallest since 1924.

"Total" supplies.—World supplies of wheat ex-Russia in 1935-36 (old-crop stocks carried in, new crop, and prospective Russian exports) are relatively smaller, as compared with the supplies of 1934-35, than the 1935 world crop ex-Russia. We now estimate old-crop stocks about last August 1 at 892 million bushels, a figure 17 million bushels above our mid-September estimate, but about 260 million bushels below the stocks carried into 1934-35 and the smallest since 1928. The 1935 crop now seems to approximate 3,315 million bushels, some 20-25 million more than our September appraisal, and Russian net exports in 1935-36 now seem more likely to reach 35 than 30 million bushels. With these changes, and with upward revisions of supplies for 1934-35, "world supplies" for 1935-36 at about 4,240 million bushels seem to be about 220 million bushels smaller than those of 1934-35. As was clear last September, they are smaller than in any of the five preceding years. The reduction from the 1934-35 level is due to the much smaller size of the initial stocks this year than last, not to reduction of crop or of Russian exports, which (in prospect) are larger this year. Pertinent approximations in million bushels are:

Aug.-July	Initial stocks	Crops	Russian exports	Total supplies	Disappearance
1930-31	921	3,705	114	4,740	3,730
1931-32	1,010	3,669	65	4,744	3,742
1932-33	1,002	3,703	17	4,722	3,627
1933-34	1,095	3,616	34	4,745	3,595
1934-35	1,150	3,308	2	4,460	3,568
1935-36	892	3,316	35 ^a	4,243	3,618 ^b

^a Probable Russian exports.

^b Probable disappearance, based on our forecast of probable year-end stocks; see p. 212.

¹ The Foreign Service of the U.S. Department of Agriculture estimates the Chinese crops of 1934 and 1935 at 840 and 720 million bushels, respectively; but the estimate for 1934 differs from an official one.

Supplies for the crop year are sufficiently small to involve drafts upon stocks in 1935-36, and reduction of the year-end level to about normal (see p. 212). World wheat disappearance will probably increase somewhat (p. 211). But there is no present indication that world requirements for consumption involve true stringency.

Total supplies in 1935-36, like the 1935 crops, are so distributed geographically¹ as to hold the volume of international trade to a low level. Importing Europe has supplies which, though smaller than in the two preceding years, are nevertheless large enough to provide for consumption requirements through drafts upon stocks rather than enlargement of net imports. The United States, on the other hand, has the smallest supplies from inward carryover and new crop witnessed in postwar years. Net imports on a substantial scale are necessary, and have already been large (see p. 206); but this will not suffice to raise the volume of world trade in wheat much above the low level of 1934-35. Canadian, Argentine, and Australian crop-year supplies together are the smallest since 1929-30—though not as short relatively as the crops of 1935, because of the big Canadian carryover into 1935-36. These three countries control the bulk of the world export surplus for the crop year. But with the addition of increments from Russia, the Danube basin, and northern Africa, world export surpluses exceed world import requirements. The margin of excess, however, is much narrower than in any year since 1927-28. The international supply position of 1935-36 is the tightest in nearly a decade. European markets in recent months have tended to lose the characteristics of a buyers' market so long in evidence,

though fears of stringency have not been and may not be justified.

Rye and the feed grains.—Certain features of the supply position in rye and the feed grains affect the wheat situation. In North America and on the European import markets, the non-wheat cereals have thus far sold at much lower prices in relation to standard milling grades of wheat this year than last. All United States and Canadian non-wheat grain crops were much larger in 1935 than in 1934, especially the United States corn crop (which, however, was below average). At the beginning of the crop year, Argentina held very heavy exportable stocks of old-crop corn, and a good new crop, to be harvested next March, is now growing. European crops of rye, barley, and oats were abundant in 1935, though not strikingly so. Under the existing price relationships, there is probably less incentive this year than last to utilize wheat of fair grade for feed in western European grain-importing countries. A further factor tending to curtail feed use of wheat in that area is the reduced supply of subsidized exports of soft domestic wheats from some European countries to others. But in view of the fact that so much wheat unfit for milling exists in North America, feed use of wheat in the world ex-Russia as a whole may well prove to be higher this year than last, even though standard grades of wheat are relatively more expensive as compared with standard sorts of rye and the feed grains. In the Danube basin and perhaps in Italy, relatively short corn crops in 1935 may tend to enlarge human consumption of wheat.

WHEAT STOCKS ON JANUARY 1

Total stocks, January 1.—With wheat supplies in the world ex-Russia approximately 220 million bushels (4.9 per cent) smaller for the current crop year than for 1934-35, and 500 million bushels (10.5 per cent) smaller than for 1933-34, world wheat stocks on January 1, 1936, were presumably reduced by at least corresponding amounts.

Although in certain areas, particularly in North America, Czechoslovakia, and Italy, wheat consumption was doubtless heavier during August-December in 1935 than in

¹ Crops plus stocks in various areas may be appraised as follows, in million bushels:

Aug.- July	Import- ing Europe	United States	Canada	Argen- tina	Aus- tralia	Danube basin	North- ern Africa ^a
1930-31....	1,223	1,194	532	297	263	397	86
1931-32....	1,248	1,258	455	300	251	427	82
1932-33....	1,453	1,131	575	306	204	270	82
1933-34....	1,608	922	494	361	232	304	77
1934-35....	1,609	783	470	359	218	305	103
1935-36....	1,534	755	480	224	195	311	87

^a Algeria, Morocco, Tunis.

1934, consumption was apparently reduced in other areas, notably in the British Isles, Denmark, and Spain. Aggregate increases in consumption presumably somewhat more than offset decreases in consumption plus the increase in imports from Russia. As a result, wheat stocks in the world ex-Russia on January 1 were probably 225-250 million bushels smaller this year than last; and they were considerably the lowest since 1928.

In the United States total wheat stocks on January 1 were only a little smaller than last year, but around 150 million bushels smaller than in 1934. The lower level as of January 1 this year was due primarily to the reduced carryover of July 1, 1935, but partly to heavier utilization of wheat for food and feed in the first six months of 1935-36 than in the same period of either of the two preceding years. To judge by the January 1 stocks estimates and standing estimates of crops, carryovers, and United States net trade in wheat, domestic wheat disappearance in this country approximated 345 million bushels in the first six months of the current crop year, as compared with 340 million bushels in 1934-35 and 330 million in 1933-34.¹

We estimate United States mill grindings of wheat for July-December at 251 million bushels, as compared with 247 and 231 million bushels in the corresponding months of 1934 and 1933, respectively. The increase over 1934 resulted chiefly from an increase in the amount of wheat required per barrel of flour, in consequence of the greater proportion of lightweight wheat in the 1935 crop. A small increase in the amount of flour produced for domestic consumption was largely offset by a decrease in production for export and shipment to possessions. The large proportion of lightweight wheat in the United States crop of 1935 has tended to increase not only the amount of wheat required for milling, but probably also the amount of wheat fed.

In Canada, Argentina, and Australia, January 1 stocks were undoubtedly lower this year than last. Although in Canada the crop plus carryover was a little larger this year, increased domestic use of wheat for food and feed (mainly because of an increased proportion of lightweight grain) and larger net ex-

ports reduced total Canadian wheat stocks in Canada to a level about 20 million bushels lower on January 1, 1936, than on the same date of 1935. But since stocks of Canadian wheat in bonded warehouses in the United States were 7 million bushels larger this year, the reduction in total stocks of Canadian wheat in North America was probably only 10-15 million bushels. The holdings of the Canadian Wheat Board on January 1, 1936 (including futures), apparently amounted to about 70 per cent of all Canadian wheat in North America and 80 per cent of that remaining in Canada. Argentine wheat supplies as of January 1 were the smallest in postwar years, and Australian the smallest since 1929-30.

In importing Europe, stocks both of domestic wheat and of imported wheat² were significantly lower on January 1 this year

¹ Jan. 1 stocks were distributed as follows, in million bushels:

Year	Farms	Country mills	Commercial	City mills ^a	Total
1934	196	124 ^b	130	133	583
1935	138	93	92	119	442
1936	159	77	77	115 ^b	428

^a In and in transit to mills, here raised to 100 per cent.

^b Our estimate; official data are not available.

Flour stocks in the United States (not included in the official stocks estimates) were at an exceptionally low level on Jan. 1, 1936, largely because of general anticipation of an early ruling by the Supreme Court on the constitutionality of the AAA program, including federal processing taxes. The decisively invalidating ruling was handed down on Jan. 6.

² Fairly complete stocks figures are available only for Germany, and not for all positions even in that country. For the past three years, these stocks have been as follows, in million bushels:

	Oct. 1		Nov. 1		Dec. 1		Total
	Farms	Second hands	Farms	Second hands	Farms	Second hands	
1933	162	30	137	43	119	47	166
1934	122	65	101	66	85	67	152
1935	129	58	112	56	97	52	149

English farm stocks are reported as of Jan. 1, but the figure for this year is not yet available. However, data on British farmers' deliveries (published by Broomhall) suggest that as of Jan. 1 the amount of wheat remaining on farms in Great Britain was considerably smaller this year than last, when the British crop was substantially larger.

British port stocks approximated only 11 million bushels on Jan. 1 this year as compared with almost 14 million a year earlier. Stocks in continental European ports have also been lower in the present crop

than in either of the two preceding years. This was in part a reflection of relatively heavy marketings of domestic wheat and persistent hand-to-mouth buying of import wheat in August–December 1935—developments associated with the premiums of spot over distant wheat. In addition, the better distribution of the European crop in 1935 than in 1934 favored increased consumption, and hence heavier reduction of aggregate stocks in importing Europe, in the early months of 1935–36.

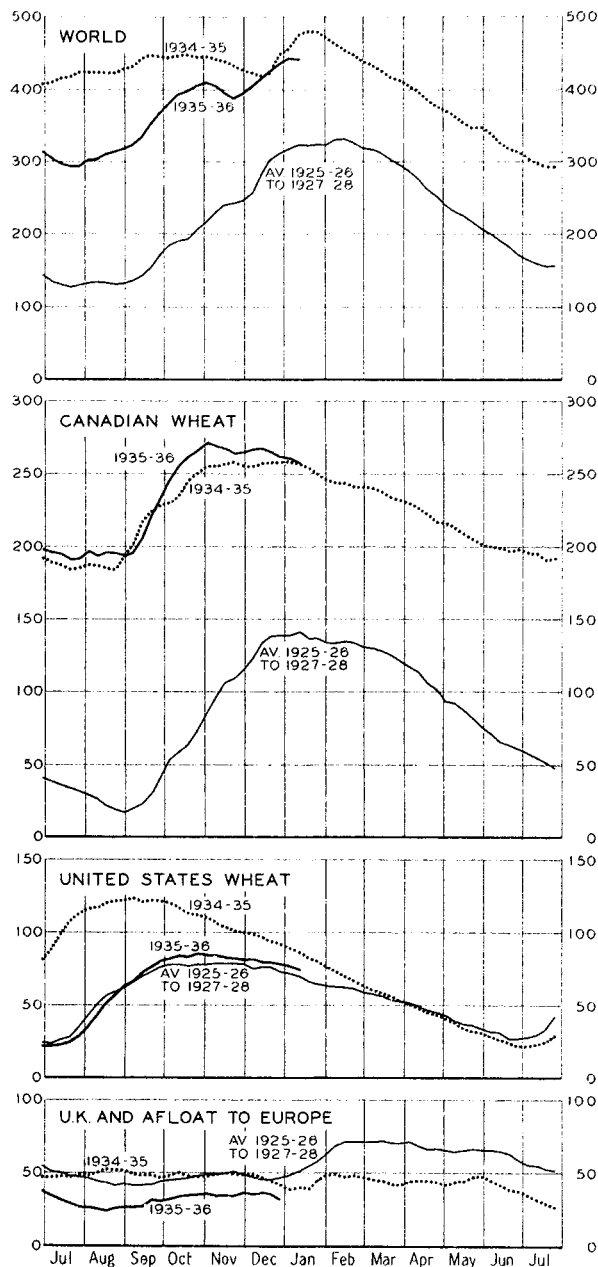
Visible supplies.—World visible supplies, like total world stocks, were smaller on January 1, 1936, than on the same date of any year since 1928; but the reduction from January 1, 1935, was less than 10 million bushels, only about 5 per cent of the decrease recorded as of August 1 (Chart 2 and Table III). Between August 1 and January 1 world visibles increased 140 million bushels this year as compared with an increase of only 25 million in 1934–35. This contrast primarily reflects the peculiar course of world visibles in August–December 1934, when visible supplies in the United States and Australia declined by 25 and 6 million bushels, respectively, rather than increasing as is more usual. In addition, however, the larger increase in world visibles this year reflected a surprisingly large increase (in view of the size of the crop) in commercial stocks of wheat in the United States.

In spite of a small domestic crop, particularly of spring wheat, commercial wheat stocks in the United States increased more during July–December 1935 than they did on the average in the same months of 1925–27. The explanation of this lay not in the volume of farm marketings nor in the character of

mill buying, but in the unusual trade position of the United States. Farm marketings, though exceptionally large in proportion to

CHART 2.—VISIBLE WHEAT SUPPLIES, WEEKLY FROM JULY 1935, WITH COMPARISONS*

(Million bushels)



* See Table III.

year. For Antwerp and Rotterdam, port stocks were reported as follows, in million bushels:

Year	Oct. 1	Nov. 1	Dec. 1
1933	6.9	7.2	6.2
1934	6.3	6.8	6.3
1935	2.4	4.2	2.8 ^a

^a Preliminary.

¹ Monthly figures on farm marketings in 1935–36 will not be available until the close of the crop year. The above statement is based on data on farm stocks as of Jan. 1. Particularly in the major wheat-producing states, January stocks represented a strikingly low percentage of the crop.

the crop, were significantly below average in absolute volume;¹ and wheat was bought freely by mills for domestic use (including the

building of stocks).¹ But of more importance was the fact that the United States *imported* net around 18 million bushels of wheat in July–December 1935 in contrast with average net *exports* of 113 million bushels in the same period in 1925–27. As compared with July–December 1934, larger domestic wheat marketings and larger net imports more than offset the effect of heavier mill buying for domestic flour production and for building stocks. As a result, United States visible supplies increased about 40 million bushels more during July–December in 1935 than in 1934.

Commercial stocks of Canadian wheat, which have recently constituted over half of “world” visible supplies, stood at a new high level during most of the period under review (Chart 2). As in the two preceding years, however, the increase in these stocks between August 1 and January 1 was relatively small, reflecting the third small Canadian crop in succession. The peak of Canadian visibles came considerably earlier than usual this year, largely because of the unusual course of Canadian wheat marketings. Platform loadings and receipts of wheat at country elevators in Canada increased markedly as the price of wheat rose during September, and these receipts and loadings were well

maintained during the first three weeks of the ensuing price decline (Chart 3).² But in October–November, when a secondary bulge in Canadian marketings usually occurs, no increase was apparent this year.

Exports contributed somewhat to continued downward drift of Canadian visible supplies in December; and over the next few months trade developments seem likely to play an increasingly important part in determining the course of these supplies. Particularly significant is the fact that as of about January 1 Canadian visibles were distributed in positions unusually favorable for good-sized winter exports of wheat.³ Aside from the large quantities of Canadian wheat stored in United States Lake and Atlantic ports—wheat which had already been counted in Canadian exports—larger supplies than usual were in store in Canadian Pacific and Atlantic ports. Moreover, the wheat in country elevators in Alberta, which was not much less on January 1, 1936, than in any other recent year, is mostly free to move to export via Vancouver.

The lowest section of Chart 2 shows the low level and stable course of stocks afloat and in British ports during August–December. Stocks of wheat afloat to Europe, which were at a record postwar low level on August 1, 1935, increased only 3 million bushels over this period. On January 1, therefore, these stocks were still notably low; indeed they were smaller as of that date than in any year since 1900, though only slightly below those of 1934.

Port stocks in the United Kingdom changed but little during August–December; they remained of moderate size, though smaller than in most other recent years. Export wheat was not pressed upon British markets as in several earlier years; nor, on the other hand, were British importers prompted to build up stocks in anticipation of higher prices later in the current crop year.

Australian visible supplies, which were moderately heavy on August 1, declined sharply to late November, then rose to a level somewhat above average on January 1. As of the same date, port stocks in Argentina were somewhat lower than in any year since 1928.

¹ Although stocks of wheat in and in transit to city mills increased more than usual, at least during July–September, the amount of wheat ground and domestically retained was considerably smaller than on the average in corresponding months of 1925–27. During July–September, stocks of wheat in and in transit to city mills increased by more than 80 million bushels, an increase equaled or exceeded in only two of the nine preceding years for which data are available. We anticipate that the increase during July–December will prove to have been relatively less large.

² During September and October, country elevator receipts and platform loadings totaled 133 million bushels, representing almost 49 per cent of the total crop. Only once before in the preceding decade (1929) had September–October marketings represented such a large proportion of the Canadian crop.

³ The following tabulation, in million bushels, shows the amount of Canadian wheat located in elevators in Canadian Pacific and Atlantic ports, in U.S. Lake and Atlantic ports, and in Alberta elevators:

About Jan. 1	Canadian seaboard	U.S. ports	Alberta elevators	Total
1933	20	14	42	76
1934	24	14	40	78
1935	29	28	38	95
1936	34	35	36	105

COURSE AND LEVEL OF PRICES

Wheat futures prices in leading markets rose during most of September 1935; fell persistently from October 5 to November 13; moved erratically until December 12; and then rose, first steeply and later more gradually, until early January 1936.

Changing crop prospects especially in the Southern Hemisphere, operations of and rumors concerning the Canadian Wheat Board, changing prospects for war in Europe, and (in mid-December) announcement of a high fixed minimum price for wheat in Argentina dominated the fluctuations of wheat prices. In terms of United States currency, the average level of prices during September–December, at least for standard milling grades of wheat, was appreciably higher in 1935 than in any of the preceding five years on the duty-free import markets and in the major exporting countries. This reflected the relatively short world supplies and tighter international statistical position of 1935–36. The abundance of sub-standard grades of wheat in North America, however, affected weighted average prices there unfavorably. “Parity prices” were not reached in the United States. British parcels prices failed to attain the level of 63 pre-devaluation gold cents per bushel which in 1933 had been designated under the International Wheat Agreement as the level at or above which import barriers would begin to be lowered.

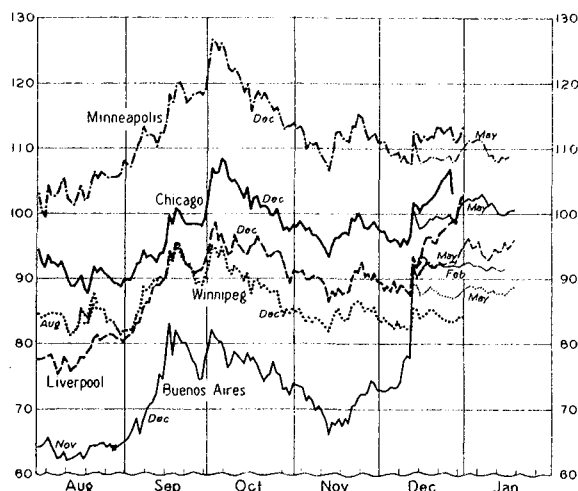
Writing in mid-September, we presented an analysis of probable developments in the world wheat situation up to the end of December, with a statement of prospective price effects.¹ The actual price developments from mid-September to late December lay on the whole within the range of probabilities suggested. The Liverpool December future rose “to the neighborhood of \$1.00 a bushel” early in October, and in late December was above the level “of the second week of September”; changing Southern Hemisphere crop prospects affected the course of prices; Liverpool rose to a premium over Winnipeg; premiums of hard wheat over soft declined in the United

States. But certain of the influences upon price proved different from or were not included in our mid-September appraisal, notably a change which occurred in the sales policy of the Canadian Wheat Board and the sudden fixing of Argentine minimum prices at a high level on December 13. The fact that our specific suggestion of price levels reasonably to be expected was so well realized is to be credited in part to the fact that these two unforeseen developments largely offset each other in their effect on late December prices.

September 2–October 5.—On the leading futures markets, prices rose during most of September and the first few days of October (Chart 3). Net advances, measured in closing

CHART 3.—WHEAT FUTURES PRICES, FROM AUGUST 1935*

(U.S. cents per bushel)



* Daily closing prices from *Daily Trade Bulletin*, Chicago; *Grain Trade News*, Winnipeg; *London Grain, Seed and Oil Reporter*; and *Revista Oficial*, Buenos Aires; conversions at noon cable transfer rates of exchange.

prices of December futures between September 3 and October 2–5, were 16–20 cents at Buenos Aires, Liverpool, Chicago, and Minneapolis, but only 13 cents at Winnipeg.

The dominant influences in this price advance were continued drought in Argentina, rumors that the Italo-Ethiopian dispute might involve other European powers than Italy in war, and general recognition that the international wheat-supply position for 1935–36 was certain to prove the tightest in sev-

¹ WHEAT STUDIES, September 1935, XII, 26–28.

eral years. Minor influences operative in the first half of September were further unfavorable crop appraisals from the United States and Canada, and (on September 7) announcement by the Canadian Wheat Board that the fixed price at which it would purchase wheat from producers would be 87½ cents per bushel, basis No. 1 Manitoba Northern at Fort William-Port Arthur. This was a price above those prevailing prior to the announcement.¹ Crop news from Argentina was apparently the dominant influence early in the period; fears of widespread war appear not to have become prominent until the first few days of October.

Analysis of open-to-close and close-to-open changes in prices on the four leading futures markets fails to indicate that the general advance was definitely led by any market in this period. The volume of speculative trading was everywhere moderate rather than heavy, and only occasionally were active markets witnessed during trading sessions. Prices tended to advance not during trading sessions, but overnight. At Chicago, however, speculative activity during trading sessions was in evidence on September 16-19 and again on October 1-5.

The rise of prices was interrupted for about a week following September 19. This decline perhaps represented a speculative reaction following the preceding advance. It was associated, however, with sharp reduction in the volume of wheat purchased for import in Great Britain and (on the 27th) with reports of rain in Argentina. Winnipeg prices were conspicuously weak during trading ses-

sions—an effect attributed in trade circles to heavy hedging pressure rather than to sales by the Canadian Wheat Board or by Mr. McFarland.²

The effects of rumors of war on wheat prices became apparent early in October. Rainfall in Argentina during the week ending October 7 reached a normal level throughout the country for the first time since the week ending August 12. This was a bearish development of first importance, and it was not offset by bullish crop developments elsewhere; Australian crop news, indeed, also turned favorable. But in the judgment of wheat traders, prospects for a war involving several or many European countries apparently seemed at this time sufficiently definite to warrant enhancement of wheat prices, even in the face of an improved crop outlook in the Southern Hemisphere. Sales of wheat futures by official agencies at Winnipeg on the bulge of prices were inferred by the trade press.

October 5–November 13.—From peaks reached on October 2-5 in the leading markets, wheat futures prices fell practically without interruption until November 13, by amounts ranging from 11 to 16 cents per bushel. The decline brought prices of December futures back to or somewhat below the levels prevailing in mid-September. In all four markets the declines were larger than such reductions as occurred between mid-October and late November 1934,³ though beyond question the international statistical position of 1935-36 was tighter than the position of 1934-35.

Day-to-day market reports throughout the period tended to ascribe the weakness of prices to improvement in crop prospects in the Southern Hemisphere, to fading prospects for war in Europe, and to fears that Canadian wheat would be pressed heavily for sale for export. Under these circumstances, import purchases of wheat on British markets were held to a low level, no doubt partly because forward purchases on the preceding advance had been substantial.⁴ Although Russian shipments were heavy, offers of Russian wheat were not pressed on the import markets; there is no convincing evidence that

¹ Simultaneously with the official announcement of the fixed price to producers, the Winnipeg Grain Exchange removed all restrictions on futures trading except limitation of futures price fluctuations within a day to 3 cents above or below the close of the preceding day.

² At this time Mr. McFarland was technically in position to operate without reference to the Wheat Board, for his holdings had not been taken over by the board.

³ See WHEAT STUDIES, December 1935, XII, 182, Chart 26.

⁴ Sales of cargoes and parcels on the British market numbered 115 in the 34 trading days ending Nov. 13; they had numbered 214 in the 29 trading days ending Oct. 5.

the actual operations of Mr. McFarland or the Canadian Wheat Board tended significantly to depress prices; and there was no hint of speculative "bear" operations or of important "long liquidation" on the futures markets. Trading on the futures markets, indeed, was noticeably quiet.

Of the three principal price-depressing factors, two exerted only transient influence. The declining prospect for war in Europe appears to have been influential only in the first two weeks of the decline, especially at Chicago. Fears of export pressure from Canada received little attention in trade reports except on October 16 (following the decisive defeat of the Conservative party by the Liberals two days earlier) and October 26–28 (when Winnipeg futures prices first fell below 87½ cents, the board's fixed price to farmers). It is possible, however, that this influence was more important on British markets than trade reports suggest. The development of Southern Hemisphere crops was a more tangible bearish influence. Rains in Argentina were considerably above normal in the two weeks ending October 21, and reports of more or less improvement in the crop outlook not only began to appear early in the month but continued into November in spite of shortage of rainfall in the three weeks ending November 11. The first official Australian crop forecast of 135 million bushels, issued October 18, seems to have exceeded trade expectations slightly. Further evidence of improvement in the Southern Hemisphere supply position appeared first in relative weakness of offers on the British import market made late in October and early in November for distant shipments, and second in an official estimate of Argentine old-crop stocks, issued November 8, which exceeded trade calculations.

November 13–December 12.—Publication of the second official Canadian estimate checked the decline of futures prices and gave impetus to a short-lived advance. Issued after the close of futures markets on November 12, this estimate was 17 million bushels below the forecast issued two months earlier. Before this stimulus lost effect, further strength appeared in futures markets, ap-

parently based upon a revival of import demand. This, in turn, appears to have rested mainly upon the reduced level of import wheat stocks in Europe and upon somewhat unfavorable crop advices from Argentina. Only in one day during the advance did rumors of war receive attention in trade reports; on the whole, war rumors were insignificant as wheat price influences during the whole period November 13–December 12.

The advance was checked on November 23–25 in the several markets (except Buenos Aires) as offers of new-crop Southern Hemisphere wheat became more pressing on the c.i.f. market in the face of restricted import demand. On the 27th a further impetus toward decline came with announcement that subsidized exports from France were to be renewed. For the next two weeks the principal bearish factors were continued slight pressure of new-crop offers from the Southern Hemisphere, chiefly Australia; and independent weakness in the Winnipeg market and in c.i.f. offers of Canadian wheat for export (after, and perhaps just before, the new Canadian Wheat Board was appointed on December 4). These developments offset a series of unfavorable crop appraisals from Argentina, where at times high temperatures damaged the growing crop and, later, heavy rains were prejudicial to harvesting operations and to crop quality. Futures prices at Buenos Aires responded to the local influences.

As of December 12, prices of December futures in all markets except Buenos Aires were close to the low points reached on November 13. But Buenos Aires futures were nearer to their peak level of mid-September than to the November low.

Prices from December 12.—On December 12, after the close of futures markets, the Argentine government announced that the Grain Board would pay a minimum price of 10 pesos per quintal for new-crop wheat of specified type and quality, f.o.b. Buenos Aires, with differentials for other qualities and positions. The fixed minimum price prevailing since December 4, 1933, had been 5.75 pesos per quintal; but no purchases were made from the 1934 crop, since market

prices ruled above this minimum. The new price corresponded at current exchange rates to 89 cents per bushel, an increase of about 38 cents over the old minimum. It was some 11 cents higher than closing prices at Buenos Aires (December future) on the 12th.

All markets responded promptly at the opening on December 13. Closing prices at Chicago and Winnipeg were 5 and 3 cents, respectively, above the preceding close, representing the full advance permitted under existing regulations. Liverpool futures rose about 6 cents, Buenos Aires about 15–20 cents. The extent of the rise at Buenos Aires was sufficient to bring futures prices slightly above the fixed minimum.

Regarded from the point of view of the European importer, the Argentine move was inevitably a bullish development. In effect, it served notice that the export surplus of Argentina might be sparingly rather than freely offered on import markets. The threat was the more effective because of the current relatively tight international statistical position, and because the bulk of the wheat available for importation already was controlled in Canada by an official agency which might conceivably employ "holding" tactics such as had been used in Canada in past years. Accordingly, there was a rush to buy wheat in Britain, and 7 cargoes and 24 parcels were reported sold on the c.i.f. markets on December 13—the largest daily volume of business done since September 19. Sales were almost wholly of Australian and Canadian wheats. The Canadian Wheat Board sold freely.

A transitory reaction of prices occurred on December 14. Thereafter, to the end of December, prices at Liverpool rose gradually but practically without interruption. This apparently signified further adjustment to a cash wheat position immediately tight, as evidenced by the rising premium of the December future over the May; and also recognition of general relative tightness in the international statistical position for the crop year. Sales of cargoes and parcels on British import markets were heavier in the week ending December 21 than in any preceding week of the crop year.

At Chicago, futures prices also tended to

rise; but the advance came mostly in the December, wherein (trade journals assert) there was a "squeeze." Chicago May and July futures advanced less than Liverpool futures, mainly because prospects for the 1936 winter-wheat crop, sown on an area far larger than that sown for the crop of 1935,¹ became increasingly favorable. At Winnipeg, futures prices for all quoted deliveries failed to follow the advances at Liverpool and Chicago, unquestionably because the Wheat Board sold freely enough to restrain advances, thus widening the Liverpool-Winnipeg spreads.

The advance of futures prices continued into early January. For a week following January 3 there was a slight recession at Liverpool, induced partly by reduction of import purchases following a period of active trade, and partly also after the 6th by the decision of the Supreme Court of the United States which in effect ruled unconstitutional the AAA crop-control program. The effects of this decision on wheat prices were much less striking than many anticipated. Millers, however, tended promptly to reduce the price of flour by about the amount of the processing tax, of which collection was stopped. Between January 9 and 18 Liverpool futures tended to resume their advance; Winnipeg was held practically unchanged; and Chicago tended to decline slightly.

Price levels, September–December.—With some regional exceptions, the relatively short world wheat crop of 1935 and the relatively tight international statistical position of 1935–36 have been reflected in wheat prices throughout the world.

In the United States, September–December

¹ The area sown to winter wheat for the crop of 1936 was officially estimated (on Dec. 20) as 47.53 million acres, in contrast with 44.53 million sown for the 1935 crop. This was one of the largest areas ever sown, smaller only than those of 1928 and 1919. The AAA had called on wheat farmers who signed new contracts to hold their winter-wheat sowings 5 per cent below the corresponding base acreage (typically the average area sown for 1930–32). If these did so, a notable expansion of acreage by non-signers took place, for the total sown acreage was close to 8 per cent above the 1930–32 average. Condition was reported 78.2 per cent as of Dec. 1, 1935, and 77.8 per cent a year before, both well below the 10-year average of 82.4.

average cash prices, 1934 and 1935, compare as follows, in cents per bushel:

Price Series	1934	1935	Change
Farm prices	90	90	0
Weighted aver., 6 markets...	114	102	-12
Chicago basic cash	102	103	+ 1
No. 1 Dk. Nor. Spr. (Minn.)..	117	131	+14
No. 2 Hd. Amb. Dur. (Minn.)..	145	113	-32
No. 2 Hard Winter (K.C.)...	104	114	+10
No. 2 Red Winter, St. Louis..	102	108	+ 6
Western White, Seattle.....	85	84	- 1

In general, the milling grades of hard red spring and hard red winter wheat show the larger price increases, as would be expected because of relative scarcity of such grades. Relative abundance of soft red winter, Pacific white, and durum wheats are reflected in smaller increases or even reductions in the prices of those types. Low average quality of the crop on account of rust damage finds reflection particularly in the weighted average price, which has ruled 11 cents below that of 1934. In some degree the general price levels of all types in 1935 reflect an international situation which has held Chicago at a moderate rather than a high premium over Liverpool (see p. 196). The "parity price" for wheat (new basis) averaged 111 cents during September-December 1935, or 21 cents above the farm price. The mere fact that three successive very short wheat crops in the United States, involving shift of the country to an import basis, have not sufficed to force farm prices of wheat back to "parity" constitutes a striking commentary upon the strength of economic forces opposed to attainment of expressed objectives in national agricultural policy and upon the objectives themselves.

Duty-free prices of import wheat in Britain and prices in some exporting countries were also higher in the closing months of 1935 than of 1934, as the following tabulation indicates:

Price series	1934	1935	Change
British import parcels	79	91	+12
Weighted average, Winnipeg	76	72	- 4
No. 3 Manitoba, Winnipeg...	75	79	+ 4
80-kilo, Buenos Aires.....	55	75 ^a	+20
Australian, Melbourne	53	68 ^a	+15
Hungarian	134	140 ^a	+ 6
Rumanian	125	90 ^a	-35

^a September-November.

British import prices averaged 12 cents per bushel higher this year than last, and were the highest (for September-December) since 1929. Even with the increase, however, the level of 1935 was only 54 cents in terms of pre-devaluation gold dollars. This was about 9 cents below the 63-cent level which, under the International Wheat Agreement of 1933, was to give a signal for lowering import barriers to wheat. Probably no delegate at the conference in the summer of 1933, where the Agreement was formulated, would then have considered seriously the possibility that, with the 1935 world wheat crop ex-Russia reaching only 3,300 million bushels and following a similarly small crop in 1934, the price of British import wheat might average only 54 cents gold in September-December 1935.

Canadian prices of superior wheat, influenced partly by the change in governmental policy, increased less than British import prices; but the weighted average price was lower this year than last in part because of the larger proportion of low-grade wheats in the new-crop marketings. Price increases in Argentina and Australia were relatively large, reflecting reduced supplies of old-crop wheat and prospects for new crops in 1935 smaller or little larger than those of 1934. Hungarian prices, affected by governmental controls, were not related to international prices in either year, and exports were subsidized. Rumanian prices were much lower in 1935 than in 1934, in part because of an easier domestic supply position; but commercial exports were not feasible.

Except in England, wheat price levels in the large consuming countries of Europe have not followed the change in international prices. German prices were fixed both in 1934 and in 1935. Italian prices, in the face of a larger domestic wheat crop this year than last, have risen greatly — in terms of current United States dollars to the highest level in postwar years. French prices have fallen sharply with adoption of different types of governmental price-supporting measures, and in spite of a considerably less burdensome domestic supply position in 1935-36 than in 1934-35. During September-December, French prices tended to decline (Table V), though an ad-

vance had been generally expected. The unexpected decline constituted the main reason for adoption of regulations enforcing upon millers larger use of "taken-in-charge" wheat of the 1934 crop, and for (in effect) subsidization of exports, beginning in November, from the "security stocks."¹

SIGNIFICANT PRICE SPREADS

The development of spreads between futures markets, between cash prices and futures, between different cash prices, and between prices of near and distant futures presented in September–December 1935 more than the usual array of interesting problems of interpretation. It is impossible in limited space to cover the whole field, even if adequate explanations were in all instances available. Brief comments follow, based upon selected price spreads shown in Charts 4 and 5.

Between futures markets.—Chicago futures ruled above Liverpool futures throughout September–December, except that the July future at times fell to a discount. But the premium, calculated from December futures (Chart 4, upper tier), was mostly 5–10 cents, in contrast with a premium of 15–30 cents last year when United States wheat supplies were more abundant and September–December net imports of wheat were much smaller. The smaller premium over Liverpool this year than last is explicable not solely by reference to change in the American gross supply position, but by reference to altered price relationships between Liverpool, Winnipeg, Minneapolis, and Chicago, and to relative supplies of the principal types of wheat in the United States.

The situation may be explained as follows. With the marked shortage of hard red spring

wheat of milling grade in the United States in 1935, Minneapolis near futures were forced to rise and hold far enough above Winnipeg futures to maintain a fairly steady flow of millable wheat from Canada into the United States over the 42-cent tariff.² The extent of the necessary premium is now for the first time shown by experience to be about 25–30 cents per bushel. Under existing circumstances, the Minneapolis market has no compelling direct connection with the Liverpool market, but only an indirect connection through Winnipeg. If the premium of Minneapolis over Winnipeg is sufficient to induce imports into the United States, and averages 27 cents a bushel, the spread between Minneapolis and Liverpool depends heavily upon the extent of the Liverpool–Winnipeg spread; it cannot be larger than about 27 cents plus an existing discount of Winnipeg under Liverpool, or minus an existing premium of Winnipeg over Liverpool. While Winnipeg remains below Liverpool, Minneapolis prices must follow Winnipeg prices (within limits of a few cents); otherwise they would go higher than necessary to induce needed imports from Canada, or fall so low as to shut off imports. Illustrations of the parallel movements of Winnipeg and Minneapolis prices are clearly apparent in Chart 4, most strikingly after mid-November.

If Minneapolis prices, when high enough to induce needed imports, must run about 27 cents above Winnipeg prices, and if Winnipeg prices run 5 cents under Liverpool, then Minneapolis prices cannot exceed Liverpool prices by more than about 22 cents. This relationship prevents Chicago prices, under existing circumstances, from exceeding Liverpool prices by as much as 22 cents. The circumstances are that domestic shortage exists in the hard red spring wheat deliverable on futures contracts at Minneapolis, and not in the soft red winter wheat deliverable on futures contracts at Chicago. Under these circumstances Chicago prices naturally run below Minneapolis prices,³ though not by any definite amount; there is latitude for the Minneapolis–Chicago price spread to change within undetermined limits, and therefore there is latitude for the Chicago–Liverpool and Chi-

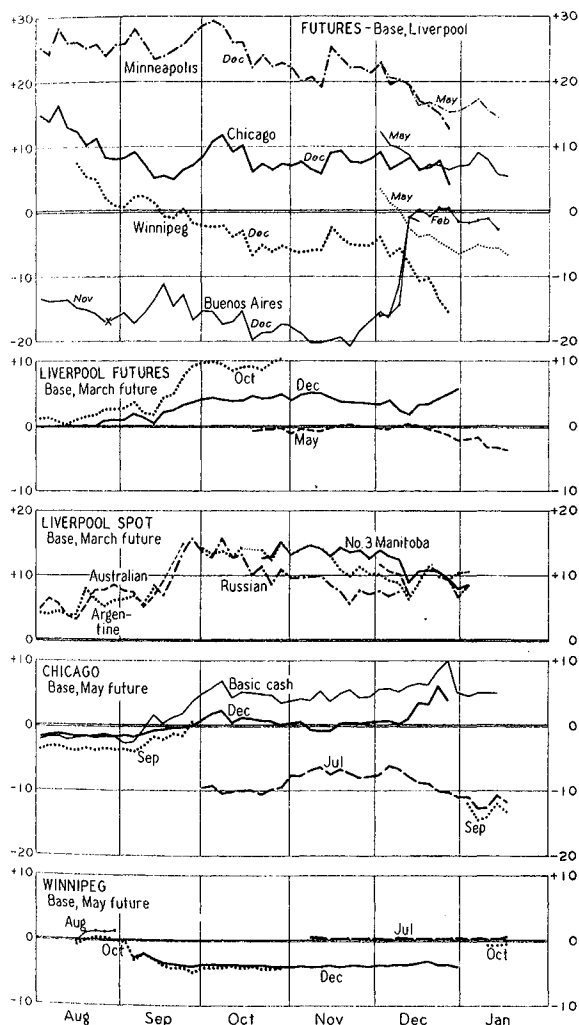
¹ See *Foreign Crops and Markets*, Dec. 16, 1935, and *World Wheat Prospects*, Dec. 30, 1935.

² This is true even though Canadian wheat is actually imported and milled mainly in Buffalo and other Lake ports rather than in Minneapolis.

³ Under any circumstances of domestic crop distribution, and with a Minneapolis–Winnipeg spread of 27 cents under which imports come in from Canada and a discount of Winnipeg futures of 5 cents under Liverpool, Chicago prices could not run more than about 30 cents over Liverpool because wheat could be shipped from Minneapolis to Chicago if the premium of Chicago over Minneapolis approached 8 cents.

cago-Winnipeg price spreads to change. Something of this latitude is suggested by Chart 4; late in September and in early October the premium of Chicago over Winnipeg and Liverpool increased, and late in December Chicago maintained its premium over Liverpool better than did Minneapolis.

CHART 4.—SELECTED INTER-MARKET, INTER-OPTION, AND CASH-FUTURES WHEAT PRICE SPREADS, FROM AUGUST 1935*
(U.S. cents per bushel)

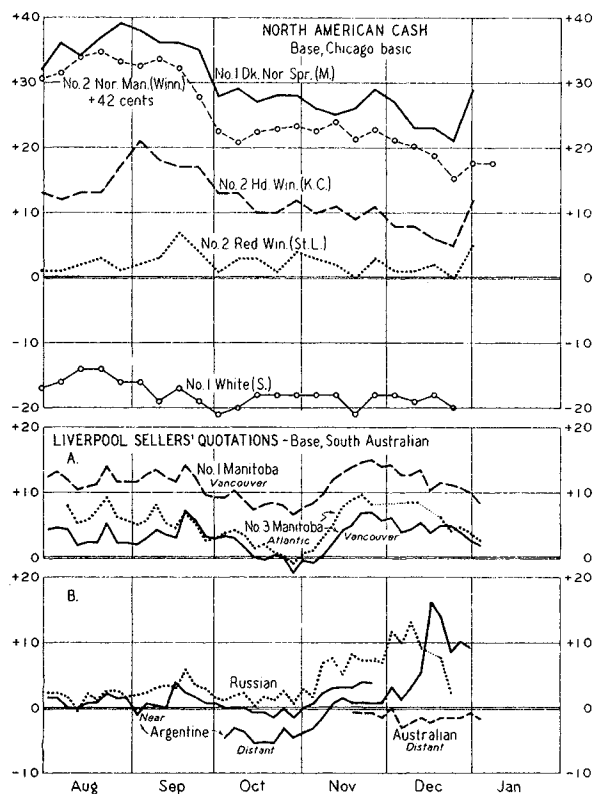


* For sources, see note to Chart 3. Tuesday and Friday quotations.

But, under the circumstances which tie Chicago fairly closely to Minneapolis and Minneapolis to Winnipeg, the premium of Chicago over Liverpool depends heavily on the Winnipeg-Liverpool price spread.

Roughly, it may be said that under such circumstances, near Chicago futures cannot carry a premium of more than about 10 cents over Liverpool when Winnipeg rules 15 cents under Liverpool and Minneapolis runs about 27 cents over Winnipeg. The fact that Chicago December futures held only 5-10 cents

CHART 5.—INTER-MARKET CASH PRICE SPREADS IN THE UNITED STATES, AND SPREADS BETWEEN SELLERS' QUOTATIONS OF PARCELS TO THE UNITED KINGDOM, FROM AUGUST 1935*
(U.S. cents per bushel)



* For weekly average United States prices, see Table V. Tuesday and Friday sellers' quotations from *London Grain, Seed and Oil Reporter*.

above Liverpool in September-December 1935, as compared with 15-30 cents in corresponding months of 1934, is due to the facts (a) that this year Winnipeg near futures ran at a discount under Liverpool, last year at a premium; and (b) that Minneapolis carried a larger premium over Chicago this year than last. Last year, therefore, Chicago could hold a somewhat higher premium over Winnipeg than was possible this year, and a much higher premium over Liverpool.

It follows that Chicago this year cannot initiate substantial general movements in futures prices as effectively as in most preceding years. A purely speculative movement at Chicago, unless based upon factors which stimulate nearly equivalent movements at Winnipeg also, cannot much affect the course of prices in the leading futures markets of the world. Chicago is forced to play a more passive role in price leadership than usual.

The course of the Winnipeg-Liverpool spread during September-December (Chart 4, upper tier) is of interest. In mid-August, the Winnipeg December future stood about 5 cents over the Liverpool December; by mid-October, about 6 cents under. The Winnipeg October future meanwhile declined to 10 cents under the Liverpool October. This change cannot be attributed to pursuit of a free-selling policy by the Canadian Wheat Board (see p. 201). It reflected, on the one hand, increasing scarcity of deliverable grades of wheat at Liverpool, due to diminishing supplies of Southern Hemisphere wheat; and on the other hand, pressure of new-crop wheat on the Winnipeg market, where much of the supply marketed from farms went to the private trade at the level of prices prevailing in September and most of October.

So far as can be judged from quotations of spot wheats at Liverpool and of sellers' quotations to the United Kingdom (third tier of Chart 4 and lower tiers of Chart 5), the changes in the relationship between December futures at Liverpool and Winnipeg did not tend, up to late September, to draw Canadian c.i.f. wheat prices into a competitive relationship with prices of other wheats in Britain; but throughout October the competitive position of Canadian wheat improved. It did not improve but worsened in most of November, when futures prices generally were falling and the spread between December futures at Winnipeg and Liverpool remained about stable.

A notable shift of Canadian wheat to a competitive position on the British import market occurred only in mid-December, after announcement of the new minimum prices in Argentina and adoption of a free-selling policy by the Canadian Wheat Board. At the

end of December, the Winnipeg December future had fallen to a discount of about 15 cents under Liverpool, while Buenos Aires ruled about even with Liverpool. Spot wheat quotations at Liverpool, and sellers' quotations of parcels to the United Kingdom, show that Argentine wheat prices had then moved far above a competitive level; Russian wheat, which in September was relatively cheap, had ceased to be quoted; and the competition lay between Australia and Canada. During the latter half of December, British importers purchased heavily from these two sources, apparently finding price advantages in relatively larger purchases of Australian wheat for distant shipment but of Canadian for near shipment. Adequate information concerning shifts in the competitive position of various wheats on the British import market, however, is difficult both to obtain and to present.¹

Other spreads.—At Liverpool and Chicago cash wheat and near futures during October-December tended to carry premiums over distant futures. Although the premiums reflect appraisal in Liverpool of an international situation and in Chicago of a domestic situation, the premiums in both markets developed chiefly in connection with the general price advance during September. Both in the United States and in the international market the cash markets evidently reflected a more bullish view of the supply situation than prevailed among futures traders. Presumably, the futures markets were more influenced by the belief that some surplus will remain from supplies for the current crop year to be sold in competition with a possible increased surplus next year.

In Liverpool small but consistent premiums on near futures appeared first in mid-July, with the deterioration of crop prospects that started the broad price advance initiated then. Large premiums did not develop, however, until the latter half of September, in the final stage of the price advance. Then the October-March spread at Liverpool widened sharply from a range of 2-3 cents to nearly 10 cents. The December future maintained an

¹ Table V, for example, shows weekly (Tuesday) price quotations which lend themselves to interpretations somewhat different from those given above.

intermediate position throughout the movement.

The premiums reflected a belated recognition of shortage of supplies of wheat available for the international market prior to arrival of new wheat from the Southern Hemisphere—a recognition forced by refusal of the Canadians to sell as freely as had earlier been expected. The premiums on near wheat established by the end of September held with little change until the end of the calendar year. The May and July futures have held close together since July wheat has been quoted; and May wheat held with March until the last week of December. Since then March has risen to more than 3 cents over May and July, reflecting the prospect of continuing shortage of cash wheat beyond March in consequence of restricted offers from Argentina and Australia.

In Chicago, nearer futures rose relative to the May through most of September and went to small premiums over May at the end of the month, while cash wheat (low quotation on No. 2 Red) advanced to 4 cents over the December future. As in the international market, this reflected a more bullish interpretation of the supply position in cash markets than among futures traders. In late October and the first half of November cash wheat and the December future weakened relative to May, but in latter November resumed the earlier relations. During the delivery month December wheat rose sharply relative to May in what was widely interpreted as a squeeze. The price movement appears to us more in the nature of belated adjustment of the December future to a cash situation evident for several weeks.

The July future at Chicago ruled about 10 cents under May during October, reflecting current appraisal by futures traders of the tightness in the domestic supply position for the crop year. At the end of October and in early November the May–July spread narrowed to 7 cents with the temporary change in views of the cash position that carried December below May. This spread was held with minor fluctuations until near the middle of December. The subsequent steady widening, to a maximum to date of 13 cents on January

8, was favored by evidence of shortness of domestic wheat supplies implied by increasing premiums on the December future.

Cash-price spreads in the United States (Chart 5, upper tier) have reflected relative abundance and shortage of supplies of the present principal types of domestic wheat. High-quality spring bread wheat has held the highest premium over soft red winter, though hard red winter also occupied a premium position. This chart serves to illustrate the size of the Winnipeg–Minneapolis spread, in terms of prices of comparable cash wheats, necessary to maintain a fairly steady flow of Canadian milling wheat into the United States—about the amount of the tariff (42 cents) plus 4–8 cents additional. Pacific White wheat at Seattle, relatively more abundant than other types in the domestic supply, has sold at a discount of 15–20 cents under Chicago prices of soft red winter. Wheat has moved in large volume to eastern points from the Pacific Northwest, by rail and by water. Despite the moderate premium of Chicago over Liverpool and the large discount of Pacific White under Chicago deliverable grades, the discount of Seattle under Liverpool has not proved large enough to permit exports of Pacific wheats. Early in January, the Pacific Northwest was reported about 7 cents out of line for exports.¹

From early September to early October, and again in December, the premiums of hard red spring and hard red winter over soft red winter tended to decline. There is a definite tendency, historically, for the price of a relatively scarce type of wheat to go to a somewhat excessive premium soon after the shortage develops. Narrowing of the spread between hard and soft wheats has been promoted by adaptations of mill uses of wheat which encouraged use of the more abundant and cheaper type (red winter) at the expense of the scarcer and dearer (hard spring and hard winter).

THE CANADIAN WHEAT BOARD

A brief interpretation of the operations of the Canadian Wheat Board is pertinent here,

¹ *Commercial Review*, January 7, 1936.

although the available basic information is scanty.

The Wheat Board came into existence on August 15, 1935, by appointment of a Conservative government in accordance with an enabling act approved July 5. The members were J. I. McFarland (then sales manager of the Canadian Co-operative Wheat Producers, Limited), D. L. Smith, and H. C. Grant. Mr. McFarland, responsible to the Dominion government, had accumulated as of May 31, 1935, the enormous total of 228 million bushels of wheat and wheat futures at an average cost of 86 cents per bushel. Therefore a quantity greater than the whole Canadian carryover of old-crop wheat as of July 31 was under governmental control. The wheat so controlled, directly by Mr. McFarland and indirectly by the government, was commonly called "stabilization wheat."¹

The enabling act authorized the board to acquire this wheat; to purchase new-crop wheat (from producers in the Prairie Provinces only) at fixed prices to be determined; and to sell wheat. The act contained wording concerning policy of selling that is impossible to interpret clearly. The board was directed to sell "with the object of promoting the sale and use of Canadian wheat in world markets," but "having regard to economic and other considerations." Between the extreme alternatives (a) of selling at any price that would move Canadian wheat to export in such quantity as to bring the carryover out of 1935-36 to a "normal" level of say 50 million bushels, and (b) of selling wheat within a given range of price in disregard of the volume of export, the act permitted wide latitude of discretion on the part of the board or on the part of government officials to whom the board was ultimately responsible.

¹ Strictly, only the amount in excess of the 76 million bushels originally transferred from the provincial pools to the central sales agency under Mr. McFarland's supervision is to be described as "stabilization wheat."

² *Winnipeg Evening Tribune*, Dec. 19, 1935, quoting Mr. McFarland. We infer that resignations of all board members were requested at this time.

³ Mr. Murray was vice-president and general manager of the Alberta Pacific Grain Company; Mr. McIvor was Mr. McFarland's assistant; Dean Shaw was from the University of Saskatchewan.

On September 7 the board announced the price (87½ cents per bushel) at which it would buy from producers wheat grading No. 1 Manitoba Northern, basis carload lots Fort William-Port Arthur. Two days later it announced that this price was applicable also to the same grade at Vancouver, and to No. 1 Amber Durum. On the 17th, the purchasing prices of other grades, except feed wheat, were announced; and the scale was practically completed on September 23, though explanation of the system of purchasing less-than-carload lots was deferred until September 27.

We do not possess exact information concerning the day when the board first actually purchased new-crop wheat from producers, but infer that it was September 25.

On October 14 a general Canadian election resulted in overwhelming defeat of the incumbent Conservatives by the Liberals. The new government took office near the end of October. Shortly thereafter, rumors spread that the Wheat Board would be reorganized with a new personnel, despite the incumbent board's legalized guarantee against dismissal except "for cause" by the Governor in Council. On November 29 (it now appears), Mr. McFarland's resignation was requested.² On December 4, a new board was appointed, consisting of James R. Murray (chairman), George McIvor, and Dean A. W. Shaw.³ At the same time, the advisory committee which in August had been appointed to assist the board was disbanded, and governmental supervision of its activities was placed under a cabinet committee.

Detailed operations in buying and selling wheat either (a) by the old board or Mr. McFarland (August 15-December 4) or (b) by the new board (from December 5) are not of public record. Such inferences as may be drawn are, moreover, likely to be confused by the fact that the old board never took title to the "stabilization wheat," and by the fact that from the beginning of the crop year (as earlier) no public distinction has been drawn between holdings of physical wheat and of wheat futures. Hence it seems to have been possible, up to December 4, for Mr. McFarland, still acting as agent of the Dominion

government, to deal as before in "stabilization wheat" (notably, to buy either from non-producers or from producers as well as to sell); and as chairman of the board, to deal under the new act in new-crop wheat.¹ What actually transpired remains to be made clear if and when the detailed transactions respectively of Mr. McFarland in "stabilization wheat" and of the board in new-crop wheat are made public.

The quantitative information concerning operations both in "stabilization" wheat (including futures) and "board" wheat (including futures) is limited to brief statements reported to have been made by Hon. J. G. Gardiner, Minister of Agriculture, on December 28. These statements were (a) that the old board sold 18 million bushels of wheat and acquired 108 million in the 16 weeks of its existence—transactions apparently involving both the board and Mr. McFarland; (b) that, when the old board retired, its holdings (apparently including those of Mr. McFarland) were 298 million bushels; and (c) that in its first 2 weeks of existence the new board sold 43 mil-

lion bushels of wheat, acquired 8 million, and reduced its net holdings by 35 million.²

On the assumptions that these data represent the facts and apply to both wheat and wheat futures and to "stabilization" wheat and "board" wheat together, and that the total holdings of 298 million bushels were as of December 4 rather than some other date,³ certain inferences seem permissible.

1. The old board and Mr. McFarland were not, during the period August 15–December 4, following a "dumping" or a "free-selling" policy. Gross sales of 18 million bushels over a 16-week period in which gross purchases were 108 million, by Canadians holding 200–300 million bushels, cannot properly be termed "free selling" when reference is had to the attendant circumstances. The policy during this period clearly leaned in general toward "holding," though what it may have been on particular days cannot now be ascertained.⁴

We recognize that description of government-sponsored operations from August 15 to December 4 is a controversial matter in Canada. Our description is subject to revision if and when data on holdings and sales other than those given out by Mr. Gardiner are made public. We emphasize the fact that our description applies to government-sponsored operations in general, not specifically either to Mr. McFarland's operations or to those of the board; we cannot separate one from the other.

2. The selling policy of the new board appears to have leaned much more decisively toward "free selling," at least to mid-January 1936. Evidence lies not only in the heavy sales made in the two weeks following December 4, but in the fact that the new board adopted a policy, when an overnight advance in domestic prices occurred, of selling wheat to exporters whose export offers had been accepted at practically the closing price of the futures upon which the offer was based rather than at the opening market price of the day. But the February–July policy may not prove to be the December–January policy. It may be inferred that the heavy December–January sales involved loss, given the average cost of all wheat taken over by the new board and the constant

¹ The enabling act, limiting purchases by the board to purchases from producers, would seem to preclude anything but sale by the board of futures taken over from Mr. McFarland. But it is conceivable that the board might accept futures in exchange for cash wheat, regarding the transaction not as a sale because it would not affect the net holdings of the board.

² Data reported as given out by Hon. J. G. Gardiner, Minister of Agriculture, Dec. 28, 1935. All figures except the old board's acquisition of 108 million bushels as given in *Winnipeg Free Press*, Dec. 30, 1935; old board's acquisitions from *Financial Post* (Toronto), Jan. 4, 1936.

³ In the *Financial Post*, the report was: "... when the King government took office late in October, wheat holdings were 298 million bushels."

In the *Winnipeg Free Press* of Jan. 6, 1936, a statement speaks of "sales by the new board from the time it took over from the old board Dec. 9 last . . ." (italics ours).

We take it, pending further information, that Mr. Gardiner's statement concerning holdings of 298 million bushels may apply to holdings either as of Dec. 4 or as of Dec. 9.

⁴ Trade reports attributed significant selling pressure to governmental agencies only on Oct. 16. This was denied by the board in a statement which included the words: "The Board has, since its inception, been a free seller at all times *when there has been a demand for Canadian wheat* . . ." (italics ours). We take it that there was always a demand for Canadian wheat, at some price.

accrual of carrying charges; further losses, with some drain on the Dominion treasury, seem in prospect unless prices rise from their mid-January level. The new board, like the old and Mr. McFarland, will presumably try to minimize this drain; and there has already been agrarian criticism of the "free-selling" policy. If circumstances arise during the next six months such that the new board clearly perceives an opportunity, we regard it as possible that it may bear toward a mild policy of helping prices to advance if this can be done without too drastic a check to exports. Political circumstances alter political cases, as was learned under our Federal Farm Board.

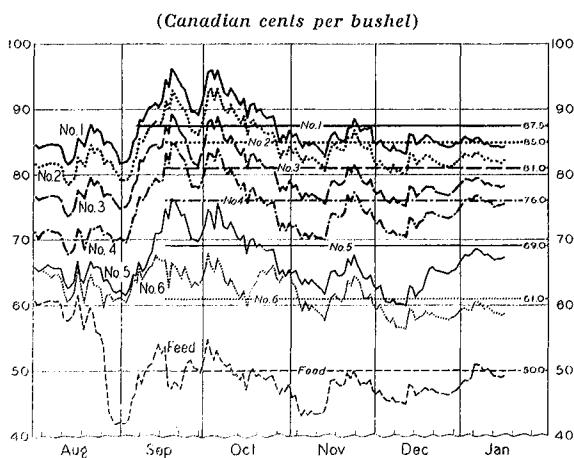
3. The extent to which wheat marketings from the 1935 crop have thus far been purchased by the old board and Mr. McFarland, the new board, and the private trade cannot now be appraised closely. Of the 108 million bushels of wheat reported to have been added to holdings between August 15 and December 4, some may have been futures, while the 10-15 million purchased by the new board during December 4-31 must have been physical wheat. The old board could not have purchased any cash wheat before announcement of the fixed price on September 7, and probably no purchases were made by the board before September 25. But "stabilization" purchases might have been made in the interval from August 15. Chart 6 shows the fixed prices for important grades in relation to

Winnipeg cash prices. From September 7 to October 26, cash prices of Nos. 1 and 2 ruled above the fixed prices. Most other grades touched the fixed minima earlier in October. But these facts do not indicate when or how much farmers sold respectively to the board and to the trade. Some farmers may have sold to the board when market prices were above the minima, counting upon gain if later in the year market prices should rise and profits on board operations should be distributed. Trade opinion is that the board obtained about half of the new-crop wheat marketed after the board began to purchase and prior to October 26, and practically all of it thereafter. This view implies that, of 115 million bushels marketed from September 25 to December 31, some 80 million went to the board, some 35 million to the trade direct.

4. The effect of official Canadian operations on the course of Liverpool futures prices, August-December 1935, was probably somewhat to strengthen prices prior to December 4 and to weaken prices after December 13, when the new board sold so heavily. This follows merely because the gross sales prior to December 4 were so small. Yet anticipations by traders in Liverpool of imminent change in the Canadian sales policy may have tended to weaken prices prior to December 4. It seems impossible to demonstrate what effects on the course of world prices flowed from what was actually done in Canada on the one hand, and what traders expected or feared might be done on the other.

5. The effect of official Canadian operations on *price spreads* was presumably, up to December 4, to hold Winnipeg futures prices higher in relation to Liverpool prices than they would have been under a free-selling policy, and similarly to hold c.i.f. British prices of Canadian wheat higher in relation to c.i.f. prices of competing wheat than otherwise they would have been. It is true that Winnipeg futures tended to decline in relation to Liverpool from mid-August to mid-October, and that in October particularly Canadian c.i.f. prices were declining in relation to competing wheats. But these spreads moved partly in response to operations of private traders. We see no reason to suppose

CHART 6.—WINNIPEG CASH WHEAT PRICES AND BOARD BUYING PRICES, FROM AUGUST 1935*



* Daily quotations from *Grain Trade News*.

that these spreads would have been identical under a free-selling Canadian official policy. The level of prices might have been lower; but the spreads would almost certainly have shown smaller premiums or larger discounts on Canadian wheat. If the spreads had been more favorable for export sales, Canadian August–December net exports would have been larger, though perhaps not impressively so. The widening of the discount of Winnipeg under Liverpool that occurred after December 13 was a reflection of the change in sales policy by the board. It came too late to affect appreciably the volume of August–December net exports.

6. As of the end of the calendar year 1935, the Canadian Wheat Board undoubtedly controlled about the whole remaining wheat export surplus of Canada. Its holdings of cash wheat and futures together perhaps approximated 260 million bushels, allowing for transactions subsequent to those reported by Mr. Gardiner. The visible supply of Canadian wheat, including that stored in the United States, was of about the same magnitude as the board's holdings. Although the data do not indicate how much of the board's holdings was in the form of cash wheat, the dominant position of the board is clear: it either does own or may own, by standing for delivery on futures contracts, practically all the physical wheat in the country, for not much remains on farms to be marketed. Under these circumstances, sales of wheat futures other than by the board have become relatively insignificant, and will presumably remain so. In coming months the board may be expected to exercise nearly complete control over the Liverpool–Winnipeg price spread and the flow of Canadian wheat to export. Since the Canadian export surplus is the dominant element in the world surplus, the board may also be expected to exercise partial control over the course of futures prices at Liverpool (see p. 213).

IMPORTS AND EXPORTS

Volume of trade.—Broomhall's shipments for August–December 1935 suggest that international trade in wheat fell to a new postwar low level in that period. But contrary to the impression held by many members of the

grain trade (based on inaccurate published statements of Broomhall's cumulative figures),¹ shipments in August–December 1935 were only slightly smaller than in the same period of 1933 or 1934. Comparisons, based on Broomhall's most complete data, are shown below for six years, in million bushels:

Aug.–Dec. (21 weeks)	Total	To Europe		To ex- Europe
		Reported	Adjusted ^a	
1930	322	265	277	58
1931	322	245	253	76
1932	236	182	177	54
1933	210	166	178	44
1934 ^b	210 ^c	161	170	49 ^c
1935	207	148	145	59

^a By subtracting from the reported figures any increase in stocks afloat or by adding any decrease.

^b Shipments for 22 weeks minus shipments for the first week.

^c Too low, perhaps by as much as 5 million bushels. In 1934–35 Broomhall did not report Canadian wheat shipped to the United States for consumption until mid-February, when he included in his cumulative figures 8.0 million bushels to cover such shipments made in preceding weeks of the crop year.

The reduction both in total shipments and in shipments to Europe in August–December

¹ In the United States and Canada, a number of leading papers and journals widely circulated in the grain trade have adopted the custom of accumulating Broomhall's shipment data by adding preliminary *unrevised* weekly figures (often beginning July 1). This practice has recently resulted in significant misrepresentation of the actual trade situation and of Broomhall's own cumulative figures. The cumulative totals of *unrevised* weekly figures from about July 1 to Dec. 28, 1935, were 16 million bushels smaller than the summation of *revised* weekly figures for the same period.

Moreover, even Broomhall's *revised* weekly figures do not add up to the total that Broomhall publishes for cumulative shipments over the same period. The difference for the period Aug. 3–Dec. 28 (21 weeks) amounts to 5.6 million bushels, a figure representing Canadian wheat shipped to the United States for consumption prior to the week ending Nov. 9. This figure, included in Broomhall's cumulative total, has never been reported in even his revised weekly shipments.

Another difference between various currently published tabulations of cumulative shipments lies in the weeks of 1934–35 selected for comparison with 1935–36. Many current cumulations begin with the week ending Aug. 11, 1935, and compare this with a cumulative total beginning with the week ending Aug. 4, 1934. Broomhall himself, however, begins his comparative cumulations for 1935 and 1934 with weeks ending Aug. 11 and Aug. 10, respectively. This difference in practice occurs because there were 53 weeks of reported shipments in 1934–35. Our practice with reference to comparisons between shipments in two years of 52 and 53 weeks has long been that now followed by Broomhall.

1935 as compared with 1934 was in sharp contrast with early-season forecasts; these had suggested substantially heavier international trade in wheat, and larger European takings, in the current crop year. But while it now seems improbable that world wheat shipments will reach as high a figure in 1935-36 as was earlier forecast (540 million bushels), it still seems likely that they will be somewhat larger this year than last (see p. 210).

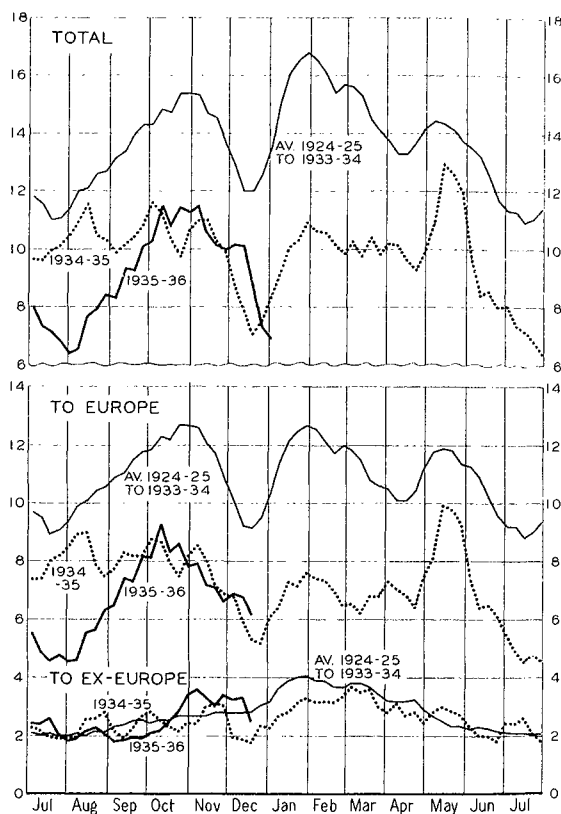
Although Broomhall's shipments indicate a smaller volume of trade in August-December 1935 than in the same period of 1934, it is not yet clear that net export data can be similarly interpreted; the excess of net exports over shipments may be larger this year than last year. Incomplete data on net exports through November (Table VIII) suggest that final figures for August-December may be quite as large for 1935 as for 1934, perhaps even larger. August-November net exports (partially estimated) from Canada, Argentina, Australia, Russia, the Danube countries, northern Africa, and Poland approximated 210 million bushels in 1935 as against 196 million in the same period of 1934.¹ Since December net exports were presumably as heavy or heavier in the current crop year, it seems probable that the total export trade for August-December will prove to have been significantly larger this year than last. Whether or not this proves to be so, the fact of primary importance is that in 1935-36, as in the two preceding crop years, the volume of international trade in wheat was strikingly small in August-December.

Distribution of imports.—This year, as in each of the two preceding years, European rather than ex-European importing countries were responsible for the low volume of international trade in August-December (Chart 7). Again this year, restrictive trade barriers, stringent foreign exchange and milling regulations, and large domestic wheat supplies in European importing countries combined to keep European consumption of foreign wheat close to a minimum level. In addition, none of the wheat-exporting countries pressed wheat heavily on European importing markets, as several had done in earlier years; and Euro-

pean importers, uncertain as to the comparative values of the various grades of Canadian wheat,² and apparently anticipating lower prices in later months, showed no inclination to build up import wheat stocks on their own

CHART 7.—SHIPMENTS OF WHEAT AND FLOUR BY DESTINATIONS, WEEKLY FROM JULY 1935, WITH COMPARISONS*

(Million bushels; 3-week moving average)



* See Table VI.

account (see pp. 188-89). It is apparent from Chart 7 that the course of shipments to Europe, and consequently the course of total

¹ Since the United States exported net only a negligible amount of wheat in August-November 1934, and in the same period of 1935 was a net importer, we do not include United States trade data in this comparison. It will be observed that, although the August-November net export total given above was larger for 1935 than 1934, Broomhall's shipments were 8 million bushels smaller for 1935 than 1934.

² In addition to the ordinary difficulties European millers might expect to encounter in evaluating Canadian wheat of the 1935 crop, because of the large proportion of rusted and frosted grain, millers this year faced the problem of choosing among Cana-

shipments, were more like their average courses in August–December 1935 than in the same period of 1934.

As is usual in early January, data on imports and arrivals of wheat in European countries are too incomplete and, in some cases, too conflicting to throw much light on the import takings of individual countries during August–December. Nevertheless, several general facts are clear. For the fifth successive year net wheat imports into the British Isles in August–December were as large as or larger than the net wheat imports of all continental importing countries combined. British takings were presumably about as large during this period in 1935 as in 1934.

The three continental importing countries that were most important in pre-depression years—France, Germany, and Italy—together imported an insignificant amount of wheat during August–December 1935. Although France imported net more wheat through November this year than last, it is not yet clear that she will maintain a net importing position throughout the crop year (see p. 209). Germany imported net less than one million bushels in August–November 1935, as against 5 million in the same period of 1934. While German net imports for 1935–36 may possibly be as large as those for 1934–35, a substantial reduction now seems more probable.

The Italian government discontinued publication of trade statistics in September; and probably only the roughest sort of estimates of Italian trade will be available for later months of the crop year. Broomhall's data on arrivals of wheat and flour in Italy are admittedly incomplete; and in view of the attitudes of other nations toward the Italo-Ethiopian conflict, it seems probable that much of the wheat shipped to Italy (or Eritrea) has

not been so designated at the time of export. Nevertheless, the domestic wheat position in Italy this year, the limited foreign exchange available to that country, and the fact that so little has been heard of foreign wheat shipments to Italy or to the Italian army, all suggest that Italy has bought little foreign wheat thus far in 1935–36.

Belgium, the Netherlands, and Switzerland, now the largest continental importers of wheat, imported net substantially the same aggregate amount of wheat in August–November this year as last. Net imports into these countries vary little from one year to the next; and within each year the flow of wheat and flour imports is fairly steady. There is some suggestion in the August–November trade returns that Belgian importers bought as sparingly as possible in the early months of the crop year, perhaps in the hope of buying somewhat more heavily at lower prices in later months.

Scandinavian takings were somewhat smaller in August–November this year than last, as had been generally anticipated. Denmark, which in 1934–35 imported a large quantity of feed wheat, imported net 3 million bushels less wheat in August–November 1935 than in the same period of 1934. Norway, with a larger domestic crop this year, imported slightly less than in August–November 1934; and Sweden was a small net exporter of wheat, whereas in the same months of 1934 she ranked as a small net importer.

August–December shipments to *ex-European* countries (including the United States) were larger in 1935 than most preceding post-war years; and they were larger than shipments to all continental European countries combined.

The heavy shipments to ex-Europe were wholly a reflection of the unusual wheat position of the United States. Although from a purely quantitative standpoint domestic wheat supplies in the United States were adequate to cover domestic requirements, there was a shortage of good hard milling wheat and an excessive amount of rusted lightweight grain. This situation was further complicated by the processing tax, which was levied on the number of 60-pound bushels of wheat ground

dian wheats graded under the standards of recent past years and Canadian wheats graded under the new standards effective Aug. 1, 1935. The new standards specify two new grades of wheat, Nos. 1 and 2 Garnet, and reduce the allowance of Garnet wheat in No. 1 Manitoba Northern to a maximum of 1 per cent and in No. 2 Manitoba Northern to a maximum of 3 per cent. Although no specific changes were made with respect to lower grades of Manitobas, it is possible that in the future No. 3 Manitoba will contain less Garnet wheat on the average than has been the case in past years.

rather than on the number of barrels of flour produced. Since more bushels of lightweight wheat are required to make a barrel of flour, the tax unquestionably tended to discourage milling of lightweight grain.

The net result of these factors was an unusual demand for Canadian wheat in the United States. In 1934-35, for the first time in almost a century, the United States was a net importer of wheat for the crop year.¹ Even then, however, United States imports consisted primarily of feed wheat (to make up for deficiencies in feed grain supplies) and of durum wheat. Such imports in July-November 1934 were not large enough to cause the United States to rank as a net importer for the period. In contrast, in July-November 1935, the United States imported net 15 million bushels of wheat—mainly bread wheat of good milling quality, dutiable at 42 cents a bushel.

The figures presented above are for general commerce and probably include some wheat which has gone into bonded warehouses and has not yet been imported for consumption or re-exported. The following tabulation, in million bushels, shows the distribution of imports for consumption in July-November 1934 and 1935:

July-Nov.	Total	For domestic use			For milling in bond for export
		Total	42-cent duty	10 per cent ad valorem	
1934 ...	10.5	5.7	4.5	1.2	4.8
1935 ...	21.6	16.7	12.2	4.5	4.9

The important fact indicated by the tabulation is the large quantity of wheat imported for domestic use in July-November 1935, most of which paid the full duty of 42 cents. While imports of durum and of bread wheats are not separately recorded, there is no question that durum represented most of the wheat imported at full duty in 1934 and little of it in 1935.

¹ See "The World Wheat Situation, 1934-35," WHEAT STUDIES, December 1935, XII, 126-28.

² At least 2 million bushels of the wheat moved east from the Pacific Northwest was bought and shipped by the Federal Surplus Relief Corporation and its successor, the Federal Surplus Commodities Corporation.

³ Data from *Commercial Review* (Portland). Flour here converted to wheat at 4.5 bushels per barrel.

In the Pacific Northwest, wheat prices remained above levels at which significant commercial exports could be made; and government-subsidized exports are not in the picture this year. On the other hand, probably more wheat moved from the Pacific Northwest to eastern domestic markets in July-December 1935 than in the same period of any preceding year. There is little question that this held true for rail shipments east, and for water and rail shipments combined;² but water shipments alone were somewhat larger in July-December 1934. The following tabulation, in million bushels, shows the quantity of wheat and flour shipped from Puget Sound and Columbia River points during July-December, 1934 and 1935, and the average in 1929-33.³

July-Dec.	Total	To domestic ports ^a	To other markets ^b
1929-33	26.9	8.9	18.0
1934	22.9	16.5	6.4
1935	15.4	14.0	1.4

^a California, Atlantic, and Gulf ports.

^b Including the Philippine Islands, Alaska, and Hawaii.

Broomhall's data on shipments to ex-European countries other than the United States show smaller takings in August-December 1935 than in the same period of 1934. The distribution of these shipments is given below for six years, in million bushels:

Aug.-Dec. (21 weeks)	Total ex- U.S.	China and Japan	Central America ^a	Brazil	Egypt	Others ^b	U.S.
1930.....	57.5	21.7	19.1	9.3	3.9	3.5	...
1931.....	76.4	31.8	25.3	14.1	3.3	1.9	...
1932.....	54.2	25.7	14.1	10.7	1.3	2.4	...
1933.....	44.1	13.4	14.6	12.2	1.3	2.6	...
1934 ^c	49.4	22.1	10.8	12.9	1.0	2.6	...
1935.....	40.2	10.5	11.6	13.7	1.4	3.0	19.1

^a Includes Venezuela, West Indies, Dutch East Indies, etc.

^b India, North and South Africa, Chile, Peru, Uruguay, Bolivia, Syria, Palestine, New Zealand.

^c Shipments for 22 weeks minus shipments for the first week.

^d Probably around 5 million bushels. See footnote c to tabulation on p. 203.

The largest reduction from 1934 was in shipments to China and Japan. Import data through October (Table VII) suggest that Manchukuo, particularly, has taken less wheat this year, in reflection of a larger domestic crop. China, in spite of a smaller crop,

has kept imports low, probably largely because of uncertainties and difficulties with respect to foreign exchange.

Other ex-European countries, except Chile and the group in North and South Africa, apparently imported more wheat in the early months of the current crop year. Although Egyptian and Central American takings were larger than in August–December 1934, they were still far below the average for pre-depression and early-depression years. On the other hand, shipments to Brazil were heavier than in any year of the preceding decade except 1931, when the United States Grain Stabilization Corporation was shipping wheat to that country. Whether the large Brazilian takings this year should be considered as indicating heavier consumption of foreign wheat or the building up of stocks is not yet clear.

Sources of exports.—While the international trade position of August–December was not actually “tight” in the sense that importers had reason to be anxious about securing adequate supplies, neither was it notably “easy” as in most other recent years. Export pressure on European markets was practically lacking, and spot wheat commanded substantial premiums over wheat for distant delivery. Australia and Argentina both exported practically all of their old-crop wheat surpluses by the end of their respective crop years; and their carryovers were near minimum levels.

The distribution of August–December shipments by sources is shown below, with comparisons, in million bushels:

Aug.-Dec. (21 weeks)	North America	Argen- tina	Aus- tralia	Russia	Danube	Others
1930.....	167	18	30	74	20	12
1931.....	142	30	36	65	40	9
1932.....	151	18	35	15	4	12
1933.....	97	37	32	18	16	9
1934 ^a	75 ^b	70	41	2	8	14
1935.....	86	39	36	24	12	8

^a Shipments for 22 weeks minus shipments for the first week.

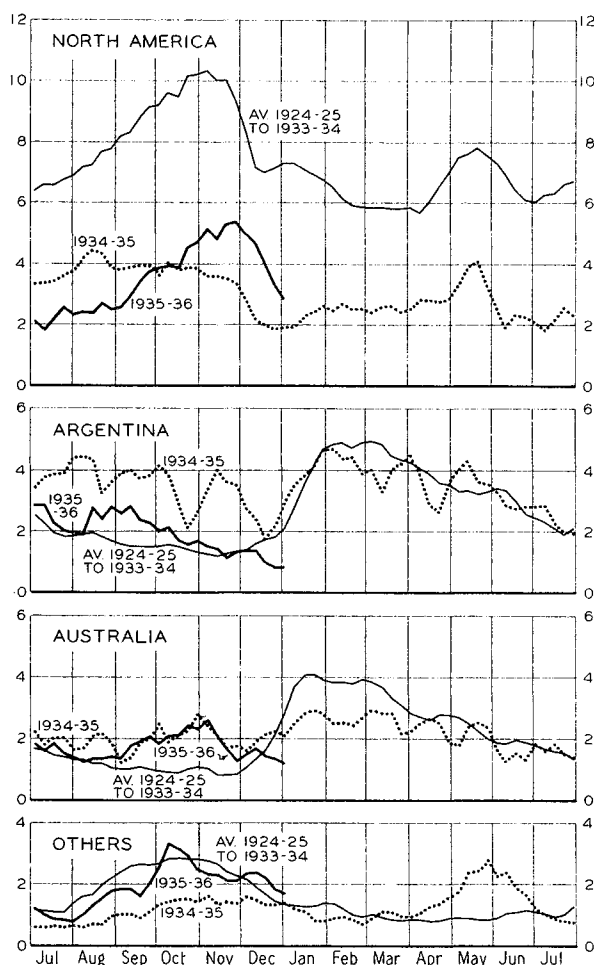
^b Too small, perhaps by as much as 5 million bushels (see footnote c to tabulation on p. 203).

Although North American and Danubian shipments were larger in August–December this year than last, they still were notably

low as compared with most other years of the preceding decade, and with the average for 1924–33 (Chart 8). On the other hand, during the same period shipments from Australia and Argentina were smaller in 1935 than in 1934; yet they appear high or moderately high in comparison with earlier years. Russia and other minor exporting countries con-

CHART 8.—SHIPMENTS BY SOURCES, WEEKLY FROM JULY 1935, WITH COMPARISONS*

(Million bushels; 3-week moving average)



* See Table VI.

tributed 16 per cent of the wheat shipments of August–December 1935, a fraction larger than usual.

The Canadian Wheat Board and Mr. McFarland doubtless played a part in influencing the course and volume of North Ameri-

can and world wheat shipments in August–December (see p. 201). Had the old board adopted a more liberal selling policy during August 15–December 4, spot wheat would not have commanded such heavy premiums over wheat for distant delivery; European millers and importers would have had less incentive to buy wheat sparingly; and Canadian and world exports would probably have been somewhat larger than they were.

On the other hand, since the European import demand would have been small in any event, and since uncertainty as to the comparative milling value of the different grades of Canadian wheats would have prevailed anyway, Canadian exports probably would not have been strikingly larger in August–December, even if the old board had followed a more liberal sales policy. In the absence of heavy price concessions, wheat consumption in importing countries would presumably have been but little different; and although Canada would have exported somewhat more wheat, this would probably have gone mainly to build wheat stocks up to more normal levels in European importing countries, and perhaps also to a higher level in the United States. Russia and other minor exporting countries might have exported a little less wheat if prices had not bulged as they did in September–October (Chart 3, p. 191), but the reduction in these exports would necessarily have been small.

At 121 million bushels in August–December, Canadian net exports were heavier in relation to world trade during the same period, and also heavier as compared with Canadian exports in August–December 1934, than Broomhall's shipment data suggest. The difference, however, is to be accounted for partly by the greater increase in Canadian wheat stocks in the United States during August–December 1935. This may be seen from the following tabulation, in million bushels:

	Aug.–Dec. 1934	Aug.–Dec. 1935
Canadian net exports.....	99	121
Increase in Canadian stocks in U.S.	18	24
Difference	81	97
North American shipments (21 weeks)	75	86

December gross exports from Canada (19 million bushels) were slightly larger than in the same month of 1934, but smaller than in most pre-depression years. The larger sales reported to have been made during December 5–31 by the new Canadian Wheat Board (considerably over 43 million bushels) went only partly to increase December exports and shipments. The remainder will show up mainly in shipments made during the winter months, though some probably not until after the opening of navigation in the spring. For the first time in several years, Canadian wheat has in December–January been sold in substantial quantity for shipment in the spring months.

OUTLOOK FOR TRADE

In mid-September we expressed general agreement with Broomhall's forecast of 540 million bushels for international shipments in 1935–36, and expressed the opinion that net exports would probably approximate 560 million bushels. Now, in view of a net upward revision of about 20 million bushels in the crop estimate for importing Europe (excluding Poland) and partly on the basis of trade developments through December, we reduce our earlier forecast by 15 million bushels. Although the higher September figures may still be reached, it now seems more reasonable to regard 525 million bushels as the center of a range for probable world shipments and 545 million bushels as the center of a range for probable net exports.

During August–December (21 weeks) Broomhall's reported shipments to European countries totaled 148 million bushels. In view of price developments during this period and the position of European stocks on January 1, it seems probable that shipments to Europe during January–July will be somewhat heavier than usual in relation to shipments during August–December. Over the past thirteen years, shipments to Europe in August–December have accounted for less than 40.5 per cent of the crop-year (52 weeks) total in only three years. If we assume that 1935–36 will also be exceptional in this respect, and if we take shipments to Europe in August–December 1935 as roughly equal

to 40 per cent, the total for the crop year seems likely to be around 370 million bushels.

Analysis of the probable *net imports* of individual European countries suggests that the net imports of all European net-importing countries may approximate 360–365 million bushels during 1935–36, in contrast with 376 million last year. With allowance for net exports of around 7 million bushels from Poland and the Baltic countries, we estimate the net imports of Europe (ex-Danube and ex-Russia) at 355 million bushels in 1935–36 as compared with reported net imports of 350 million bushels in 1934–35. Our present forecast allows for appreciable reductions from 1934–35 in the net imports of a number of countries, including Denmark, Germany, Italy, and Greece. Such reductions, however, are likely to be more than offset by slight increases in the takings of several other countries (chief of which is the British Isles) and by prospective shift in the trade position of France. In 1934–35 France exported net almost 18 million bushels of wheat; we anticipate that in 1935–36 she will rank as a small net importer.¹

Reported shipments to ex-European countries other than the United States amounted to approximately 40 million bushels in August–December (21 weeks). In these countries, as in Europe, importers probably bought sparingly in August–December this year, so that shipments in the remaining months of 1935–36 may be expected to represent an

unusually large proportion of the crop-year total. Since 1922–23 January–July shipments to ex-European countries have represented from 53.6 to 69.5 per cent of the total for the crop year, with the median approximately 64 per cent. If we assume that this year the proportion will be in the neighborhood of 65 per cent, the crop-year total for ex-European countries other than the United States may be forecast at 115 million bushels.

The basis for forecasting shipments to the United States is decidedly tenuous. Broomhall reported shipments of wheat to the United States in only one preceding year, 1934–35; and data on the seasonal distribution of shipments in that year are of doubtful value for predicting trade developments in 1935–36. Moreover, since the trade position of the United States in 1935–36 is practically without precedent, one cannot foresee (except within fairly wide limits) what relationship will prevail between Broomhall's shipments to the United States, on the one hand, and either United States net imports in general trade or duty-paid imports into domestic consumption, on the other hand.

Under such circumstances, our forecast of total shipments to the United States in 1935–36 must rest mainly upon evidence as to the size of these shipments in August–December 1935 and upon reasoning as to the likelihood of larger or smaller weekly shipments in January–July 1936. During August–December (21 weeks) Broomhall reported shipments to the United States of 19.1 million bushels, an average of .9 million bushels weekly. For the remaining months of the crop year there seems to be more reason to expect a lighter than a heavier weekly movement, but how much lighter is not definitely determinable. The Supreme Court decision voiding the processing taxes and the results of experiments with milling lightweight wheat in August–December both point toward the probability of proportionally heavier milling of lightweight domestic wheat in January–July. Moreover, if the hard winter-wheat crop of 1936 should prove to be of large size and of good quality, imports of Canadian wheat would presumably fall off significantly in July. We roughly allow for the probable in-

¹In 1934–35 France imported about 20 million bushels of wheat from northern Africa, 10 million bushels (probably mainly in temporary admission) from other countries, and exported a total of 48 million bushels, largely through government subsidy. This year again, imports from northern Africa may be expected to approximate 20 million bushels and imports from other foreign countries may approximate 10 million. If it be assumed that 20 million bushels of French wheat will be exported by the government (a figure now talked of) and that additional exports of around 10 million bushels may be made to offset imports from foreign countries, France would be neither a net importer nor a net exporter in 1935–36. In view of the difficulties that may be encountered in exporting the planned amount of French wheat, and in view of the fact that the French crop of 1936 appears to have had a bad start, we believe it more likely that France will be a small net importer in 1935–36 than that she will again rank as a net exporter. Much may depend on whether the new French crop is harvested early or late.

fluence of these several factors by forecasting average weekly shipments to the United States in January-July at around .7 million bushels. This suggests shipments of 40 million bushels to the United States in 1935-36 as compared with 11 million in 1934-35. If shipments to the United States are around 40 million bushels, and if shipments to other ex-European countries approximate 115 million, the total will be in the neighborhood of 155 million bushels.

We summarize below our trade forecasts for 1935-36, in million bushels, in comparison with reported trade figures for several years and with standing forecasts by Broomhall and the International Institute of Agriculture.

August-July	Total net ex-ports	Euro-pean net im-ports ^a	Shipments		
			Total	To Europe	To ex-Europe
1930-31	836	609	787	608	179
1931-32	794	606	770	582	188
1932-33	629	441	615	449	166
1933-34	553	386	524	402	122
1934-35	532	350	516 ^b	373 ^b	144 ^b
Forecast 1935-36					
Broomhall, Jan. ...	...	...	540	396	144
I.I.A., Oct.	540	350 ^c	...	...	...
F.R.I., Sept.	560	...	540	...	...
F.R.I., Jan.	545	355	525	370	155

^a Net imports of net-importing countries minus net exports of net-exporting countries, excluding Russia and the four Danube exporting countries. The U.S. Department of Agriculture has recently revised their October forecast of European net imports in July-June to 372 million bushels. This implies a forecast of net exports of 545 million bushels in July-June 1935-36.

^b Shipments during the last 52 of the 53 weeks reported by Broomhall.

^c The International Institute estimate of 355 million bushels for the net imports of net-importing countries (not deducting net exports of Poland or Lithuania) is here adjusted to compare with other figures in the column by deducting 5 million bushels for the net exports of Poland and Lithuania.

Sources of exports.—If net exports should total 545 million bushels in 1935-36, and if standing crop estimates are fairly accurate, it seems reasonable to anticipate that Australia and Argentina will ship wheat freely during January-July, reducing their stocks to low or moderately low levels as of August 1, 1936; that the Danube and northern African countries together will export net about 45

million bushels; and that Russia and other minor exporters combined may supply a similar aggregate amount. Under such circumstances, Canada would be called upon to export net approximately 275 million bushels.

We summarize below our present forecast of net exports in 1935-36, in comparison with our September forecast, and with reported trade figures for last year.

Country	Reported 1934-35	Sept. forecast 1935-36	Jan. forecast 1935-36
Canada	165	270+	275
Argentina	182	200—	{ 65 115
Australia	109		
USSR	2	30-40	35
Danube ^a	22	20-30	25
Northern Africa ^b ..	24	20	20
Others ^c	28	10	10
Total	532	560	545

^a Hungary, Rumania, Bulgaria, Yugoslavia.

^b Algeria, Tunis, Morocco.

^c Poland, India, the Baltic countries, Spain, Chile, Sweden, France, Uruguay, Turkey, in years in which these countries were net exporters.

Our present forecast differs little from that published in September. The principal change, aside from reduction in the estimated total, is the decrease in prospective exports from the two Southern Hemisphere countries. Actually, the decrease indicated is more apparent than real, for in September we placed 200 million bushels as a *maximum* from these countries, whereas now, in presenting a definite forecast of Argentine and Australian exports, we suggest 180 million bushels as the center of a range. Similarly, in September we looked upon Canadian net exports of 270 million bushels as the *bottom* of a possible range; now we appraise the *center* at 275 million bushels.

Except as regards Canada and the Danube countries, the differences indicated between the net exports reported in 1934-35 and the net exports in prospect for 1935-36 primarily reflect changes in crop-year supplies. In fact, it seems probable that most exporting countries will draw more heavily on their available supplies during 1935-36 than in 1934-35. With a reduction of 159 million bushels in the estimated total supplies of Argentina and Australia, we count on a reduction of only 111

million bushels in their net exports (Table IX). Similarly, although aggregate wheat supplies in Algeria, Tunis, and Morocco now appear to have been reduced 15 million bushels between 1934-35 and 1935-36, we anticipate a considerably smaller reduction in net exports.

On the other hand, Danubian net exports will probably be slightly larger this year than last, reflecting considerably larger wheat supplies and special trade agreements with certain European importing countries.¹ In forecasting the net exports of these countries at 25 million bushels, rather than at a larger figure, we give some weight to the smaller Danubian corn harvest of 1935 and to trade developments during August-November.

The large reduction from 1934-35 in prospective net exports from "other" countries primarily reflects anticipated withdrawal of France and Sweden from the ranks of net exporters this year (see p. 209).

At 275 million bushels, the forecast of Canadian net exports appears strikingly high, not only as compared with reported trade in 1934-35, but also with net exports in August-December 1935. Through December, Canada had exported net only 121 million bushels of wheat and part of this had gone to build up stocks in the United States. Over the past decade August-December net exports from Canada have represented on the average about 54.5 per cent of the crop-year total. If this average percentage should hold this year, Canadian net exports would amount to only 222 million bushels. Our present forecast, on the other hand, suggests that net exports in August-December 1935 will later prove to have represented only 44.0 per cent of the total for the crop year. This percentage would be unprecedentedly low for postwar years, the lowest corresponding figure being 47.8 per cent in 1929-30.

What the actual crop-year total for Canada will be, will depend mainly upon the world demand and the wheat supplies available in other exporting countries; but in some degree also upon the selling policy of the Canadian Wheat Board. If the board continues to fol-

low its sales policy of recent weeks, and if the world demand and the distribution of exportable supplies prove to be in line with our present expectations, it seems entirely possible — even probable — that Canada will export net around 154 million bushels in January-July, bringing the crop-year total to 275 million. Although net exports of this size in January-July would be large in comparison with most preceding postwar years, they would not be the largest on record. In 1924, 1928, and 1929, Canadian net exports during January-July totaled 156, 170, and 163 million bushels, respectively.

OUTLOOK FOR STOCKS AND CONSUMPTION

The outlook for year-end stocks on August 1, 1936, rests not only upon standing crop estimates and current appraisal of prospective trade developments in 1935-36, but also upon appraisal of the probable level of wheat consumption in important consuming areas. Although little factual information is available with respect to consumption, there is fair basis for predicting the probable direction (if not the magnitude) of change in consumption in those countries where a fairly large change is likely to occur.

As compared with 1934-35, wheat consumption seems likely to be increased substantially in 1935-36 in North America, and more or less in Czechoslovakia, Italy, and the Danube basin. The prospective increase in North America rests mainly upon the large amount of lightweight grain in the 1935 spring-wheat crops of both Canada and the United States. As a result of this factor, more wheat will be required in milling, and more will be lost in cleaning and fed to livestock (see Table IX). In addition, the total area seeded to wheat and consequently the amount of wheat used for seed seems likely to be larger this year than last, certainly in the United States. In Italy, Czechoslovakia, and the Danube basin, heavier wheat disappearance seems to be indicated this year, mainly because consumption fell so low in 1934-35 under the joint influence of small domestic wheat crops, bountiful harvests of corn, and insuperable barriers against wheat imports. This year, domestic wheat supplies are much larger and corn supplies

¹ See *World Wheat Prospects*, Sept. 26, 1935, pp. 14-15.

considerably smaller. In these countries and North America combined, wheat disappearance in 1935-36 may exceed the total for 1934-35 by something like 65-95 million bushels.

On the other hand, less wheat will probably be used for feed this year in Denmark, France,¹ and the British Isles; and wheat consumption for food may be reduced in Spain, where the 1935 crop was substantially smaller than the one harvested in 1934. However, reduction of consumption in these and other countries and increase in Russian exports cannot be expected fully to offset the prospective large increase in consumption in North America, Czechoslovakia, Italy, and the Danube basin. The *net* increase in wheat disappearance in the world ex-Russia in 1935-36 as compared with 1934-35 now seems likely to approach 50 million bushels (see tabulation, p. 186).

Our present forecast of total year-end stocks, based upon appraisal of consumption and trade in individual countries, remains unchanged at 625 million bushels, the figure suggested in September. The distribution of these stocks according to position, however, is now more clearly indicated than when our earlier forecast was published. The accompanying tabulation, in million bushels, shows our present forecast of stocks as of about August 1, 1936, in comparison with our September appraisal and with estimated or reported August 1 stocks figures for 1935 and on the average in 1923-27.

Our present forecast indicates a reduction in year-end stocks between 1935 and 1936 of approximately 265 million bushels, roughly 45 million bushels more than the reduction in available crop-year supplies in the world ex-Russia (see p. 186). Such a decrease would leave "total" stocks at the end of the current crop year at an approximately normal level. Nevertheless, in Canada (where the largest reduction seems to be indicated) and in sev-

eral countries of importing Europe (where the aggregate reduction is also likely to be heavy), year-end stocks will presumably continue to rule above any pre-depression average.² In most other countries, stocks as of August 1, 1936, are likely to be near minimum or average levels.

Position	Aug. 1 1923-27 (average)	Aug. 1 1935 (revised)	Aug. 1, 1936	
			Sept. est.	Jan. est.
United States ^a . . .	125	152	125	{ 125
U.S. in Canada ^a . . .	1	0		{ 0
Canada	38	203	180	{ 90
Canada in U.S. . . .	3	12		{ 10
Argentina	65	80		{ 60
Australia	31	55		{ 30
Afloat to Europe . .	40	17	25	25
Total above . . .	303	519	330	340
Importing Europe	187	280	210	205
Danube basin ^b . . .	37	20	25	20
Northern Africa ^c .	19	24	60	{ 10
India and Japan . .	53	38		{ 40
Afloat to ex-Europe	7	11		{ 10
Total above . . .	303	373	295	285
Grand total . . .	606	892	625	625

^a As of July 1.

^b Hungary, Rumania, Yugoslavia, Bulgaria.

^c Algeria, Tunis, Morocco, Egypt.

The indicated reductions in year-end stocks in the United States, Canada, Argentina, and Australia can be understood better in the light of the information on wheat supplies and disposition presented in Table IX. If standing estimates of Southern Hemisphere crops and stocks are reasonably accurate, net exports of 65 and 115 million bushels in 1935-36 from Argentina and Australia respectively will leave stocks in those countries on August 1, 1936, at about the average level in 1923-27. Under exceptionally favorable price conditions these stocks could be drawn down even further, perhaps by 10 million bushels or more in the aggregate.

The suggested level of Canadian stocks on August 1 rests largely on our forecast of Canadian net exports at 275 million bushels. Should world trade in wheat not reach the level we have indicated in the preceding section, or should other exporting countries supply larger exports than we now anticipate,

¹ A decrease seems probable in France, in spite of provision late in November for a bounty of 54 cents per bushel for denatured wheat. See *World Wheat Prospects*, Dec. 30, 1935.

² In importing Europe, stocks seem likely to be relatively high particularly in Spain and Germany.

Canadian net exports would be smaller and Canadian stocks less strikingly reduced. On the other hand, if opposite trade conditions should prevail, and if the Canadian Wheat Board should pursue a vigorous selling policy, these stocks might be drawn down somewhat closer to a normal level.

Despite near-record low domestic wheat supplies and prospective heavy wheat consumption in the United States in 1935-36, the United States carryover as of July 1 seems unlikely to stand as low in 1936 as in several preceding postwar years. While the outlook for the carryover is still far from clear, owing particularly to uncertainties as to the amount of wheat likely to be used for feed, we are of the opinion that year-end stocks in the United States will probably approximate 125 million bushels.¹ This forecast rests upon prospective feed use of around 90 million bushels,² domestic mill grindings of 484 million bushels (reflecting not only low flour yield from lightweight grain, but also some slight increase in consumption as a result of elimination of the processing tax), and an allowance of 30 million bushels for net wheat imports (Table IX, A).

OUTLOOK FOR PRICES

Liverpool May future.—In the absence of marked change in the policy of the Canadian Wheat Board, the Liverpool May future, which in the third week of January averaged 95 cents per bushel, seems most likely to remain in or near the range 95-100 cents per bushel through March. Thereafter clarification of prospects for the coming Northern Hemisphere crop will dominate its movements. What these prospects may be is now unpredictable; it is pertinent only to observe that at a level near \$1.00 a bushel the price will be more sensitive to developing crop prospects than in any year since 1928.

The mid-January level, reached after a moderate rise in December following a long

decline from early October to mid-November, appeared not to rest upon a speculative boom, and the position was therefore not very vulnerable. The supply position for the crop year has been clarified. Crop scares are rare in February-March; the sensitive Chicago market is not this year in a position to lead an ill-founded speculative advance; and bullish political and monetary developments seem not to be in prospect. Hence neither a large advance nor a large decline in the Liverpool May seems probable.

Within the prospective narrow range of price fluctuations, the operations of the Canadian Wheat Board, and perhaps of the Argentine Grain Board, may well be the determining factor. In a crop year wherein total export surpluses only slightly exceed import requirements, these two boards—especially the Canadian—control the bulk of the world export surplus. The extent of control is not measurable, but is more clearly perceptible than it was in August-November, when crop outturn and export contributions from other countries were less readily appraised. The Canadian board cannot wholly ignore pressure from farmers to secure prices as high as possible, and it must seek to uphold prices so as to reduce drain on the national treasury; but it must also allow enough wheat to be exported to reduce the outward carryover to proportions much below those of the carryover on July 31, 1935, so as to hold limited stocks to sell in competition with the 1936 crop.

The alternatives before the board and its opportunities alike suggest to us that a level of the Winnipeg future of about 88 cents (Canadian) may serve to satisfy the opinions of governmental and trade interests in Canada, probably also those of British importers; agricultural interests in Canada apparently desire a somewhat higher level. The board has been in nearly absolute control of the Winnipeg May future for over a month, during which the price has seemed satisfactorily to equate the various domestic pressures upon the board; the price seems to be within the powers of the board to maintain, and for the near future not too high to prevent a heavy flow of wheat to export.

¹ What the quality of the wheat in such a low carryover will be is not now predictable.

² Nat C. Murray's estimate of the amount of wheat likely to be fed in 1935-36 is 94 million bushels. See Clement Curtis and Co., *Monthly Grain and Cotton Report*, Dec. 10, 1935.

Accordingly, unless within the next two months evidence appears that 1935 crops are now underappraised, there is reasonable probability that a level of about 88 cents (Canadian) for the Winnipeg May future can and will be maintained. If agrarian pressure increases, there may be a slight rise. If the level is maintained, Winnipeg cash prices—now below the May—will rise somewhat as the delivery month approaches.

Such developments as these seem to involve some advance in the Liverpool May future. Cash wheat at Liverpool now stands at a premium over the May future, cash wheat at Winnipeg at a discount under the May. If the Winnipeg May future remains about stable and Winnipeg cash tends to rise, then Liverpool cash (though not the same wheat as that on which the Winnipeg future is based) is likely also to rise, and the Liverpool May must tend to rise still more. But, barring developments which might enable the Canadian Wheat Board to advance the Winnipeg May future, the rise of the May at Liverpool seems unlikely to amount to as much as 10 cents by the end of March.

Spreads between markets, May futures.—It follows that the Winnipeg–Liverpool spread on May futures may widen by late March, still more by early May. However, vigorous price support by the Canadian Wheat Board, if undertaken, would tend to narrow this spread.

The Minneapolis–Winnipeg spread (May futures) may widen also, since cash wheat now stands at a discount in Winnipeg but at a premium in Minneapolis, and maintenance of about the existing cash-wheat spread seems necessary in order to maintain a flow of duty-paid Canadian wheat into the United States. We take it that the existing supply position in the United States warrants continuation of these imports.

There appears to be no good basis for anticipating prospective change in the Minneapolis–Liverpool spread. Both Minneapolis and Liverpool may tend to rise in relation to Winnipeg, perhaps by nearly the same amounts. If so, there would be no appreciable change in the Minneapolis–Liverpool relationship.

Price relations of Chicago with other mar-

kets are subject to opposing sets of influences. On the one hand, prospects for a substantial exportable surplus from the 1936 crop in the United States tend to depress the Chicago July future relative to the Liverpool May. There is in prospect also (for reasons noted below) a tendency for Chicago May to decline relative to July. If these were the only influences at work, one might expect the Chicago–Liverpool spread (May futures) to narrow sharply.

An opposite conclusion may be reached from analysis of connections between cash wheats in the different markets and the necessary relations of the May futures to cash prices.

The Minneapolis–Chicago spread (May futures) may tend to narrow somewhat, with further reduction in the premium now held by Minneapolis. At both markets, deliverable grades of cash wheat now stand at premiums over the futures. If millers succeed in making adaptations whereby use of soft red winter wheat (deliverable at Chicago) is enlarged relatively more than use of hard red spring wheat (deliverable at Minneapolis), cash and futures at Chicago may tend to rise in relation to cash and futures at Minneapolis. With the processing tax removed, lightweight United States spring wheat may be milled more freely, tending also to ease premiums on deliverable wheat of this class. If on the whole the Chicago May future tends to rise in relation to Minneapolis, it will probably rise also in relation to Winnipeg, and by more than its rise in relation to Minneapolis because Minneapolis may rise independently in relation to Winnipeg.

On this line of reasoning, the Chicago–Liverpool spread on the May futures (premium of Chicago over Liverpool) seems somewhat more likely to tend to widen than to narrow. For although Liverpool may go to a higher premium over Winnipeg, so also may Minneapolis; and Chicago may advance more than Minneapolis in relation to Winnipeg.

Of these conflicting forces bearing on the prices of Chicago futures, those tending to support the price of May wheat, and consequently of July, will tend to diminish in strength from about the first of March, while the depressing influence of prospects of an

exportable surplus will gain strength with advancing spring (given a continuation of the prospects). It seems a reasonable inference that Chicago futures may tend to maintain or improve their position relative to Liverpool until about March and then to decline relatively. Since the price-supporting influences bear more particularly on Minneapolis than on Chicago futures, the conflict of forces may widen that spread in spite of the factors noted above as tending to narrow it.

Old-crop and new-crop futures at Chicago. Prospects for a July 1 carryover of 125 million bushels in the United States suggest that the May-July spread at Chicago should tend toward a range of 5-7 cents; and that July wheat should rule only fractionally above September. Uncertainties in anticipation of the carryover are considerable, however, and if it should prove only 100-110 million bushels (a result that would be favored by relative

weakness in United States prices, curtailing imports) the May-July spread might tend toward a level of around 14 cents, and the July-September toward about 2 cents. Given such short supplies as exist this year, prospects of a squeeze or corner, and secondary factors that discourage carrying of stocks or favor it in the face of a reversed "carrying charge," might influence these spreads strongly. We know of no grounds for predicting a squeeze or corner in Chicago May wheat; and we appraise other influences as more likely to favor narrower spreads than those suggested above rather than wider spreads, at least by May. The conflict, mentioned above, between forces bearing especially on the May futures and those bearing more particularly on new-crop futures may tend for some weeks to keep the May-July spread rather wide. Considerable fluctuation in the spread is likely.

This study is by M. K. Bennett, Helen C. Farnsworth, and Holbrook Working, with advice from Joseph S. Davis and Alonzo E. Taylor. Tables by Rosamond Peirce, charts by P. Stanley King

APPENDIX

TABLE I.—WHEAT PRODUCTION IN PRINCIPAL PRODUCING AREAS AND COUNTRIES, 1930-35*
(Million bushels)

Year	World ex-Russia ^a	Northern Hemisphere ex-Russia ^a	Four chief exporters	United States			Canada	Australia	Argentina	USSR	Lower Danube ^b	Other Europe	North-ern Africa ^c	India
				Total	Winter	Spring								
1930.....	3,705	3,214	1,757	890	631	258	421	214	232	989	353	1,006	64	391
1931.....	3,669	3,206	1,664	932	818	114	321	191	220	753	370	1,064	69	347
1932.....	3,703	3,193	1,644	746	478	267	443	214	241	744	222	1,269	75	337
1933.....	3,616	3,082	1,274	529	351	178	282	177	286	1,019	367	1,379	70	353
1934.....	3,308	2,872	1,147	497	406	91	276	133	241	1,117	249	1,297	97	351
1935 ^d	3,291	2,957	1,161	595	432	163	291	135	140	.....	289	1,240	68	363
1935 ^e	3,316	2,968	1,164	603	433	170	277	140	144	.....	291	1,254	68	363

Year	Hungary	Yugoslavia	Rumania	Bulgaria	Morocco	Algeria	Tunis	Egypt	British Isles	France	Germany	Italy	Belgium ^f	Netherlands
1930.....	84.3	80.3	130.8	57.3	21.3	32.4	10.4	39.8	43.4	228.1	139.2	210.1	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	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	298.5	16.1	15.3
1934.....	64.8	68.3	76.6	39.6	39.6	43.5	13.8	37.3	73.6	338.5	166.5	233.1	17.3	18.0
1935 ^d	74.0	68.0	97.4	49.6	17.8	32.4	17.3	43.1	66.1	275.0	171.2	280.6	14.6	15.7
1935 ^e	73.9	73.1	96.4	47.9	20.0	31.2	17.3	43.2	68.7	278.8	171.8	283.5	14.8	15.9

Year	Scandinavia ^g	Baltic states ^h	Spain	Portugal	Switzerland	Austria	Czechoslovakia	Poland	Greece	Mexico	Japan, Chosen	South Africa	Chile, Uruguay	New Zealand
1930.....	31.8	15.6	146.7	13.5	3.60	12.0	50.6	82.3	9.7	11.4	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	23.8	4.00	12.2	53.7	49.5	17.1	9.7	39.9	10.6	34.2	11.06
1933.....	41.7	19.8	138.2	16.0	4.96	14.6	72.9	79.9	28.4	12.1	49.3	11.8	50.0	9.04
1934.....	42.4	24.9	186.8	24.7	5.34	13.3	50.0	76.4	25.7	11.0	56.9	15.3	39.8	6.50
1935 ^d	37.5	21.4	149.5	15.9	5.82	15.4	59.4	80.8	30.9	10.6	58.0	15.0	....	....
1935 ^e	40.3	22.1	153.9	15.9	5.82	15.6	62.1	73.4	30.9	10.3	57.7	17.9	....	....

* 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.

^a Excluding also China and southwestern Asia.

^b Hungary, Yugoslavia, Rumania, Bulgaria.

^c Morocco, Algeria, Tunis.

^d As of about September 15, 1935.

^e As of about January 15, 1936.

^f Including Luxemburg.

^g Denmark, Norway, Sweden.

^h Finland, Latvia, Estonia, Lithuania.

TABLE II.—WHEAT RECEIPTS IN NORTH AMERICA, MONTHLY, JULY-DECEMBER, 1930-35*
(Million bushels)

Year	United States (13 primary markets)							Canada (country elevators and platform loadings)						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	July-Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Aug.-Dec.
1930.....	99.0	85.5	62.6	28.9	24.6	21.5	322.1	3.0	21.2	105.1	53.8	52.4	17.3	249.8
1931.....	104.0	61.5	38.9	32.7	26.4	13.8	277.3	5.4	11.9	47.4	74.1	43.1	19.7	196.2
1932.....	41.0	40.7	38.4	27.2	17.6	13.9	178.8	3.8	17.6	120.5	82.7	36.5	18.5	275.8
1933.....	37.2	26.7	22.6	17.6	11.6	11.2	126.9	10.5	25.6	55.6	46.4	23.0	10.3	160.9
1934.....	49.7	23.0	19.1	12.9	9.2	7.8	121.7	10.9	30.8	55.6	50.8	23.6	12.5	173.3
1935.....	28.9	48.2	42.3	27.9	14.5	9.9	171.7	13.3	12.5	73.2	60.0	21.0	14.2	180.9

* 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.

TABLE III.—WHEAT VISIBLE SUPPLIES, SEPTEMBER–JANUARY 1935–36, WITH COMPARISONS*

(Million bushels)

Date	Total	United States grain		Canadian grain		Total North America	Afloat to Europe	U.K. ports	Total U.K. and afloat	Australia	Argentina
		United States	Canada	Canada	United States						
Aug. 1 1930.....	357.7	161.9	4.0	89.5	16.1	271.5	39.2	6.5	45.7	33.5	7.0
1931.....	447.8	233.6	22.9	105.8	5.5	367.8	37.9	10.6	48.5	24.5	7.0
1932.....	385.5	175.9	15.4	116.8	4.7	312.8	31.4	9.1	40.5	26.0	6.2
1933.....	423.2	135.0	3.7	190.4	6.7	335.8	31.6	11.4	43.0	31.5	12.9
1934.....	423.2	115.9	.0	177.6	9.8	303.3	34.8	13.6	48.4	52.0	19.5
1935.....	302.2	34.7	.0	186.8	10.5	232.0	16.9	8.8	25.7	32.0	12.5
Jan. 1 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	13.6	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.....	448.4	91.0	1.0	230.2	27.6	349.8	25.4	16.7	42.1	45.5	11.0
1936.....	441.5	76.7	.0	226.4	34.8	337.9	20.2	10.3	30.5	68.0	5.1
1935											
Sept. 7.....	321.3	65.5	.0	179.3	17.9	262.7	19.1	7.3	26.4	21.5	10.7
14.....	333.3	71.5	.0	188.1	17.8	277.4	18.8	7.9	26.7	18.5	10.7
21.....	353.0	75.6	.0	201.1	19.8	296.5	23.6	7.2	30.8	15.8	9.9
28.....	366.1	79.7	.0	213.2	20.6	313.5	23.9	5.9	29.8	13.2	9.6
Oct. 5.....	380.4	82.1	.0	224.2	21.5	327.8	26.2	5.8	32.0	11.8	8.8
12.....	393.7	84.0	.0	231.7	24.2	339.9	27.2	5.9	33.1	12.2	8.5
19.....	397.9	82.9	.0	233.8	27.7	344.4	27.4	6.8	34.2	11.2	8.1
26.....	404.6	85.2	.0	236.2	29.9	351.3	27.8	6.7	34.5	10.7	8.1
Nov. 2.....	409.1	84.3	.0	239.4	32.1	355.8	28.7	6.2	34.9	10.7	7.7
9.....	404.6	84.5	.0	237.2	31.9	353.6	27.2	6.4	33.6	10.0	7.4
16.....	395.0	82.6	.0	234.8	32.7	350.1	27.4	6.5	33.9	4.0	7.0
23.....	389.1	82.2	.0	233.9	30.4	346.5	26.2	7.2	33.4	3.0	6.2
30.....	396.6	81.2	.0	232.3	32.8	346.3	26.8	8.8	35.6	8.5	6.2
Dec. 7.....	403.7	81.1	.0	227.3	39.2	347.6	25.8	9.2	35.0	15.2	5.9
14.....	415.0	79.7	.0	228.1	39.3	347.1	25.4	10.1	35.5	27.3	5.2
21.....	425.9	79.2	.0	228.3	36.5	344.0	24.0	11.0	35.0	41.7	5.2
28.....	435.2	78.4	.0	226.5	35.3	340.2	20.9	10.8	31.7	58.5	4.8
1936											
Jan. 4.....	441.5	76.7	.0	226.4	34.8	337.9	20.2	10.3	30.5	68.0	5.1
11.....	.....	74.3	.0	224.5	32.4	331.2	20.5	....	....	72.0	5.5
18.....	.....	72.7	.0	221.7	31.2	325.6	22.8	....	....	77.0	5.7

* Commercial Stocks of Grain in Store in Principal United States Markets; Canadian Grain Statistics; Corn Trade News.

TABLE IV.—UNITED STATES FLOUR PRODUCTION, EXPORTS, AND NET RETENTION, MONTHLY, JULY–DECEMBER 1935, WITH COMPARISONS*

(Thousand barrels)

Month or period	Production						Net exports and shipments to possessions			Estimated net retention		
	All reporting mills			Estimated total								
	1933	1934	1935	1933	1934	1935	1933	1934	1935	1933	1934	1935
July	8,275	7,325	7,387	8,875	7,868	7,933	337	322	297	8,538	7,546	7,637
Aug.	6,719	8,654	8,082	7,225	9,278	8,670	416	486	315	6,809	8,792	8,356
Sept.	7,540	8,822	9,055	8,096	9,455	9,702	362	489	314	7,734	8,966	9,388
Oct.	8,181	9,181	9,897	8,776	9,836	10,595	352	434	356	8,424	9,402	10,239
Nov.	8,116	8,211	8,274 ^a	8,706	8,807	8,874 ^a	338	432	362	8,368	8,375	8,512 ^a
Dec.	7,332	7,547	.....	7,875	8,103	7,900 ^a	428	354	...	7,447	7,749	7,540 ^a
July-Dec. ...	46,163	49,740	.....	49,553	53,347	53,674 ^a	2,233	2,517	...	47,320	50,830	51,672 ^a
July-June ^b ..	94,176	96,613	.....	101,068	103,654	.....	4,451	4,509	...	96,617	99,145	103,000 ^c

* 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; the preliminary estimates for December 1935 are based on production reported to the *Northwestern Miller*. Estimates now undergoing revision.

^a Preliminary.^b Twelve months beginning in year stated.^c Predicted.

TABLE V.—SELECTED WHEAT PRICES, WEEKLY FROM SEPTEMBER 1935*

(U.S. cents per bushel)

Week ending	Futures							United States cash					
	Liverpool		Winnipeg		Buenos Aires	Chicago		Basic cash (Chl.)	No. 2 H.W. (K. C.)	No. 2 R.W. (St. L.)	No. 1 Dk.N.S. (Mnpls.)	No. 2 Hd.A.D. (Mnpls.)	Western White (Seattle)
	Dec.	May ^a	Dec.	May	Dec. ^b	Dec.	May						
1935													
Sept. 7.....	83	81	85	89 ^c	67	92	94	91	112	93	129	108	75
14.....	88	87	89	92	72	93	94	95	113	98	131	112	76
21.....	94	91	93	97	80	99	100	100	117	107	136	113	83
28.....	91	88	90	94	77	98	98	101	118	105	136	113	82
Oct. 5.....	96	92	93	97	80	105	104	109	122	110	137	116	88
12.....	95	91	92	95	78	105	104	110	123	113	139	121	90
19.....	95	91	89	93	77	102	101	106	116	109	133	118	88
26.....	94	89	88	92	75	100	99	104	114	105	132	118	86
Nov. 2.....	91	86	85	89	73	98	98	101	113	105	129	110	83
9.....	90	85	84	88	71	97	97	101	111	104	127	110	83
16.....	88	83	84	87	68	95	96	100	111	102	125	115	82
23.....	89	86	85	89	69	100	98	105	114	105	131	114	84
30.....	91	87	85	89	73	98	98	102	113	105	131	114	84
Dec. 7.....	89	84	83	87	73	96	96	101	109	102	128	108	83
14.....	90	88	83	87	82	98	97	102	110	103	125	113	83
21.....	95	92	85	88	92	102	99	105	111	107	128	116	87
28.....	98	92	84	87	92	105	99	108	113	108	129	112	88
1936													
Jan. 4.....	..	95	..	88	92	...	102	106	118	111	135	119	..
11.....	..	94	..	88	92	...	102	107	115	111	130	122	..
18.....	..	95	..	88	92	...	100	105	...	...	...	...	..

Week ending	British parcels		Liverpool (Tuesday prices)				European domestic				Winnipeg		Buenos Aires 80-kilo
	U.S. cents	Gold cents	No. 1 Man.	No. 3 Man.	Arg. Rosafé ^d	Aus-tralian	Great Britain	France	Germany	Italy	Wtd. average	No. 3 Man.	
1935													
Sept. 7.....	84	50	97	91	87	83	60	153	215	241	80	78	66
14.....	93	55	103	96	91	87	62	154	215	245	83	83	72
21.....	97	58	106	100	100	96	66	152	215	241	83	86	80
28.....	88	52	108	100	102	93	70	149	215	238	78	82	78
Oct. 5.....	95	57	105	98	100	92	74	149	217	240	80	85	80
12.....	97	58	110	103	100	96	78	146	217	245	77	84	78
19.....	93	55	106	98	100	97	80	145	217	245	73	81	78
26.....	92	54	106	98	98	100	81	146	217	244	73	80	77
Nov. 2.....	86	51	101	93	97	93	80	145	219	244	69	77	75
9.....	90	53	101	93	95	93	80	144	219	246	62	76	73
16.....	89	53	100	93	91	88	78	143	219	246	62	76	69
23.....	90	53	102	95	88	86	76	141	219	...	66	79	71
30.....	83	50	104 ^e	..	93	88	75	141	219	...	69	78	73
Dec. 7.....	87	52	104	98	90 ^f	87 ^f	75	142	221	...	68	76	..
14.....	94	56	102	96	91	86	76	139	221	...	68	76	..
21.....	96	57	104	98	109	91	75	140	221	...	70	77	..
28.....	..	..	104	99	111	93	77	140	221	...	72	76	..
1936													
Jan. 4.....	96	57	105	100	111	96	..	...	224	...	71	78	..
11.....	..	..	...	...	...	..	..	...	224	...	75	79	..

* For methods of computation see WHEAT STUDIES, December 1934, XII, 180-81. For Great Britain prices are from *The London Grain, Seed and Oil Reporter*, Broomhall's *Corn Trade News*, and *The Agricultural Market Report*; Canada, *Grain Trade News*, and *Canadian Grain Statistics*; Buenos Aires, *Revista Oficial*; United States, *Daily Trade Bulletin* and *Crops and Markets*; France, *Le bulletin des halles*; Germany, *Deutsche Getreide-Zeitung*; Italy, *International Institute of Agriculture Monthly Crop Report* Prices are converted to U.S. cents at noon buying rates for cable transfers, and to approximate gold cents on the basis of prices of gold in London. Dots (..) indicate no quotations.

^a March future through Oct. 19.

^b Feb. future after Dec. 14.

^c Three days only.

^d Duty paid.

^e Parcels to London.

^f New crop Dec. 3 and following.

TABLE VI.—INTERNATIONAL SHIPMENTS OF WHEAT AND FLOUR, WEEKLY FROM SEPTEMBER 1935*
(Million bushels)

Week ending	Total	Shipments from							Shipments to Europe				To ex-Europe		
		North America	Argentina ^a	Australia	South Russia	Danube	India	Other countries ^b	Total	United Kingdom	Orders	Continent	Total	China, Japan	Others
1935															
Sept. 7.....	8.24	2.26	2.43	1.38	1.30	.57	.00	.30	6.50	2.10	2.22	2.18	1.74	.30	1.44
14.....	9.56	2.78	3.44	1.56	.59	.74	.00	.45	7.69	2.99	2.08	2.62	1.87	.18	1.69
21.....	10.07	3.67	2.57	2.38	1.01	.20	.00	.24	8.04	3.52	2.45	2.07	2.03	.70	1.33
28.....	8.18	3.68	1.06	1.82	.99	.46	.02	.15	6.18	3.16	1.24	1.78	2.00	.56	1.44
Oct. 5.....	12.06	3.94	3.14	1.94	1.93	.65	.06	.40	10.31	5.01	2.25	3.05	1.75	.36	1.39
12.....	10.60	3.97	1.88	1.81	2.06	.60	.00	.28	7.98	3.86	1.54	2.58	2.62	.34	2.28
19.....	11.76	3.93	1.37	2.50	2.92	.82	.00	.22	9.51	4.23	1.97	3.31	2.25	.09	2.16
26.....	10.02	3.66	1.80	2.03	1.09	1.14	.06	.24	7.34	3.43	1.06	2.85	2.68	.30	2.38
Nov. 2.....	12.46	5.88	1.48	2.79	.45	1.21	.02	.63	8.80	4.64	1.00	3.16	3.66	1.25	2.41
9.....	11.26	4.63	1.79	2.16	1.22	1.13	.03	.30	7.33	3.67	1.58	2.08	3.93	1.12	2.81
16.....	10.82	4.88	1.17	2.81	.99	.34	.08	.55	7.59	4.00	.45	3.14	3.23	.82	2.41
23.....	9.49	4.87	1.22	1.18	1.26	.82	.00	.14	6.65	4.15	.91	1.59	2.84	.21	2.63
30.....	10.14	6.02	1.05	1.00	1.07	.66	.00	.34	7.07	3.54	.67	2.86	3.07	.28	2.79
Dec. 7.....	10.49	5.14	1.74	1.58	1.32	.56	.00	.15	6.18	2.01	1.48	2.69	4.31	.39	3.92
14.....	9.85	3.67	1.37	1.87	1.99	.52	.00	.43	7.47	3.98	.87	2.62	2.38	.32	2.06
21.....	9.98	5.09	.92	1.68	.97	.59	.00	.73	6.65	3.27	.62	2.76	3.33	.38	2.95
28.....	6.09	3.26	.66	.77	.49	.52	.00	.39	4.35	2.28	.35	1.72	1.74	.51	1.23
1936															
Jan. 4.....	5.46	1.50	.79	1.62	.84	.23	.00	.48	4.31	2.20	.52	1.59	1.15	...	....
11.....	9.06	3.72	1.08	1.23	1.10	.10	.00	.83	....	....	...	....	....	...	....
18.....	8.17	3.79	.64	2.91	.09	.00	.00	.74	....	....	...	....	....	...	....

* Here converted from data in Broomhall's *Corn Trade News*. Not including 5.6 million bushels from Canada to the United States included in Broomhall's cumulative figures for total shipments and shipments from North America and to ex-Europe up to December 28.

^a Including Uruguay.

^b "North Africa, France, Germany, Sweden, etc."

^c Preliminary.

TABLE VII.—NET IMPORTS OF WHEAT AND FLOUR, MONTHLY FROM JULY 1935*
(Million bushels)

Month or period	British Isles			Three variable importers				Belgium ^b	Netherlands	Denmark	Norway	Sweden	Switzerland	Austria
	U.K.	I.F.S.	Total	Total	France ^a	Germany	Italy							
July	17.13	1.39	18.52	2.19	.06	.16	1.97	3.25	1.60	1.15	.72	(.68)	1.92	1.18
Aug.	14.18	1.42	15.60	.80	.58	.30	(.08)	3.30	1.98	.70	.57	(.20)	1.15	.35
Sept.	14.47	.69	15.16	1.24	1.05	(.19)	.38	3.92	2.19	.55	.45	(.50)	2.05	.46
Oct.	20.00	.74	20.74	....	2.32	.08	...	5.06	2.33	.76	.66	(.24)	1.57	.65
Nov. ^c	20.07	1.70	21.77	....	1.78 ^d	.30	...	1.62	2.21	.60	.81	.15	1.66	...
Aug.-Nov. 1935 ^e	68.72	4.55	73.27	....	5.73	.49	...	13.90	8.71	2.61	2.49	(.79)	6.43	2.20
1934	67.51	6.05	73.56	7.80	1.64	4.95	1.21	16.74	7.04	5.81	2.82	.33	5.89	2.78

Month or period	Czechoslovakia	Greece	Spain	Portugal	Finland	Latvia	Estonia	Lithuania	Egypt	China	Manchukuo	Japan	New Zealand	South Africa
July .....	.25	1.42	.00	.08	.43	(.61)	(.00)	(.01)	.01	.90	1.84	.26	.06	.01
Aug. ....	.29	1.82	.00	.08	.34	(.53)	(.04)	(.01)	.01	1.41	2.00	(.18)	.04	.01
Sept.	1.59	.97	.00	.00	.38	...	(.03)	(.01)	.01	.90	1.55	(.42)	...	.01
Oct. ....	.13	...	.00	.01	.38	...	.00	(.20)	...	.38	.60	.10	...	...
Nov. ^c .....	.14	...	.03	.03	.30	...	.00	(.22)	...	...	...	.15	...	...
Aug.-Nov. 1935 ^e	2.15	...	.03	.12	1.40	...	(.07)	(.44)	...	3.30	5.00	(.35)	...	...
1934 .....	.02	3.44	.00	.22	1.41	(.04)	.00	(.06)	.25	1.74	11.53	(.23)	.18	.86

* Data from official sources and International Institute of Agriculture. Dots (...) indicate data are not available. Figures in parentheses represent net exports.

^c Figures preliminary for many countries.

^a Net imports in "commerce général," compiled from *Statistique mensuelle du commerce extérieur de la France*.

^d Net imports in "commerce spécial."

^e Including our estimates for missing monthly data.

^b Including Luxemburg.

TABLE VIII.—NET EXPORTS OF WHEAT AND FLOUR, MONTHLY FROM JULY 1935*

(Million bushels)

Month or period	United States ^a	Canada	Argentina	Australia	USSR	Hungary	Yugoslavia	Rumania	Bulgaria	Poland	Morocco	Algeria	Tunis	India
July	(1.06)	10.90	11.36	7.63	.25	.42	.04	.80	.00	1.39	.28	.75	1.11	.10
Aug.	(2.09)	23.36	10.94	5.13	4.05	.44	.01	...	.00	.36	.40	.70	1.08	.10
Sept.	(3.12)	19.04	10.48	7.71	6.97	2.37	.01	...	.31	.33	.90	1.47	.82	.17
Oct.	(4.89)	31.15	7.94	9.25	6.32	2.10	.02	...	.27	.85	.29	1.24	.70	.24
Nov. ^b	(3.98)	28.90 ^c	6.70	....	4.66	1.62	.02	...	.29	.74	...	....	.38	.21
Aug.-Nov.														
1935 ^d	(14.08)	102.45	36.06	30.00	22.00	6.53	.06	...	.87	2.28	2.00	4.50	2.98	.72
1934 .....	.65	80.88	63.28	34.05	1.17	4.15	2.56	.00	.00	.70	2.67	5.85	1.58	.58

* See general footnote to Table VII. Here figures in parentheses represent net imports.

^a Includes shipments to possessions.^c Gross exports for Dec. 1935 were 19.1 million bushels.^b Figures preliminary for many countries.^d Including our estimates for missing monthly data.

TABLE IX.—WHEAT DISPOSITION ESTIMATES, ANNUALLY FROM 1930-31*

(Million bushels)

Year	Domestic supplies			Domestic disappearance				Surplus over domestic use ^c	Net exports wheat and flour			Year-end stocks
	Initial stocks	New crop	Total	Milled (net)	Seed use	Balancing item ^a	Total ^b		Total	To Nov. 30	From Dec. 1	
	A. UNITED STATES (JULY-JUNE)											
1930-31.....	304	890	1,194	493	81	+179	753	441	115 ^d	72	43	326
1931-32.....	326	932	1,258	485	80	+181	746	512	127 ^d	64	63	385
1932-33.....	385	746	1,131	493	84	+125	702	429	36	23	13	393
1933-34.....	393	529	922	449	72	+ 87	608	314	28	4	24	286
1934-35.....	286	497	783 ^e	459	76	+ 97	632	151	(1) ^f	2	(3) ^f	152
1935-36.....	152	603	755 ^e	485	82	+ 93	660	95	(30) ^f	(15) ^f	(15) ^f	125
	B. CANADA (AUGUST-JULY)											
1930-31.....	111	421	532	42	39	+59	140	392	258	120	138	134
1931-32.....	134	321	455	42	37	+37	116	339	207	82	125	132
1932-33.....	132	443	575	44	36	+19	99	476	264	121	143	212
1933-34.....	212	282	494	43	33	+30	106	388	194	84	110	194
1934-35.....	194	276	470	43	32	+27	102	368	165	80	85	203
1935-36.....	203	277	480	45	34	+36	115	365	275	102	173	90
	C. AUSTRALIA (AUGUST-JULY)											
1930-31.....	49	214	263	31	16	+ 4	51	212	152	24	128	60
1931-32.....	60	191	251	32	16	- 3	45	206	156	33	123	50
1932-33.....	50	214	264	33	16	+10	59	205	150	27	123	55
1933-34.....	55	177	232	33	13	+15	61	171	86	26	60	85
1934-35.....	85	134	219	33	13	+ 9	55	164	109	34	75	55
1935-36.....	55	140	195	33	14	+ 3	50	145	115	30	85	30
	D. ARGENTINA (AUGUST-JULY)											
1930-31.....	65	232	297	63	21	+ 8	92	205	125	14	111	80
1931-32.....	80	220	300	65	24	+ 6	95	205	140	25	115	65
1932-33.....	65	241	306	65	24	+10	99	207	132	15	117	75
1933-34.....	75	286	361	66	23	+ 7	96	265	147	33	114	118
1934-35.....	118	241	359	67	17	+13	97	262	182	63	119	80
1935-36.....	80	144	224	67	23	+ 9	99	125	65	36	29	60

* Based on official data so far as possible; see WHEAT STUDIES, December 1935, Table XXX.

^a Total domestic disappearance minus quantities milled for food and used for seed.^d Too low; does not include some wheat shipped to Canada and eventually exported from there.^b Total domestic supplies less surplus over domestic use.^e Not including estimated net imports.^c Summation of net exports and year-end stocks.^f Net import.

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