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WORLD WHEAT SURVEY AND OUTLOOK JANUARY 1939

Helen C. Farnsworth and Holbrook Working

Now estimated at 5,080 million bushels, this year's wheat supplies in the world ex-Russia are the largest in history, even allowing for statistical overstatement of a few important crops. The 1938 "world" harvest exceeded the previous record of 1928 by 400 million bushels. Although European importing countries secured good crops, shipments to Europe through mid-January were the largest in seven years, probably reflecting depleted stocks on August 1 and the September war scares.

Liverpool prices, declining moderately from early September to November, reached about the same levels as in the winter of 1933–34, when the previous low records in gold and in purchasing power were established. Subsequent recoveries have been small and temporary. War scares in September caused sharp fluctuations, but the principal sustained price changes—downward at Liverpool and slightly upward at Chicago—were related to the export-subsidy program of the United States. Support was given by speculative buying in North America on anticipated business recovery, acreage reduction, and poor winter-wheat crop prospects.

World wheat exports may reach 560 million bushels, allowing for recent boundary changes in Europe. Among the European importers, only Germany has taken active steps to build heavy "emergency" reserves. Apparent world disappearance may be of record proportions, partly owing to statistical overstatement of supplies. Even so, the world wheat carryover of 1939 will be one of the largest in history.

Significant price recovery during February–March seems not in prospect, but even more heavily subsidized selling by Argentina may not depress prices much below the lows of last November. Changes in crop prospects may govern the course of prices from late March, but price responses may be relatively weak, even in the United States.

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Developments in the wheat situation from September to mid-January were dominated by the diverse activities of many governments. In exporting countries, governmental subsidies and negotiations to increase wheat exports affected both prices and trade. In importing countries, governmental efforts to maintain prices to domestic wheat growers and in some instances to build "emergency" reserves of wheat were significant influences. And important for all countries were the demands, and the sequel to the demands, that the German government made upon Czecho-Slovakia in September 1938.

Despite increases in crop estimates that raised the indicated world wheat surplus of 1938–39 by nearly 100 million bushels, wheat prices on the international market were at about the same level in early January as in early September. In the United States, prices rose a few cents per bushel over the four-month interval. Except for some fairly sharp fluctuations in September with changing prospects for outbreak of a European war, prices remained remarkably stable at an extremely low level. They had fallen so low by early September that exporters were unwilling to press supplies on the international market to an extent that would depress prices much further. On the other hand, small advances met ready selling.

Influences in the United States and Canada dominated the course of prices during September–December, and in late December and early January Argentine selling policy assumed increasing importance. Old-crop supplies in Argentina and Australia were too small to exert much influence; the USSR had only moderate supplies for export; and the Danubian countries—among which Rumania has this year the largest surplus—did not press supplies on the market. Government agencies in the United States and Canada were in a position to determine the course and level of international prices within fairly wide limits. They chose nevertheless to operate in such a way that their probably substantial influence was relatively inconspicuous, and the normal operation of the markets was little disturbed. The United States could not support international prices without abandoning serious effort to attain exports of 100 million bushels during the crop year; but it strove to obtain the desired export sales with minimum price-depressing effect. The Canadian Wheat Board, receiving all the wheat delivered in Western Canada, placed it on the market through sales both of cash wheat and of futures at rates that allowed Canadian wheat to be steadily offered abroad at competitive prices, but without putting pressure on the market.

The export-subsidy program of the United States tended more to depress international prices than to elevate domestic prices, and storage of wheat by farmers under the loan program, reaching about 67 million bushels, was insufficient to become a domestic price-supporting factor of importance. Speculative buying of futures, encouraged by anticipated business recovery, strengthened prices in the United States somewhat during October; and acreage restriction, coupled with poor condition of the winter-wheat crop, exerted a strengthening influence later.

Australia and Argentina, as the period for marketing their new crops arrived, evinced a disposition like that of the North American exporters to avoid further depression of prices. In Australia the only governmental

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control applied was the fixing of the price for domestic consumers at a basis equivalent to about 97 cents per bushel at the seaboard, but farmers were slow to sell at prevailing prices on the international market. Argentina fixed the domestic price for new-crop wheat at 7 pesos per 100 kilos (just under 60 cents per bushel) at Buenos Aires and provided the equivalent of an export subsidy to shippers, but at rates that to mid-January have prevented pressure of Argentine sales on the international market.

Wheat shipments to Europe through mid-January were the largest in seven years. Heavy import buying in the early months of the crop year was stimulated by the low level of European stocks on August 1 and by the war scares associated with the Czecho-Slovakian crisis. Government-authorized imports into Germany were particularly large, and considerably in excess of the year's import requirements for consumption. Although British takings were distinctly moderate, they went partly to increase port stocks, and apparently also the government's share in those stocks.

Current forecasts of European imports for the crop year rest heavily upon guesses as to the future import buying of various governments that may wish to build up emergency reserves of wheat. Our forecast of 415 million bushels for the net imports of European net-importing countries allows for considerable increase of stocks as compared with 1938 in most European countries except Spain, but does not assume heavy increases in government reserves through importation. Presumably the largest increase in such reserves will be in Germany where large August–December imports may be followed by reduced, but still appreciable, imports in January–July. We anticipate some small additions to British government supplies but do not expect these to reach a total high in relation to normal import requirements. If the present strain in international relationships in Europe becomes more pronounced in future months, European net imports may well exceed the figure here suggested. Our forecasts of 415 million bushels for European imports and roughly 130 million for non-European imports suggest total net exports of around 560 million bushels. This year Broomhall's shipments may perhaps fall only about 15 million lower, thus approximating 545 million bushels.

Year-end carryovers in 1939 will be increased in practically all positions. We now expect the total to reach 1,135 million bushels, about equaling that in 1933 and falling only about 70 million short of the record in 1934. On this basis, calculated disappearance in the world ex-Russia would be unprecedentedly large, though not significantly larger than in 1930–31 or 1931–32.

The area sown to wheat for the 1939 world crop may be some 20 million acres (about 7 per cent) below that for 1938, with about 16 million acres of the reduction in the United States. Substantial reductions elsewhere seem likely only in Argentina and Australia. Even though yield per acre on the indicated area should equal the record postwar low, the crop plus carryover would give a substantial world wheat surplus for 1939–40.

Wheat prices at Liverpool during February–March may remain near the levels of mid-January if Argentine export prices are not lowered. If Argentina competes more actively for export sales, resistance by Canada and Rumania to price decline may keep the Liverpool "new" May future from falling below 55–60 cents per bushel by the end of March. From late March, changes in crop prospects may assume importance, but the price response to crop developments is likely to be relatively weak.

Wheat Supplies

Current estimates of world wheat supplies for 1938–39 differ substantially from estimates standing in late September 1938. As now calculated, the total is almost 100 million bushels higher. The change reflects upward crop revisions for Argentina, importing Europe, Bulgaria, and the Near East, only partially offset by small downward revisions for the two North American exporters, Australia, and Japan.[1] Now estimated at 5,080 million bushels, wheat supplies in the world ex-Russia are clearly of record size, over 700 million

[1] Total wheat supplies (crops plus inward carryovers) in the world ex-Russia, and their distribution

bushels larger than last year and almost 150 million above the high average for the wheat-surplus years from 1930–31 to 1933–34. An important feature of the present supply situation, however, is the extraordinarily large quantity of wheat apparently available in India and the Near East, regions which are unlikely to press supplies upon the international market in view of the low level of wheat prices and the poor crop prospects in India. But even disregarding supplies in these two areas, the total for 1938–39 runs about 40 million bushels above the corresponding 1930–34 average, and falls but slightly short of the record total for 1933–34.

Neither in importing Europe nor in the four chief exporting countries are aggregate wheat supplies of record size this year. In both groups of countries, however, current supplies are relatively large, with the total for importing Europe approaching earlier peak levels more closely than the total for the four exporters. Most other large producing areas (including the Danube basin, India, and the Near East) are said to have unprecedentedly heavy wheat supplies.

Distribution of 1938 crops.—The record quantity of wheat available to the world ex-Russia in 1938–39 is almost solely a result of the enormous wheat harvest of 1938. Both the world inward carryover of wheat and prospective Russian exports are very moderate in size.

Now put at 4,440 million bushels, the current world crop is over 400 million bushels larger than the previous record outturn of 1928 (Chart 1, p. 262). Sown on the largest acreage ever planted to wheat, the 1938 crop was favored by exceptionally good growing weather, particularly in the Northern Hemisphere. The resulting average yield per acre—15.5 bushels—was a little above the previous record yield in 1928.

Of the forty-odd countries of the world ex-Russia for which production figures are shown in Tables I and II, crops were below recent average levels only in Australia, Manchukuo, and the western Mediterranean region (including Spain, French North Africa, and Portugal, but not Italy).[1] Thus, it was the coincidence of heavy production in many countries, rather than record crops in a few of the most important producing areas, that was responsible for the bumper world harvest of 1938. This is adequately illustrated by Chart 1.

The aggregate wheat production of the two Southern Hemisphere exporters is now placed over 50 million bushels higher than was indicated by September forecasts of the United States Department of Agriculture: the current Argentine estimate is 56 million higher, the Australian estimate 5 million lower. The Argentine crop progressed favorably on an acreage slightly larger than September estimates suggested. But in Australia, persistent, widespread dryness, with serious drought conditions in Victoria, reduced the prospective outturn. By mid-November crop estimates for Australia had been lowered to 125–135 million bushels; but private estimates were subsequently raised to about the level suggested by the later semi-official estimate—145 million bushels. In contrast, private Argentine crop estimates were rather generally revised upward during October–November, in late November ranging around 285 million bushels. In early December a few private authorities suggested that the crop might exceed 300 million bushels; but such forecasts were com-

among the principal regions, are shown below in million bushels:

Crop year	World ex-USSR[a]	Europe ex-Danube	North America	S. Hem. exporters[b]	Danube basin[c]	French North Africa[d]	India, Near East[e]
1928–29...	4,734	1,255	1,687	640	392	85	396
1929–30...	4,573	1,387	1,486	461	378	92	472
1930–31...	4,911	1,232	1,728	560	397	86	538
1931–32...	4,939	1,251	1,730	551	427	83	542
1932–33...	4,892	1,489	1,727	570	271	82	470
1933–34...	4,977	1,657	1,434	593	394	77	497
1934–35...	4,695	1,676	1,279	577	303	103	500
1935–36...	4,545	1,624	1,270	427	322	88	510
1936–37...	4,297	1,389	1,115	508	408	62	550
1937–38...	4,364	1,389	1,176	465	391	76	550
1938–39							
Sept. ..	4,984	1,514	1,477	525	464	73	603
Jan....	5,078	1,544	1,460	576	482	75	620

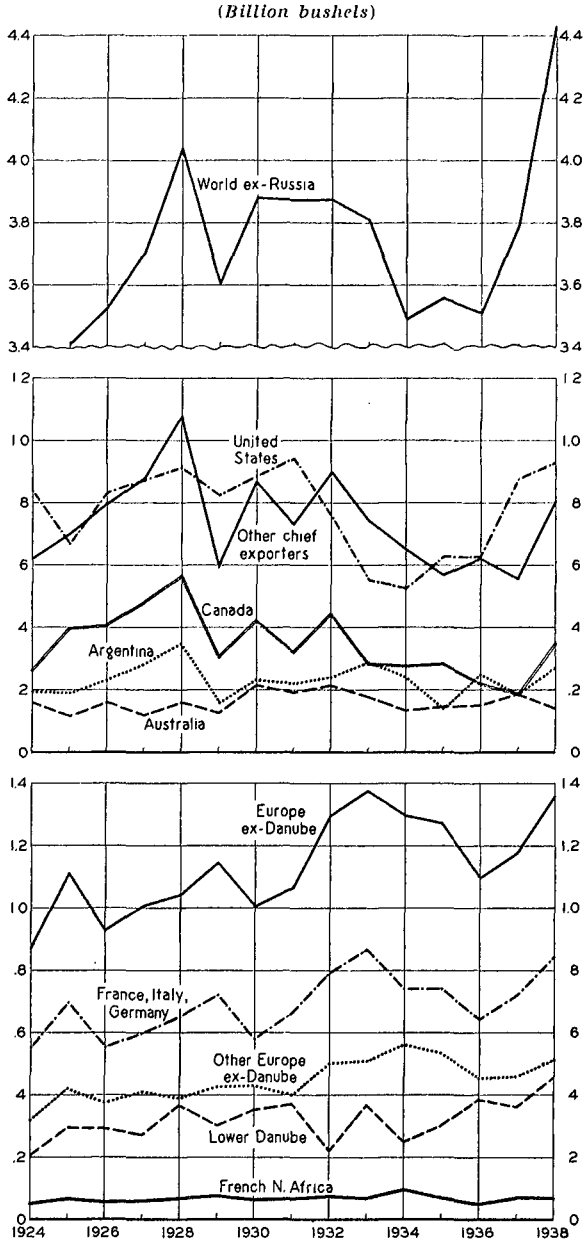
[a] Including also Russian net exports (see p. 284).
[b] Australia, Argentina.
[c] Hungary, Yugoslavia, Rumania, Bulgaria.
[d] Morocco, Algeria, Tunis.
[e] For Near East (Turkey, Syria and Lebanon, Palestine, and Cyprus) inward carryovers disregarded.

[1] Record postwar harvests were reported for India, Turkey and other Near Eastern countries, Greece, Rumania, Bulgaria, Austria, Poland, Finland, Scandinavia, Belgium, and the British Isles.

monly regarded as optimistic, and the official estimate of December 16, indicating an outturn of 316 million bushels, was therefore received with mild surprise.

CHART 1.—PRINCIPAL WHEAT CROPS, 1924–38*

(Billion bushels)



* See Tables I and II. Comparable data lacking for the "world" crop of 1924.

Wheat types and quality.—Superior hard red wheats, notably scarce in the past two crop years, are this year available in adequate quantities. Semi-hard red varieties, durum wheats, and the softer red "filler" wheats are definitely abundant. In contrast, European wheat markets will probably receive relatively small quantities of good white wheat during August–July 1938–39, since Australia's crop is relatively small and India now seems more likely to be a net importer than a net exporter. Although exports of white wheat from the Pacific Northwest will be larger than in four or more of the six preceding years, this increase will by no means fully offset the indicated reduction in Australian and Indian exports to Europe.

Quality aspects of the 1938 crops need little attention. There is no striking scarcity of the higher grades, no unusual abundance of "tail" wheat. Moreover, prices of millable wheats are now so low relative to prices of feed grains that the use of wheat for feed will not be confined in 1938–39 to the available supply of low-quality grain.

Visible supplies and marketings.—The record large quantity of wheat available this year in the world ex-Russia has not yet been significantly reflected in current statistics of "world" visible supplies (Chart 2). As of January 1, the world visible was smaller this year than in any year of the preceding decade except 1937 and 1938, when total wheat supplies were definitely short. Below are shown comparative data on visibles as of January 1, 1929 (following harvest of the former record world crop of 1928) and averages for the four wheat surplus years 1931–34, in million bushels. Details for the past six years are given in Table IV.

Jan. 1	"World"	U.S.[a]	Canada[b]	Australia	Argentina	Afloat	U.K.
1929.....	522	152	228	76	6	54	6
1931–34 av...	539	193	222	69	8	29	18
1939.....	430	129	165	83	10	25	18

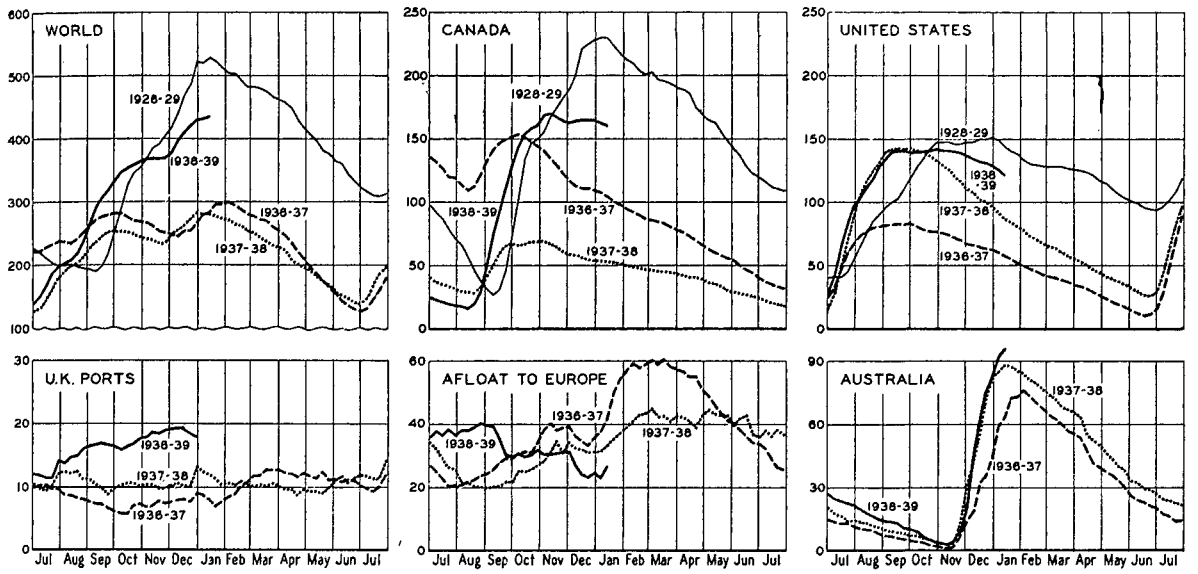
[a] Including United States wheat in Canada.
[b] Including Canadian wheat in United States ports.

That the "world" visible stood lower on January 1, 1939 than in recent years of smaller wheat surpluses is attributable mainly to the geographical distribution of the record wheat supplies of 1938–39 and to the statistical importance of North American and Aus-

tralian stocks in the calculated "world" visible. This year total wheat supplies from crops and carryovers are below the 1930–34 average level in Canada, the United States, and Australia[1]—the very countries whose visible stocks positions determine the level of the "world" visible. In contrast, in the major areas in which total wheat supplies are substantially above the 1930–34 average—importing Europe, the Danube basin, Argentina, India, and the Near East—reported data on visible wheat stocks are either inadequate or non-existent.[2] Consequently, the "world" visible supply this year is an unusually poor reflector of the current world wheat supply position. Yet there is reason to suppose that its reflecting power will improve somewhat as the months pass, with world visible supplies declining very slowly from their January peak. British port stocks, relatively high as of January 1, may also stand at a high level next July, in partial reflection of the sizable stocks then likely to be held by the government.

CHART 2.—WHEAT VISIBLE SUPPLIES, WEEKLY FROM JULY 1938, WITH COMPARISONS*

(Million bushels)



* Weekly data for certain series summarized by months in Table IV. Note that scales are not uniform throughout.

More interesting than the level of visibles this year is their seasonal course, particularly in North America. In the United States, the increase in visible supplies between July 1 and September 1 was almost as large as the record established in 1937 and far greater than in earlier postwar years. This reflected extraordinarily heavy marketings in July–August which brought total primary receipts in these two months to 162 million bushels—a figure exceeded only in 1937 and in three earlier postwar years.

But in September, the United States marketing movement fell off sharply; and primary receipts in October–November, though larger than in 1937, were definitely small relative to the size of remaining farm supplies.[3] Had the farm movement of wheat been better sus-

[1] Nevertheless, Australian visible supplies on January 1, 1939 were of near-record size, in reflection of the recent slow movement to export.

[2] This is no longer true for Argentina, since the National Grain and Elevator Commission has recently published very satisfactory monthly data on commercial wheat stocks in Argentina. Since this series is available only from January 1, 1937, it is not useful for earlier comparisons.

[3] As of October 1, and again as of January 1, farm stocks were larger this year than in 1937, both in absolute quantity and in terms of percentage of crop-year farm supplies. As compared with earlier years the percentage of supplies remaining on farms October 1 was neither notably high nor low, whereas on January 1 the percentage was higher than in all but three of the twelve preceding years.

tained during September–November, United States visible supplies would presumably have risen slightly rather than remaining about stationary as they did over this period. During July–November as a whole, receipts at United States primary markets were fairly large in absolute quantity, but in relation to crop-year farm supplies they were moderately small, perhaps partly reflecting temporary holding or storage of wheat on farms and in local elevators under stimulus of the government's loan program. The slow movement of wheat from farms continued through December, leaving an unusually large percentage of the crop-year's supplies on farms on January 1.

Striking also was the sharp increase in Canadian visible supplies during September–October, an increase about the same as in 1928–29 when the Canadian crop was over 200 million bushels larger. This year the wheat harvest was neither particularly early nor particularly late. Rapid marketing began August 19 and continued until November 1. By November 1, however, an extraordinarily large supply of wheat—227 million bushels or 80 per cent of the estimated supplies available for recorded marketings and carryover[1]—had been delivered at country elevators and loading platforms. In preceding years, the period from August 1 to the end of the rapid marketing movement had never witnessed the delivery of more than 76 per cent of the available marketable supplies; and in two of the three years of largest percentage deliveries, the level and course of prices had been such as might naturally have led farmers to sell early in the season lest prices fall considerably lower later.[2] This year farmers have had little incentive to hold in the hope that market prices might rise above prices being paid by the wheat board; but neither have they had reason to sell early for fear of having to take lower prices on deferred sales.

The early part of the Canadian marketing movement to September 8 was in no wise exceptional. But the rapid rate at which the second 25 per cent of the marketable supplies was delivered (occupying only 19–20 days) and the large proportion delivered before rapid marketing ceased clearly reflect an unusual disposition of farmers to market early in the season under the influence of a guaranteed price that was high by comparison with the market price.

The volume of deliveries by the first of November gave ground for thinking that the crop might be underestimated. Subsequent deliveries have been light, however, and the total for August–January will be slightly under 260 million bushels, or about 91 per cent of the indicated supplies. This compares with a previous record of 88.1 per cent in 1929–30.

Aspects of Utilization

Little evidence has yet accumulated with respect to the prospective level of world wheat utilization in 1938–39. However, rye and feed grain supplies and prices, governmental measures for surplus disposal, and recent evidence on the import buying by China and other countries outside of the world ex-Russia have considerable bearing on the outlook for wheat utilization. These factors and such data as are available on apparent wheat disappearance in recent months—data mainly for the United States, Germany, and the United Kingdom—are briefly discussed here.

Rye, potatoes, and feed grains.—In the principal rye-consuming countries of Europe supplies of rye are exceptionally abundant this year. Germany and Poland harvested near-record crops in 1938, Rumania's crop was substantially the largest in postwar years, and most other European producers secured relatively large outturns. The European potato crop of 1938 was also a good one, though not up to last year's record. European supplies of rye and potatoes are thus too large to furnish any special incentive for substitution of wheat for these foods in 1938–39, except as

[1] On the basis of the standing official estimate of the crop of the Prairie Provinces, the supplies available for marketing and farm carryover may be estimated at about 285 million bushels.

[2] For these and other comparative data on Canadian wheat marketings, see two studies by Holbrook Working, "The Timing of Wheat Marketing in Western Canada" and "Price Effects of Canadian Wheat Marketing," Wheat Studies, October 1936 and October 1937, XIII, 33–64, XIV, 50–52. Comparisons of dates and time intervals here made utilize data from the table published in the second of these studies, which differ slightly from those in the corresponding table published earlier.

low wheat prices in a few countries may encourage consumption of the more highly prized wheaten products.

Feed-grain supplies for the current year are sizable but not strikingly heavy. In Europe ex-Russia, corn made only about an average crop in 1938, but the outturn of oats and barley was fairly large—the largest, indeed, since 1933. In the United States, feed-grain supplies from crops and carryovers are the heaviest since 1932, and the current supply per animal unit is the largest in more than a decade. Moreover, Canadian feed supplies are moderately larger than in most other recent years; and current estimates suggest that adequate though not big feed crops will be available in Argentina. Yet despite the generally sizable feed supplies, British import prices of feed grains have recently stood unusually high in relation to wheat prices; and on practically all grain markets corn has commanded relatively high premiums. The recent tight position of corn is attributable mainly to the poor harvest in Argentina last spring and (distinctly less important) to the corn-loan program of the United States government and the fair to poor outlook for the corn crop now growing in Argentina.

Domestic feed-grain prices in Europe have differed materially in relationship to domestic wheat prices from one country to another, largely in reflection of varying local crop outturns and different national grain policies. Thus, in the British Isles, barley and oats have ruled high in relation to wheat prices, whereas in Denmark these two grains have been selling at larger percentage discounts than in any other recent year except perhaps 1936–37. In most importing countries other than Great Britain, and probably Netherlands and Belgium, prices of available millable wheats have been maintained at levels too high to encourage feeding.

Governmental measures.—As important as prices for wheat utilization in 1938–39 are the various governmental measures bearing on consumption. Several countries of northern Europe, faced this year with large domestic wheat crops, have tightened wheat-import restrictions and raised compulsory milling quotas for domestic wheat that otherwise might have been diverted to animal feed. Among such countries are Denmark, Finland, and Belgium.[1] Certain other countries have merely raised import duties or special license fees on wheat and flour imports intended for human use—measures which probably will have a negligible effect upon total wheat consumption.[2] Similarly ineffective in this respect may be judged the abolition on January 1, 1939 of preferential import duties in the United Kingdom, and the reduced duties on imports of wheat under permit into Austria (an area now subject to regulations made by the Reich Grain office).

Of the three leading countries that have virtual grain monopolies—Germany, Italy, and France—the two fascist nations have shown anxiety to increase stocks and little tendency to relax restrictions on wheat consumption in the face of larger domestic supplies.[3] France has experimented with several means of surplus disposal, but thus far has reduced her surplus little: exports have been relatively small (through December France remained a net importer); the use of wheat for alcohol-production has apparently been abandoned as too expensive; no lowering of the extraction rate for flour has yet been specified; and even the amount of wheat denatured has not

[1] Denmark provided for compulsory admixture of domestic wheat amounting to 40 per cent in November and 50 per cent thereafter, in contrast with normal usage of 5 to 20 per cent; and Finland imposed a minimum milling quota for domestic wheat of 80 per cent effective October 1. These countries had not hitherto employed milling quotas for wheat. In Belgium, the Millers Association is reported to have raised the milling quotas for domestic wheat for most mills to 25 per cent in September, 30 per cent in October, 35 per cent in November, and 40 per cent in December. In addition, Belgium materially increased her special taxes on import licenses for wheat and flour (except denatured products); and Finland raised her schedule of wheat import duties.

[2] Among these countries are Switzerland, Netherlands, and Sweden.

[3] Practically the only concession to wheat consumption made by the German government has been change in the requirement for admixture of other flour with wheat flour: last year 7 per cent maize flour was specified, whereas since October 1, 1938, 4 per cent potato starch has been required. For rye a lower extraction rate is permitted this year and fresh bread may again be sold by the bakeries. Italy apparently still requires an admixture of 10 per cent maize or other flour in bread-wheat flour.

as yet reached a sizable figure. However, most observers still anticipate that 12 to 20 million bushels of French wheat will be diverted to animal feed in 1938–39, through requirements involving denaturing or, perhaps later, reduced extraction rates for flour.

In exporting countries, governmental measures affecting consumption are perhaps most noteworthy in the United States, Argentina, and Poland. In the United States, wheat and corn loan programs and the wheat-buying operations of the FSCC are probably having different effects upon wheat utilization for feed in different areas, but the net prospective result is not yet clear. Argentina's minimum prices for wheat of the 1938 crop may check expansion in domestic feeding of wheat as a substitute for high-priced corn, but the expansion probably would not have been great even in the absence of such minimum prices. Poland's wheat policy has been more rational in its intent to increase consumption, but the effectiveness of the specific measures introduced to accomplish this purpose has yet to be proved. Most important of these measures has been the establishment of milling standards (maximum extraction ratios) for wheat and rye flour milled in Poland for the domestic market.

Statistical data.—Calculations of domestic wheat disappearance on the basis of crop, stocks, and trade data available in the early months of the crop year are unreliable indicators of prospective disappearance for the year as a whole. Yet most students of the market feel impelled to present the figures for what they may be worth. Data on calculated domestic wheat disappearance in the United States (July–September) and Germany (August–November) and less adequate data on disappearance in the United Kingdom (August–December) are presented below in comparison with final estimates for the corresponding crop years, in million bushels. These figures clearly illustrate the unreliability of early data on domestic wheat disappearance, and seem only to warrant the broad conclusion that in the early months of 1938–39 wheat utilization was apparently not heavy in either Germany or the United Kingdom, but may have been at least moderately so in the United States.

Season	U.S.[a]		Germany[a]		U.K.	
	July-Sept.	Year	Aug.-Nov.	Year	Aug.-Dec.[b]	Year[a]
1934–35..	194	653	70	182	119	276
1935–36..	204	660	69	196	124	268
1936–37..	240	709	77	201	110	258
1937–38..	198	698	75	191	109	254
1938–39..	234	...	60	...	113	...

[a] Crop plus initial stocks, minus net exports or plus net imports in the months covered, minus reported or estimated total stocks at the end of the period.

[b] Reported farm deliveries for 21 weeks multiplied by 2.4, plus net imports in August–December, plus the amount by which port stocks were decreased or minus the amount by which port stocks were increased during the period.

Conclusions.—Despite the inadequacy of current statistical material and the difficulties encountered in attempts to evaluate the effects of various governmental measures, several conclusions with respect to world wheat utilization in 1938–39 may be presented with reasonable confidence.

In India, a large domestic wheat crop, low international wheat prices, and poor crops of native food grains in the north seem to have combined to increase wheat consumption this year. Similarly in Turkey and other countries of the Near East, heavy wheat supplies and low prices must have stimulated the use of wheat. In Spain, where opposite supply conditions have prevailed, consumption has presumably been curtailed.

Scarcity of corn has apparently been a factor in expanding human consumption of wheat in Rumania, and relatively high prices for corn and other feed grains may have encouraged some small increase in feeding of wheat in certain countries of northwestern Europe. In France, attempts at surplus control are expected to result in denaturing and feeding of 12 to 20 million bushels.

Statistically at least, wheat utilization will probably be relatively heavy this year in Bulgaria, Greece, and Italy, since the last wheat crops of those countries are believed to have been overestimated. In contrast, the standing 1938 crop estimate for Canada may be somewhat too low (p. 264) and until more complete evidence becomes available, it seems reasonable to count on a slight reduction in statistical wheat disappearance in that country.

In the United States, domestic consumption

of wheat flour may be forecast at roughly 154 pounds per capita—the figure indicated for 1937–38.[1] This implies total consumption of 103 million barrels. If flour stocks are not changed significantly from their moderately low level on July 1, 1938 (there is now no reason to anticipate significant increase or decrease) and if average wheat utilization per barrel of flour in 1938–39 approximates 4.57 bushels (our present estimate) as compared with 4.61 in 1937–38, mill grindings for domestic retention will total about 470 million bushels—just slightly more than last year. Although seed use of wheat may be reduced by something like 17 million bushels in this country, feeding may be moderately increased; as a result, total domestic wheat disappearance may not be materially lower this year than last.

In total, wheat utilization in the world ex-Russia seems likely to be unusually heavy in 1938–39. This is partly attributable to apparent statistical overstatement of certain crops, but mainly to anticipated expansion of consumption for food in India, Near East countries, the Danube basin, and northern Africa, and to increased feeding or denaturing of wheat in western Europe.

INTERNATIONAL TRADE

In the face of a near-record wheat crop in importing Europe, shipments of wheat to Europe were larger in the first 23 weeks of 1938–39 than in the corresponding period of any of the six preceding years. World shipments, too, were above most other recent years, though they had been slightly larger in 1936–37. Broomhall's shipments data, shown below in million bushels, present an important problem of interpretation. Do the relatively heavy shipments from August to mid-January 1938–39 foreshadow a substantially increased volume of trade for the crop year? Or do they reflect an import demand concentrated more strongly than usual in the early months of the season? The answer is not yet clear, but we tentatively accept the latter view. Import data through November (Table VII) suggest that Germany, in particular, imported more heavily in the early months than she may later, while several countries that may be net exporters of wheat in January–July ranked as net importers in August–November (France, Sweden, Czecho-Slovakia).

Aug.–mid-Jan. (23 weeks)	World	To Europe		To ex-Europe		
		Reported	Adjusted[a]	Total	U.S.	Others
1931–32....	344	260	266	84	..	84
1932–33....	257	195	191	62	..	62
1933–34....	228	178	188	50	..	50
1934–35[b]...	228	173	183	55[c]	0[c]	55
1935–36....	222	160	156	62	20	42
1936–37....	251	194	177	57	21	36
1937–38....	214	174	169	40	..	40
1938–39....	247	198	212	49	..	49

[a] Adjusted by subtracting from the reported figures any increase in stocks afloat or by adding any decrease.
[b] Shipments for 24 weeks minus those in the first week.
[c] Too low by about 5 million bushels.

The weekly course of shipments shown in Chart 3 (p. 268) lends support to this tentative conclusion. Exceptionally heavy exports during August reflected (1) active European import buying in response to seriously depleted stocks of import wheat and (2) attempts of various exporters to take advantage of current sizable but declining cash premiums. Perhaps equally important was the fact that Russia was feeling unusual pressure from the early flow of winter grain to elevators partly filled with old-crop stocks—a situation which is said to have forced the Soviet government to order substantial grain exports in the face of bad crop reports from the principal spring-grain regions of the country.

Heavy Russian and moderate North American shipments during August were followed by a sharp decline in European import buying in September; but the apparent indifference of importers soon gave way again to active buying under the influence of rapidly changing political developments in central and western Europe. For a short time the European war scare apparently restricted rather than stimulated exports, but eventually it contributed to the large bulge in shipments in October and was partly responsible for the

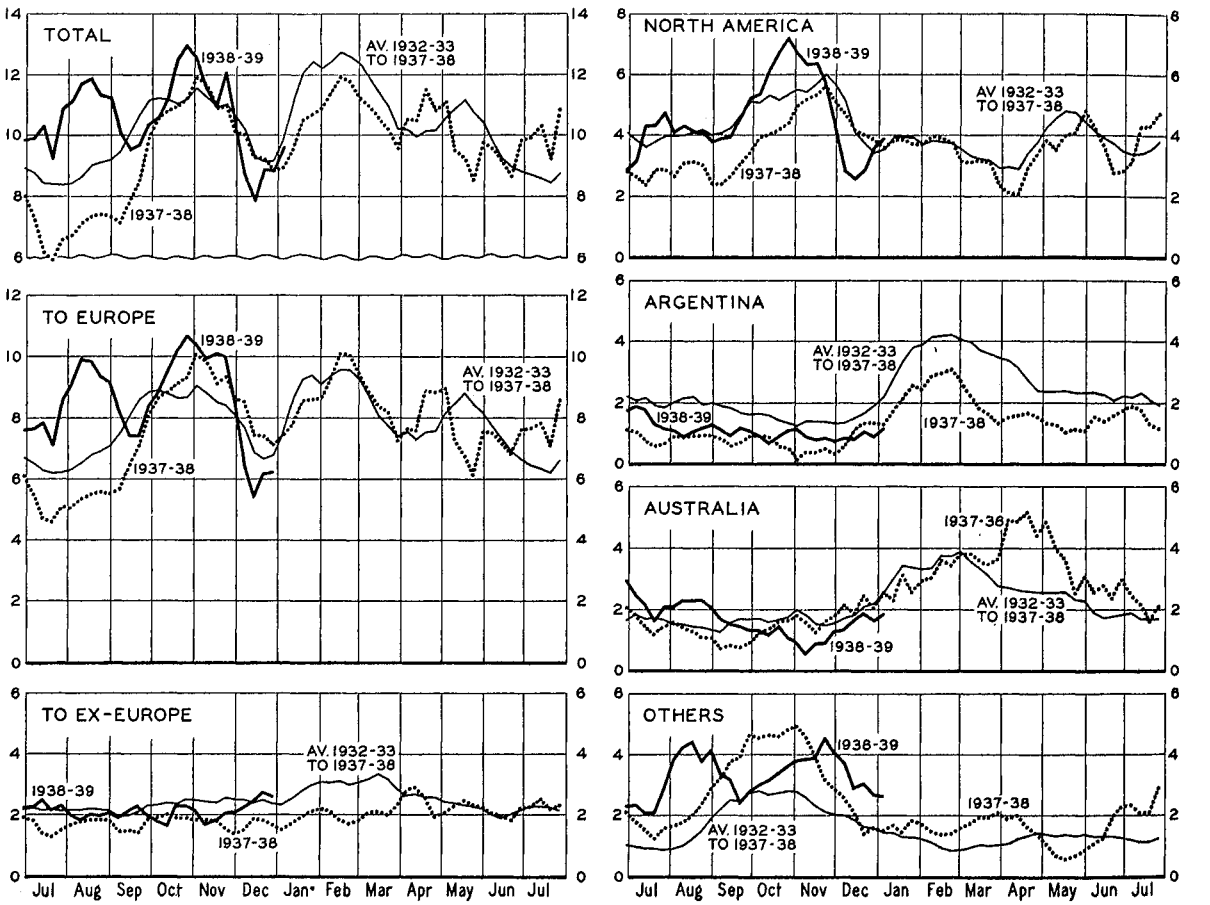
[1] It is to be expected that federal distribution of flour for relief purposes will not add significantly to consumption.

continued heavy movement of Canadian wheat to Europe in November.[1]

After November, world wheat shipments fell off sharply and much more than seasonally (Chart 3). The trough in mid-December was below 8 million bushels—a low figure reached before in postwar years only in 1934–35 and 1935–36. In Europe, importers continued to receive fair quantities of foreign wheat set afloat in November and most Continental countries had sizable stored reserves which could be drawn upon for current needs. For the time being, uncertainties with respect to international politics seemed less impressive than uncertainties pertaining to governmental policies for disposal of the large wheat surpluses in various exporting countries and most notably in Argentina. Even the substantial increase in world shipments in early January probably reflected new European import buying less than it did shipments of wheat unsold and shipments in fulfillment of earlier contracts (notably the FSCC contract with British millers).

CHART 3.—INTERNATIONAL SHIPMENTS OF WHEAT, WEEKLY FROM JULY 1938, WITH COMPARISONS*

(Million bushels; 3-week moving averages)



* Broomhall's data; see Table VI.

Imports.—The fluctuations in world trade described above are to be found only in the movement of wheat to Europe: shipments to non-European countries remained fairly stable from August to mid-January, averaging about 2 million bushels per week through late December, then rising to 2.5 million. Moreover,

[1] Contracts for shipping space for Canadian grain made right after the Munich agreement were apparently an important factor in maintaining Canadian exports at a high level during November. To fill the space contracted, a considerable amount of wheat was put afloat unsold.

the expansion in world shipments was due to increased European takings: through mid-January, these were the largest in seven years, whereas shipments to ex-Europe had been exceeded in five of those years. Yet, if comparisons be confined to non-European countries other than the United States, there was substantial improvement in takings reflected also in the trade figures for ex-Europe. To these countries, shipments in the first 23 weeks of 1938–39 were appreciably larger than in any of the three preceding years and about the same as in 1933–34. India took a significant quantity of Australian wheat before an import duty of about 28 cents per bushel was imposed on December 7; Chinese and Manchurian imports were apparently a little larger than in either of the two preceding years; and Broomhall reports larger takings by Brazil.

In the import trade, however, interest centered in European developments. And within Europe, it was the Continent, not the British Isles, that accounted for most of the increased trade. Indeed, British net imports in August–December were only 2 to 5 million bushels larger than the notably low imports of the two preceding years; and even this small increase went toward increase of port stocks.

For other European countries, less complete import data (Table VII) serve to establish the presumption that German imports alone were strikingly large—and this in the face of a near-record German wheat crop in 1938. International politics probably played a primary role in influencing Germany to import so much wheat in the early months of 1938–39: the Czecho-Slovakian crisis, and Germany's determination to extend economic control over central and southeastern Europe,[1] were probably both important factors. Significant but less important for imports were the recent boundary changes made by Germany. Austrian net imports of wheat, still supposedly reported separately, may in actual fact be partially included under German trade figures this year.[2] Moreover, transfer of Sudetenland to Germany added to the German population about 3.7 million persons without significant additional wheat supplies. In the absence of reliable estimates, we assume that the annual wheat requirements of Germany were increased through the gain of Sudetenland by something like 11–14 million bushels, whereas the addition to normal wheat production did not exceed 1–2 million bushels. Nevertheless, there can be no question that wheat imports into Germany (excluding Austria) of about 25 million bushels in August–December 1938 definitely exceeded the crop-year import requirements of the enlarged German and Austrian populations. This was reflected in the December 1 total of German wheat supplies: at 189 million bushels, these stocks were 69 million larger than last year and 21 million larger even than in 1933–34 when Germany attempted to solve her national "wheat-surplus" problem by exportation. This year, in contrast with 1933–34, the German government itself has encouraged creation of a national surplus, both through importation and through restriction of wheat consumption. In this action, the government's motive is not yet clear. The heavy imports may have been associated almost wholly with the Czecho-Slovakian crisis, or they may represent part of an uncompleted plan for the storage of reserves in anticipation of a later crisis.

Most other European countries took only moderate imports of wheat in August–December, though in view of their large domestic crops several countries must have added significantly to current stocks. Spain, faced with a second deficient wheat harvest, apparently imported slightly more wheat this year than last and substantially more than in earlier years. In contrast, French imports were unusually small, largely in reflection of light exports from Algeria and Tunis. As in most earlier years, Italian imports were negligible through December, throwing virtually no light upon Italian requirements for the crop year.

Sources of exports.—The approximate distribution of August–December exports by countries of origin is summarized below in million bushels, with comparisons. In general, export developments during this period

[1] Actually, however, the Danubian countries, Czecho-Slovakia, Poland, and Turkey accounted for only 32 per cent of Germany's wheat imports in August–November.

[2] The low reported imports into Austria in August–October 1938 support this view, but the facts will not be clear for some months.

were about in line with expectations and not strikingly different from other recent years.

Country	6-year average[a]	1936–37	1937–38	1938–39[b]
United States	12[c]	...[d]	41	33
Canada	109	132	50	89
Australia	35	31	31	32
Argentina	38	33	18	22
Danube	22	51	34	40
USSR	17	2	31	30
Others[e]	19	23	23	17
Total	252	272	228	263

[a] 1932–33 to 1937–38.
[b] Including our approximations for the December exports of most countries, and for the November exports of several.
[c] Without deduction of net imports in 1934–36.
[d] Net imports.
[e] Including French North Africa, India, Turkey, and numerous other countries in years in which they ranked as net exporters.

Canada easily maintained her customary position as the world's largest exporter, though her exports were absolutely smaller than in any other postwar year except 1929 and 1936. Australia, Russia, and the United States competed for second rank, with Russia and the United States reporting exports smaller than last year's but otherwise the largest since 1931–32. In contrast, Argentine shipments were somewhat on the small side, exceeded (as in 1936–37) not only by Australian exports but also by exports from both Russia and the Danube basin.

Although Danubian exports were relatively large in comparison with most earlier years, they were surprisingly small in view of the record wheat surplus in that area. Rumania, officially credited with exportable supplies of 75 million bushels or more, apparently exported less than 22 million bushels through December—about the same as in the corresponding periods of the two preceding years. Bulgaria made virtually no contribution to the Danubian export movement despite a reported record crop; and Yugoslavia shipped sparingly from a 20-million-bushel surplus. Only Hungary exported fairly freely as judged by estimates of her original exportable supplies; but these supplies have recently been increased by some 5 to 10 million bushels as a result of territorial gains from Czecho-Slovakia.[1]

The bulk of the world's exports during August–December moved from countries which provided some type of governmental subsidy; and recently Argentina and Australia have also taken steps to guarantee to wheat growers prices above the present export level. It is still too early to evaluate the trade effects of these diverse forms of governmental subsidy; but several tentative statements seem warranted. The Canadian export movement during August–December was clearly dominated by the selling policy of the Canadian Wheat Board—a policy that seems in fact as well as in original theory to have been that of keeping Canadian wheat "at all times . . . . competitive on the world's market." Although Canadian exports totaled only 89 million bushels through December, the board could not be accused of having "restricted" export sales. Canadian exports were small, simply because other countries competed actively for substantial shares in the relatively light import trade.

Highly irritating to Canadians was the expressed determination of the United States Secretary of Agriculture to have the United States export 100 million bushels of wheat (including flour) during July–June 1938–39. Net exports of roughly 25 million in the first two months (July–August) were almost entirely commercial; but practically all later exports moved under government subsidy. The early subsidized movement was definitely slow. Despite increasing subsidies (pp. 271, 279) and strong efforts of governmental officials to negotiate sales to foreign countries, September–November exports (usually seasonally heavy) totaled only 15 million bushels. In December, however, came reports that the FSCC had sold 25 million bushels of wheat to British millers and that an additional 3 million would be turned over to the Red Cross for distribution in Spain. By the end of December actual net exports from July 1 approximated 46 million bushels: additional subsidized export sales and the gift to the Red

[1] For some weeks after the boundary adjustments, the Hungarian government is said to have forbidden free trade in wheat between the newly acquired territory and the rest of Hungary (see *Marktbericht des Reichsnährstandes*, Dec. 5, 1938, p. 11); but later the government set buying prices for wheat in the new areas at levels above those in other districts.

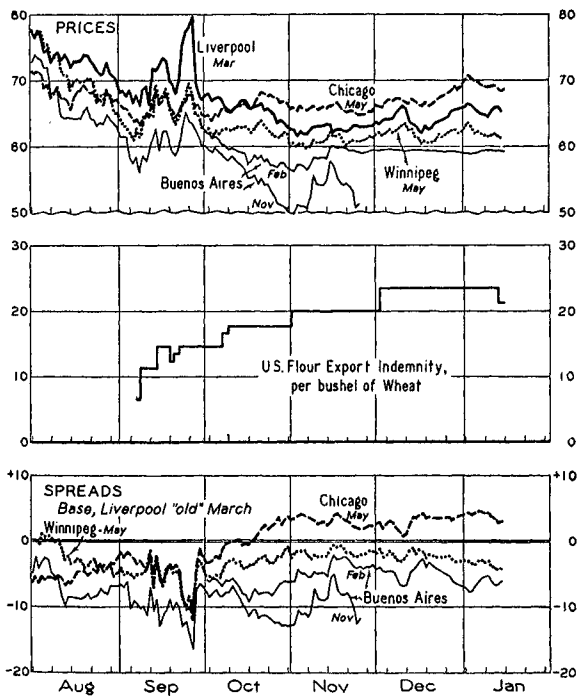
Cross brought the total disposed of by December 31 to about 75 million bushels.

Prices and Price Relations

The course (though not the level) of wheat prices in North America and in uncontrolled importing markets thus far in 1938–39 has closely resembled that of prices ten years earlier, when the previous great wheat surplus emerged. In 1928, rapid price decline terminated early in July and was followed by a prolonged period of narrow price fluctuation on a horizontal trend. This year the decline went much farther and was not finally checked until early September. Since then the price movement has been broadly horizontal at

Chart 4.—Wheat Futures Prices and Spreads, and United States Flour Export Indemnity Rates Daily from August 1938*

(*U.S. cents per bushel*)



* Prices at the close for Chicago and Winnipeg; 4:00 P.M. for Buenos Aires; opening next morning for Liverpool. Export indemnity rates from east of the Rocky Mountains, per barrel (p. 279), converted at 4.5 bushels per barrel.

Winnipeg, slightly downward at Liverpool, and slightly upward at Chicago, with extraordinarily small fluctuations except during the war scares of middle and late September (Chart 4). Prices in early September had reached a level at which tendencies to further decline met strong opposition.

Levels of prices in the current season may best be compared with those of 1933–34, since price comparisons with earlier years of surplus require more allowance for effects of the subsequent large changes in currency values and in general price levels. Wheat prices in 1933–34 were under the influence of the largest wheat surplus yet recorded. In terms either of gold or of purchasing power they fell in the international market to the lowest levels recorded prior to the present season. After declining persistently from a peak in July 1933, Liverpool prices maintained a uniform low level from December 1933 through April 1934. The following tabulation compares average prices in November 1938 (generally the lowest monthly averages for the present season thus far) with averages for December 1933–April 1934, in the currencies in which originally quoted and in United States cents per bushel:

Country and description[a]	Original quotations[a]		Cents per bushel	
	1933–34	Nov. 1938	1933–34	Nov. 1938
United Kingdom				
British parcels	21.9	22.1	69.6	65.0
May future	21.0	21.6	66.6	63.4
No. 1 Manitoba	26.2	26.6	83.3	78.1
No. 3 Manitoba	23.5	24.4	74.9	71.7
Australian	21.4	22.6	68.1	66.4
Canada				
Weighted average	62.1	54.8	61.7	54.4
No. 3 Manitoba	59.7	52.2[b]	59.6	51.8
United States				
Basic cash, Chicago	....	....	85.5	64.0
No 2 Hard Winter, Kansas City	....	....	81.8	63.3
No. 2 Red Winter, St. Louis	....	....	88.2	65.8
No. 1 Dark Nor. Spring Minneapolis	....	....	87.4	73.1

[a] Shillings per quarter in the United Kingdom; Canadian cents per bushel in Canada.

[b] To farmers selling to the wheat board the price is 76 cents per bushel.

The British prices, in sterling, averaged 1 to 6 per cent higher in November 1938 than during December 1933–April 1934. Converted to

United states currency, however, the British prices averaged 2 to 7 per cent lower in November 1938 than during the earlier period of low prices, since the dollar value of the pound had declined nearly 8 per cent over the interval. Prices in Canada were some 17 per cent lower in November 1938 than in the earlier period, influenced partly by advances in lake and ocean freights.

Prices in the United States in November were supported relative to Liverpool by export subsidies approaching 20 cents per bushel, yet even so were 16 to 25 per cent below corresponding averages for December 1933–April 1934. In 1933–34 the United States had a wheat surplus sufficient for a carryover of 274 million bushels, but speculative holding, encouraged partly by anticipation of further general price advances following currency devaluation, held domestic wheat prices close to an import basis until mid-April.

Apparent imminence of European war, first in mid-September and again late in the month, led to sharp price advances; but when war was averted, prices fell back to levels at the first of October almost identical with the lows of early September. Thereafter there was a slight divergence of price trends among the three principal markets, associated with increases in the subsidies on wheat and flour exports from the United States, but perhaps partly attributable to speculative buying at Chicago encouraged by the favorable business outlook. Prices at Chicago remained a little above the lows of early September and October; Liverpool fell about 6 cents per bushel below these lows, to new low levels at the first of November; and Winnipeg followed an intermediate course. Mild price advances about mid-October and in early December were followed by prompt reactions, but an advance from mid-December to early January has thus far been partially held.

Important crop developments transpired during the period under review, but had relatively little influence on prices. The export-subsidy program of the United States had a significant effect, tending on the one hand to support prices in the United States, and on the other, to depress prices elsewhere. The selling policy of the Canadian Wheat Board seems to have exerted little or no positive influence on prices. Influences restricting export sales from Rumania tended to support prices, and absence of pressure of export sales by Argentina became a significant price-supporting influence in December and early January.

Relations among price movements of wheat, other sensitive commodities, and stocks during September–December were peculiar. In the absence of strong wheat-price movements originating in the wheat situation, no clear influence on other prices from that source could be expected. Responses of wheat prices to influences reflected in other prices were varied and are best discussed in subsequent paragraphs in connection with detailed treatment of the course of wheat prices. Most noteworthy of the relations among movements of sensitive prices was the tendency to opposing movements of different prices in response to common influences from early September through early October (Chart 6, p. 274).

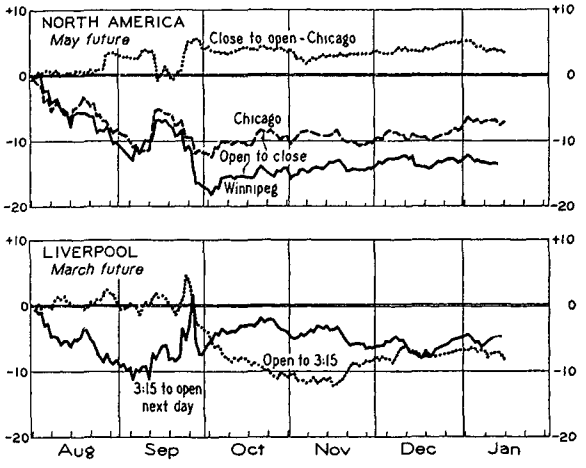
Market leadership.—Detailed discussion of the course of prices during September–January may well be preceded by brief examination of the record of cumulated interval changes in futures prices at Liverpool and North American markets, indicative of the origin of price movements. This record, as it appears in Chart 5, is notable chiefly for absence, after early September, of the usual degree of similarity between price changes over corresponding intervals at Liverpool and at North American markets respectively. During the period in which prices were dominated by political news, opening prices at Liverpool were determined by the tone of the morning's news with little regard to price movements in North American markets during their sessions of the day before. Opening prices in North America, in these circumstances, depended on the level of the latest Liverpool quotations rather than merely on the price change at Liverpool between its opening and 3:15 P.M.

More significant were disparities in movement during the first eleven days of October and during November 18–23. In the first of these periods Liverpool declined during its session on every day but one, as indicated by the downward course of the dotted curve in

the lower section of Chart 5. North American markets, however, responded but little to these declines in their overnight price changes, and Liverpool was led to recover between 3:15 P.M. and its opening next morning most of the price decline of the day before.[1] The resulting

CHART 5.—CUMULATED INTERVAL PRICE CHANGES, CHICAGO, WINNIPEG, AND LIVERPOOL, FROM AUGUST 1938*

(*U.S. cents per bushel*)



* Progressive summations of price changes over designated daily intervals, from August 1. A decline of 5 cents during one month in the curve designated "Open to close, Chicago," for example, indicates that the sum of the net price changes between the opening and the close of the market on all trading days of the month shows that price decreases during trading sessions aggregated 5 cents more than increases during trading sessions. The total price change during the month is this sum plus (or minus) the sum of the daily changes between the closing price and the opening price next morning, represented by the change in level of the line designated "Close to open, Chicago."

peculiar inverse movement of the two curves in the lower section of Chart 5 continued in some degree until October 21. Then Winnipeg in particular turned weak for a time, and joined in initiating a mild price decline to November 3.

Conspicuous strength developed at Liverpool during sessions on November 18–23, but North American markets again showed little response and Liverpool reacted downward at its opening. Failure of North American markets to respond to price movements initiated at Liverpool, when it is not associated with progressive change in inter-market price spreads, seems generally symptomatic of buying or selling, as the case may be, by the type of traders who place orders for execution either at the opening or at stated prices near the previous close—traders who do not follow price fluctuations during the day, but buy or sell in expectation of a fairly broad price movement.

Prices and war fears in September.—During most of September wheat price movements were dominated by political news. Serious apprehension over the outcome of the German demand for cession of the Sudeten area of Czecho-Slovakia was registered in speculative markets on September 9 and increased until September 14, when announcement was made of the decision of the British Prime Minister to fly to Germany for a conference with Chancellor Hitler next day. This conference and subsequent developments resulted in a marked easing of tension by the 20th; but when Czecho-Slovakia ordered mobilization of its entire army on September 23, fear of a general European war rose to a new peak. Events seemed to be moving inexorably toward open hostilities until, on September 28, the German Chancellor invited representatives of Britain, France, and Italy to meet with him at Munich next day. At that meeting the principal German demands were granted and it became clear that war had been averted, for the time being at least.

These political events were reflected in wide price movements in the principal speculative markets. Wheat prices rose with increasing political tension and declined as tension eased. Ocean freight and insurance rates were similarly affected in the second and more acute war scare, with the result that the later wheat price fluctuations at Liverpool were more violent than in exporting countries. Prices of securities, represented in Chart 6 (p. 274) by an index for industrial stocks, moved in opposition to wheat. Some commodities—notably other grains, sugar, and the fats and oils—moved as did wheat in response to the political developments.[2] Prices of cotton, rubber, silk,

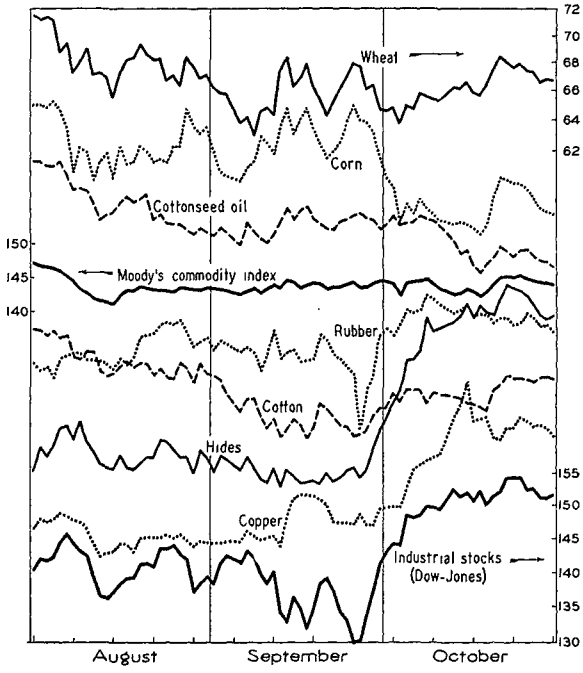
[1] Most of the recovery usually came during the last 45 minutes of trading at Liverpool, after opening of the North American markets.

[2] Copper prices, notorious for sensitiveness to prospects for war, advanced and declined as did wheat in the movements of mid-September, but, oddly, showed no response to the more acute threat of war in late September.

and coffee, on the other hand, moved in the opposite direction, as did security prices.

Owing to the opposite reactions of different groups of commodity prices to the political news during September, Moody's index of prices of sensitive commodities fails entirely to reflect these important influences affecting

CHART 6.—PRICES OF WHEAT, AND SIX OTHER SENSITIVE COMMODITIES, AND PRICE INDEXES OF SENSITIVE COMMODITIES AND INDUSTRIAL STOCKS, DAILY, AUGUST–OCTOBER, 1938*



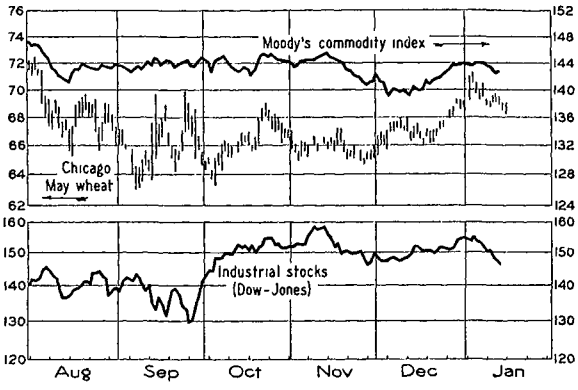
* For commodities, closing prices of March or May futures; indexes as in Chart 7. A logarithmic vertical scale is used, and equal percentage changes are shown by equal vertical distances on all curves. Except for wheat (cents per bushel) and the two indexes, scale values are omitted to permit bringing the curves close together.

most of the commodities included. Even during much of October, the index continued to be unrepresentative. While prices of some commodities and of securities advanced rapidly on release from the threat of war, prices of those commodities that had been carried upward by the war scare tended to continue on a prolonged downward reaction. In later months, the general index number of prices of sensitive commodities, as shown in Chart 7, adequately reflects such general price tendencies as manifested themselves.

October 4–November 3. — Conspicuous strength appeared in Chicago wheat prices during October 4–21, reflected in price advances chiefly on four days—October 5, 7, 20, and 21—but apparent throughout the period in effective resistance to the simultaneous tendency to price decline at Liverpool. None of the four conspicuous advances appeared directly associated with current news. Accompanying this strength in prices, there was an almost uninterrupted increase in volume of open contracts in Chicago wheat futures,

CHART 7.—CHICAGO MAY WHEAT PRICES AND INDEX NUMBERS OF PRICES OF SENSITIVE COMMODITIES AND STOCKS, DAILY FROM AUGUST 1938*

(Cents per bushel; per cent; logarithmic vertical scales)



* High and low prices of the Chicago future; index of closing prices of 15 sensitive commodities, base December 1931 = 100, compiled by Moody's Investors Service; index of closing prices of 30 industrial stocks, compiled by Dow-Jones News Service. The scales represent a change of 10 per cent in stocks prices by the same vertical distance as a change of 5 per cent in either the wheat price or the Moody index.

which rose from 107.3 million bushels on October 4 to 116.3 million bushels on October 21.[1] Export sales of wheat and of flour in terms of wheat over this interval apparently amounted to only 2–3 million bushels.[2]

The price advance at Chicago during this period seems to have been occasioned chiefly by speculative buying of wheat futures encouraged by increasing optimism over the general business situation. The associated rapid

[1] The volume of open contracts had declined rapidly from a peak of 122.0 million bushels on Aug. 29 to a low of 103.9 million on Sept. 29. The subsequent advance continued to a high of 118.6 million bushels on Oct. 27.

[2] Export sales under the subsidy program were reported as having totaled over 14 million bushels through September 30, 15.9 million bushels through October 15, and about 19 million bushels through November 15.

increase in volume of open contracts at Chicago began on September 30, only two days after stocks prices started sharply upward. The increase in open contracts thereafter closely paralleled the course of stocks prices. The natural effect of the new buying of wheat futures thus reflected was apparently counteracted at first by stronger price-depressing influences. Throughout this period of price strength at Chicago, Liverpool exhibited weakness during its sessions. Winnipeg shared the strength of Chicago, however, and Liverpool prices repeatedly recovered in response to the strength in North American markets. There resulted a peculiar pattern of price movements noted above in discussion of Chart 5. The price of the Chicago May future nevertheless rose by October 22 to about the level of its war-scare peaks in September.

As the buying movement in wheat related to the recovery in stocks prices approached an end, wheat prices began to yield to the persistent price weakness at Liverpool, and during October 21–November 3 Chicago lost most of its previous price advance, while Liverpool and Winnipeg prices fell to new low levels. The weakness at Liverpool was attributed to favorable progress of the Argentine crop, expected pressure of export sales from the United States, and especially to urgent selling of wheat that had been shipped unsold in cargo space engaged during the war scare.

November 3–December 17.—During the six weeks ending December 17, the extreme range of prices on the Liverpool March future was less than 6 cents per bushel in terms of American equivalents, while at Chicago the price range of the May future was only 4 cents. Most of the price movement during the period occurred in a price advance from November 30 to December 12 and a decline, amounting at Liverpool to nearly 5 cents per bushel, during the next five days. Liverpool had exhibited fairly consistent strength in price changes during its sessions from November 16, attributed to firmness of shippers' offers, the drought in Northwest India, and purchases of Australian wheat by India. Weakness at Chicago during the latter half of November, associated with liquidation of the December future, counteracted the strength at Liverpool; but when urgent liquidation at Chicago had been completed, prices rose readily for a few days. The final advance at Liverpool was associated with reports of further purchases of Rumanian wheat by Germany and Italy.

Liberal sales of Canadian wheat were reported on four successive business days at the top of this price movement, and the price decline which followed immediately at Liverpool was attributed partly to hedging of Canadian wheat bought the day before. At the same time there were rumors that some of the Australian wheat recently bought for India would be offered for resale, owing to the imposition of a duty on wheat imports into India; and on December 16 offers of two cargoes of this wheat were reported. The surprisingly large official estimate of the Argentine crop, released late on December 16, came after prices had returned to about their preceding lows and depressed them but little further.

Noteworthy fluctuations occurred in sterling exchange during this period and later, but the range of movement was only about 3 per cent. Prices of Liverpool wheat futures in sterling tended to move inversely with the exchange rate, so that the price in dollars was not affected.

December 17–mid-January. — From mid-December wheat prices moved upward again under the impetus initially of an unexpectedly low official estimate of the condition of the winter-wheat crop in the United States. Continuing absence of offers of wheat from Argentina on a normal scale was a strong underlying influence. Continued drought and severe cold followed by unseasonable warmth in the southwestern United States, and continued drought in northwestern India, helped to carry the price advance forward. During this advance substantial purchases seem to have been made by the FSCC, presumably to satisfy requirements for shipments on the earlier sale (p. 270) of 25 million bushels of wheat to British millers. Removal of hedges on a large scale was indicated by a decline of 11 million bushels in open contracts in the Chicago May future between December 23 and January 5.

Price reactions during January 4–16 were slight. Argentina continued to offer wheat

sparingly, and firm holding by Australia gave special strength to the "old" March future at Liverpool.

Price relations among markets.—The price of the Winnipeg May future during September and early October was consistently about 5 cents under the Liverpool March, except in late September when freight and insurance rates advanced sharply, influenced by the apparent imminence of war. The other fluctuations in the relationship during September, as they appear in the lower section of Chart 4, p. 271, are attributable chiefly to the fact that at times the opening quotations at Liverpool, from which the spreads shown are calculated, were out of line with the previous close at Winnipeg. During October 6–22, as North American markets advanced in the face of a persistent tendency to price decline at Liverpool, Winnipeg gained about 3 cents per bushel relatively. Since then the May future at Winnipeg has fluctuated mostly between 1 and 3 cents under the Liverpool "old" March future.

The Chicago May future during September–January followed a course relative to Liverpool very similar to that of Winnipeg except for a divergent trend associated with increase in the amount of the export subsidy in the United States. Following initiation of the subsidy program, the Chicago May future in early September went to 3 cents per bushel over the Winnipeg May, but during most of September the prices of the two futures were nearly identical. During September 28–October 22 the Chicago May future advanced gradually to 5 cents over the Winnipeg May. Corresponding increases in the flour export indemnity (Chart 4), and presumably in the wheat export subsidy, were made after widening of the Chicago-Winnipeg spread. We are unable to find evidence that increases in the rate of subsidy directly occasioned price increases at Chicago relative to Winnipeg. The evidence supports, rather, the view that the subsidy was increased in order to permit continued sales in the face of relative strength in United States prices; but such evidence in no wise controverts the view that the existence of the subsidy program was a significant factor underlying the relative strength in Chicago prices. That the subsidy was not the only influence, however, is indicated by the fact that the period in which Chicago advanced relative to Winnipeg coincided with the period of increase in volume of open contracts at Chicago and of advance in security prices.

From October 22 to December 20 the Chicago-Winnipeg spread was extraordinarily uniform at about 5 cents per bushel. Then it widened gradually to nearly 8 cents per bushel in early January, mainly in connection with the general wheat-price advance of December 20–January 3, which was led by Chicago.

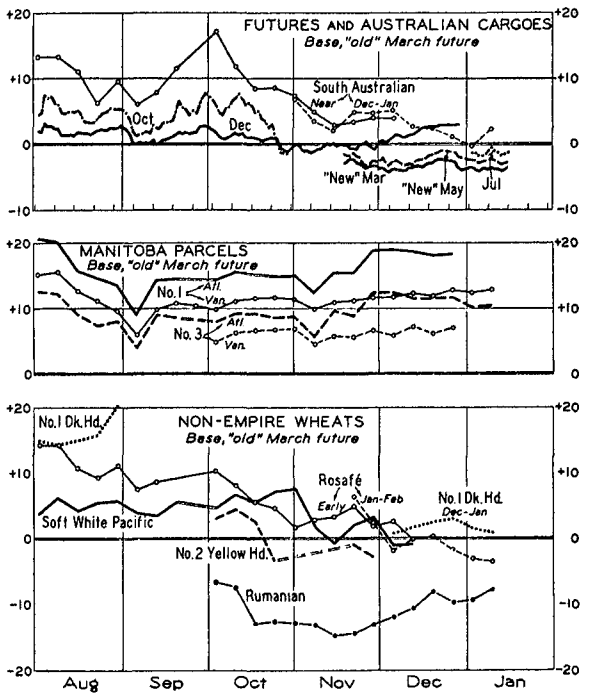
At Buenos Aires the price of the old-crop future (November) remained at about 5–7 cents per bushel under the Chicago May during September and early October. From October 11, however, it weakened sharply, reaching 16 cents under the Chicago May and 13 cents under the Liverpool March by the end of October as pressure for exportation of the remainder of the old crop increased. The February future at Buenos Aires held a premium of 1–2 cents over the November until October 17. Thereafter it received strong support from expectation that prices on the new crop would be fixed by the government under an act passed by the Argentine Congress early in October. On November 14 the fixed price was announced and next day the February future rose to 7.01 pesos per 100 kilos, equivalent to about 60 cents per bushel. The subsequent slight decline in price of this future, apparent in Chart 4, is a consequence of decline of the peso in terms of dollars as the peso followed sterling.

British price relations.—In the British market, near-by wheat not in governmental stocks was relatively scarce until late October. In early September, soon after institution of the export subsidy plan in the United States, there appeared to be prospect of pressure of near-by supplies. Shippers' offering prices were lowered, especially on Canadian wheats, and the October and December futures declined sharply relative to the March (Chart 8). The expected pressure from North America did not develop, however; shippers' offers on Manitobas were raised and, on No. 1 Manitoba Atlantic shipment, for example, were held at about 15 cents over the Liverpool March fu-

ture from mid-September through October; United States winter wheat was not priced low enough to compete seriously in the British market; and the small remaining supplies of Australian and Argentine wheats were firmly held until after early October. The

CHART 8.—BRITISH WHEAT PRICE SPREADS, FROM AUGUST 1938*

(U.S. cents per bushel)



* Price differences for futures (top section), based on Liverpool daily closing prices. For cash wheats, differences on Tuesdays between the opening price of the Liverpool "old" March future and c.i.f. sellers' quotations, generally from Broomhall's *Corn Trade News*, on wheat afloat or for early shipment, except as otherwise designated; South Australian, cargoes to the U.K.; other wheats, generally parcels to Liverpool, except Vancouver-shipment Manitobas and Rosafé, which are to London. Non-Empire wheats subject in addition to duty equivalent to about 6 cents per bushel until January 1.

Liverpool October future, especially affected by the firm holding by exporters, rose to as much as 8 cents per bushel over the March; and even the December future was nearly 3 cents over the March at the end of September.

Shipments of wheat were heavy during October, especially from Canada, influenced partly by commitments for cargo space made during the war scare and, according to trade opinion, by desire of the Canadian Wheat Board to move a good proportion of their supplies before the close of navigation on the Great Lakes and the St. Lawrence. The sharp relative decline of the Liverpool October future after mid-October was partly attributable to arrival at Liverpool of a cargo of No. 2 Yellow Hard Winter wheat that graded for tender on the future at a premium of ½*d.* per cental; but the fact that this occurrence could so sharply depress the future reflected a general easing of the near-supply position. Eventually, to the surprise of the trade, 12 loads (96,000 bushels) of Australian wheat were tendered on the October future.[1]

Definite pressure of wheat that had been shipped unsold appeared in the c.i.f. market in early November. Prices of Manitobas were temporarily reduced in relation to the Liverpool March future, and prices of Australian wheat, both new and old-crop, declined further. Prices of Rumanian had been reduced in mid-October and remained 13–15 cents under the March future.

Removal of the duty of 5*d.* per cental (about 6 cents per bushel) on non-Empire wheats imported into the United Kingdom apparently had no effect on relations among c.i.f. quotations in the British market. The change, announced in connection with signing of the general trade agreements between the United States and Great Britain and Canada on November 17, did not take effect until January 1, 1939, but might have influenced c.i.f. quotations almost immediately if it had been regarded as important for price relations in the international market.[2] Relations among

[1] *Corn Trade News*, Nov. 2, 1938.

[2] The fact that the event had been anticipated with considerable confidence for several months would have tended toward some discounting of expected effects; but we have seen no evidence that the trade expected removal of the duty to have a significant influence on relations among c.i.f. prices. On theoretical grounds, it may be supposed that the preferential duty gave some price advantage to the countries of the Empire. It gave them an unquestionable competitive advantage among British buyers which doubtless increased the percentage of Empire wheat used in Great Britain. There must thus have been less Empire wheat to be sold in Continental and other outside markets; and it may be supposed that Empire wheats of special quality may have commanded somewhat higher relative prices in these outside markets on account of such reduced supply. It has not proved possible to show convincingly from the statistics, however, that the preferential duty in fact significantly altered the

prices paid by British millers were of course affected by removal of the duty.

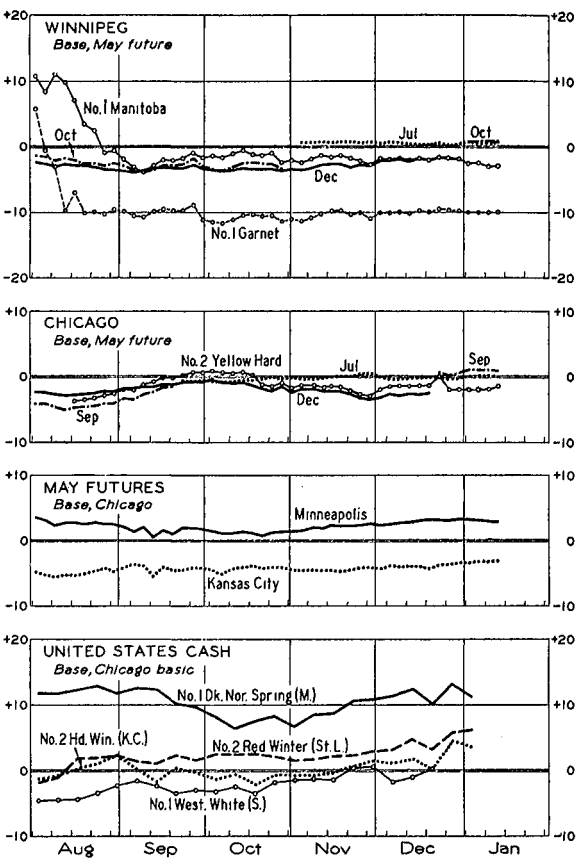
Announcement that the duty would be removed necessitated institution of trading in "new" March and May futures on November 18. If a seller should tender non-Empire wheat on March or May contracts entered into before November 18, he would be legally bound to deduct from the sale price the amount of the duty in effect at the time the contract was made.[1] Buyers, therefore, could reasonably count on receiving Empire wheat (Australian, specifically) on "old" March and May contracts, and non-Empire wheat (United States or Argentine) on new contracts. The fluctuations in prices of "new" contracts relative to the "old" reflected varying appraisal of probable price relations between Australian and Argentine wheats in the delivery months.

North American price relations.—At Winnipeg the price of No. 1 Northern declined to parity with the October future in early September (Chart 9), but during most of October it carried a premium of 1–2 cents over the October future. No. 3 Northern, selling generally at 4–6 cents under the future, was slightly farther above its deliverable basis of 8 cents under. No. 1 Garnet, deliverable after September 30 at a discount of 8 cents per bushel (instead of its former discount of 5 cents) sold throughout October at 8 cents under the future. In late November and throughout December all tenderable wheats grading No. 3 or higher sold at approximately a deliverable basis relative to the December future. Despite the extraordinarily rapid marketing of the new Canadian crop, the October future maintained a slight premium over the December, and the December future rose eventually to only 1–2 cents under the May. One may infer that the wheat board at least did not press sales to the trade.[2]

In the United States, firm holding by farmers and expectations that storing under government loans and purchases by the FSCC might be heavy strengthened cash prices and led during September to advances of the September and December futures relative to the May. After mid-October, however, cash prices

CHART 9.—NORTH AMERICAN WHEAT PRICE SPREADS, FROM AUGUST 1938*

(*U.S. cents per bushel*)



* Price differences based on Tuesday and Friday closing quotations, except for United States cash wheats; these are weekly averages of daily quotations at Chicago (taken as the base) and Seattle, and weekly averages of all reported cash sales of the designated grades at Minneapolis, Kansas City, and St. Louis.

proportion of Empire wheat used in the United Kingdom. That it significantly affected c.i.f. price relations is even farther from having been demonstrated. Recognizing this fact, the British Dominions accepted removal of the preferential duty with little protest. The Canadian grain trade welcomed it as removing an obstacle to export of Canadian wheat through the United States during the winter.

[1] This feature of British law was discussed in Holbrook Working, "Wheat Futures Prices and Trading at Liverpool since 1886," WHEAT STUDIES, November 1938, XV, 148–50. In the final sentence of this discussion, however, the statement was inverted. It should read: "Only Australian wheat will be tendered on 'old terms' contracts unless prices of the latter rise to 5*d.* per cental above those on 'new terms' contracts."

[2] The wheat board, buying at price schedules with a basis of 80 cents for No. 1 Northern at Fort William–Port Arthur, naturally received all new-crop wheat marketed.

and the near future declined relative to the May; and in late November liquidation in the December future depressed it to 3½ cents under the May, affording holders of wheat a favorable opportunity for shifting hedges to the deferred future. Since only about 50 million bushels of wheat had been stored under government loans by the first of December, and about 67 million at the end of the period for such borrowing, December 31, and since FSCC purchases apparently were being restricted to quantities that might be exported without exceeding the announced objective of exports of about 100 million bushels of wheat and flour, it appeared that supplies in commercial channels for domestic use would be more than ample.

Price relations among the principal wheat-futures markets in the United States changed little during September–December. The largest change in spreads between May futures was the advance of about 2 cents per bushel of Minneapolis relative to Chicago from late October to mid-December.

United States export subsidies.—The sudden and unexpected initiation of a program of subsidized exportation of wheat and flour from the United States was noted in our last "Survey." The development and consequences of the program deserve attention beyond the incidental references in the foregoing discussion of the course of prices and spreads.

Regular statistics on the amount of subsidy involved in sales of wheat for export are not available, but such figures as have been released support the assumption that the regularly published indemnity rates on export sales of flour afford a satisfactory index of the subsidy on sales of wheat. For exports from points east of the Rocky Mountains the export indemnity on flour export sales was first set at 30 cents per barrel (September 7), increased next day to 50 cents, and shortly thereafter (September 14), to 65 cents, equivalent, at 4.5 bushels to the barrel, to about 14.5 cents per bushel of wheat. Liberal export sales under the incentive of the first war scare made this rate of indemnity appear unnecessarily large and it was reduced on September 19 to 55 cents; but with easing of political tension, prices declined, and the indemnity rate was increased next day to 60 cents, and on September 22 was restored to 65 cents per barrel. Subsequent changes in the principal rates were upward to a maximum set on December 2 following announcement of the wheat sale to British millers and cancellation of export indemnities on flour sales to the British Isles. Below are shown, in cents per barrel, the indemnity rates that have been in effect for export sales of flour (A) from east of the Rocky Mountains, and (B) from the Pacific Coast to destinations other than the Philippines and, from October 10, China and Hong Kong. The rates apply from 2 P.M. Eastern Standard Time on the dates shown.

Date	A	B	Date	A	B
Sept. 7 ...	30	30	Oct. 7 ...	75	50
Sept. 8 ...	50	35	Oct. 10 ...	80	50
Sept. 14 ...	65	45	Nov. 1 ...	90	60
Sept. 19 ...	55	40	Nov. 14 ...	90	75
Sept. 20 ...	60	45	Dec. 2 ...	105	95
Sept. 22 ...	65	50	Jan. 13 ...	95	85
			Jan. 17 ...	95	75

Indemnities on flour exports from the Pacific Coast differed according to destination. Exports to the Philippines had one rate, which was changed many times and erratically. Export sales to China and Hong Kong carried the general Pacific Coast indemnity rate to October 7 and 10, respectively, and thereafter the same or about the same rate as export sales from points east of the Rocky Mountains.

The clear effects of the export subsidy program of the United States were two: exports from the United States will be substantially larger than they would have been otherwise,[1] and Chicago prices were held considerably higher relative to Liverpool than they would have been without the subsidy. To what extent the subsidy supported Chicago prices absolutely, and to what extent it depressed Liverpool, can only be guessed. One guess for which considerable support can be adduced is that, during November, when the rate of subsidy was about 20 cents per bushel, Chicago prices may have been about 5 cents per bushel higher than they would have been with-

[1] The course of export sales is summarized above, pp. 270–71.

out the subsidy; and that Liverpool prices on most wheats may have been 5–10 cents per bushel lower than they would have been.

Little or no direct connection between changes in rates of export subsidy and changes in Chicago prices can be discovered. On the other hand, initiation of the subsidy program and increases in the rate of subsidy in early October were followed immediately by price declines at Liverpool. If the subsidy had a substantial effect on prices in the United States, the influence must have been exerted chiefly through its effect on exports and on the price opinions of potential holders of wheat, among whom the most influential are traders in wheat futures. The exportation doubtless helped also by removing some direct hedging pressure from the market. Possibly these influences kept prices as much as 5 cents per bushel higher than they would otherwise have been by October or November.

Export sales of United States wheat in substantial quantity seem to have been possible only when the price difference between the Chicago May and the Liverpool "old" March future plus the subsidy reached about 18 cents. Shortly before the subsidy went into effect, the price difference was about 5 cents. Since late October, the Chicago May future has been generally 2–4 cents over the Liverpool "old" March. In the absence of the subsidy, the Chicago price might have declined below this relation to Liverpool, but it is scarcely to be supposed that the price difference would have widened sufficiently to permit free exportation from the United States. If it be supposed that without the subsidy Chicago would have gone to about 10 cents under Liverpool, the subsidy may be judged to have kept Chicago about 12–14 cents higher relative to Liverpool (or Liverpool 12–14 cents lower relative to Chicago) than it would have been otherwise. If the price-supporting effect of the subsidy on the Chicago price amounted to about 5 cents, then its price-depressing effect at Liverpool may be judged to have amounted to 7–9 cents or, in round figures, say about 5–10 cents.

These figures must be regarded as only rough guesses, but they give concrete expression to two facts that are not open to serious question: (1) the subsidy program had some price-supporting influence in the United States; and (2) its price-depressing effect abroad, except as regards the price of United States wheat specifically, was less than the difference between this price-supporting effect and the amount of the subsidy.

Wheat loans.—The loan provisions of the Agricultural Adjustment Act seem thus far not to have had the desired effectiveness as a price-supporting measure. Expectation in the trade that storing under loan might be heavy supported cash prices relative to the May future for a time; but the only significant increase the loan program has afforded to incomes of wheat growers, or now seems likely to afford, has come through providing a means of indirect government purchase from "cooperating" farmers at fixed prices, and grounds for certain direct purchases at fixed prices.[1] Advocated as a means of providing for a desirable holding of stocks after a large harvest,[2] the loan policy promises to lead to no more holding than would have been done otherwise; and an export subsidy program has been set up to prevent what is officially regarded as an objectionable accumulation of stocks in the United States.

Owing partly to unavoidable delay in providing facilities and partly to the fact that market prices on the higher qualities of wheat were sometimes close to the loan rates, relatively few loans were made before October. During October and November borrowing proceeded at the rate of about 5 million bushels per week. The rate of borrowing declined slightly during December. Announcement on December 17 that the time limit for making of loans would not be extended beyond December 31, as originally provided, was followed by reports that requests for extension

[1] To take care of farmers eligible for loans but unable to meet storage requirements, the alternative of direct sale to the FSCC at loan rates was provided in certain areas. Announcement of plans for such purchases in Minnesota, North and South Dakota, Montana, and northern Wisconsin was made on September 27, and a similar announcement for Kansas, Colorado, and Nebraska, on October 12.

[2] A subsidiary feature of the "ever-normal granary" plan was the holding of insurance reserves in the form of grain. Such reserves as of January 7, 1939 were 3,377,496 bushels.

were being given consideration; but on December 28 it was again announced that no extension of the time limit would be made. The loans as reported on January 6 covered 66.4 million bushels, of which 21.0 million was on farms and 45.4 million in elevators.[1]

There were noteworthy regional differences in the extent to which farmers borrowed on stored wheat. Borrowings were negligible in the soft winter-wheat belt, averaged about 6 per cent of the crop in the Southwest, 12 per cent in the Northwest, and 16–14.5 per cent from Montana westward. The percentages of the 1938 crop placed in storage under loan for selected states are shown in the following tabulation:

	Total	Farm	Elevator
Utah	17.7	10.6	7.1
Montana	16.1	5.7	10.4
Idaho	16.0	6.4	9.6
Oregon and Washington[a]	14.5	1.6	12.9
Minnesota	12.4	4.0	8.4
North Dakota	11.8	3.2	8.6
South Dakota	10.2	5.6	4.6
Wyoming	9.5	3.8	5.7
Oklahoma	7.6	.8	6.8
Nebraska	6.2	3.9	2.3
Texas	5.8	.5	5.3
Kansas	4.7	2.1	2.6
Colorado	3.7	2.7	1.0
Iowa	3.5	1.2	2.3
Tennessee	2.5	...	2.5
Illinois	2.1	.3	1.8
Missouri	.8	.1	.7
Michigan	.6	.5	.1
Indiana	.5	.3	.2
Ohio	.3	.3	[b]

[a] Combined because much wheat in store in Portland, Oregon, is from Washington.
[b] Less than .05 per cent.

Borrowings doubtless were somewhat smaller than they would have been if loans had been readily obtainable immediately after harvest, but other factors than time of harvest primarily determined the regional differences in extent of borrowing. Little storing under government loan was done except in states where production per farm is large and wheat provides a major part of the income on many farms. The width of the margin between loan values and market price and the availability of convenient facilities for storage probably had much to do with the percentage of the crop stored under loan.

Storage of wheat under the loan program would doubtless have been much larger in the principal commercial wheat sections if prices had fallen farther below loan values.[1] Weighted average prices of the principal representative wheats at primary markets during October and November averaged only 3–8 cents under loan values, and during December, only 0–5 cents under.

[1] Totals reported up to the end of Thursday of successive weeks from October 13 (the date of the first report) were, in million bushels: 15.2, 19.7, 25.8, 32.2, 37.5, 42.3, 46.7, 50.6, 54.6, 58.8, 61.6, 64.7, 66.4.

Outlook for Trade

International shipments of wheat from August to mid-January were consistent with a net-export total for 1938–39 nearer to the top than to the center of the range we suggested in September. The approximate center—540 million bushels—should in any case be modified now to allow for the recent transfer of territory and population from Czecho-Slovakia to Germany. The boundary changes made in October apparently increase Germany's normal annual wheat deficit by 10 to 12 million bushels (p. 000); and international trade may be expected to increase correspondingly, since old Czecho-Slovakia had not been a significant net importer since 1932–33. Adjusted to the

[1] Loan values and weighted average prices compare as follows, in cents per bushel:

Market and grade	Loan basis[a]	Weighted av. price[b]			Difference		
		Oct.	Nov.	Dec.	Oct.	Nov.	Dec.
MINNEAPOLIS							
No. 1 Dk. Nor. Spring, Heavy	82	74.4	75.3	78.9	7.6	6.7	3.1
No. 1 Dark Northern Spring	81	73.3	73.1	77.3	7.7	7.9	3.7
No. 2 Dark Northern Spring	79	71.5	71.0	74.9	7.5	8.0	4.1
No. 2 Hard Amber Durum	72	65.5	64.9	70.1	6.5	7.1	1.9
KANSAS CITY							
No. 2 Dark Hard Winter	73	68.9	67.7	71.2	4.1	5.3	1.8
No. 3 Dark Hard Winter	70	67.7	66.2	69.6	2.3	3.8	.4
No. 2 Hard Red Winter	72	64.7	63.3	66.9	7.3	8.7	5.1
No. 3 Hard Red Winter	69	63.3	62.1	65.2	5.7	6.9	3.8
ST. LOUIS							
No. 2 Soft Red Winter	73	68.5	65.8	69.8	4.5	7.2	3.2
No. 3 Soft Red Winter	70	66.0	64.1	67.6	4.0	5.9	2.4
SEATTLE							
No. 1 Western White	67	63.2	63.2	64.6	3.8	3.8	2.4

[a] See WHEAT STUDIES, September 1938, XV, 24–25.
[b] Compiled by U.S. Department of Agriculture; for Seattle, simple averages, and for only 3 weeks in December.

basis of new boundaries, our September forecast of world net exports would be 550 million bushels. This we now raise to 560 million to cover a prospective larger increase in German stocks and moderately heavier imports into ex-European countries than our earlier forecast implied.

Shipments recorded by Broomhall may be about 15 million bushels smaller than net exports in 1938–39, or roughly 545 million bushels, of which perhaps 435 million will be destined for Europe. These figures compare with Broomhall's own standing forecasts of 548 and 440 million bushels, respectively.

Our current forecasts, particularly for European imports, are slightly lower than comparable standing forecasts by other students of the wheat situation. Under present conditions of government-directed purchases and government-subsidized sales, imports and exports depend so heavily upon guesses as to political action that there is wide room for difference of opinion as to the prospective volume of world trade in wheat. That the differences in current forecasts are not larger is probably more worthy of remark than that the differences exist. Yet persons interested in anticipating the probable volume of world trade in wheat must center attention upon the differences rather than upon the similarities.

Since the several forecasts of non-European trade are based upon different statistical measures, comparisons for non-Europe can best be made in terms of anticipated increase or decrease from the reported trade in 1937–38. Such comparisons are shown below in million bushels, the United States Department of Agriculture data applying to July–June, the other figures to August–July.

Authority	1937–38	1938–39	Increase
U.S. Dept. of Agriculture..	99	115	+16
Broomhall	103	108	+ 5
Int. Inst. of Agriculture...	119	125	+ 6
Food Research Institute...	119	130	+11

Although little difference of opinion is here indicated, the uncertainties pertaining to non-European trade are actually rather large. At present no one counts on big Oriental imports in 1938–39, yet it is possible that heavily subsidized sales of United States wheat to China may considerably swell the total volume of international trade later in the crop year.[1] Our own forecast implies an increase over 1937–38 of about 7 to 9 million bushels in the combined *reported* imports of China and Manchukuo.[2] Among other non-European countries, Brazil and Palestine may import slightly more wheat than in 1937–38, and New Zealand somewhat less. India, a net exporter in August–September, may rank as a small net importer for the crop year as a whole.

The outlook for European trade, however, is even more uncertain; and this is only partially reflected in the differences in current forecasts for individual European countries shown below, in million bushels. The uncertainties are clearly greatest for the British Isles, Greater Germany, and Italy—countries whose imports depend heavily this year upon governmental decisions with respect to stock-building.

Standing forecasts of British takings range from 204 to 240 million bushels. The lower figure implies light feeding of wheat and small increase of wheat stocks, while the higher implies relatively heavy feeding and a large increase of stocks. We are unable to accept either of these assumptions. On the one hand, wheat prices are low both absolutely and in relation to prices of feed grains; and the British government has already taken certain steps toward building up moderate wheat reserves. On the other hand, calculations of wheat disappearance through December do not suggest heavy feeding of wheat in the first five months of the crop year (p. 266); and there is some evidence that commercial wheat stocks have been kept low partly as a result of the government's own stocks program. Consequently, it seems reasonable to assume that (1) the quantity of wheat fed in the United Kingdom in 1938–39 will be larger than in either of the two preceding years of higher prices, but smaller than in the earlier surplus years of 1931–35; and (2) government reserves may be increased by

[1] Recently there have been market rumors of a possible substantial sale to China by the FSCC.

[2] In 1937–38 Chinese net imports of flour were probably understated by at least 1 million barrels; we anticipate that there may be a similar or smaller understatement in the current year. (See our recent review of 1937–38, WHEAT STUDIES, December 1938, XV, 224.)

something like 10 million bushels while privately owned stocks continue to stand at a low level.

Country	1937–38	1938–39 forecasts				
		Broomhall	I.I.A.	U.S. D.A.[a]	F.R.I.	
		Aug.	Oct.	Dec.	Sept.	Jan.
British Isles	208	204	240	231	215–230	220
Germany, Austria	46[b]	51[b]	35	45	15–27[b]	40
Italy	4	44	16	18	12–20	16
France	16	6	..[c]	2	8	0
Belg., Nether.	61	60	70	63	62–67	65
Switzerland	15	16	18	17	16	16
Scandinavia, Baltic	18[d]	23	25[de]	18	23–26	20
Poland, Czech.	1[d]		..[c]	2[d]	...[e]	..[e]
Greece	18	16	16	15	17–19	16
Spain, Portugal	19[f]	20	10	18	22	22
Europe[f]	406[f]	440	430	429	390–435	415
Non-Europe	119	...[g]	...[g]	...[g]	120	130
Total net imports	525	...[g]	...[g]	...[g]	510–555	545
Change in stocks	+8	...	...	...	−5	−5
Adjusted demand	533	...	...	...	505–550	540
Import-export margin	20	...	...	...	15	20
Total net exports	553	...[g]	...[g]	...[g]	520–565	560

[a] July–June crop year.
[b] Former German and Austrian boundaries.
[c] Net exports.
[d] Without deduction of net exports.
[e] Including 2 million bushels for "Albania, Malta, etc."
[f] Including for Spain our own import approximations which are somewhat higher than the differing figures used by Broomhall, the U.S.D.A., and the I.I.A.
[g] Not comparable with our figures.

German import requirements have presumably been increased by about 10 million bushels for 1938–39 through the addition of Czech territory after the crop year was started (p. 269). Moreover, the magnitude of German imports in the past five months clearly establishes the presumption that wheat stocks will be substantially larger on next August 1 than they were a year earlier. The important question is: how much larger? If German-Austrian imports of approximately 28 million bushels through December mainly represented purchases associated with the September war scare, imports in January–July may be notably small or even negligible.[1] But if the German government has decided that another international crisis is imminent or if the officials think it necessary to promote Germany's political interests through barter purchases of wheat from the countries of southeastern Europe and/or Argentina, January–July imports may substantially exceed the allowance made in our crop-year forecast of 40 million bushels. The sources of Germany's imports in August–November, however, suggest that the German government has not yet undertaken to "buy" political co-operation with wheat purchases. We therefore anticipate that our current forecast of German imports will be exceeded only if heavy preparation is made for another international crisis.

The outlook for Italian imports is uncertain especially in view of the questionable accuracy of the standing official crop estimate, and of the insecure basis for apraising governmental policy toward stock-building. Our own tentative opinion is that the Italian crop of 1938 was overestimated, but perhaps by no more than the preceding crop, which in the official estimates is put at about the same figure. Last year Italian imports totaled only 4.4 million bushels, and there is not yet evidence to indicate that definitely larger imports will be taken this year. In fact, it seems significant that at the time of the war scare Italy apparently took no steps to meet a possible wheat deficit, nor has she since been reported to have made substantial purchases. Even her rumored contract with Rumania for 13 million bushels of wheat is presumably (like other Rumanian contracts) only an *option* to buy. On the other hand, since Italian imports are normally concentrated in the second half of the crop year, and since several exporting countries are this year likely to urge Italian purchases on terms favorable to the Italian government, we anticipate that Italian net imports in 1938–39 will be substantially higher than in 1937–38. Our present forecast—16 million bushels—implies imports appreciably larger than in any of the six preceding years except 1936–37, when takings of 57 million were well foreshadowed by active forward buying prior to January 1937.

In the aggregate, standing import forecasts

[1] This is possible despite Germany's reported contract with Rumania for 400,000 tons of wheat—a contract that merely represents an *option* to buy.

for other European countries differ but slightly, the four forecasts all ranging between 135 and 141 million bushels. Details for individual countries warrant little attention, the differences being at least partly due to revisions in crop estimates made between the different dates of publication of the several forecasts.

For Spain the International Institute of Agriculture anticipates a reduction in imports this year, whereas other authorities expect an increase. Should the Nationalists soon be granted "belligerent rights," the International Institute's forecast might prove the more nearly correct; but as yet we have no ground for assuming that this change will occur. In the event of cessation of hostilities, Spanish imports might or might not reach the total here suggested, depending mainly on the gross terms of settlement and upon the financial support forthcoming from other countries.

Sources of exports.—Governmental export subsidies and negotiations for export sales will presumably play an important role in determining the magnitude of exports from individual countries in January–July. Current forecasts of exports must therefore rest almost as heavily upon political guesses as upon economic considerations, with resulting increase in margins of possible error. With full recognition of the uncertainties involved, we present below our forecast of the distribution of net exports in 1938–39, in million bushels, with comparisons:

Country	6-year average[a]	1936–37	1937–38	Forecasts 1938–39 Sept.	Jan.
United States ..	30[b]	...[c]	118	70	80
Canada	193	195	87	140	145
Australia	112	102	126	65	65
Argentina	128	162	72	125	135
Lower Danube .	39	89	54	75	70
USSR	22	5	43	45	37
Others	45	56	53	20	28
Total	569	609	553	540	560

[a] From 1932–33 to 1937–38.
[b] Without deduction of net imports in 1934–37.
[c] Net imports.

The major uncertainties are in the forecasts for Argentina, Australia, and Canada. There is now little question that United States exports (August–July) will reach or moderately exceed 80 million bushels, that Soviet exports will fall within the range of 35 to 45 million, and that exports from "other" countries[1] will be significantly below their average in 1932–38. Moreover, on the basis of trade developments through December, it seems unlikely that the Danube countries will export more than 70 million bushels in 1938–39 unless some significant change in governmental policy is introduced in Rumania, where the bulk of the surplus lies.

Our forecast of 80 million bushels for United States net exports in August–July may be taken to imply exports of 90 million or more in July–June—moderately below the goal set by Secretary Wallace for the United States crop year. American officials have vigorously attempted to reach the announced goal, but have encountered difficulties ranging from governmental protests by competing exporters to adverse price reactions when increases were announced in American export subsidies. Nevertheless, from July 1 through December, net commercial exports, foreign sales made under the subsidy program, and the wheat turned over to the Red Cross for Spain totaled about 75 million bushels—a big stride toward the 100-million goal.

From now on, however, the added competition of the new Southern Hemisphere crops will presumably enhance the difficulty of making substantial export sales. If sales are to be directed at markets that customarily take wheat, there is always the problem of avoiding the ill-will of other exporting countries—of running counter to the United States' "good-neighbor" policy. Three possibilities remain: (1) the FSCC may give larger amounts of wheat to the Red Cross for distribution in Spain or perhaps China; or (2) the FSCC may sell (presumably on credit) a sizable amount of wheat at subsidized rates to China and/or other countries that would otherwise import little; or (3) Secretary Wallace and the FSCC may rest content with exports

[1] Among "other" countries, the principal exporters this year will be French North Africa, Japan, Uruguay, and the Near Eastern countries (Turkey and Iraq). India, which in September was expected to be in this group, is now counted as a prospective net importer.

that fall only moderately short of the 100-million-bushel goal. Our forecast of July–June net exports at 90 million bushels suggests that the last course may appear most acceptable. If, on the contrary, either of the first two alternatives is chosen, American exports may moderately exceed our forecast.

If, as we now anticipate, countries other than Canada, Argentina, and Australia export roughly 215 million bushels of wheat in 1938–39, only about 345 million would remain to be shipped by these three. Only once before in postwar years have the combined exports of Canada, Argentina, and Australia fallen so low; that was last year when both Canada and Argentina harvested notably small crops and had small exportable supplies. The current unprecedented situation of a greatly restricted outlet for abundant wheat supplies in Canada, Argentina, and Australia greatly increases the difficulties of forecasting. Of chief concern is the possibility that through increased subsidies or negotiation one or more of these exporters may press sales heavily, thereby restricting the outlet for other exporters.

There is no adequate basis for judging what the future will bring in the way of international competition. Yet certain considerations seem pertinent. Australian exports are likely to be kept down not only by the relatively small wheat supplies available in that country, but also by the fact that for export wheat Australian farmers and exporters receive no more than the current price on international markets minus freight costs. It therefore seems reasonable to anticipate that January–July exports from Australia will be smaller than in any other recent year; and we tentatively place our forecast at 30 to 35 million bushels for the seven months.

Will either Canada or Argentina press wheat heavily on importing markets during the coming months? The answer to this question is more uncertain. However, during August–December the present Canadian Wheat Board showed no tendency to press wheat heavily; and during December–January offers of Argentine wheat on the international market have been exceptionally light in relation to the apparently large domestic surplus. Moreover, the record of Argentine exports in January—July 1934, under similar conditions of purchase and sale by a grain board (p. 290), support the view that Argentina's competition this year will not involve excessive pressure of export sales. We accordingly expect Argentine exports in January–July 1939 to approximate only 110 to 115 million bushels, or roughly 5 million more than in each of the five surplus years 1931–35. Such exports would leave Argentina with unprecedentedly large stocks on August 1, 1939; yet these would be but little larger than in 1929 and only about 20 million bushels above those in 1934.

Should Argentine and Australian exports in January–July be about as anticipated, there would be a remaining outlet for about 55 to 60 million bushels of Canadian wheat. Such exports would be some 20 million larger than the postwar record low exports last year and not appreciably smaller than those in the same months of 1937. Moreover, exports of this size would presumably bring the Canadian wheat carryover as of August 1 down to about 135 million bushels—a level not extraordinarily high in a year of heavy world wheat surplus such as 1938–39.

The allowances made above for January–July exports bring the indicated crop-year totals for Canada and Argentina close to the same level—145 and 135 million bushels respectively, while indicated Australian exports fall far below at 65 million. These forecasts differ little from the ones we published in September.

Prospective Carryovers

There is now no question that the world wheat carryover of 1939 will be one of the largest in history, substantially smaller only than that of 1934. Whether it will be slightly larger or smaller than the 1933 carryover is not yet clear; but in general, the level will be very similar. Because of the great uncertainties in the outlook for trade and the difficulty of estimating prospective wheat utilization in several of the largest consuming countries (pp. 264–67), current forecasts of the approximate distribution of the 1939 carryover are necessarily subject to a substantial margin of

error. Yet certain broad outlines of the distribution are now reasonably well established. These may best be discussed with reference to the following tabulation which shows our present detailed forecast in million bushels, with comparisons:

Position	1923–27 average	1931–34 average	1934	1938	1939 forecast
United States[a]	118	335	274	154	300
Canada	38	167	193	23	130
Australia	31	62	85	50	75
Argentina	65	85	118	65	145
Total	252	649	670	292	650
Europe ex-Danube	193	260	379	190	300
Danube basin	37	47	54	24	75
French N. Africa	13	8	6	5	7
Total	243	315	439	219	382
India	46	45	29	29	48
Others[b]	64	75	65	61	55
Grand total	605	1,084	1,203	601	1,135

[a] As of July 1.

[b] Stocks afloat to Europe and to ex-Europe; United States wheat in Canada and Canadian wheat in the United States; and stocks in Egypt and Japan.

All available evidence points to a United States carryover in the neighborhood of 300 million bushels. It may run a little higher or lower, but probably will not reach the 1931–34 average of 335 million nor fall as much as 35 million bushels below our present forecast. Moreover, while the exact distribution of August 1 stocks among Canada, Argentina, and Australia may differ significantly from that here suggested, aggregate stocks in these three exporting countries will almost certainly exceed their average in 1931–34, yet fall appreciably short of the record total for 1934. Underlying our stocks forecasts for the three individual countries is the assumed distribution of exports discussed in the preceding section and the approximations for domestic utilization shown in Table IX.

Our stocks forecasts for India and the Danube countries are very rough approximations; yet their general implications that Indian stocks will be moderate, though higher than in the past few years, and that the Danubian carryover will be definitely heavy, are not open to serious question. Although India's last wheat crop was reported to be a bumper, and her net exports during April–December probably did not exceed 10 million bushels, we now anticipate that her old-crop carryover as of next April 1 will be only of moderate size. Poor outturns of certain native crops this past fall and the recent low level of international wheat prices have presumably resulted in a sharp expansion of Indian wheat consumption. In the Danube basin, too, wheat disappearance has doubtless increased this year. Not only has consumption probably expanded in Rumania in response to short corn supplies and high corn prices, but apparent wheat disappearance is expected to prove large in Bulgaria, owing to indicated overestimation of the Bulgarian crop. Yet despite anticipated heavy wheat disappearance, Danubian year-end stocks will necessarily be heavy in reflection of the extraordinarily large wheat crop harvested in that area in 1938.

In Europe ex-Danube, August wheat stocks are certain to be at least moderately heavy in 1939 if for no reasons other than that (1) France, Poland, Czecho-Slovakia, Sweden, and the Baltic countries harvested excessive wheat crops in 1938 and have thus far made little headway in disposing of their surpluses, and (2) in the face of an adequate wheat crop, Germany (excluding Austria) imported almost 25 million bushels of wheat in August–December and will probably take somewhat more before the end of the crop year. Our current forecast, however, allows for increase of wheat carryovers as compared with 1938 not only in these countries, but also in all other countries of Europe ex-Danube with the exception of Spain. This allowance is made principally because 1938 carryovers were below normal in most European countries, and current low import prices should everywhere stimulate reconstruction of at least normal working supplies. In addition, the international political tension will presumably induce some countries to establish moderate emergency reserves. Yet our present forecast of European stocks does not imply that Britain or any of the other principal importers will make much progress in construction of really heavy wheat reserves dur-

ing the current crop year. At present the only country that seems to have moved significantly in that direction is Germany, and her large imports may have been associated primarily with the autumn war scare rather than with the desire to build a large reserve for storage in 1939. French stocks will be notably heavy, not because of the government's desire to build up emergency reserves, but because the French wheat crop of 1938 was embarassingly large. In other importing countries we count on but slight increase of government-owned stocks outside of Great Britain, where a moderate increase is anticipated. However, if later political developments should suggest another European crisis in 1939, European import buying for military reserves would presumably be stimulated, and both European imports and carryovers would probably prove larger than now anticipated.

Outlook for 1939 Acreage

The size of the world wheat crop of 1939 will determine whether there is prospect of fairly early recovery from the existing condition of world wheat surplus or whether progress toward recovery will be deferred for at least another year. Indications of the probable outcome may become significant price influences during the next few months. They have perhaps already had an effect on the attitude of governments toward joining in an international wheat conference to deal with the surplus problem.

Significant evidence on prospects for the 1939 wheat crop is now limited mainly to information on acreage sown or likely to be sown. In the tabulation below we show, for principal countries or groups of countries, the average acreage sown to wheat during 1934–36, acreage sown for harvest in 1938, and our appraisals of the acreage outlook for 1939. As a rough guide to the significance of the acreage figures there is shown also the production that would result, apart from two instances, on the assumption of average yields per acre. For India and for winter wheat in the United States the production figures shown (in million bushels) are actual forecasts.

For winter wheat in the United States, an official estimate of acreage sown is available. For the United States, and state by state, winter wheat acreage has either been reduced to about the average sown for harvest in 1928–32 or held close to the 1938 figure where that was below the earlier average. Acreage allotments under the Agricultural Adjustment Act were set at 74.36 per cent of presumptive normals based on roughly computed trends of acreage, but acreages actually sown suggest that upward trends, where they existed, were reversible by low prices, and that farmers as a whole merely returned to about an earlier normal. The average acreage sown to spring wheat during 1928–32 was 22.1 million acres, but on the assumption that farmers in spring-wheat areas will feel more compulsion to conform to the allotments than farmers elsewhere, we anticipate that spring-wheat acreage in the United States will not exceed 20 million acres.

Region	Million acres			Bushels per acre, 1927–36	"Possible" production, 1939
	1934–36	1938	Forecast, 1939		
United States					
Winter	47.1	56.4	46.2[a]	12.0	485[a]
Spring	21.7	23.5	20.0	9.3	186
Canada	24.6	25.9	25.0	14.4	360
Australia	12.3	14.0	12.3	11.4	140
Argentina	16.8	20.9	17.5	12.5	219
Lower Danube	20.4	22.0	22.5	16.1	362
Other Europe	57.8	56.2	56.5	21.0	1,186
French N. Africa	9.1	8.5	8.5	8.1	69
Others ex-Russia	24.0	23.2	23.5	14.4	338
India	34.7	35.6	34.0	10.4	340[b]
Total	268.5	286.2	266.0		3,685

[a] Official estimate: for production, subject to large change.

[b] Production may well fall considerably below this figure, but if so, consumption will be almost equally reduced.

Canada, wheat acreage sown fell from a record high of 27.2 million acres in 1932 to a low of 24.0 million acres in 1934. With expectations of continued governmental aid to farmers and present prospects for adequate moisture at seeding time, Canadian acreage may be about midway between the low of 1934 and the subsequent high of 1938—say 25 million acres. Acreage in Australia reached a peak of 18.2 million in 1930 and then fell to 12.0 million in 1935. Farmers there feel the impact of low prices but little cushioned by

governmental subsidy and this year have suffered low yields to add to their discouragement. We think it reasonable to assume an Australian acreage of 12.3 million, only slightly above the low of 1935.

Argentine wheat acreage declined from 22.8 million acres sown in 1928 to 14.2 million in 1935. A declining share of wheat in the total crop area was characteristic even of the period when the wheat area was rapidly expanding during 1922–28. This process was much accelerated after 1929, when the wheat area tended to decline under the effect of low prices, while the corn area increased from 11.8 million acres in 1928 to 18.8 million in 1935. But since 1935 the wheat area, under the influence of improved prices, has risen much faster than total crop area, while corn and flax acreage has declined.[1] In view of these tendencies in relations between the areas under the principal grains, and of the fact that wheat prices are much more depressed on the world markets than those of corn, linseed, and meat it seems reasonable to expect that for the next crop farmers may shift from wheat to corn and flax, and to alfalfa pasture. Establishment of the minimum wheat price above the market value, however, will tend somewhat to check acreage reduction.

Argentine wheat acreage fell to 14.2 million in 1935 partly owing to unfavorable conditions at planting time. Otherwise the smallest wheat acreage sown in recent years was 17.5 million in 1936. Acreage in 1939 may fall to about the low level of 1936.

For the countries of the Danube basin, private estimates reported by Broomhall indicate increases of 5–15 per cent in acreage of winter wheat. In Rumania, which accounts for nearly half of the wheat area of the region, the government urged reduction of acreage, but winter-wheat seedings are reported to be 5 per cent above those of last year. Inasmuch as the acreage harvested last year set a postwar record partly because of low abandonment, acreage harvested in 1939 may be only 2½ per cent over that of last year.

Wheat acreage in Europe outside Russia and the Danube basin expanded steadily to a peak of 58.2 million acres in 1935, and has since contracted slightly, owing chiefly to reduction in Spain due to civil war and to some curtailment of acreage in France. French acreage for the 1939 crop may be reduced somewhat further, but such reduction may be more than offset by the reported increase in Italian acreage and some recovery in Spain.

For India, allowance must be made for probable reduction of both acreage and yield per acre on account of drought in the northwestern districts. The production forecast shown above is about 10 million bushels below normal domestic consumption. The actual crop may fall considerably below this, but if so, domestic consumption will probably be reduced by a similar amount, leaving the net effect on international supplies about the same as though the crop were 340 million bushels.

If it be assumed that yields per acre will equal the 10-year average, 1927–36, in all major regions except India and for winter wheat in the United States, and if prospective production in the latter two areas be taken at 340 and 485 million bushels respectively, indicated 1939 wheat production for the world ex-Russia works out at 3,685 million bushels. A conservative allowance of 25 million bushels for Russian exports would raise calculated new-crop supplies for the world ex-Russia to about 3,710 million bushels, as compared with annual utilization during the last six years of 3,740–3,780 million bushels. For most of the regions outside India and the United States there exists as yet little ground for predicting in what direction yield per acre in 1939 may diverge from the 10-year average. Generally favorable moisture conditions in the spring-wheat regions of the United States and Canada, however, create a presumption that yields there may not fall as low as the 10-year averages, which include an abnormal proportion of drought years.

Outlook for Prices

Wheat prices during February–May will continue under the influence of a record or near-record world wheat surplus. As attention turns more to prospects for the next season, it is likely to become increasingly ap-

[1] For trends of crop areas under the principal grains, see Paul O. Nyhus, "Argentine Wheat," *Foreign Agriculture*, July 1938, II, 324.

parent that only extraordinarily bad weather would reduce the wheat surplus for 1939–40 to moderate proportions. Crop news may determine the course of prices from late March, but even striking crop developments may arouse only a relatively weak response of prices at Liverpool. Further deterioration of winter wheat in the United States might raise prices considerably more at Chicago than in the international market.

Until late March at least, and perhaps through May, the general course of wheat prices will depend largely on decisions of governmental agencies, though fluctuations from day to day and from week to week will probably continue under the influence of market news. The results of the recent meeting of the International Wheat Advisory Committee in London suggest that an international agreement such as might advance wheat prices is not to be expected during the next few months at least. If Argentina is content with the limited export sales possible under present price relations, international wheat prices during February–March may change little from the levels of mid-January. The Argentine Grain Regulating Board, however, may soon offer wheat to exporters on more favorable terms, with resulting depression of prices at Liverpool. If Canada and Rumania do little to meet such increased competition, the Liverpool "new" May future may not decline below about 55–60 cents per bushel by the end of March.

At Chicago, prices may fall by the end of March somewhat below the levels of mid-January, perhaps to about 65 cents for the May future, unless supported by unfavorable crop prospects in the United States or substantial further improvement in the general business outlook. New-crop futures may be relatively stronger than the May, under increasing prospects for supplies in commercial hands substantially in excess of requirements.

Competition among exporters.—From mid-January to late March, crop news is unlikely to exert much price influence and wheat prices in the British market may be governed chiefly by competition among exporters. The prices at which wheat is offered for export by all the major exporting countries except Australia is subject to a substantial measure of governmental control. The course of international prices may therefore depend chiefly on governmental decisions.

The United States probably will exert little influence on the international wheat market during the remainder of the season. The announced goal of exports of 100 million bushels during July–June can now be almost attained through moderate continuing sales of flour and of wheat, mostly to markets in which the United States enjoys some special advantage. There is also evidence that governmental efforts to encourage further sales have been relaxed. Australia may reasonably be counted on to export about 33 million bushels during January–July under the influence of normal incentives (p. 285). The principal uncertainties concern prospective selling policies of Rumania, Canada, and Argentina.

Argentina can obtain an outlet for her new-crop wheat only at the expense of reduced sales by other countries, principally Canada and Rumania. Rumania may perhaps be counted on to continue a reserved selling policy, though she might resort to more urgent selling late in the season if Germany and Italy take relatively little wheat under the trade agreements already made. The Canadian Wheat Board, we assume, will avoid pressing wheat on the market to such an extent as to depress the Winnipeg May future below about 60 cents per bushel. But in the face of Argentine competition, selling prices of Rumanian and Canadian wheat can scarcely be raised except under formal international agreement—for which there now seems no early possibility—or under the encouragement of poor crop prospects.

Prices of Argentine wheat on the British market as of mid-January, about on a par with the Liverpool "new" March future, are low enough to permit moderate export sales. If Argentina is not content with the volume of sales effected at these prices, a moderately larger loss on export sales may be accepted and prices of Liverpool "new" futures correspondingly depressed—perhaps to 55–60 cents for the "new" May future.

Previous experience with Argentine controls.[1]—The probable critical importance of Argentine selling policy in determining the fu-

ture course of prices warrants a brief review of previous experience. The price for wheat from the 1933–34 crop was fixed at 5.75 pesos per 100 kilos simultaneously with the deliberate depreciation of the Argentine peso. The government feared that increased prices of grain reflecting depreciation of the peso would make holders of grain wish to dispose of their stocks as quickly as possible by selling to exporters. In order to provide against this, the government decided to regulate grain sales abroad, and for this purpose established the Grain Regulating Board, which fixed the basic purchase price for wheat at a level 20 per cent above the market value, just previous to the depreciation of the peso. Although the board was selling wheat to exporters during the first half of the crop year at a loss—at 5.20 pesos per 100 kilos—it did not press the wheat on the market.

The recovery of world wheat prices in May, as a result of bad crop news in the Northern Hemisphere, enabled the board to dispose of a considerable part of its holdings at prices that covered previous losses. Even so, the stocks of wheat carried in Argentina on August 1, 1934, in relation to the total supply of Argentine wheat (crop plus stocks on August 1 the previous year), were the largest for the postwar period, and in absolute size were second only to those in 1929.

The situation in the current year is significantly different from that in 1933–34, at least in the respect that the government has not this year undertaken a simultaneous depreciation of the currency. The official selling rate of sterling exchange was indeed raised on November 7 from 16 to 17 pesos per pound sterling, but the buying rate remains at the previous level of 15 pesos. The enlarged margin between the selling and buying rates of the pound, however, insures larger profits in the exchange-control fund, from which losses on exports of wheat may be covered. The existing margin of 2 pesos automatically produces a profit on exchange equal to 13.3 per cent of the selling price of export commodities. However, the fixed price plus freight is equivalent to slightly over 75 cents per bushel c.i.f. Liverpool, which is about 15 cents, or 25 per cent, above recent prices of the "new" March future at Liverpool. Consequently, if it should be the policy of the grain board to press wheat on the world market at prices competitive with highly subsidized exports from other countries, the profits from current sales of exchange obtained from exports of wheat would not suffice to cover its losses. It would be necessary to cover them from profits on exchange during previous years[2] or from profits on exchange currently obtained from other exports. Prices of corn, linseed, and animal products are not depressed as much as wheat prices; and, even if a minimum price is established for corn, which now seems quite probable, subsidies on other principal agricultural exports may not absorb all the profits on the exchange obtained therefrom. Generally speaking, the financial position of Argentina, in spite of an unfavorable balance of trade during 1937–38, is much stronger now than it was in 1933–34. The country's international credit position is correspondingly better,[3] and presumably it would not be difficult to raise funds for heavy subsidizing of wheat exports if this course should be chosen.

Experience with the 1935 crop, when the Argentine minimum wheat price of 10 pesos per 100 kilos exceeded the market price, scarcely throws light upon the present situation. That crop was the smallest in postwar years, and even with the price fixed above the market level, Argentina was able to dispose of the larger part of her small surplus in Brazil. It is true that her stocks carried over on August 1, 1936 were large in relation to the small size of the crop, but they were easily disposed of on the rising market following July 1936. However, it is noteworthy that in 1935–36, as in 1933–34 when the fixed minimum price was above the market level, the Argentine

[1] This discussion is contributed by V. P. Timoshenko.

[2] During 1934–37 these totaled about 400 million pesos. See *Economist*, Sept. 4, 1937, and *Commercial Intelligence Journal*, Dec. 3, 1938, p. 978. Part of this profit was used, however, for debt repatriation and to cover the unfavorable balance of payments in the second half of 1937.

[3] It had no difficulty in floating a 10-year loan for $25,000,000 in New York at 4½ per cent a few weeks ago. See *Commercial Intelligence Journal*, Dec. 3, 1938, p. 979.

wheat surplus was not pressed on world markets and relatively large stocks were carried on August 1.

Effects of crop prospects.—The outlook for 1939 wheat crops is unlikely to become sufficiently definite to stimulate significant price changes before late March. The Indian crop will pass through a critical period in the interval, but the outcome is unlikely to have much effect on the international market.

Prices in the United States might advance from late March if winter-wheat crop prospects should suffer further deterioration; but other markets would probably respond only moderately because the United States is already expected to have little new-crop wheat for export next year, yet is unlikely to become a net importer. Improvement in crop prospects for the United States would raise domestically the question of governmental price policies for the coming season. The immediate effect on international prices might depend largely on the reactions of governmental agencies currently subsidizing exports from other countries.

Price changes induced by developing crop prospects, through May at least, are likely to be moderate or small. Only such widespread crop damage as could not occur before July would avoid continuation of burdensome wheat surplus through 1939–40. As suggested above (p. 287), wheat acreage for the world ex-Russia is likely to approximate the 1934–1936 average, and if yields per acre should equal the 10-year average except in India and for winter wheat in the United States, and approximate our present estimates for those regions, new-crop supplies might approach 3,700 million bushels. Including prospective carryover into 1939–40 and moderate Russian exports, total supplies might approximate 4,845 million bushels, or only about 200 million less than for 1938–39. If average yield per acre for the world ex-Russia should equal the record postwar low (12.8 bushels, in 1936) the crop on 266 million acres would be 3,405 million bushels; and total supplies, allowing for no exports from the USSR, would approximate 4,540 million bushels—about as in 1935–36, which was a year of moderate surplus.

Price relations.—The foregoing considerations suggest that during February–March futures prices at Winnipeg may maintain about the same relation to Liverpool as in mid-January, or show relative strength in the event of increased pressure from Argentine wheat at Liverpool. The Chicago May future, on the other hand, may tend to weaken moderately relative to Liverpool unless supported by speculative buying encouraged by crop news or prospects of further business recovery. With ocean freights generally at minimum conference rates and no early prospect of advances due to recovery in trade, intermarket price relations are unlikely to be much affected by changes in ocean freights.

In the United States, supplies of wheat promise to be such as might depress the price of the Chicago May future to 1–2 cents under the July by the end of April at least, and result in about an equal discount of the July under the September. With prospective carryover of wheat in the United States at about 300 million bushels and only about 70 million bushels now stored either under government loan or as crop insurance reserves, supplies on July 1 in commercial channels or still held by growers may be at least 270 million bushels.[1] There seems now no ground for anticipating important changes in inter-market price relations in the United States, though further deterioration in winter-wheat crop prospects might threaten a relative shortage of hard wheats and tend to increase prices at Kansas City and Minneapolis relative to Chicago.

[1] Some of the wheat under loan may pass into commercial channels through sales before July 1. In the main, the wheat stored on farms under loan will either be sold by May 31, 1939 or revert to the Commodity Credit Corporation. Such of it as reverts to the CCC may be turned over to the FSCC and in part sold for export, with the net effect of increasing supplies in commercial channels above the level here counted on.

The authors are indebted to V. P. Timoshenko for discussion of Argentine marketing policies and acreage trends in this study, and to Rosamond H. Peirce, Pauline S. Armstead, and P. Stanley King for tables and charts

APPENDIX TABLES

TABLE I.—WHEAT PRODUCTION IN PRINCIPAL PRODUCING AREAS, 1933–38*

(Million bushels)

Year	World ex-Russia[a]			United States	Other chief exporters[b]	Europe ex-Russia				French North Africa[d]	India	Others ex-Russia[a]	USSR
	Total[a]	Northern Hemisphere	Southern Hemisphere			Total	Lower Danube[c]	France, Italy, Germany	Others				
1933.....	3,810	3,268	542	552	745	1,742	367	867	508	70	353	348	1,019
1934.....	3,490	3,046	444	526	650	1,546	249	738	559	97	350	321	1,117
1935.....	3,557	3,184	373	626	568	1,575	302	739	534	70	363	355	1,133
1936.....	3,508	3,038	470	627	620	1,480	384	642	454	50	352	379	*960*
1937.....	*3,788*	*3,345*	*443*	876	553	*1,538*	361	718	*459*	72	364	*385*	*1,200*
1938[e].....	*4,337*	*3,857*	*480*	940	*768*	*1,763*	440	*819*	*504*	68	402	*396*	.....
1938[f].....	*4,440*	*3,903*	*537*	931	811	*1,812*	458	*841*	*513*	70	402	*414*	.....

* Data summarized from Table II (except for India and USSR). Figures in italics are in part unofficial estimates. Dots (...) indicate no data available.

[a] Excludes China, Iran, and Iraq.
[b] Canada, Australia, Argentina.
[c] Hungary, Yugoslavia, Rumania, Bulgaria.
[d] Morocco, Algeria, Tunis.
[e] As of about Sept. 20, 1938.
[f] As of about Jan. 20, 1939.

TABLE II.—WHEAT PRODUCTION IN PRINCIPAL PRODUCING COUNTRIES, 1933–38*

(Million bushels)

Year	U.S. winter	U.S. spring	Canada	Australia	Argentina	Uruguay	Chile	Brazil, Peru	Hungary	Yugoslavia	Rumania	Bulgaria	Morocco	Algeria	Tunis
1933...	376.5	175.2	281.9	177.3	286.1	14.7	35.3	7.98	96.4	96.6	119.1	55.5	28.9	32.0	9.2
1934...	438.0	88.4	275.8	133.4	240.7	10.7	30.1	7.13	64.8	68.3	76.6	39.6	39.6	43.5	13.8
1935...	465.3	161.0	281.9	144.2	141.5	15.1	31.9	7.41	84.2	73.1	96.4	47.9	20.0	33.5	16.9
1936...	519.9	106.9	219.2	151.4	249.2	9.2	28.6	8.54	87.8	107.4	128.7	60.4	12.2	29.8	8.1
1937...	685.8	189.9	180.2	188.0	184.8	16.6	30.3	....	72.2	86.2	138.2	64.9	20.9	33.1	17.6
1938[a]..	688.5	251.5	358.4	*150.0*	*260.0*	....	....	....	96.4	100.9	183.9	59.1	21.5	32.4	14.0
1938[b]..	686.6	244.2	350.0	145.0	316.0	15.3	....	....	96.8	100.9	181.5	79.0	23.9	32.1	14.0

Year	United Kingdom	Eire	France	Italy	Germany	Czecho-Slovakia[c]	Austria	Switzerland	Belgium[d]	Netherlands	Denmark	Norway	Sweden	Spain	Portugal
1933...	62.4	1.98	362.3	298.5	205.9	72.9	14.6	5.44	16.1	15.3	11.5	.76	26.3	138.2	15.1
1934...	69.8	3.80	338.5	233.1	166.5	50.0	13.3	5.55	17.9	18.0	12.8	1.20	27.8	186.8	24.7
1935...	65.4	6.69	285.0	282.8	171.5	62.1	15.5	5.97	17.1	16.7	14.7	1.87	23.6	158.0	22.1
1936...	55.3	7.84	254.6	224.6	162.7[e]	55.6	14.0	4.47	17.2	15.4	11.3	2.09	21.6	121.5	8.7
1937...	56.4	6.99	257.8	296.3	164.1[e]	51.3	14.5	6.18	16.8	12.6	13.5	2.50	25.7	*110.2*	14.4
1938[a]..	*68.3*	*7.70*	319.7	297.0	*202.4*[c]	65.6	*16.5*	6.10	19.7	15.4	*14.0*	*2.60*	*29.0*	*102.9*	16.5
1938[b]..	73.3	*8.00*	*345.4*	297.3	198.5[c]	65.7	*16.2*	6.10	19.6	15.1	16.9	2.61	30.2	*95.5*	16.5

Year	Poland	Lithuania	Latvia	Estonia	Finland	Greece	Turkey	Other Near East[f]	Egypt	Japan	Chosen	Manchukuo	Mexico	South Africa	New Zealand
1933...	79.9	8.2	6.72	2.45	2.46	28.4	98.2	16.7	40.0	40.4	8.9	52.5	12.1	11.5	9.04
1934...	76.4	10.5	8.05	3.11	3.28	25.7	99.7	21.5	37.3	47.7	9.3	23.9	11.0	16.4	5.93
1935...	73.9	10.1	6.52	2.27	4.23	27.2	92.6	24.8	43.2	48.7	9.7	37.3	10.7	23.7	8.86
1936...	78.4	8.0	5.27	2.43	5.26	19.5	141.6	20.3	45.7	45.2	8.1	35.2	13.6	16.1	7.17
1937...	70.8	8.1	6.30	2.79	7.66	32.4	133.0	24.1	45.4	50.4	10.2	41.4	10.6	10.2	5.23
1938[a]..	*80.8*	*8.1*	*6.20*	2.65	7.64	34.1	*147.0*	*24.0*	45.9	50.6[g]	10.3	*35.0*	*12.0*	*11.0*	....
1938[b]..	84.1	9.1	7.05	3.06	7.97	35.9	160.4	*29.3*	45.9	45.2	10.3	34.3	*12.0*	17.4	....

* Data of U.S. Department of Agriculture and International Institute of Agriculture. Figures in italics are unofficial estimates. Dots (...) indicate no data available.

[a] As of about Sept. 20, 1938.
[b] As of about Jan. 20, 1939.
[c] Old boundaries.
[d] Including Luxemburg.
[e] Including the Saar.
[f] Syria and Lebanon, Palestine, Cyprus.
[g] Official; trade estimates suggest 45 million.

TABLE III.—WHEAT RECEIPTS IN NORTH AMERICA, MONTHLY, JULY–DECEMBER, 1933–38*

(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.
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	12.6	13.3	73.2	60.0	21.0	14.2	181.7
1936.....	84.2	29.5	10.6	15.2	10.7	10.4	160.6	4.0	40.8	57.7	22.6	9.0	8.0	138.1
1937.....	111.9	62.2	35.2	22.6	16.1	10.6	258.6	3.4	19.8	44.7	18.0	10.3	5.4	98.2
1938.....	101.2	61.1	38.5	27.3	19.1	14.9	262.1	3.1	39.1	119.6	64.3	21.9	9.6	254.5

* United States data unofficial, compiled from *Survey of Current Business;* Canadian data computed from official figures given in *Canadian Grain Statistics.*

TABLE IV.—WHEAT VISIBLE SUPPLIES, AUGUST–JANUARY 1938–39, 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											
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
1936.....	237.4	67.3	.0	99.5	19.3	186.1	20.6	9.6	30.2	11.5	9.6
1937.....	180.1	89.3	.1	27.8[a]	4.1	121.4	25.6	12.0	37.6	14.5	6.6
1938.....	197.5	96.4	.3	17.1[a]	1.0	114.8	36.5	14.1	50.6	21.5	10.6
Jan. 1											
1934.....	476.5	132.5	2.3	227.6	14.0	376.4	20.7	19.1	39.8	50.0	10.3
1935.....	447.8	91.0	1.0	230.2	27.6	349.8	25.4	16.1	41.5	45.5	11.0
1936.....	441.5	76.7	.0	226.4	34.8	337.9	20.2	10.3	30.5	68.0	5.1
1937.....	267.1	62.4	.0	81.6[a]	27.8	171.8	35.9	9.0	44.9	44.5	5.9
1938.....	283.7	94.5	1.9	49.2[a]	4.7	150.3	31.4	13.0	44.4	82.0	7.0
1938–39											
Sept. 1.....	264.4	133.7	.1	49.7[a]	.7	184.2	39.6	16.5	56.1	13.8	10.3
Oct. 1.....	333.4	139.2	.2	126.9[a]	2.8	269.1	29.4	16.4	45.8	10.0	8.5
Nov. 1.....	364.0	141.9	.5	156.0[a]	4.9	303.3	31.7	17.6	49.3	4.0	7.4
Dec. 1.....	376.7	136.2	.6	154.3[a]	8.3	299.4	31.3	19.0	50.3	20.0	7.0
Jan. 1.....	430.3	128.7	.4	157.1[a]	7.9	294.1	24.7	18.4	43.1	82.8	10.3

* Selected, for dates nearest the first of each month, from weekly data in *Commercial Stocks of Grain in Store in Principal U.S. Markets, Canadian Grain Statistics,* and (for stocks outside North America) Broomhall's *Corn Trade News.*

[a] Excluding, for comparability, stocks in transit by rail which are now included in published totals.

TABLE V.—UNITED STATES FLOUR PRODUCTION, EXPORTS, AND NET RETENTION, MONTHLY, JULY–DECEMBER 1938, WITH COMPARISONS*

(Thousand barrels)

Month or period	Production						Net exports and shipments to possessions			Estimated net retention		
	All reporting mills			Estimated total								
	1936	1937	1938	1936	1937	1938	1936	1937	1938	1936	1937	1938
July	9,416	8,415	8,507	10,028	8,914	9,021	320	308	447	9,708	8,606	8,574
Aug.	9,148	8,678	9,160	9,753	9,193	9,714	356	430	454	9,397	8,763	9,260
Sept.	8,708	9,234	9,699	9,284	9,782	10,285	470	496	444	8,814	9,286	9,841
Oct.	9,120	9,446	9,634	9,733	10,006	10,217	361	533	571	9,372	9,473	9,646
Nov.	8,019	8,698	8,838	8,558	9,234	9,372	307	512	466	8,251	8,722	8,906
Dec.	8,216	8,168	.....	8,778	8,670	8,938[a]	401	510	500[a]	8,377	8,160	8,438[a]
July–Dec.	52,627	52,638	.....	56,134	55,799	57,547[a]	2,215	2,789	2,882[a]	53,919	53,010	54,665[a]
July–June[b] ...	100,264	100,974	.....	106,803	107,147	.....	4,495	5,649	...	102,308	101,498	102,600[a]

* Reported production and trade data from U.S. Department of Commerce, *Wheat Ground and Wheat Milling Products, Monthly Summary of Foreign Commerce,* and Statement No. 3009. Total production and net retention are our estimates.

[a] Preliminary estimate. [b] Twelve months beginning in year stated.

TABLE VI.—INTERNATIONAL SHIPMENTS OF WHEAT AND FLOUR, WEEKLY FROM SEPTEMBER 1938*

(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	Brazil	Others
Sept. 3.....	10.69	4.10	1.45	2.16	2.37	.28	.33	.00	9.10	1.67	3.12	4.31	1.59	.84	.75
10.....	10.52	3.40	.76	1.46	3.96	.64	.30	.00	8.67	1.49	4.33	2.85	1.85	.59	1.26
17.....	8.96	4.15	1.12	1.39	1.30	.99	.01	.00	6.68	1.90	1.89	2.89	2.28	.90	1.38
24.....	9.20	4.30	.88	1.70	1.55	.77	.00	.00	6.84	2.23	2.26	2.35	2.36	.74	1.62
Oct. 1.....	10.88	5.53	1.53	1.26	1.51	.94	.11	.00	8.64	1.77	2.33	4.54	2.24	1.22	1.02
8.....	11.07	5.78	.84	.98	2.57	.90	.00	.00	9.65	2.17	3.82	3.66	1.42	.00	1.42
15.....	9.91	4.77	.42	1.71	1.26	1.73	.00	.02	8.21	1.62	2.42	4.17	1.70	.40	1.30
22.....	12.73	8.11	.80	.84	1.28	1.52	.14	.04	10.79	2.79	3.01	4.99	1.94	.79	1.15
29.....	14.82	7.36	1.49	1.79	1.07	3.02	.00	.09	11.51	3.31	1.75	6.45	3.31	.98	2.33
Nov. 5.....	11.43	6.19	1.02	.50	.82	2.22	.00	.68	9.70	4.05	1.29	4.36	1.73	.90	.83
12.....	11.45	6.49	.90	.57	.95	1.90	.00	.64	10.00	3.38	1.38	5.24	1.45	.66	.79
19.....	11.95	6.31	.71	.59	.22	3.71	.00	.41	10.06	3.15	2.66	4.25	1.89	.71	1.18
26.....	12.40	6.31	.68	1.54	.42	2.95	.00	.50	10.34	4.19	3.10	3.05	2.06	.58	1.48
Dec. 3.....	11.75	4.69	1.12	.61	.55	4.45	.00	.33	9.60	4.02	.79	4.79	2.15	.69	1.46
10.....	7.19	2.07	.45	1.66	.26	2.50	.00	.25	5.27	1.49	1.41	2.37	1.92	.38	1.54
17.....	7.33	1.73	1.00	1.70	.62	2.02	.00	.26	4.60	1.68	.61	2.31	2.73	.98	1.75
24.....	9.24	3.91	.93	1.58	.55	2.17	.00	.10	6.40	2.46	1.42	2.52	2.84	.57	2.27
31.....	10.19	3.03	1.20	2.48	.00	3.36	.00	.12	7.44	1.51	3.25	2.68	2.75	.87	1.88
Jan. 7[c]....	7.20	4.00	.59	.82	.38	.55	.00	.86	4.89	1.54	1.03	2.32	2.31	...	...
14[c]....	11.29	4.74	1.68	2.17	.00	2.13	.00	.57	9.32	3.74	2.69	2.89	1.97	...	...

* Here converted from data in Broomhall's *Corn Trade News*.

[a] Including Uruguay. [b] North Africa, etc. [c] Preliminary.

TABLE VII.—NET IMPORTS OF WHEAT AND FLOUR, MONTHLY FROM AUGUST 1938*

(Million bushels)

Month or period	United Kingdom	Eire	France[a]	Italy	Germany	Czecho-Slovakia[b]	Austria	Switzerland	Belgium[c]	Netherlands	Denmark	Norway	Sweden	Portugal
Aug.	16.58	1.05	.84	.84	2.30	.59	.27	1.10	4.28	2.84	.56	.52	.26	.27
Sept.	18.07	.98	1.06	.22	3.53	...	.03	2.03	3.59	3.03	.29	.44	.15	.52
Oct.	16.20	2.19	1.25	.64	9.81	...	.68	1.93	2.86	2.25	.76	1.52	.15	.04
Nov.	19.01	....	.09[d]	.29	5.79	...	...	1.36	4.41	2.50	.72	.93	.44	.05
Aug.-Nov. ...														
1938	69.86	5.25	3.24	1.99	21.43	...	1.50	6.42	15.14	10.62	2.33	3.41	1.00	.88
1937	64.88	4.49	4.74	1.07	13.81	(.76)	1.86	4.66	15.60	8.23	1.86	2.64	.27	.07

Month or period	Poland	Lithuania	Latvia	Estonia	Finland	Greece	Syria, Lebanon	Egypt	Japan	Manchukuo	China	Cuba[e]	South Africa	New Zealand
Aug.	(.10)	(.03)	.18	.00	.36	1.94	(.04)	.00	(1.79)	1.39	1.17	.49	1.70	.23
Sept.	(.17)	(.07)	.00	.02	.40	.53	.05	.02	(.90)	....	.61	.36		.07
Oct.	(.50)	(.02)	.00	.00	.36	...	.17	...	(.91)	....	1.82	.43	...	.17
Nov.	(.20)	...	...	.00	.20	...	...	...	(1.81)	....	...	.37	...	...
Aug.-Nov. ...														
1938	(.97)	.14	.18	.02	1.32	4.80	.30	.05	(5.41)	....	5.00	1.65	...	.60
1937	.00	.00	.37	.02	.86	4.40	.17	(.13)	(2.61)	1.12	.60	1.65	.00	.73

* Data from official sources and International Institute of Agriculture. Dots (...) indicate that data are not available. November figures preliminary for some countries; August-November 1937 includes our estimates for missing monthly data. Figures in parentheses represent net exports.

[a] Net trade in "commerce général." [d] Net trade in "commerce spécial."

[b] Old boundaries. [e] Gross imports of flour from unofficial sources.

[c] Including Luxemburg.

TABLE VIII.—NET EXPORTS OF WHEAT AND FLOUR, MONTHLY FROM AUGUST 1938*

(Million bushels)

Month or period	United States[a]	Canada	Australia	Argentina	Hungary	Yugoslavia	Rumania	Bulgaria	Morocco	Algeria	Tunis	Turkey	India	USSR
Aug.	11.75	7.19	9.61	5.15	2.12	1.59	3.60	.00	.54	.09	.07	.00	2.57	9.88
Sept.	4.66	13.90	6.28	4.55	5.69	.72	2.00	.00	.79	(.13)	.14	.33	.68	7.79
Oct.	4.56	26.63	5.33	4.36	3.34	1.13	3.68	.00	.41	.19	...	...	(.80)	....
Nov.	6.19	23.77[b]	3.92	3.93	1.97	.39	7.97	...	.32	...	...	...	(.28)	....
Aug.–Nov. ...														
1938	27.16	71.49	25.14	17.99	13.12	3.83	17.25	.00	2.06	.30	.35	.80	2.17	28.00
1937	29.09	42.14	21.05	12.06	3.67	4.06	18.67	3.18	.77	3.26	2.17	.76	7.12	26.98

* For general notes see Table VII. Here, figures in parentheses represent net imports.

[a] Including shipments to possessions.

[b] Gross exports for December were 17.7 million bushels.

TABLE IX.—WHEAT DISPOSITION ESTIMATES, ANNUALLY FROM 1933–34*

(Million bushels)

Year	Domestic supplies			Domestic utilization				Surplus over domestic use[c]	Net exports			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)											
1933–34....	378	552	930	440	78	+110	628	302	28	4	24	274
1934–35....	274	526	800[d]	450	82	+121	653	147	(1)[e]	2	(3)[e]	148
1935–36....	148	626	774[d]	466	88	+106	660	114	(28)[e]	(15)[e]	(13)[e]	142
1936–37....	142	627	769[d]	471	97	+141	709	60	(23)[e]	(18)[e]	(5)[e]	83[f]
1937–38....	83[f]	876	959	468	96	+134	698	261	107	31	76	154[f]
1938–39[g]...	154[f]	940	1,094	470	78	+146	694	400	80	..	..	320[f]
1938–39[h]...	154[f]	931	1,085	470	79	+146	695	390	90	40	50	300
	B. CANADA (AUGUST–JULY)											
1933–34....	210	282	492	43	30	+32	105	387	194	84	110	193
1934–35....	193	276	469	43	32	+27	102	367	165	80	85	202
1935–36....	202	282	484	45	33	+44	122	362	254	102	152	108
1936–37....	108	219	327	44	34	+21	99	228	195	109	86	33
1937–38....	33	180	213	43	33	+27	103	110	87	42	45	23
1938–39[g]...	23	358	381	44	35	+32	111	270	140	..	..	130
1938–39[h]...	23	350	373	43	33	+22	98	275	145	71	74	130
	C. AUSTRALIA (AUGUST–JULY)											
1933–34....	55	177	232	33	13	+15	61	171	86	26	60	85
1934–35....	85	133	218	32	13	+ 7	52	166	109	34	75	57
1935–36....	57	144	201	33	13	+10	56	145	102	29	73	43
1936–37....	43	151	194	32	15	+ 6	53	141	102	24	78	41
1937–38....	41	188	229	33	15	+ 5	53	176	126	21	105	50
1938–39[g]...	50	150	200	33	15	+ 7	55	145	65	..	..	80
1938–39[h]...	50	145	195	34	13	+ 8	55	140	65	25	40	75
	D. ARGENTINA (AUGUST–JULY)											
1933–34....	75	286	361	66	23	+ 7	96	265	147	33	114	118
1934–35....	118	241	359	69	17	+ 6	92	267	182	63	119	85
1935–36....	85	141	226	69	21	+ 1	91	135	70	35	35	65
1936–37....	65	249	314	70	23	+ 8	101	213	162	19	143	51
1937–38....	51	185	236	71	25	+ 3	99	137	72	12	60	65
1938–39[g]...	65	260	325	71	24	+ 5	100	225	125	..	..	100
1938–39[h]...	65	316	381	71	21	+ 9	101	280	135	18	117	145

* Based on official data so far as possible; see WHEAT STUDIES, December 1938, Table XXX.

[a] Total domestic utilization minus quantities milled for food and used for seed.

[b] Total domestic supplies less surplus over domestic use.

[c] Summation of net exports and year-end stocks.

[d] Not including net imports.

[e] Net imports.

[f] Excluding new-crop wheat in some positions.

[g] Estimates as of September 1938.

[h] Estimates as of January 1939.

TABLE X.—SELECTED WHEAT PRICES, WEEKLY FROM SEPTEMBER 1938*

(U.S. cents per bushel)

Week ending	Futures							United States cash					
	Liverpool		Winnipeg		Buenos Aires	Chicago		Basic cash (Chi.)	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.[a]	Mar.[b]	Dec.	May	Feb.[c]	Dec.	May						
1938													
Sept. 3	72	70	61	65	62	65	67	64	67	67	76	70	62
10	68	68	59	63	58	62	64	63	63	64	75	68	61
17	71	71	64	67	61	66	67	66	65	67	79	70	64
24	73	71	62	65	61	65	66	66	66	68	76	69	62
Oct. 1	73	71	62	65	62	65	66	67	67	69	77	69	64
8	68	67	59	62	61	64	65	65	64	68	73	65	62
15	68	66	60	63	59	65	66	66	66	69	73	66	64
22	67	66	60	63	58	65	67	67	64	69	74	65	63
29	65	65	59	62	57	65	67	66	65	68	74	66	64
Nov. 5	62	63	57	61	57	64	66	64	64	66	71	63	63
12	62	62	57	60	58	64	66	64	64	66	73	65	63
19	63	63	59	62	60	64	66	64	64	67	73	65	63
26	63	63	58	61	59	62	65	63	63	65	73	66	63
Dec. 3	63	63	59	62	59	62	66	64	65	66	74	68	64
10	66	65	60	62	59	64	67	66	67	69	77	70	64
17	66	64	60	62	59	64	67	65	67	70	78	70	64
24	66	63	59	61	59	64	67	66	66	69	76	71	66
31	69	66	60	62	59	..	69	67	71	72	80	72	..
1939													
Jan. 7	63	66	..	63	59	..	70	68	72	74	79	74	..
14	63	65	..	62	59	..	69	67	..	..	..	..	..

Week ending	British parcels	Liverpool (Tuesday prices)					European domestic				Winnipeg		Buenos Aires 80-kilo[f]
		No. 1 Man.	No. 3 Man.	Soft Wh. Pacific[d]	Arg. Rosafé[d]	Australian	Great Britain	France[e]	Germany[e]	Italy[e]	Wtd. average	No. 3 Man.	
1938													
Sept. 3	82	85	80	83	88	82	70				61	60	64
10	69	78	73	78	82	77	66	149	216	212	57	55	58
17	81	81	76	76	80	75	63	(204.0)	(19.9)	(148)	61	59	61
24	79	84	78	81	..	83	63				59	58	61
Oct. 1	82	92	87	..	..	..	64				60	59	62
8	69	82	76	79	84	87	66	149	219	212	55	54	59
15	69	81	75	78	80	81	66	(205.5)	(20.1)	(148)	56	56	58
22	65	79	76	78	78	77	65				57	56	55
29	73	81	74	79	76	77	63				55	53	52
Nov. 5	66	78	72	76	70	76	60				52	51	51
12	66	74	68	70	71	73	57	148	221	212	54	52	53
19	60	79	73	68	72	69	56	(207.0)	(20.3)	(148)	55	53	55
26	65	78	71	70	73	73	53				55	52	52
Dec. 3	67	82	75	72	70	67	53				56	51	51
10	65	83	77	69	73	68	53	149	224	212	58	53	52
17	68	84	77	71	71	68[g]	53	(208.5)	(20.5)	(148)	57	52	..
24	67	81	75	..	69[g]	68[g]	54				54	52	..
31	65	83	76	..	68[g]	68[g]	54				56	53	..
1939													
Jan. 7	..	83	76	..	61[g]	69[g]	..				54	52	..

* For methods of computation see WHEAT STUDIES, December 1936, XIII, 230–31. 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, *Wirtschaft und Statistik;* Italy, International Institute of Agriculture *Monthly Crop Report* . . . . Prices are converted to U.S. cents at noon buying rates for cable transfers. Dots (...) indicate no quotations.

[a] "New" May future from week of January 7.

[b] "Old" March future.

[c] November future through October 1.

[d] Duty added through December.

[e] Fixed prices. Data in parentheses are prices in francs, marks, and lire per quintal respectively. For France this basic price to producers is subject to tax deductions of 22–49 francs per quintal. See *Commercial Intelligence Journal*, Oct. 22, 1938, pp. 726–27.

[f] August 27, 66.

[g] New crops.

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