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# W H E A T   S T U D I E S

## OF THE

### FOOD RESEARCH INSTITUTE

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## SPREADS BETWEEN WHEAT PRICES IN ENGLAND

**T**HE United Kingdom is the largest wheat import market of the world. It is also the largest sample market of the world. The price of imported wheat is a wide range, depending on type, variety, grade, and quality. Consumers' (millers') choices are various and find expression in price differentials. These vary from season to season. Each world crop is a new trade experiment. Averages hold little meaning.

In this study are presented data on wheat price spreads over the decade 1925-34. The amounts of the spread in monetary units, the ranking of the several wheats, the percentages of the high wheat prices represented in the spreads, are tabulated and the positions classified by countries of origin. Canadian wheat usually ruled at top-price, while Argentine wheat stood most often on the bottom rung. Australian wheat occupied the median position, while western European wheats were surprisingly conspicuous as low-priced imports. The hardest wheats were usually the highest-priced; but the lowest-priced were not the soft wheats but atypical and non-descript wheats of either type.

It is pointed out that a number of different factors are involved, including the major influence of cost of raw material. These combine to offer to British mills a wide scope of mixing, which finds reflection in a low price of flour and bread.

Finally, brief and rather casual comment is made on the compared meanings of British price, Dominion price, and world price of wheat. From our study of these price spreads, it becomes clear that such terms are not natural expressions of price differences but will need to be defined. Fixed prices, within the range, are not in the interest of millers or consumers in Great Britain.

STANFORD UNIVERSITY, CALIFORNIA

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**WHEAT STUDIES**  
**OF THE**  
**FOOD RESEARCH INSTITUTE**

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# SPREADS BETWEEN WHEAT PRICES IN ENGLAND

## INTRODUCTION

Not long ago (early in 1934) the suggestion was brought before the International Wheat Conference that, in a proposed control of international movements and prices of wheat, a set of price differentials should be established on import markets, these to be based on types, varieties, grades, and qualities of imported wheats. Such a set of price differentials, it was implied, should then be maintained, not by the daily play of trading forces on the market, but by stipulation. Prices would be pegged within the range. We felt at the time that the proposal lacked statistical background. Whatever might be the desirability in western Europe of controlling the prices of import wheats, an adequate statistical foundation for price differentials would certainly be demanded by the major wheat-exporting countries and closely scrutinized by the importers. In this study we do not attempt exhaustive analysis or interpretation of the recent price spreads. It is our purpose, for the time being, merely to compile them on a stated basis, to make them available to students of wheat trading and flour milling, and thus in a limited sense to open up a topic which is not novel but has merely been neglected. The first step is the collection of appropriate data covering a representative period of time, and we have therefore prepared a restricted presentation of pertinent price material. In addition, it strikes us as appropriate to explore the field to some extent, indicating how and why spreads vary on the British market and reverting to the meaning of the term "world price"—a term perhaps carrying some practical significance now that it has been embodied in the Ottawa Agreements, which may soon be subjected to revision.

## ORIGIN OF WHEATS ON BRITISH MARKET

As background for the price material, it is advantageous to review the wheat import trade of the United Kingdom during recent years. More wheats meet in competition in England than in any other importing country of the world. This is due to small domestic crop and large import requirement. Practically speaking, it is correct to say that the bread of the people of the United Kingdom (certainly of the urban population) is made from imported wheat. Domestic wheat now enjoys a subsidy; wheats grown within the Empire are duty-free; foreign wheats carry a small import duty of 2s. per quarter, equivalent to about 6 cents per bushel at par. There are active and efficient grain ex-

changes in London and in Liverpool. British ships traversing direct and multangular trade routes bring wheat from all countries of origin; vessels under other flags, trading between foreign countries, bring wheat from all quarters. To a considerable extent, foreign wheats on open consignment or destined for the United Kingdom are on the high seas diverted to other countries, or diverted to the United Kingdom from other destinations. To a significant extent, imported wheat and flour (especially flour domestically ground from imported wheat) are re-exported. In a very definite sense, the United Kingdom may be regarded as the clearinghouse for the wheats of the world, the market in which the prices of importing and exporting countries are equated. In short, the United Kingdom is at once the heaviest importer of wheat and the clearinghouse of foreign trade in wheat.

Nowhere in the world have millers such free availability in choice of foreign wheats. Not only is the market liquid and sensitive,

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but it is also very large. In the decade 1925-34, the average annual net import of wheat (as grain) into the United Kingdom was 197.0 million bushels, the highest import in any year was 221.9 million bushels, and the lowest was 178.4 million bushels. The average annual net import of flour was 3,161 thousand barrels, the highest import in any year was 4,304 thousand barrels, and the lowest only 937 thousand barrels. When these are converted into wheat, it is revealed that about 93 per cent of the average net import of wheat and wheat flour was brought in as wheat. The structure of the milling industry is highly "rationalized," indeed almost cartelized. One must regard also the compact localization, with which is to be contrasted the regional dispersion of flour milling in a country like the United States. Under these circumstances, it may be fairly said that in no other country in the world have the consumers of wheat (the millers) so large and free a scope of activity as in the United Kingdom. With the effective rationalization of the milling industry and an ad valorem import duty on flour, it is to be expected that the percentage of total imports

brought in as wheat will tend to rise; and of the declining imports of flour, the proportion from Canada will tend to rise.

The annual ranges of wheat prices in the United Kingdom may be regarded, in a qualified sense, as the counterparts of the annual ranges of imports of wheat, segregated according to countries from which they originated. In particular, it has become important, since the introduction of Empire preference, to separate the wheats of different origins. For the ten years under review such a separation is presented in Table 1.

The purpose of Table 1 is to present the picture of variations. The volumes of wheat imported year after year show variations to the extent of nearly 10 per cent above or below average; these differences correspond partly to changes in stocks, partly to changes in domestic crops, and partly to changes in feed uses. It is within the totals that the striking variations occur. Over the ten years the origins were as follows, in percentages:

TABLE 1.—GROSS WHEAT IMPORTS (WHEAT AS GRAIN, NOT INCLUDING WHEAT FLOUR OR WHEAT OFFALS) INTO THE UNITED KINGDOM, CALENDAR YEARS, 1925-34\*

(Thousand bushels)

Calendar year	From within Empire <sup>a</sup>	From USSR	From continental Europe ex-Russia and Northern Africa	From outside Empire <sup>b</sup>	Total
1925 .....	99,689	2,361	4,333	74,411	180,794
1926 .....	88,790	4,234	4,842	81,812	179,678
1927 .....	97,178	4,590	1,137	103,241	206,146
1928 .....	98,644	153	3,948	90,598	193,343
1929 .....	75,198	...	6,615	126,817	208,630
1930 .....	79,234	34,938	10,448	70,959	195,579
1931 .....	95,047	54,004	12,654	61,210	222,915
1932 .....	132,507	6,113	10,909	47,660	197,189
1933 .....	140,459	10,741	10,743	47,824	209,767
1934 .....	107,454	3,911	7,840 <sup>c</sup>	72,412 <sup>c</sup>	191,617

\* Based on data from *Annual Statements of Trade* for 1925-32; for 1933 and 1934 from *Monthly Accounts of Trade*, December 1934.

<sup>a</sup> Including British India, Australia, Canada, and other British countries.

<sup>b</sup> Including the United States, the Argentine Republic, and all other foreign countries ex-Europe and ex-Northern Africa.

<sup>c</sup> Estimated.

	Percentage
Imports from within the Empire .....	51.1
Imports from Soviet Russia .....	6.1
Imports from Europe ex-Russia, but including Northern Africa .....	3.7
Imports from outside the Empire, excluding Europe and Northern Africa .....	39.1

These averages, however, are really more misleading than informative. The lowest annual percentage of Empire wheat was 36, the highest was 67. Over the ten years two striking facts are to be observed: the relative unimportance of Russian wheat except in two years, and the growing importance of wheat from continental Europe during the past five years. Supplementary to the variabilities indicated in the table, it is appropriate to mention others which are brought out by more minute analysis of the imports from individual countries; these we shall merely mention, since we have no purpose in entering into detailed segregation. (a) Within the Empire is to be noted the striking decline in contributions of wheat from India and the variability in the contributions from Australia and Canada. Imports from Australia were as low as 17 million bushels in one year and as high as 55

million bushels in another; imports from Canada were as low as 49 million bushels in one year and as high as 87 million bushels in another. (b) Outside the Empire are to be noted two striking facts: the decline in importance of American wheats, which have been practically negligible during the past three years; and the wide variation in imports from Argentina. In one year imports from Argentina were as low as 22 million bushels, in another year as high as 85 million bushels.

These wide changes in sources of British wheat imports within the decade rest on many factors, of which price and extent of crop are the most prominent. These variations represent the results of the equation of export surpluses and import requirements on the market of the United Kingdom. The spreads to be presented and analyzed below represent the daily play of forces from which emerge the wide range of variations indicated in the table above.

English mills have one, several, or all of four reasons for preferring imported wheats grown within the Empire over those from outside the Empire, other things equal. (1) There is nowadays a significant prevalence of sentiment corresponding to the "buy-at-home" movement applied to the British Commonwealth of Nations. (2) An outstanding incentive lies in type, variety, grade, and quality of wheat, since two wheats grown within the Empire are pre-eminent in these respects, namely, those of Canada and Australia. (3) There are incidental advantages of direct trade, which under some circumstances will favor the wheats of Canada and Australia as against those of Argentina and Russia. (4) There is the circumstance that Canada and Australia are, within the Empire, net debtors to the United Kingdom. This is an influence to the disadvantage of the United States and Russia particularly, since Argentina is also heavily a net debtor to the United Kingdom.

The final reason, more or less independent, lies in price, meaning by that, of course, price as of type, variety, grade, and quality. The reasons 1 to 4 may be expected to influence British millers to a limited extent as against purely commercial considerations of price.

That is, the net effect of reasons 1 to 4 presumably will be to secure for Canadian and Australian wheat a price somewhat higher than would be secured if Canada and Australia stood outside the Empire, competing with each other and with the other foreign wheats on strictly commercial and technical grounds. Possibly, however, the effect might be on volume of imports more than on price. Just how much of an increase in price and volume will thus accrue to Canada and Australia will be learned in the near future through trial and error under Empire preference. Imperial preference took effect late in November 1932; the test is therefore now in the third season. Canadians and Australians already are quite clearly of the opinion that to date they have secured less advantage than they had anticipated. British opinion, in milling circles at least, is coming to the view that a higher premium is now being paid for Canadian wheat than was contemplated in the Ottawa Agreements.

#### THE PRICE QUOTATIONS

In the United Kingdom, wheats are sold spot, in parcels and cargoes arrived, afloat on orders, to arrive at a distant date, and on futures contracts on the grain exchanges. Many of the large mills import directly; others buy from British and continental grain-importing houses, others from grain-exporting concerns in foreign countries. The proportion of import wheat imported directly by mills is not known; but presumably more than half the imported wheat is brought in by British or foreign exporters and resold to mills. The market is exceedingly liquid and sensitive. On the British markets are equated and liquidated both the facts and the rumors of the wheat crops of the world—also the political, monetary, and commercial influences of any kind whatsoever which directly or indirectly influence the views and incentives of buyers and sellers. Under these circumstances, it is clear that any study of price differentials between imported wheats must proceed from price quotations in the United Kingdom.

A choice has to be made in the selection of price quotations. Here we use the "sellers' quotations," not of cargoes but of parcels,

such as are reported every trading day in the United Kingdom. For our purpose the parcels prices are superior to futures prices. With the use of parcels prices one avoids the difficulties which arise from adjustments between the prices of various wheats in relation to the terms of delivery on futures contracts. Parcels prices are a direct reflection of consumers' choices, i.e., millers' choices. It is true that parcels are sometimes lacking or that the quantities are small. Also, the prices of particular parcels are subject to peculiar short-term influences. Sellers' quotations are not so specific as sales prices; but over a ten-year period the parallelism is sufficiently close. (But see Chart 1, p. 312.) Sellers' quotations on cargoes might have been used instead; cargoes have the advantage of representing larger amounts than parcels. But cargoes have been less regularly offered, and frequently the quotations on cargoes were for arrival some time later. Indeed, many of the quotations on cargoes were almost equivalent to quotations on futures. While quotations on parcels and cargoes respectively possess advantages and disadvantages, quotations on parcels are to be regarded as satisfying the minimum requirements. All in all, therefore, the sellers' quotations on parcels will serve our purposes with appropriate qualification and comment. It is to be emphasized that we here use *sellers' quotations*, whereas another series of British parcels prices (Chart 1, p. 312) are prices of *sales* of parcels.

The data here subjected to analysis cover the ten calendar years 1925-34. The quotations, in shillings and pence per quarter, are taken from the daily edition of the *London Grain, Seed and Oil Reporter*. Since we are concerned with spreads, these shillings are not converted to gold cents. In the parcel market are offered all the way from a half-dozen to a dozen wheats, which are fair samples of the types, varieties, grades, qualities, and origins, as of the season. The amounts quoted are not officially reported, and therefore no weighting is possible. At different times certain wheats drop out, while other wheats reappear; some wheats, however, are quoted practically every day, year in and year out.

It is our purpose to restrict the inquiry to spreads between *milling* types of wheats, excluding to the fullest extent possible quotations applicable to feed wheats. Hence we exclude first of all any quotations (a) marked as applying to feed wheat, and (b) marked as applying to durum wheat. We further (and arbitrarily) exclude grades Nos. 5 and 6 Northern Manitoba, despite the fact that in some years these are imported in considerable volume for milling purposes. This method may not always restrict the inquiry to milling wheats, for some lots actually of feed wheats from the continent may not be labeled as feed wheats in the price quotations. If feed wheats quoted as such were included, the spreads would at times have been much wider, misleadingly so; wherefore their exclusion.<sup>1</sup>

It is of course important to describe each imported parcel with reference to its country of origin. In such description we employ only seven categories: Canada, the United States, Argentina, Australia, India, Russia, and Europe. The Russian wheats are thus classed among the overseas wheats, the Danube wheats among the European. The wheats of Russia and the countries of the Danube are seldom quoted in parcels; some overlapping of Russian and Danube wheats has

<sup>1</sup> It is of course obvious that our procedure is inexact because we are not able fully to exclude the lower grades of wheats that are mostly, or entirely, used for feed in ordinary years, especially those of continental Europe, as has been done for Canada by excluding grades Nos. 5 and 6 as well as the grade "feed wheat." Demonstrably a considerable fraction of the continental wheats imported into the United Kingdom in recent years have been used for feed (more so, certainly, than would be suggested by the price quotations on feed wheat), and in some years during the past decade considerable amounts of Canadian Nos. 5 and 6 have been imported for milling into flour. Ordinarily, however, low-grade continental wheat at the ruling prices is preferable to No. 6 Canadian wheat as filler. By excluding Nos. 5 and 6 Canadian wheat, the range of prices is narrowed and the scope of the continental wheats made more apparent. If No. 6 had been admitted, over much of the ten years the spread would have been between No. 1 Northern Manitoba at the top and No. 6 Northern Manitoba at the bottom, without revealing the important influence of the continental wheats, as well as the prominence of Argentine wheat within the range. Even No. 4 Northern Manitoba in over 80 weeks was the low-priced wheat. In 1928, even with Nos. 5 and 6 excluded, one Canadian wheat was top-price wheat in 51 weeks and another was bottom-price wheat in 44 weeks.

been unavoidable, but can have led to no untoward result.

The technique of assembly was to take in each week the highest quoted price and the lowest quoted price within our definition, stipulating whether this lowest price applied to a parcel from a European country or from a distant origin—Russia or any of five overseas countries. When the prices of any two or more wheats were identical, then all are given: this happens often with the weekly low prices. The spreads, however, are not calculated between the single weekly highs and lows, but are calculated as averages of spreads between daily high and lows. The percentage given is that which the weekly average spread so calculated is of the highest single price quotation of the week.

The detailed data are presented in Table I. Here are to be found for the ten calendar years 1925–34 the sellers' quotations for British parcels prices assembled as follows: the highest price of the week and the country of origin of the wheat which carried it; the lowest price of the week and the country of origin of the wheat which carried it; the average spread for the week, made up from daily spreads between the daily high price and the daily low price; and the percentage which this weekly average spread bore to the single highest price of the week. Usually only one wheat carried the highest price, but frequently several wheats shared the lowest price. Where the wheat of more than one country carried a stated high or low price, this is indicated. A high price for Canada means usually No. 1, occasionally No. 2, Northern Manitoba. The low price for Canada is never below No. 4, since quotations for Nos. 5 and 6 were not used. The wheats of other countries cannot be separated according to grade, since such separation does not occur in the marketing system. Beginning on November 18, 1932, the import duty of 2s. per quarter has been added to the quoted prices of non-Empire wheats.

#### COMPARISON OF PRICE QUOTATIONS

In Chart 1 (p. 312) are shown, for the decade 1925–34, weekly highs and lows of our series of sellers' parcels quotations in comparison with weekly highs and lows of actual reported

sales of wheat parcels on British markets. The second series represents the extreme weekly range of the many individual price quotations that are regularly employed in our series called "British parcels prices."<sup>1</sup> This chart is inserted largely to lend emphasis to the fact that we do not propose in this study to examine exhaustively the subject of price spreads on British markets. A cursory glance at the chart suffices to indicate that it is not the same thing to base an analysis upon spreads between high and low sellers' quotations on parcels of milling wheats as to base it upon spreads between all sales of wheat parcels. The differences between sellers' quotations and sales prices require brief comment, though the choice of one or the other series is unimportant for our purposes, so long as either would be made to apply to milling wheat rather than all wheat.

The weekly highs of sellers' quotations and of actual sales in the main follow closely parallel courses, and there is no suggestion of lead or lag. When divergencies occur between these highs, it is usual for the sellers' quotations to run higher than the sales; the conspicuous period was the calendar year 1929. In that year, No. 1 Northern Manitoba was physically scarce. It was regularly listed in sellers' quotations, but it was infrequently sold, the actual purchases of high-priced wheat being mainly of No. 2 Northern Manitoba. In the large majority of weeks when the high sellers' quotation exceeded the high sale, the explanation is that the sellers' quotation applies to a higher grade of wheat than the sale. In a few instances it is possible that sales were actually made at prices equal to the high sellers' quotation, but were not reported. The trade journals frequently refer to the consummation of unreported transactions.

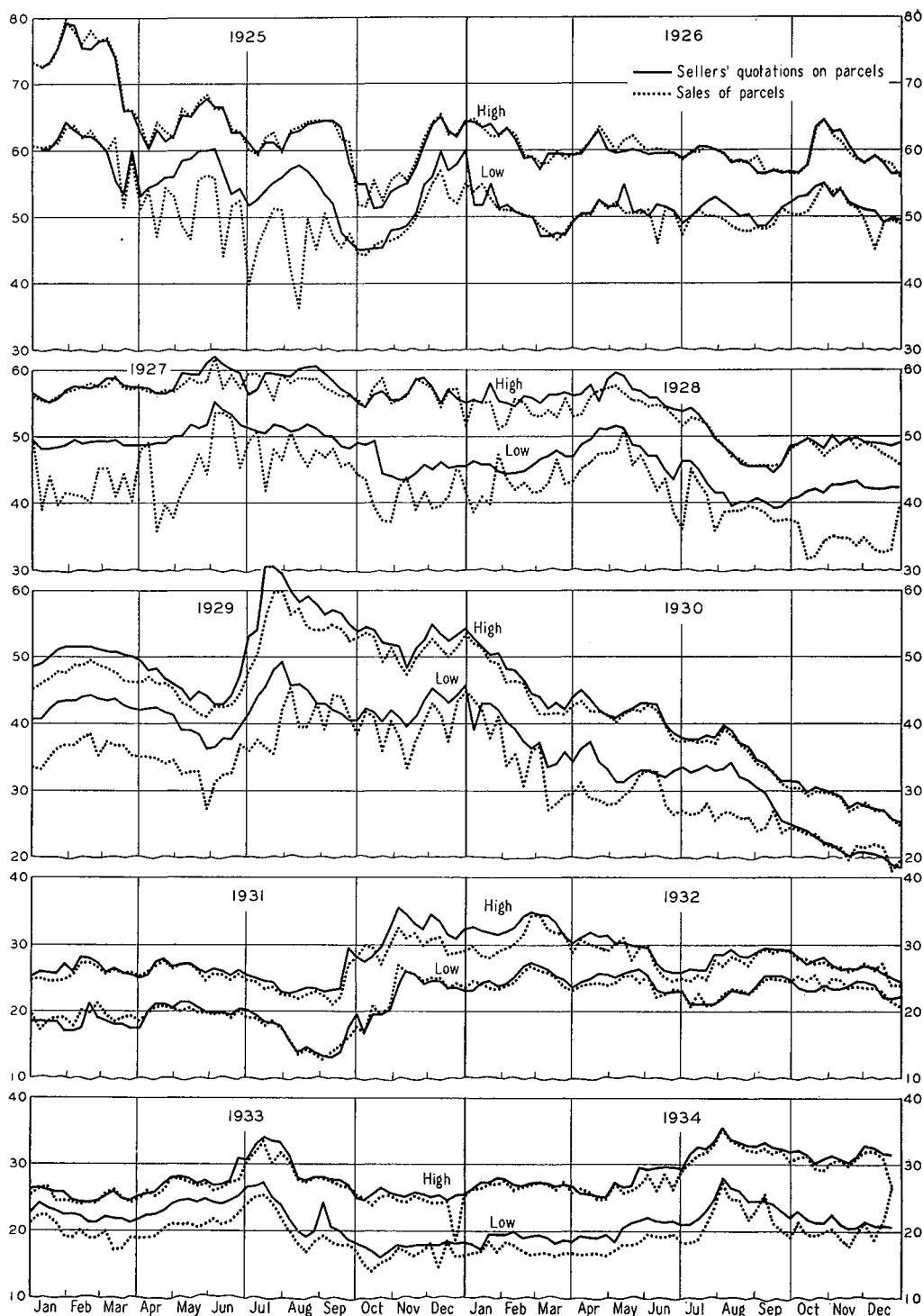
The occasions when reported high sales exceeded high sellers' quotations were, as would be expected, relatively few and never of much significance. Sales prices may exceed sellers' quotations because, on occasion, a sale was made of a parcel of a particular wheat in a

<sup>1</sup> See M. K. Bennett, "British Parcels Prices: A World Wheat Price Series," *WHEAT STUDIES*, July 1928, Vol. IV, No. 8.

## SPREADS BETWEEN WHEAT PRICES IN ENGLAND

CHART 1.—HIGHEST AND LOWEST SELLERS' QUOTATIONS ON WHEAT PARCELS (MILLING WHEATS) COMPARED WITH HIGHEST AND LOWEST SALES OF ALL PARCELS IN THE UNITED KINGDOM, WEEKLY, 1925-34\*

(Shillings and pence per quarter)



\* Sellers' quotations from Table I (duty-paid after November 1932); sales as reported by *London Grain, Seed and Oil Reporter*, duty-free throughout.

particular position for which no sellers' quotation was made during the week in question. In the week ending October 17, 1925, for example, the high sale was a parcel of No. 1 Northern Manitoba, arrived at Manchester, at 55s. 6d. per quarter. During that week, however, sellers' quotations of No. 1 Northern Manitoba applied only to parcels afloat or for shipment in October–December, which were cheaper than the arrived parcel; indeed, the high sellers' quotation of the week was not on Canadian wheats, but on a parcel of Argentine wheat from Rosario, for January–February shipment at 51s. 3d. In general the sellers' quotations less frequently include arrived parcels than do the sales prices; and this usually explains why, in a given week, a sale may be reported at a higher price than the highest recorded sellers' quotation. As with sales, we have no evidence of the completeness of sellers' quotations.

As would be expected, the weekly lows of sellers' quotations much more often exceed than parallel the weekly lows of reported sales; fairly close concordance, indeed, appears in only three of the ten years—1926, 1931, and 1932. From the sellers' low quotations, it will be remembered, we exclude all wheats marked as feed wheat, as durum, or as Nos. 5 and 6 Northern Manitoba. From the reported sales, such wheats are not excluded. The large discrepancies between the lows of the two series originate in this (imperfect) exclusion of non-milling and cheap wheats from the one series but not from the other. With exclusion of non-milling wheat from the series on sales of parcels, the lows of the two series would probably correspond more or less as do the highs, and perhaps even more closely.

The weekly lows of parcels sales occasionally exceed the weekly lows of sellers' quotations. It is possible in a given week that the lowest sellers' quotation may apply to a type of wheat perhaps in a distant position, none of which is sold; whereas the lowest sale may apply to a different and superior type or to the same type in a near position. Again, neither the sellers' low quotations nor the low sales are necessarily reported completely.

The lows of parcels sales and of sellers' quotations would correspond more closely

than they do throughout 1933 and 1934 if sellers' quotations as shown in the chart were not adjusted for import duty. Our sellers' quotations are duty-paid in so far as they applied to non-Empire wheats, as was the case in practically all weeks of these two years; but the sales are duty-free. On a duty-free basis, the sellers' quotations shown by the solid line would follow a lower level closer to the dotted line which depicts the course of weekly lows of parcels sales.

#### SPREADS JUDGED BY CURRENCY UNITS

The weekly average spreads range from 2 to nearly 15 shillings per quarter. Both the lowest and the highest figures are somewhat amazing. At par of exchange, a spread of only 10s. per quarter corresponds to over 40 cents a bushel. To the exporting countries these spreads in shillings per quarter within recent years have had widely different implications for their home prices, on account of depreciation of currencies. To the several importing countries these spreads have meanings that vary with positions of currencies and tariff rates. The number of weeks in each year when spreads were of the indicated range appears in Table 2.

TABLE 2.—NUMBER OF WEEKS IN WHICH WEEKLY AVERAGE SPREADS BETWEEN HIGH AND LOW QUOTATIONS FOR BRITISH WHEAT PARCELS FELL WITHIN SPECIFIED RANGES, 1925–34\*

Range of spread s. and d.	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	Total
1 to 1 11½..	..	..	..	..	..	..	..	4	6	..	10
2 to 2 11½..	4	1	..	..	..	3	..	12	17	..	37
3 to 3 11½..	12	2	..	1	1	7	..	16	6	..	45
4 to 4 11½..	7	2	3	5	9	7	6	4	6	2	51
5 to 5 11½..	7	3	5	9	2	7	15	3	9	7	67
6 to 6 11½..	4	12	8	16	12	20	10	8	7	10	107
7 to 7 11½..	4	13	15	10	10	7	18	5	1	19	102
8 to 8 11½..	1	12	12	4	3	..	4	..	..	9	45
9 to 9 11½..	1	5	3	3	1	1	..	..	..	5	19
10 to 10 11½..	..	2	2	3	3	..	..	..	..	..	10
11 to 11 11½..	7	..	2	1	5	..	..	..	..	..	15
12 to 12 11½..	3	..	2	..	5	..	..	..	..	..	10
13 to 13 11½..	1	..	..	..	1	..	..	..	..	..	2
14 to 14 11½..	1	..	..	..	..	..	..	..	..	..	1

\* See Table I.

The scatter was obviously quite regular. In 92 weeks the spread was less than 4s. per

quarter, and in 38 weeks it was 10s. or more per quarter. The median lay between 6s. and 8s. per quarter. As was to be expected, the widest spreads occurred at the highest price levels, and broadly the spreads tended to fall as prices declined. No spreads over 10s. occurred with top wheat below 30s. per quarter. Yet the narrow spreads were not confined to the lower price levels. Again, some of the narrowest spreads were noted when the price level was high, more than 60s. per quarter. Obviously, there was no simple inverse proportionality; price level was only one of the influences in determining the spread. Nor, on closer analysis of weekly data, is a seasonal trend to be observed. Instead, irregular and rather rapid and wide oscillations frequently occurred. For example, within one month the spread has narrowed from over 12s. to less than 4s. per quarter; occasionally the spread in one week was twice as large as that in the adjacent week. At other times the spread would be fairly constant week after week, over considerable intervals. Usually the width of the spread depended more on the low price than on the high price, i.e., fluctuations from week to week tended to be more conspicuous in the low price than in the high price. Over the entire interval, but especially in the last five years, the British market had the complexion of a buyers' market, though this was obviously more pronounced for the lowest-priced than for the highest-priced wheats. What the spreads would be in a "scarcity" market might be conjectured from war experience, when very wide spreads occurred prior to the setting of fixed prices and pegged foreign exchange rates.

The appraisal of the spreads in currency units, and as related to the price levels in currency units, may be advantageously supplemented by a consideration of the spreads in terms of percentages.

#### SPREADS JUDGED BY PERCENTAGE OF HIGH PRICE

The weekly spreads measured as percentages of the weekly high prices covered an extraordinarily wide range, from 4 to 35 per cent. To millers the percentage changes in spreads have perhaps more implication than the changes in shillings and pence. The dis-

tribution, as is to be observed below in Table 3 (which shows the number of weeks in each year when the percentages were of specified magnitude), was less symmetrical than in the case of the spreads in terms of currency units.

TABLE 3.—NUMBER OF WEEKS IN WHICH WEEKLY AVERAGE SPREADS BETWEEN HIGH AND LOW QUOTATIONS FOR BRITISH WHEAT PARCELS (MEASURED AS PERCENTAGES OF WEEKLY HIGH PRICES) FELL WITHIN SPECIFIED RANGES, 1925-34\*

Spreads as percentage of high price	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	Total
4 and 5.....	6	1	..	..	..	..	..	..	..	..	7
6 and 7.....	14	2	1	1	..	..	..	4	5	..	27
8 and 9.....	10	4	5	1	4	7	..	6	11	..	48
10 and 11.....	4	11	8	10	7	6	..	13	10	..	69
12 and 13.....	5	17	14	19	10	11	..	7	5	..	88
14 and 15.....	3	14	14	14	13	10	..	5	..	..	73
16 and 17.....	6	3	4	2	4	7	..	2	1	..	29
18 and 19.....	4	..	2	4	2	1	7	3	6	5	34
20 and 21.....	..	..	4	1	9	1	13	9	4	5	46
22 and 23.....	..	..	..	..	3	5	9	3	3	6	29
24 and 25.....	..	..	..	..	..	4	4	..	4	13	25
26 and 27.....	..	..	..	..	..	..	8	..	2	10	20
28 and 29.....	..	..	..	..	..	..	5	..	1	12	18
30 and 31.....	..	..	..	..	..	..	1	..	..	1	2
32 and 33.....	..	..	..	..	..	..	3	..	..	..	3
34 and 35.....	..	..	..	..	..	..	3	..	..	..	3

\* See Table 1.

In 82 weeks the spread was below 10 per cent of the high price, and in 46 weeks it was more than 25 per cent above the high price. Apparently the median stood between 12 and 14 per cent. During the first two years the percentages were moderate, never exceeding 20 per cent, owing in part to the high price level of wheat. In 1927, with somewhat lower wheat price, the percentages were higher, and this continued during 1928, with declining wheat price. Rising percentages were also the rule in 1929 and 1930, despite declining wheat price, though a turn appeared toward the end of 1930. During 1931 the percentages were continuously high, 18 per cent or over. In 1932, the percentages declined to half the 1931 figure roughly, with the price of wheat low. Late in 1933 appeared another turn, with high percentages, which continued during 1934, though the top prices remained much of the time below 30s. per quarter.

A study of the weekly prices in Table 1 and

of the original daily prices suggests that the high percentages during the last two years were associated with the extensive dumping of European wheat. Especially during 1933-34, European wheats competed fiercely in the United Kingdom with up-river Argentine wheat, with the result that the low prices were peculiarly depressed. The resultant wide spread, contrasted with the low level of the high price, naturally brought about a high percentage figure for the spread. Going over the entire material, one is impressed with the view that there is not much evidence of an inverse proportionality between high price level and percentage of spread, but that the percentage of spread is dependent particularly upon the bottom prices, which exhibited a decline quite out of relation to the top prices.

#### PRICE POSITION JUDGED BY COUNTRIES OF ORIGIN OF WHEAT

The number of weeks in which the high and low price positions were occupied by wheats of various origins is given in Table 4. This table refers to the single high and low price of each week.

TABLE 4.—NUMBER OF WEEKS IN WHICH "MILLING" WHEATS FROM VARIOUS EXPORT REGIONS WERE HIGHEST AND LOWEST IN PRICE ON THE BRITISH MARKET, 1925-34\*

Country	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	Total
<b>HIGH POSITION</b>											
United States											
Hard winter...	..	..	..	..	..	..	1	..	..	..	1
Red winter.....	..	..	..	..	..	..	..	..	..	..	0
Spring .....	..	..	..	..	..	..	..	..	..	..	0
Canada .....	47	47	52	51	52	41	50	40	46	52	478
Argentina .....	1	..	..	..	..	..	..	2	..	..	3
Australia .....	2	7	1	5	..	13	1	12	6	..	47
India .....	2	1	..	1	..	..	1	..	..	..	5
Russia .....	..	2	..	..	..	3	..	..	..	..	5
Europe .....	..	..	..	..	..	..	..	..	..	..	0
<b>LOW POSITION</b>											
United States											
Hard winter...	5	17	10	1	..	5	..	..	..	..	38
Red winter.....	1	8	13	..	..	..	..	..	..	..	22
Spring .....	6	..	..	..	..	..	..	..	..	..	6
Canada .....	2	1	16	44	..	..	1	14	7	..	85
Argentina .....	21	27	17	11	45	17	16	22	25	21	222
Australia .....	5	..	..	..	1	..	..	..	..	..	6
India .....	9	..	..	..	..	..	..	..	..	..	9
Russia .....	2	..	..	..	..	19	24	1	1	3	50
Europe .....	4	1	..	..	7	13	12	16	21	34	108

\* See Table I.

The first outstanding fact is the position of Canadian wheat, which occupied consistently the premier position. In 478 out of 539 weeks (the figure is larger than the actual number of weeks, 521, because sometimes two wheats occupied the top position) Northern Manitoba carried the highest price. Second in order was Australian wheat, with 47 weeks; this position was quite irregular, since in two years Australian wheat was top price in only 1 week, and in two of the years not at all. In 1 week (in 1931) United States hard winter wheat carried the top price. In 1 week in 1925 and in 2 weeks in 1932 Argentine wheat carried the top price. The wheats of India and Russia each carried the top price in 5 weeks, both prior to 1932. Certainly the premier position of Canadian wheat was without challenge. The Canadians have all along had the choice between selling less at higher price or more at lower price and seem to have chosen (or suffered) the former course.

In comparing the prices of Canadian wheat with the others, it is to be kept in mind that for the purpose for which Canadian wheat is particularly chosen No. 1 Northern Manitoba is worth several cents a bushel more than any other wheat routinely on the British market.<sup>1</sup> It is commonly felt in Great Britain that up to a certain point in the mill mix No. 3 Northern Manitoba is equal to the best Argentine wheat, and even No. 4 sometimes stands above Argentine wheat. But with each additional 10 million bushels of Nos. 1 or 2 Canadian wheat imported into Great Britain, the premium appeal moderates and finally the other wheats are of almost equal value in the mill mixture.

The positions of Canadian and Australian wheats are to be accounted for in the main (though with exceptions) by the particular uses of these wheats and by their relative scarcities. Up to a certain percentage of the total imports, Canadian and Australian wheat must be had, despite high prices—Canadian wheat for the regions requiring the strongest flour and Australian wheat to cover the particular requirements of the biscuit trade. Under these circumstances, the position oc-

<sup>1</sup> No. 1 Northern Manitoba carries a premium of 3s. per quarter over contract price, in delivery against a future contract.

cupied by the price of Canadian wheat is likely to be high particularly in the years when Canadian wheat constitutes a relatively low percentage of the total imports. For example, in five of the ten years, Canadian wheat occupied the top position in over 50 weeks of each year, and in four of these five years the percentage of Canadian wheat stood relatively low. The year 1930 was an exception: the percentage contributed by Canada then was low, but Canadian wheat was top price in only 41 weeks of the year; this, however, was probably due to a shortage of Australian wheat in that year, which drove the price of that wheat to the top position during 13 weeks. If one will picture the premium qualities of Canadian wheat, it will become clear that the larger the percentage of Canadian wheat imported, other things equal, the lower the price would tend to be, while the smaller the percentage of Canadian wheat imported, other things equal, the higher the price would tend to be.

The record of the low-priced wheats confirmed some expectations and provided some surprises. Canadian wheat, usually No. 4 Northern Manitoba, made a fair record also as low-priced wheat—85 weeks in all. The most consistent record of low-priced leadership belongs to Argentina with 222 weeks, fairly well scattered over the ten years. While it was to be expected that Argentine wheat would absorb the import duty and sell in volume, it was hardly to be expected that this wheat would carry the bottom price about half the time, more or less irrespective of variations in quality. United States wheat, which carried the high price in only 1 week in ten years, carried the low price in 66 weeks, with hard winter wheat (No. 2) the most conspicuous. Certainly the records of the United States wheats,<sup>1</sup> both high and low, illustrate again that we do not export our representative wheats. Australian wheat carried the low price just 6 times, while it carried the high 47 times. The soft Australian wheats were nearly always good enough (and the type desirable enough on technical grounds) to

hold prices (in the amounts available) usually nearer the top than the bottom. Indian wheat was low priced 9 times, high priced 5 times. Russian wheat was much more conspicuous as carrier of low price than of high price, with 50 weeks in the record, most of it during the past five years. This was due in part to low quality, inclusion of rye and of other non-wheat grain.

The most interesting record, and a surprising performance, was that of the other European export wheats—those of the continent ex-Russia. These wheats did not have a single high-price week to their credit. To their discredit (if one may use this term) such European wheat held the low-price position in 108 weeks, second only to Argentina. These wheats came to England mostly from France, Germany, and Poland; included also were parcels from the Danube in considerable numbers. Apparently practically none of the best Danube wheats came to the British market during these ten years, since they occupied only intermediate price positions, while even Russia held the high-price record in 5 weeks. It is fair in part to ascribe the low position of the western European wheats to the circumstance that they were dumped, under direct or indirect subsidy. Also, the type was commonplace, mostly soft filler wheats, with some undoubted feed wheats not so designated.

#### SPREADS JUDGED BY QUALITIES OF WHEAT

It is hardly possible at this time to make more than general comment covering the spreads as they relate to wheat quality. Canada has had available continuously an abundance of top-quality Northern Manitoba wheat, of which the official inspecting and grading are trusted abroad. With the exception of occasional shipments from Russia and a few odd lots from the United States, Canadian hard spring wheat was the only wheat of that type on the British market during these ten years. This, together with the known quality of the protein of Marquis wheat, established for it a premium position. The Australian wheats maintained their relatively high position (top wheat in 47 weeks and otherwise usually high in the intermediate

<sup>1</sup> Pacific wheats were not included in the price material at all for the simple reason that these wheats go to the United Kingdom only in cargoes.

range) because of good natural quality for the type, contrasted with uneven and mediocre quality in the soft wheats of India, and of those from the Pacific Northwest of the United States, which were shipped, if at all, in cargoes. Everything considered, the record of the Australian wheat is a testimony to quality. The low-price record of the Argentine wheat was not a reflection of low quality, since in each of these years large amounts of high-grade Argentine wheat (hard winter type), from Bahia Blanca, were sold on the British market. But these hard winter wheats were not superior enough to challenge the position of the hard spring wheat of Canada as top-price wheat. At the same time, among the Argentine wheats were in every year considerable quantities of mixed spring and winter wheats from the Rosario-Santa Fé region, really soft wheats (now called "up-river grade"), in quality far below those from the Bahia Blanca region, but without characteristic features which, in the case of Australian soft wheat, appealed to particular buyers. Put in another way, in every year Argentina shipped relatively large amounts of discount wheats of unrepresentative character, probably of about the same milling quality as the hard winter and red winter wheats from the United States which held the low-price position in 60 weeks during the ten years.

These low-grade Argentine wheats met in the United Kingdom the low-grade soft wheats from the western European countries. One or the other had to stand on the lowest rung of the price ladder; often poor Argentine wheat, poor western European wheat, and poor Russian wheat sold at identical bottom prices. The record is not against Russian and Argentine wheat *per se*, but only against their poorest samples, which competed with the poorest samples from western European countries, dumped on the British market partly for the purpose of sustaining the domestic price and partly to make room for equivalent imports of hard wheat. Argentina has chosen wisely to sell all her exportable wheat at the best prices available, Russia has done the same; both have suffered from the misguided policies of net-importing countries of continental Europe. If one will consider the ranges of qualities of

the known wheats offered in Britain during the ten years, it is fair to say that the prices and spreads were partly determined by the circumstance that the market contained at once a plethora of highest quality hard spring wheat and of soft or nondescript winter wheat, with the price of the Canadian wheat maintained above the otherwise level by one or another marketing technique and the prices of the low-grade wheats left without artificial support and indeed depressed by subsidy.

#### CONCLUDING OBSERVATIONS

These price spreads are the result of several different influences. The several factors are discernible on considerations of practice rather than derived from theory, i.e., they are reached on inductive grounds. To understand these in detail, one must have close and long contact with grain traders and flour millers. Apparently one may separate six factors.

1. The price level of wheat. Other things equal, it would be expected that the spread, i.e., the spread in absolute terms, would be wider the higher the price level. But the moment this expectation is put into terms of percentages, it ceases to be convincing. We have indicated that the expected concordance of price level and spread is not regularly in evidence.

2. The relation of exporters' surpluses to importers' requirements. When adjustment is close and the "complexion of a sellers' market" is evident and accepted, the spread might well be different from that of another year when the adjustment is easy and the market has the "complexion of a buyers' market." It is hard to test this during the last ten years, on account of the excess carryovers in the world with the declining gold price of wheat and depreciating currencies over a half-dozen years. Also, the market of the world has not been free, in the sense of absence of restraint by artificial controls and influences.

3. The relative preponderance of a particular wheat. It may occur that, with the exception of one wheat, the range of spread is narrow, but with the one wheat far out of line. Illustrations at the low end in recent years are the abnormal imports from France and the exceptionally heavy movement from

Argentina, which drove these two wheats to exceptionally low positions, thus widening the spread. An illustration at the high end is the position of the Winnipeg futures prices above the British futures prices late in 1934. In other words, even if the adjustment between exporters' surpluses and importers' requirements as a whole is fairly close, particular import wheats may stand at a heavy discount, or premium, and thus widen the spread between top and bottom price.

4. The influence of trading in futures. There are no futures markets in Australia, and those in Argentina have little international influence. In Canada, despite heavy carryover, the price of wheat futures on the Winnipeg exchange has for years reflected artificial (indirect and direct) governmental support, which more or less continuously keeps the Winnipeg price upward out of line, relative to the Liverpool price. In a different sense, the Chicago future has kept the American price far above the Liverpool price; it has also had an influence in elevating the Winnipeg price, and has been influenced by it. In consequence, for months at a time no American parcels were quoted in the United Kingdom, while the quotations of Manitoba wheat were artificially driven into a forced premium position, which widened the spread between high and low wheat in Britain, at the same time reducing the importation of Canadian wheat.

5. Whenever a commodity exhibits a wide range of qualities, it will be sold over a wide range of prices. Wheat has a wide range of grades and qualities. The dumping of wheat has an obvious effect in exaggerating the price spread. A soft French wheat dumped in England can only find flour use as a filler in a cheap mill mix. A few million bushels of such wheat might have no noticeable effect upon the price of No. 1 Northern Manitoba; but week after week, it would be sold at a cut-throat price on the market, driving down the prices of other poor wheats and thus widening the spread. Dumped wheats are nearly always low-grade and unrepresentative wheats, and in recent years dumping has been responsible for many of the lowest-priced sales on the British market.

6. Finally, we have consumers' choice. The

British mills aim to turn out flours of uniform behavior and comparable qualities, at the lowest cost of raw material. They thus have developed extraordinary art in blending wheats. The British mills "shop" around among the wheats of the world, in order to reduce their raw-material cost, enabling them to maintain uniformity of quality, in order to reflect an advantageous raw-material cost into an advantageous selling price of flour. Free trade for Empire wheat, a low duty of 2s. per quarter on ex-Empire wheat, the advantages of the United Kingdom as a clearinghouse for wheat, and the technical efficiencies of flour millers combine to give the inhabitants of the United Kingdom a surprisingly low-priced bread relative to other countries.

In a very definite sense, therefore, the quotations and sales on parcels of different wheats from various countries of the world illustrate their adaptabilities, in the varying quantities offered, to the manufacturing processes and programs of the British mills. If all wheats were alike, there would be no spread in prices except for differences in weights. But the qualities of the different types, varieties, and grades of wheats cover a wide range. On one classification, we have hard high-protein wheat at one end and soft low-protein wheat at the other; but even with them the quality of protein varies in different wheats from year to year. Certain wheats have valuable qualities in respect to color and "bloom" of the bread; varying contents of ash and acidity have some importance. There are variations in flour yield per weight of wheat, also in loaf yield per weight of flour; these are not well understood but are empirically important. Outside of flour for the biscuit trade, the mill mix contains three overlapping fractions: a strengthener, a backbone, and a filler. These vary not only from year to year, but from month to month and indeed from week to week. There are pronounced regional differences of consumers. What suits one section does not suit another; the Scotch like their flour strong, while softer flour is preferred in the south. Following the so-called rationalization of flour milling in the United Kingdom, their technical efficiencies have been perfected, and higher extractions are practicable.

In short, with all the other price-influencing factors equal, there must still be a wide spread due solely to millers' choices. When the other factors operate to widen or narrow the spread, the millers modify their purchases and blends. When the other factors drive one wheat to an unusual premium or another to an exceptional discount, the mills take advantage of one and avoid the other. In this way they try to reduce the spreads. The advancing technique of the art is continuously in the direction of avoidance of premium wheats and acceptance of discount wheats. As the Canadians are learning to their sorrow, the exceptionally high position of Canadian wheat in recent years has induced the British millers to perfect methods which to some extent dispense with hard spring wheat and reduce the amount of strengthener required to give a satisfactory volume to the loaf of bread.<sup>1</sup>

It is not out of place to advert to several mooted points to which the data here presented find application. What is the British price of wheat? Is it the price of the standard grade of English wheat on cash sale in the interior markets? Is it the price of the wheat which can be delivered against a futures contract in Liverpool or London without premium or discount? Is it the range of spot (imported) wheat prices? Is it a weighted parcel or cargo price? Or among these, is the British wheat price at any time the price of the one wheat sold within the range in the most outstanding amount, that is, a sort of bulk-line price? Is there a British price for each type, variety, grade, and quality of wheat sold duty-paid in the large port markets? Or, broadly stated, is there perhaps no British *wheat price* but only British *wheat prices*?

In a larger sense, what is the world price of wheat and what relation does it bear to the British price of wheat? The relation of the British price of wheat to the world price of wheat bears directly on the application of Empire preference to wheat. It will be recalled that in the Ottawa Agreements a duty of 2s. per quarter was set on ex-Empire wheat, with

the United Kingdom reserving the right to cancel the preference involved in said duty, under the stipulation that the Dominions should supply wheat to the United Kingdom at the "world price" and in sufficient amounts. Does this imply that the lowest legal grade of Canadian wheat (No. 6 Northern Manitoba) must be offered at any time at the same price as the lowest recognized grade of any ex-Empire wheat? This might hypothetically apply to the legal grades of United States wheat; but it could hardly apply to Argentina and Australia, whose wheats are only sold under "fair average quality," nor yet to the wheats of Russia and India, which are usually sold on sample. Does the stipulation to furnish wheat at the "world price" mean that the the highest legal grade of Canadian wheat (No. 1 Northern Manitoba) is to be offered at the same price as the highest recognized grade of any ex-Empire wheat? The highest legal grades of United States wheat no longer appear on the British market, and the comparison is not applicable to the wheats of Argentina, Australia, India, and Russia (except possibly for premium weights per unit), which have no comparable system of grading. If Empire preference for wheat did not exist in the British Commonwealth of Nations, these questions would be merely inquiries interesting to the students of the commodity; but under the terms of the Ottawa Agreements, world price, British price, Dominion price, and ex-Empire price of wheat acquire a practical significance, as yet without definition.

Finally, it seems appropriate briefly to revert to the topic of fixed wheat prices, presented informally to the International Wheat Conference in 1934, to which reference was made in the Introduction. It is not clear whether fixing wheat prices was discussed only in principle; or, if explored more minutely, to what extent technical details were considered. The importing and exporting countries both desired price control, though on different grounds. Germany, France, and Italy in particular, desired a minimum price on import wheats for the protection of their peasants. Countries like Great Britain, Norway, and Holland wished their urban populations protected against extor-

<sup>1</sup> Recently, some British mills have used less than 10 per cent of Canadian spring wheat in their current blends.

tion, possibly by means of a maximum price. More explicitly, it seems to have been inferred that import and export quotas could not be enforced except with some measure of price control. An average price could be computed in one way or another, as for illustration the Food Research Institute parcel price for Great Britain; beyond this, minimum and maximum prices could be set. Irrespective of the advantages sought to be secured through a minimum, a maximum, or an average price, it seems also clear that particular stress was laid on differentials between the prices of the various wheats. Differentials could obviously be considered merely as moving relations of different wheats to each other within the spread between top and bottom price and without reference to price level. Or, differentials could be considered in relation to price level, instead of in relation merely to the spread between top price and bottom price. Clearly price differentials were for some countries almost as important as price level. Canada naturally sought to perpetuate her recent advantage in having Manitoba wheat occupy the premier position above all wheats. Argentina naturally sought to avoid the regularization of any schedule of differentials which assigned to her large supply of wheat a low position among the discount wheats. Australia, conscious that prices of her soft wheats would always fall somewhere about the median of the range, ought to have been more concerned with price level than with differentials. It seems to be taken for granted that the American delegates were nominally in favor of minimum price and of differentials, as adjuncts to enforcement of quotas rather than as encouragement to American exports. It seems to be understood that the range of differentials, tentatively considered, exceeded 20 cents a bushel with the basic price at 63 gold cents per bushel.

A survey and analysis of the prices on the British wheat markets cannot do other than emphasize far-reaching qualifications of such international planning. Minimum, maximum, or average prices of the last three years would

be different from those of the last five years or of the last ten years. The spread between top and bottom price would be different in an average for the last three years, for the last five years, and for the last ten years. The positions of the several wheats depend so much upon crop yields that averages could hardly fail to be more or less misleading in one respect or another. The price level, the spread between top price and bottom price, and the differentials between the various wheats operate in a continuously moving and flexible field, a short-term equilibrium. This is literally reached by trial and error every week, in the adjustment of exporters' surpluses to importers' requirements as related to type, variety, grade, and quality of wheat. No average experience of the past is a rule for the immediate future. Millers' choice in Great Britain would always be in the direction of enlarged elasticity of demand. Quite certainly the attitude of Great Britain, whether clearly revealed or not, must have been in opposition to any scheme of pegged prices or stipulated differentials. To impose a minimum price, a maximum price, an average price, a price spread, or a set of differentials within a range, for the purpose of controlling the movement of surplus wheats from exporting countries to importing countries, would be to freeze a price structure whose outstanding feature is liquidity. Such a proposal implies an artificial and arbitrary control. At the best, such arbitrary and artificial price fixing might in the hands of experts lead to a modicum of success; at the worst, egregious blundering would be the outcome. The simple truth seems to be that the elasticities of supply and demand are so wide and the technical arts of milling so perfected that no system of price control could do other than divide the wheat-producing and wheat-consuming countries of the world into two annually shifting groups—those seasonally pleased at the artificial intervention, and those temporarily displeased by it. For the British mills, the flexibility inherent in the established marketing situation must be regarded as an outstanding advantage.

# APPENDIX

TABLE I.—HIGHS AND LOWS AND WEEKLY AVERAGE SPREADS BETWEEN BRITISH PARCELS PRICES, 1925-34\*  
(Shillings and pence per quarter; percentages)

Week ending	High		Low		Weekly average spread		Week ending	High		Low		Weekly average spread	
	Price	Wheat	Price	Wheat	Amount	Percentage of high		Price	Wheat	Price	Wheat	Amount	Percentage of high
1925							1926						
Jan. 10...	72 6	Can.	60 3	Ind.	11 3	16	Jan. 9...	64 3	Can.	51 9	Arg.	6 4	10
17...	73 3	Can.	60 3	Ind.	11 11	16	16...	63 6	{Can. {Rus.	51 9	Arg.	7 3	11
24...	75 6	Can.	61 9	Ind.	11 10	16	23...	64 0	Rus.	55 0	Arg.	5 11	9
31...	79 3	Can.	64 3	Ind.	12 9	16	30...	62 3	Can.	51 3	Arg.	8 9½	14
Feb. 7...	79 0	Can.	63 3	Ind.	12 11	16	Feb. 6...	63 6	Can.	51 9	Arg.	9 4	15
14...	75 6	Can.	62 3	Ind.	11 1	15	13...	61 9	Can.	50 9	Arg.	9 0½	15
21...	75 3	Can.	62 3	Ind.	11 1	15	20...	58 9	Can.	50 0	Arg.	8 3½	14
28...	76 6	Can.	61 6	H.W.	12 4	16	27...	59 0	Can.	50 0	Arg.	8 0	14
Mar. 7...	76 9	Can.	60 0	H.W.	14 7	19	Mar. 6...	57 0	Can.	47 0	Arg.	7 5½	13
14...	73 9	Can.	55 6	H.W.	13 2	18	13...	59 6	Can.	47 0	Arg.	9 4½	16
21...	66 0	Can.	53 6	H.W.	7 6½	12	20...	59 6	Can.	47 6	Arg.	10 4	17
28...	66 0	Can.	60 0	{Spg. {H.W.	4 2½	6	27...	59 3	Can.	47 0	Arg.	10 0	17
Apr. 4...	63 0	Can.	53 3	Spg.	3 7	6	Apr. 3...	59 3	Can.	49 3	Arg.	8 11	15
11...	60 3	Can.	54 6	Spg.	2 10½	5	10...	59 6	Can.	50 6	H.W.	8 10	15
18...	63 3	Can.	55 0	Spg.	4 2	7	17...	61 6	Can.	50 6	H.W.	9 0	15
25...	61 6	Can.	56 0	Spg.	3 6½	6	24...	63 0	Can.	52 6	H.W.	9 3½	15
May 2...	62 3	Can.	56 0	Spg.	3 7½	6	May 1...	60 0	Can.	51 6	H.W.	7 9	13
9...	65 3	Can.	58 6	Aus.	5 2½	8	8...	59 6	Can.	51 6	H.W.	7 2	12
16...	65 0	Can.	58 9	Aus.	4 11½	8	15...	59 9	Can.	54 9	Arg.	4 8	8
23...	66 9	Can.	60 0	Aus.	6 1	9	22...	60 0	Aus.	50 6	H.W.	8 8	14
30...	67 9	Can.	60 0	Aus.	6 6	10	29...	59 9	{Aus. {Can.	51 0	H.W.	8 2½	14
June 6...	66 6	Can.	60 3	Arg.	4 9½	7	June 5...	59 3	Aus.	50 0	H.W.	8 7	14
13...	66 6	Can.	57 0	Arg.	5 2½	8	12...	59 6	{Aus. {Can.	51 9	H.W.	7 4	12
20...	62 9	Can.	53 6	Arg.	6 11½	11	19...	59 6	{Aus. {Can.	51 6	H.W.	7 6½	13
27...	62 9	Can.	54 3	Arg.	7 5	12	26...	59 6	Aus.	50 6	H.W.	8 0	13
July 4...	61 3	Can.	51 9	Arg.	6 5	10	July 3...	58 9	Aus.	49 0	H.W.	8 9½	15
11...	59 6	Can.	52 9	Arg.	5 8	11	10...	59 6	Can.	50 0	H.W.	8 6	14
18...	61 3	Can.	54 0	Ind.	5 4	9	17...	60 6	Can.	51 3	H.W.	7 6	12
25...	61 3	Can.	55 3	Arg.	3 11	6	24...	60 6	Can.	52 3	H.W.	6 10½	11
Aug. 1...	60 0	Can.	56 0	{Ind. {Can.	3 6½	6	31...	60 0	Can.	53 0	H.W.	6 6	11
8...	62 9	Can.	57 3	Aus.	3 11	6	Aug. 7...	59 6	Can.	52 0	H.W.	6 4	11
15...	63 0	Can.	57 9	Arg.	4 0	6	14...	58 0	Can.	51 0	{Eur. {R.W.	6 1	10
22...	64 0	Can.	57 0	R.W.	5 5½	9	21...	58 6	Can.	50 0	R.W.	7 5	13
29...	64 3	Can.	55 6	Arg.	8 1	13	28...	58 0	Can.	50 3	R.W.	6 10	12
Sept. 5...	64 6	Can.	53 6	Arg.	9 6½	15	Sept. 4...	56 6	Can.	48 6	R.W.	6 10	12
12...	64 6	Can.	52 0	{Can. {Arg.	11 5	18	11...	56 6	Can.	48 6	R.W.	6 10	12
19...	63 6	Can.	47 9	Eur.	11 6½	18	18...	57 0	Can.	49 9	Arg.	5 11½	10
26...	58 0	Aus.	46 3	Eur.	7 9½	13	25...	56 6	Can.	51 3	R.W.	4 3	8
Oct. 3...	55 0	Ind.	45 0	Rus.	4 11½	9	Oct. 2...	56 9	Can.	52 0	R.W.	3 7	6
10...	55 0	Ind.	45 0	Rus.	7 4	13	9...	56 6	Can.	53 0	{Can. {R.W.	2 11½	5
17...	51 3	Arg.	45 3	Eur.	3 9½	7	16...	57 9	Can.	53 3	Arg.	3 5½	6
24...	51 6	Can.	45 3	Eur.	2 11½	6	23...	63 6	Can.	54 6	Arg.	5 10½	9
31...	53 9	Can.	48 0	Arg.	3 10	7	30...	64 6	Can.	55 0	Arg.	7 10	12
Nov. 7...	54 6	Can.	48 3	Arg.	5 1½	9	Nov. 6...	62 9	Can.	53 0	Arg.	8 1½	13
14...	55 0	Can.	48 9	Arg.	5 2	9	13...	63 0	Can.	54 0	Arg.	7 10	12
21...	57 6	Can.	50 6	Arg.	4 8	8	20...	60 9	Can.	52 0	Arg.	7 4½	12
28...	61 0	Can.	55 0	Arg.	3 4	5	27...	58 9	Can.	51 6	Arg.	6 8	11
Dec. 5...	63 9	Can.	56 0	Arg.	3 8	6	Dec. 4...	58 0	{Ind. {Can.	51 0	Arg.	6 3	11
12...	65 0	Can.	59 9	Arg.	2 11½	5	11...	59 0	Can.	50 9	Arg.	7 8	13
19...	63 0	Aus.	57 0	Arg.	3 2½	5	18...	58 3	Can.	49 0	Arg.	7 0	12
26...	62 0	Can.	58 0	Arg.	2 5	4	25...	56 6	Can.	49 9	Arg.	6 3½	11
Jan. 2...	64 4½	Can.	60 0	Arg.	3 0½	5	Jan. 1...	56 6	Can.	49 6	Arg.	6 2	11

\* Based on data from *London Grain, Seed and Oil Reporter*. The high and low prices are the high and low for the week, whereas the figures for spreads are weekly averages of the daily spreads between the high and low for the day. The average spreads have been rounded to the nearest halfpenny. In instances where two or more wheats have the same price, the names of all are given.

The abbreviations are as follows: United States, Spring—Spg., Hard Winter—H.W., Red Winter—R.W.; Argentina—Arg.; Australia—Aus.; Canada—Can.; Europe—Eur.; India—Ind.; Russia—Rus.

## SPREADS BETWEEN WHEAT PRICES IN ENGLAND

TABLE I.—Continued  
(Shillings and pence per quarter; percentages)

Week ending	High		Low		Weekly average spread		Week ending	High		Low		Weekly average spread	
	Price	Wheat	Price	Wheat	Amount	Percentage of high		Price	Wheat	Price	Wheat	Amount	Percentage of high
1927							1928						
Jan. 8...	55 9	{Can. {Aus.	48 3	Arg.	6 0½	11	Jan. 7...	55 6	Can.	46 3	Can.	9 2½	17
15...	55 3	Can.	48 3	Arg.	6 3½	11	14...	55 0	Can.	45 9	Can.	9 0	16
22...	55 9	Can.	48 6	Arg.	6 7½	12	21...	58 0	Can.	45 9	Can.	11 6½	20
29...	57 0	Can.	48 9	Arg.	7 7	13	28...	55 3	Can.	44 9	Can.	10 0	18
Feb. 5...	57 6	Can.	49 6	Arg.	7 5½	13	Feb. 4...	55 0	Can.	44 3	Can.	10 0½	18
12...	57 6	Can.	49 0	Arg.	7 11	14	11...	54 6	Can.	44 6	Can.	9 8	18
19...	57 3	Can.	49 3	Arg.	7 9½	14	18...	56 0	Can.	44 9	Can.	10 3½	18
26...	57 9	Can.	49 3	Arg.	8 4½	15	25...	55 9	Can.	45 7½	Can.	7 9	14
Mar. 5...	58 9	Can.	49 3	Arg.	8 8½	15	Mar. 3...	55 0	Can.	46 6	{Arg. {Can.	8 3	15
12...	58 9	Can.	49 6	Arg.	8 10½	15	10...	56 3	Can.	47 0	Arg.	7 9	14
19...	57 9	Can.	48 9	Arg.	8 4½	15	17...	56 3	Can.	48 0	Arg.	8 2	15
26...	57 6	Can.	48 9	Arg.	8 5	15	24...	56 6	Can.	47 0	Can.	8 7½	15
Apr. 2...	57 6	Can.	48 9	Arg.	8 2½	14	31...	56 0	Can.	47 0	Can.	7 11	14
9...	57 3	Can.	48 9	Arg.	7 10	14	Apr. 7...	56 3	Can.	48 9	Can.	7 0½	13
16...	56 6	Can.	49 0	R.W.	7 4½	13	14...	57 9	Can.	49 6	{Arg. {Can.	5 9	10
23...	56 6	Can.	49 0	R.W.	6 5½	11	21...	55 3	Can.	51 0	Can.	3 2½	6
30...	57 0	Can.	50 0	{Arg. {H.W.	6 5½	11	28...	58 6	Can.	51 0	Can.	6 6	11
May 7...	59 6	Can.	50 0	H.W.	7 0½	12	May 5...	59 6	Can.	51 6	Can.	5 9	10
14...	59 3	Can.	51 9	H.W.	6 10	12	12...	59 0	Can.	51 3	Can.	6 7	11
21...	59 3	Can.	51 3	R.W.	7 4	12	19...	57 0	Can.	48 9	Can.	6 10	12
28...	61 0	Can.	51 9	R.W.	6 2½	10	26...	56 9	Can.	48 6	Can.	7 7½	13
June 4...	62 0	Can.	55 3	H.W.	5 10	9	June 2...	55 9	Can.	47 0	Can.	7 5	13
11...	60 9	Can.	54 0	{Arg. {H.W. {R.W.	5 11½	10	9...	55 9	Can.	47 0	Can.	7 8	14
18...	60 0	Can.	53 3	{Arg. {Can.	6 2½	10	16...	54 6	Can.	45 0	Can.	7 11½	15
25...	59 6	Can.	51 9	Can.	5 4½	9	23...	54 0	Can.	43 6	Can.	8 0½	15
July 2...	56 3	Can.	51 3	Can.	4 1½	7	30...	53 9	Can.	46 3	Can.	6 10½	13
9...	57 0	Can.	50 9	Can.	5 0	9	July 7...	54 3	Can.	46 3	Can.	6 11	13
16...	59 6	Can.	50 6	Can.	8 4	14	14...	53 3	Can.	45 0	Can.	6 10½	13
23...	59 6	Can.	51 9	H.W.	7 1	12	21...	51 6	{Aus. {Can.	43 0	Can.	7 1½	14
30...	59 3	Can.	51 6	H.W.	7 1	12	28...	49 9	{Ind. {Can.	41 6	Can.	7 0	14
Aug. 6...	59 0	Can.	50 9	R.W.	7 8½	13	Aug. 4...	48 9	Can.	41 6	Can.	6 9	14
13...	60 0	Can.	51 0	R.W.	7 7½	13	11...	47 6	{Aus. {Can.	39 6	Can.	6 0	13
20...	60 4½	Can.	51 9	R.W.	8 2½	14	18...	46 0	Can.	40 0	Can.	5 0½	11
27...	60 6	Can.	51 3	R.W.	8 6½	14	25...	45 6	Can.	40 0	Can.	4 6	10
Sept. 3...	59 6	Can.	50 0	R.W.	8 0	13	Sept. 1...	45 6	Can.	40 7½	Can.	4 2½	9
10...	58 4½	Can.	50 0	R.W.	7 11½	14	8...	45 6	Can.	40 0	Can.	4 9	10
17...	57 0	Can.	48 7½	R.W.	7 2½	13	15...	44 6	{Aus. {Can.	39 3	Can.	4 6	10
24...	56 3	Can.	48 3	R.W.	7 6	13	22...	45 9	Can.	39 3	Can.	4 11	11
Oct. 1...	55 0	Can.	49 0	H.W.	4 5½	8	29...	48 6	Can.	40 6	Can.	6 2	13
8...	54 6	Can.	48 9	H.W.	4 6	8	Oct. 6...	48 9	Can.	40 9	Can.	6 7	13
15...	56 3	Can.	49 3	H.W.	5 8½	10	13...	49 9	Can.	41 9	Can.	6 5	13
22...	56 9	Can.	44 6	Can.	8 10	16	20...	49 0	Can.	42 0	Can.	6 4½	13
29...	55 6	Can.	44 0	Can.	10 6	19	27...	48 3	Aus.	41 6	Can.	5 8½	12
Nov. 5...	55 6	Can.	43 6	Can.	11 2½	20	Nov. 3...	50 0	Can.	42 9	Can.	5 8½	11
12...	56 3	Can.	43 6	Can.	12 0	21	10...	48 9	Can.	42 9	Can.	5 8	12
19...	58 6	Can.	44 6	Can.	12 5½	21	17...	49 6	Can.	43 0	{Arg. {Can.	5 10	12
26...	58 9	Can.	45 9	Can.	11 11	20	24...	49 9	Can.	43 3	Arg.	5 9	12
Dec. 3...	57 6	Can.	45 0	Can.	10 8½	19	Dec. 1...	49 0	Can.	42 3	Arg.	5 9	12
10...	55 0	Can.	46 0	Can.	8 2½	15	8...	49 0	Can.	42 0	{H.W. {Arg.	6 9	14
17...	57 0	Can.	45 3	Can.	9 4	16	15...	48 10½	Can.	42 0	Arg.	6 6½	13
24...	55 7½	Can.	45 6	Can.	9 5	17	22...	48 7½	Can.	42 3	Arg.	6 2½	13
31...	55 0	Can.	45 6	Can.	9 1½	17	29...	49 0	Can.	42 3	Arg.	6 8	14

TABLE I.—*Continued*  
(*Shillings and pence per quarter; percentages*)

Week ending	High		Low		Weekly average spread		Week ending	High		Low		Weekly average spread	
	Price	Wheat	Price	Wheat	Amount	Percentage of high		Price	Wheat	Price	Wheat	Amount	Percentage of high
1929							1930						
Jan. 5...	48 7½	Can.	40 9	Arg.	7 2½	15	Jan. 4...	54 3	Can.	45 9	Arg.	7 10	14
12...	49 0	Can.	40 9	Arg.	6 6	13	11...	52 9	Can.	39 3	Eur.	9 0	17
19...	50 0	Can.	42 3	Arg.	6 10½	14	18...	51 4½	Can.	43 0	Arg.	6 6½	13
26...	51 1½	Can.	43 3	Arg.	7 1	14	25...	50 3	Can.	43 0	Arg.	6 6	13
Feb. 2...	51 6	Can.	43 6	Arg.	6 11½	14	Feb. 1...	50 6	Rus.	42 0	Arg.	6 2	12
9...	51 6	Can.	43 6	Arg.	7 0	14	8...	48 1½	Can.	40 3	Arg.	6 5½	13
16...	51 6	Can.	44 0	Arg.	6 5½	13	15...	48 0	Can.	39 3	Arg.	7 5½	16
23...	51 6	Can.	44 3	Arg.	6 8½	13	22...	46 6	Can.	37 3	Arg.	7 2	15
Mar. 2...	51 0	Can.	43 9	Arg.	6 9½	13	Mar. 1...	44 4½	Can.	36 3	Arg.	6 4	14
9...	50 9	Can.	43 6	Arg.	6 5	13	8...	44 0	Can.	37 0	Arg.	5 4	12
16...	50 9	Can.	43 9	Arg.	6 9	13	15...	42 3	Can.	33 6	Arg.	5 8	13
23...	50 3	Can.	42 9	Arg.	6 7	13	22...	43 3	Can.	34 0	Arg.	6 5½	15
30...	50 0	Can.	42 3	Arg.	6 11	14	29...	42 1½	Can.	35 9	Arg.	5 6	13
Apr. 6...	49 6	Can.	42 0	Arg.	5 5	11	Apr. 5...	44 0	Can.	34 3	Eur.	6 2	14
13...	48 0	Can.	42 3	Arg.	4 8½	10	12...	45 0	Can.	36 3	Eur.	6 3	14
20...	48 3	Can.	42 6	Arg.	4 10	10	19...	43 7½	Can.	37 3	Arg.	4 8	11
27...	46 9	Can.	41 9	Arg.	4 3½	9	26...	42 0	Can.	34 3	Eur.	5 6	13
May 4...	45 10½	Can.	41 3	Arg.	4 3½	9	May 3...	41 3	Can.	33 3	Eur.	5 8	14
11...	45 1½	Can.	39 0	Arg.	4 0½	9	10...	40 10½	Can.	31 3	Eur.	6 1	15
18...	43 4½	Can.	39 0	Arg.	3 8	8	17...	41 9	Can.	31 3	Eur.	6 9½	16
25...	44 9	Can.	38 6	Arg.	5 9½	13	24...	42 3	Can.	32 3	Eur.	6 6½	15
June 1...	44 1½	Can.	36 3	Arg.	4 8	11	31...	43 0	Can.	33 0	Eur.	6 11½	16
8...	42 10½	Can.	36 6	Arg.	4 6½	11	June 7...	43 0	Can.	33 0	Eur.	7 8½	18
15...	42 10½	Can.	37 9	Arg.	4 4	10	14...	42 10½	Can.	32 6	Eur.	7 0	16
22...	44 1½	Can.	37 9	Arg.	4 10	11	21...	40 0	Aus.	32 0	Eur.	4 9	12
29...	47 3	Can.	39 7½	Arg.	6 1	13	28...	38 6	Aus.	32 10½	H.W.	4 1	11
July 6...	53 0	Can.	41 4½	Arg.	6 7½	12	July 5...	37 9	{Can.	33 6	Arg.	3 11	10
13...	54 0	Can.	44 0	Arg.	8 6	16	12...	37 7½	{Aus.	32 9	H.W.	4 0	11
20...	63 6	Can.	45 6	Arg.	12 7	20	19...	37 7½	Can.	33 1½	H.W.	3 7½	10
27...	63 6	Can.	48 0	Arg.	13 9	22	26...	38 3	Can.	33 9	H.W.	3 8	10
Aug. 3...	62 6	Can.	49 3	Arg.	12 5	20	Aug. 2...	37 10½	Can.	33 0	{Arg.	3 5½	9
10...	59 10½	Can.	45 9	Arg.	10 8½	18	9...	39 9	Can.	33 3	{H.W.	3 3½	8
17...	58 3	Can.	46 0	Arg.	10 0	17	16...	39 0	Can.	34 3	Arg.	3 2½	8
24...	59 0	Can.	45 0	Eur.	11 9	20	23...	37 3	Rus.	32 0	Rus.	3 4	9
31...	57 10½	Can.	43 0	Eur.	12 4	21	30...	36 6	Aus.	31 6	Rus.	2 9½	8
Sept. 7...	56 3	Can.	43 0	Eur.	11 6	20	Sept. 6...	34 6	{Aus.	30 6	Rus.	2 7½	8
14...	57 0	Can.	42 0	Eur.	12 4½	22	13...	34 0	{Rus.	29 9	Rus.	2 7	8
21...	56 6	Can.	41 6	Eur.	12 10	23	20...	32 6	{Can.	27 6	Rus.	4 0½	12
28...	54 9	Can.	40 6	Eur.	11 5	21	27...	31 4½	Can.	25 6	Rus.	4 2	13
Oct. 5...	53 9	Can.	40 6	Eur.	11 1½	21	Oct. 4...	31 6	Can.	25 0	Rus.	4 9	15
12...	54 4½	Can.	42 3	Arg.	11 4½	21	11...	31 3	Can.	24 6	{Arg.	5 5½	17
19...	54 0	Can.	41 9	Arg.	10 10	20	18...	29 9	Can.	24 0	{Rus.	5 2	17
26...	52 0	Can.	40 3	Arg.	9 11	19	25...	30 6	Can.	23 0	Rus.	6 3½	21
Nov. 2...	51 9	Can.	42 0	{Arg.	8 11	17	Nov. 1...	30 0	{Aus.	22 3	Rus.	7 0	23
9...	51 6	Can.	41 0	{Aus.	7 8	15	8...	29 9	{Can.	22 0	Rus.	7 1½	24
16...	48 3	Can.	39 6	Arg.	7 5½	15	15...	29 0	Aus.	21 0	Rus.	6 9	23
23...	51 1½	Can.	41 0	Arg.	8 1½	16	22...	27 6	Aus.	20 3	Rus.	6 7½	24
30...	52 6	Can.	43 6	Arg.	7 4½	14	29...	28 3	Can.	20 9	Rus.	6 6	23
Dec. 7...	54 10½	Can.	45 3	Arg.	7 10½	14	Dec. 6...	27 9	Can.	20 9	Rus.	6 5	23
14...	53 3	Can.	44 3	Arg.	7 4½	14	13...	27 3	{Aus.	20 6	Rus.	6 7	24
21...	52 4½	Can.	43 1½	Arg.	7 6	14	20...	27 0	{Can.	20 0	Rus.	6 4	23
28...	53 3	Can.	44 3	Arg.	7 6½	14	27...	25 9	Aus.	19 0	Rus.	6 5	25

TABLE I.—Continued  
(Shillings and pence per quarter; percentages)

Week ending	High		Low		Weekly average spread		Week ending	High		Low		Weekly average spread	
	Price	Wheat	Price	Wheat	Amount	Percentage of high		Price	Wheat	Price	Wheat	Amount	Percentage of high
1931							1932						
Jan. 3...	25 3	Aus.	18 6	Rus.	6 2	24	Jan. 9...	32 7½	Can.	23 0	Rus.	7 3	22
10...	25 10½	Can.	18 6	Rus.	7 0	27	16...	32 0	Can.	24 3	Arg.	6 3	20
17...	25 9	Can.	18 6	Rus.	6 11½	27	23...	31 9	Can.	24 6	Arg.	6 9½	21
24...	25 7½	Can.	18 6	Rus.	5 11	23	30...	31 6	Can.	23 9	Arg.	7 0½	22
31...	27 0	Ind.	17 0	Rus.	6 11½	26	Feb. 6...	31 10½	Can.	24 0	Arg.	6 11½	22
Feb. 7...	26 0	Can.	17 0	Rus.	8 4	32	13...	32 6	Can.	25 0	Arg.	6 7½	20
14...	28 0	Can.	17 6	Rus.	6 11	25	20...	34 1½	Can.	26 7½	Arg.	6 9½	20
21...	27 10½	H.W.	21 1½	Arg.	5 10	21	27...	34 9	Can.	27 1½	Arg.	7 0	20
28...	27 1½	Can.	19 0	Rus.	6 10½	25	Mar. 5...	34 4½	Can.	26 9	Arg.	7 1½	21
Mar. 7...	25 9	Can.	18 6	Rus.	6 7	26	12...	34 3	Can.	26 3	Arg.	7 1½	21
14...	26 4½	Can.	18 0	Rus.	7 9½	29	19...	33 3	Can.	25 3	Arg.	6 6	20
21...	25 9	Can.	18 0	Rus.	7 6	29	26...	31 1½	Can.	24 9	Arg.	5 9	18
28...	25 6	Can.	17 6	Rus.	7 6	29	Apr. 2...	30 3	Can.	23 6	Arg.	5 9½	19
Apr. 4...	25 0	Can.	17 6	Rus.	5 8½	23	9...	31 0	Can.	24 3	Arg.	6 2½	20
11...	25 4½	Can.	19 9	Arg.	5 0½	20	16...	31 9	Can.	24 9	Arg.	6 0½	19
18...	27 4½	Can.	21 0	Rus.	5 5	20	23...	31 1½	Can.	25 7½	Arg.	5 0½	16
25...	27 10½	Can.	21 0	Arg.	5 8½	20	30...	31 4½	Can.	25 6	Arg.	4 8	15
May 2...	26 7½	Can.	20 6	Arg.	4 11	19	May 7...	30 1½	Can.	25 0	Arg.	4 4	14
9...	26 10½	Can.	21 3	Arg.	4 11½	18	14...	30 3	Can.	25 7½	Arg.	4 2	14
16...	27 1½	Can.	21 3	Arg.	5 5	20	21...	29 10½	Can.	26 0	Arg.	3 4½	11
23...	26 3	Can.	20 6	Arg.	5 2	20	28...	29 9	Can.	26 3	Arg.	3 2½	11
30...	25 9	Can.	19 9	Arg.	5 3½	21	June 4...	29 4½	Can.	25 4½	Can.	2 9	9
June 6...	26 3	Can.	19 9	Arg.	5 4½	20	11...	27 0	Aus.	23 0	Can.	2 7½	10
13...	26 0	Can.	19 9	Arg.	5 3½	20	18...	26 0	Can.	22 9	Can.	2 3½	9
20...	25 4½	Can.	19 4½	Arg.	5 3½	21	25...	25 9	Can.	22 10½	Can.	2 6	10
27...	26 1½	Can.	20 3	Arg.	5 1	19	July 2...	25 9	Can.	22 10½	Can.	2 7	10
July 4...	25 3	Can.	20 0	Arg.	4 11	20	9...	26 3	Can.	21 0	Eur.	3 5½	13
11...	24 10½	Can.	19 4½	Arg.	4 8	19	16...	26 1½	Can.	21 0	Eur.	3 7½	14
18...	24 4½	Can.	18 4½	Arg.	4 10½	20	23...	26 1½	Can.	20 10½	Eur.	3 10	15
25...	24 3	Can.	18 3	Arg.	5 3½	22	30...	28 6	Can.	21 0	Eur.	4 5	16
Aug. 1...	22 9	Can.	17 10½	Can.	4 5	19	Aug. 6...	28 4½	Can.	22 0	Eur.	3 9	13
8...	22 6	Can.	15 6	Eur.	5 11	26	13...	29 3	Can.	23 0	Eur.	3 10½	13
15...	23 0	Can.	13 9	Eur.	7 5	32	20...	28 3	Can.	22 9	Eur.	3 4½	12
22...	23 4½	Can.	14 6	Eur.	6 11	30	27...	28 0	Aus.	22 6	Eur.	3 7½	13
29...	23 3	Can.	13 9	Eur.	7 6	32	Sept. 3...	28 9	Aus.	23 9	Eur.	3 1½	11
Sept. 5...	22 10½	Can.	13 1½	Eur.	7 9½	34	10...	29 6	Aus.	25 3	Eur.	3 0	10
12...	23 0	Can.	13 0	Eur.	7 11	34	17...	29 3	Aus.	25 3	Can.	3 4½	12
19...	23 3	Can.	13 9	Eur.	8 2	35	24...	29 3	Aus.	25 3	{Eur. {Can.	3 7	12
26...	29 6	Can.	17 6	Rus.	7 7	26	Oct. 1...	29 1½	Aus.	24 9	Eur.	3 3	11
Oct. 3...	28 0	Can.	19 6	Rus.	6 4½	23	8...	28 0	Aus.	23 6	Eur.	2 8½	10
10...	27 4½	Can.	16 9	Eur.	7 9	28	15...	27 0	{Aus. {Can.	23 0	Eur.	2 8½	10
17...	28 1½	Can.	19 6	Eur.	7 5	26	22...	27 7½	Can.	23 0	Eur.	3 1½	11
24...	29 7½	Can.	19 6	Eur.	8 5	28	29...	28 0	Can.	23 9	Eur.	3 1½	11
31...	32 7½	Can.	20 0	Eur.	8 10	27	Nov. 5...	26 9	Aus.	23 3	Arg.	2 9½	10
Nov. 7...	35 6	Can.	23 9	Eur.	7 5	21	12...	26 3	Aus.	23 3	Arg.	2 2½	8
14...	34 7½	Can.	26 0	Rus.	6 4	18	19...	26 4½	Can.	23 9	Can.	1 11½	7
21...	33 0	Can.	25 6	Rus.	6 2	19	26...	26 6	{Arg. {Aus.	24 6	Can.	1 7½	6
28...	32 3	Can.	24 0	Rus.	7 2½	22	Dec. 3...	26 9	Can.	24 4½	Can.	1 11½	7
Dec. 5...	34 6	Can.	24 6	Rus.	7 7	22	10...	26 6	Can.	23 10½	Can.	2 0	8
12...	33 6	Can.	24 6	Rus.	7 6	22	17...	25 7½	Can.	22 0	Can.	2 2½	9
19...	31 6	Can.	23 6	Rus.	7 0½	22	24...	25 0	Arg.	21 10½	Can.	2 2½	9
26...	30 10½	Can.	23 6	Rus.	7 2	23	31...	24 6	Can.	22 1½	Can.	1 6½	6
Jan. 2...	32 3	Can.	23 0	Rus.	7 10	24							

"An import duty of 2s. per quarter, effective November 18, 1932, was imposed on all wheats imported from countries outside of the British Empire. Beginning with that date, therefore, we have added 2s. to the prices of all wheats from the United States, Argentina, European countries, and Russia, before compiling this table.

TABLE I.—*Concluded*  
(Shillings and pence per quarter; percentages)

Week ending	High		Low		Weekly average spread		Week ending	High		Low		Weekly average spread	
	Price	Wheat	Price	Wheat	Amount	Percentage of high		Price	Wheat	Price	Wheat	Amount	Percentage of high
1933							1934						
Jan. 7...	26 3	Can.	22 10½	Can.	1 9	7	Jan. 6...	25 4½	Can.	18 4½	Eur.	5 4	21
14...	26 6	Can.	24 1½	Can.	1 9	7	13...	26 4½	Can.	18 0	Rus.	6 4½	24
21...	26 0	Aus.	23 6	Can.	1 11½	8	20...	27 3	Can.	17 4½	Eur.	6 5	24
28...	25 9	Aus.	23 0	Can.	2 2	8	27...	27 3	Can.	19 7½	Eur.	6 10½	25
Feb. 4...	25 9	Aus.	22 4½	Can.	2 2	8	Feb. 3...	27 10½	Can.	19 6	Rus.	7 11	28
11...	24 6	Aus.	22 6	{Can. {Arg.	1 10	7	10...	27 9	Can.	19 6	Rus.	7 6½	27
18...	24 3	Aus.	22 1½	Arg.	1 9½	7	17...	26 10½	Can.	20 0	Eur.	6 7	24
25...	24 3	Aus.	21 3	Arg.	2 3	9	24...	26 7½	Can.	19 0	Eur.	6 11	26
Mar. 4...	24 4½	Can.	21 3	Arg.	2 2½	9	Mar. 3...	27 3	Can.	19 3	Eur.	7 5	27
11...	25 1½	Can.	22 0	Arg.	2 8½	11	10...	27 3	Can.	19 6	{Arg. {Eur.	7 6	28
18...	25 10½	Can.	21 9	Arg.	3 2	12	17...	27 1½	Can.	19 0	{Arg. {Eur.	7 7	28
25...	24 9	Can.	21 9	Arg.	2 7½	11	24...	26 7½	Can.	18 3	Arg.	7 9½	29
Apr. 1...	24 6	Can.	21 3	Arg.	2 9	11	31...	26 10½	Can.	18 9	{Arg. {Eur.	7 10	29
8...	25 1½	Can.	21 9	Arg.	2 9½	11	Apr. 7...	26 7½	Can.	18 6	Eur.	6 8½	25
15...	25 6	Can.	22 3	Arg.	2 9½	11	14...	25 6	Can.	19 3	Arg.	5 9½	23
22...	25 7½	Can.	22 4½	Arg.	2 11	11	21...	25 4½	Can.	19 0	Eur.	5 7	22
29...	27 0	Can.	23 0	Arg.	3 1	11	28...	25 0	Can.	19 0	Eur.	5 5	22
May 6...	27 10½	Can.	24 0	Arg.	2 8½	10	May 5...	25 0	Can.	19 6	Arg.	4 7	18
13...	28 0	Can.	24 6	Arg.	2 6	9	12...	27 0	Can.	18 6	Eur.	5 5	20
20...	27 9	Can.	24 7½	Arg.	2 7	9	19...	26 6	Can.	20 6	Eur.	5 4½	20
27...	27 0	Can.	24 3	Arg.	2 4	9	26...	26 9	Can.	21 3	Arg.	4 11	18
June 3...	27 6	Can.	24 9	Arg.	2 3½	8	June 2...	29 6	Can.	21 7½	Arg.	5 10½	20
10...	26 9	Can.	24 3	{Can. {Arg.	1 11½	7	9...	29 1½	Can.	22 0	Arg.	6 4	22
17...	26 10½	Can.	24 0	Arg.	2 6	9	16...	29 6	Can.	21 6	Eur.	7 2	24
24...	27 6	Can.	24 6	Arg.	2 5	9	23...	29 7½	Can.	21 4½	Eur.	7 3½	25
July 1...	30 10½	Can.	25 1½	Arg.	3 5½	11	30...	29 7½	Can.	21 6	{Arg. {Eur.	7 5	25
8...	30 7½	Can.	26 6	Arg.	3 8	12	July 7...	29 3	Can.	21 0	Arg.	7 9½	27
15...	33 0	Can.	26 9	Arg.	4 0	12	14...	31 4½	Can.	21 0	Arg.	8 8	28
22...	34 0	Can.	27 3	Arg.	3 11	12	21...	32 7½	Can.	21 9	Eur.	9 2	28
29...	33 6	Can.	25 0	Eur.	4 3½	13	28...	32 3	Can.	23 0	{Arg. {Eur.	8 4½	26
Aug. 5...	33 3	Can.	24 0	Eur.	6 2½	19	Aug. 4...	33 6	Can.	24 9	Arg.	7 9½	23
12...	31 3	Can.	21 9	Eur.	6 7½	21	11...	35 6	Can.	28 0	Arg.	7 2	20
19...	27 10½	Can.	20 0	Eur.	5 4	19	18...	33 9	Can.	26 6	Arg.	6 4	19
26...	27 6	Can.	19 3	Eur.	5 10½	21	25...	33 3	Can.	26 0	Arg.	6 5	19
Sept. 2...	28 0	Can.	20 0	Eur.	5 5	19	Sept. 1...	32 9	Can.	24 6	Eur.	6 4	19
9...	28 0	Can.	24 3	Arg.	3 2½	11	8...	32 9	Can.	24 6	Eur.	7 1½	22
16...	27 7½	Can.	20 6	Eur.	5 1	18	15...	33 3	Can.	24 6	Eur.	7 11½	24
23...	27 7½	Can.	20 0	Eur.	4 6½	16	22...	32 6	Can.	24 0	{Arg. {Eur.	8 0	25
30...	26 9	Can.	18 9	Eur.	4 9	18	29...	32 3	Can.	23 0	Arg.	8 5	26
Oct. 7...	24 10½	Can.	18 3	Eur.	4 5	18	Oct. 6...	31 10½	Can.	22 0	Arg.	7 11½	25
14...	24 7½	Can.	17 9	Eur.	4 11½	20	13...	32 0	Can.	23 0	Eur.	7 11	25
21...	25 4½	Can.	17 0	Eur.	6 1½	24	20...	31 4½	Can.	21 9	Eur.	8 1	26
28...	26 4½	Can.	16 0	Eur.	7 7½	29	27...	30 1½	Can.	21 3	Eur.	8 10	29
Nov. 4...	25 7½	Can.	17 0	Eur.	6 10½	27	Nov. 3...	30 9	Can.	21 3	Eur.	7 11½	26
11...	25 3	Can.	18 0	Eur.	6 3	25	10...	31 3	Can.	22 6	Arg.	7 10½	25
18...	25 0	Can.	17 9	Eur.	5 11½	24	17...	30 9	Can.	21 0	Eur.	8 4½	27
25...	25 7½	Can.	18 0	Eur.	6 4	25	24...	30 3	Can.	20 4½	Eur.	8 6	28
Dec. 2...	25 4½	Can.	18 0	Eur.	5 8	22	Dec. 1...	31 1½	Can.	20 7½	Eur.	8 1	26
9...	25 0	Can.	18 0	Eur.	5 7	22	8...	32 10½	Can.	21 6	Eur.	9 5	29
16...	25 3	Can.	18 0	Eur.	5 8	22	15...	32 6	Can.	20 10½	Eur.	9 5	29
23...	24 6	Can.	18 6	Rus.	5 2	21	22...	31 7½	Can.	20 10½	Eur.	9 3½	29
30...	25 3	Can.	18 3	Eur.	6 7½	26	29...	31 6	Can.	20 9	Eur.	9 6½	30

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