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WHEAT STUDIES

OF THE

FOOD RESEARCH INSTITUTE

VOL. III, NO. 9

AUGUST 1927

REACTIONS IN EXPORTING AND IMPORTING COUNTRIES TO CHANGES IN WHEAT PRICES

THE public attitude toward changes in wheat prices is very different in wheat exporting and in wheat importing countries. The low prices prevailing in the three crop years 1921–24 contributed to the difficulties of American wheat growers and enlisted the sympathy of American manufacturers and statesmen. But in Europe low prices were advantageous as aiding the process of reconstruction in the balancing of state budgets and restraining adverse balances of merchandise trade; and the plight of European wheat growers was a minor problem. With the crop of 1924 wheat prices rose sharply and thereafter remained at a high level. Relative prosperity replaced relative unprosperity in exporting countries, but in Europe the higher level is regarded as little less than a calamity.

The difference in attitude springs not only from the large import bill created by wheat imports necessary to Europe, but also from the different significance of bread to the populace. In the United States average income per family is relatively large, expenditure for and consumption of bread relatively small; and bread prices do not fluctuate closely with wheat and flour prices. In Europe family income is small, bread plays an important part in the diet and expenditure per family for bread is large; and since European bread consists more exclusively of flour than American, bread prices fluctuate closely with the prices of wheat and flour. High bread prices in Europe mean general curtailment of other family expenditures or recourse to distasteful food substitutes, but in the United States they are scarcely noticed by consumers. Wheat traders of Europe, in sympathy with European consumers, are prone to adopt a bearish attitude toward prices. American traders, in sympathy with American farmers, are prone to adopt a bullish attitude.

> STANFORD UNIVERSITY, CALIFORNIA August 1927

WHEAT STUDIES

OF THE

FOOD RESEARCH INSTITUTE

The central feature of the series is a periodic analysis of the world wheat situation, with special reference to the outlook for supplies, requirements, trade, and prices. Each volume includes a comprehensive review of the preceding crop year, and three surveys of current developments at intervals of about four months. These issues contain a careful selection of relevant statistical material, presented in detail in appendix tables for reference purposes, and in summary form in text tables and charts.

Each volume also includes six special studies bearing on the interpretation of the wheat situation and outlook or upon important problems of national policy. Typical subjects are listed on the fourth cover page of this issue.

The series is designed to serve the needs of all serious students of the wheat market, in business, government, and academic circles, by summarizing and interpreting basic facts and presenting current developments in due perspective.

The ten issues of Volume III will be published monthly from November, 1926, to September, 1927, except in April, 1927. Ordinarily each issue will reach subscribers in North America early in the month designated. The subscription price for the volume, including a temporary binder, is \$10.00. Individual issues may also be purchased separately. Address: Food Research Institute, Stanford University P.O., California. European subscriptions, at £2 2s., will be accepted by the Northern Publishing Co., Ltd., 16, Fenwick Street, Liverpool, England.

Published by Stanford University for the Food Research Institute. Entered as second-class matter February 11, 1925, at the post-office at Stanford University, California, under the Act of August 24, 1912

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FOOD RESEARCH INSTITUTE

STANFORD UNIVERSITY, CALIFORNIA

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The Food Research Institute was established at Stanford University in 1921 jointly by the Carnegie Corporation of New York and the Trustees of Leland Stanford Junior University, for research in the production, distribution, and consumption of food.

REACTIONS IN EXPORTING AND IMPORTING COUNTRIES TO CHANGES IN WHEAT PRICES

Wheat exporting and wheat importing countries alike have had their problems since the war. Following the collapse of prices of raw materials in 1920–21, the world price of wheat was relatively low during the crop years 1921–22 to 1923–24. The average weighted farm price in the United States for these three years was 98 cents. To quote from the First Report of the Royal Commission on Food Prices: "From 1921 until the middle of 1924 this country [Great Britain] was obtaining foodstuffs from abroad at prices dispro-

portionately low compared with the value of the manufactured goods which it sold abroad." With allowances for depreciated currencies, this statement held for the rest of Europe. With the crop of 1924 occurred a sharp rise in the price of wheat, and during the three crop years 1924–25 to 1926–27 the world level of wheat prices, despite fluctuations, has been sub-

stantially higher. The average weighted farm price in the United States for these three years was 132 cents.¹

With low wheat prices the difficulties of wheat growers in exporting countries loomed large; with substantially higher prices the position of wheat growers has improved. What is regarded as relative prosperity has replaced relative unprosperity. Railways and manufacturers have shared in the improved conditions attendant upon the enhanced wheat prices. Prosperity and unprosperity have economic and political consequences. In all wheat exporting countries statesmen and politicians have shared with agriculturists and

¹ Farm prices in the United States overstate the change in the world price of wheat since the American tariff was particularly effective during the past three years, notably 1925-26. See Wheat Studies, June 1927, III, No. 7.

manufacturers the desire for a price level for wheat in harmony with the general price level. Higher prices in the past three years have been welcomed as aiding the solution of important problems.

In Europe, however, wheat prices during the past three years have been regarded as disproportionately high. The years 1921–24 were years of painful reconstruction in Europe. To the dislocations of war were added those of depreciation of currency. The industries of Europe had suffered losses in export markets. Lessened dependence on

imported foodstuffs was welcomed by every central bank, by every treasurer of state. Low prices for foodstuffs implied domestic agrarian unrest; but this did not present the crucial emergency involved in the problem of balancing state budgets and restraining negative (so-called "unfavorable") balances of merchandise trade.

Not only was a relatively low price of wheat highly acceptable to everybody in Europe except wheat growers; gradually the public came to take it for granted that this would continue, despite lapse of Russian exports. The sharp rise in the price of wheat in 1924 was both a surprise and a disappointment. Nor did the consequent complacence of European wheat growers mollify in the least the apprehension of the general public. In the disordered state of the economy of Europe politicians and statesmen were quick to feel the untoward reactions attending the increase in the price of a basic commodity.

The price of wheat indirectly affects European purchases of other commodities. Wheat occupies a position of priority in the import program; and despite substitutions, the import demand for wheat in Europe is relatively inelastic. If the bill for import wheat of a season is higher, the

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countries will tend to import less of other goods. The import purchasing power of most European countries is, for the time being, constrained. All European countries of importance have a negative balance of merchandise trade; a higher price of wheat, unless imports are curtailed, exaggerates the negative balance. Whatever increases the cost of living, tends to raise the cost of goods being manufactured for export.

It is our purpose in the present study to outline briefly the customs and habits in wheat consumption which lead importing countries to view changes in wheat prices in a manner far different from that prevailing in exporting countries.

WHEAT CONSUMPTION IN THE UNITED STATES AND EUROPE

Wheat consumption in the United States amounts to less than a barrel of flour per capita per annum. Our best estimate is 90.4 per cent of one barrel, or 177 pounds.¹ This amount of flour contains about 290,000 calories, around one-fourth of the annual requirement of an average adult. The average annual consumption of corn, rye, barley, and rice is small. Consumption of wheat flour in Canada, Australia, and Argentina is somewhat higher. It is doubtful, however, if the weighted average per capita consumption of flour in the four leading wheat-exporting countries amounts to a barrel per year.

As nearly as can be adjudged, the consumption of cereals in Europe is much higher—not far below 400 pounds per person per year. Before the war, the average consumption of cereal preparations, mostly wheat flour, in the United Kingdom, France, Germany, and Italy was in the neighborhood of 300 pounds per head per year. Consumption was higher in Scandinavia, central Europe, and the Balkan States. Since the war, the diet of Europe is more vegetarian than before the war, and part

of the increase has fallen on cereals. If the average consumption of cereals in Europe, outside of Russia, is about 360 pounds per person per year, this would correspond to something like 1,600 calories per person per day, fully half of the calories in the diet. The consumption naturally varies from country to country. The United Kingdom, Holland, and Belgium have probably gone farther than other countries in Europe toward a return to the pre-war diet. In Italy, the government has instituted propaganda in favor of wheat and against corn; in Germany, the war-induced reaction against rye has continued in favor of wheat.

It is difficult to check figures for consumption of bread grain because comparable milling statistics are not available and extraction is higher than before the war. Also, there has been less feeding of wheat to animals than before the war. Whether the average consumption in Europe (ex-Russia) is fully twice as much as in the United States is not essential to the argument; certainly, for large classes, the preceding estimate is correct. Wheat flour is twice as important in Europe as in the United States.

WHEATEN BREAD IN EUROPE AND THE UNITED STATES

Flour in Europe means bread. There is a large consumption of alimentary pastes in the Mediterranean countries; but this has the same meaning as bread. In shop windows one sees much display of cake and pastry. But compared with the United States, European consumption of sweet baked goods is low, absolutely and relatively.

Bread in Europe, for the most part, is compounded of flour, salt, yeast, and water.

Some of the special rolls contain shortening and sugar, and in recent years some of the bakeshops of western European countries are imitating American practices in the use of milk, shortening, and sugar. However, the volume of flour involved is not large.

The standard bread of Europe is made from a blended flour by long fermentation. The bread has not a flaky but rather a fibrous consistency. American bread is flaky and designed as a vehicle for spreading materials. European bread is tough and munchy; it is not designed as a vehicle for

¹ See also Wheat Studies, July 1926, II, No. 8.

spreading materials and is not much used for that purpose (apart from jams in the United Kingdom), but is one of the staples in the meal. In the American diet, bread is at present an accessory, almost an incident; in Europe, it is substantially the staff of life.

Bakers' bread in the United States usually contains so much shortening, sugar, and milk as to deserve the name of cake in European language. The shortening, sugar, and milk make up about one-third of the cost of the ingredients of the American loaf. In Europe, the cost of materials falls mostly on flour.

Bread in Europe is sold almost entirely on the cash-and-carry system, though the Europeans do not call it that. Small bakeshops are the rule, though in the cities of western Europe large bakeries have developed rapidly. Co-operative bakeries have developed surprisingly. Little bread is delivered from bakeries to households; the small bakeshops sell on the ground, the large bakeries sell through retailers. Large loaves are the rule in Europe, mostly two and four pounds, but also larger loaves. There is little wrapping of bread; the cost of delivery is minimal. American bread becomes stale (according to American definition) quickly, even when wrapped; European bread holds for several days what Europeans regard as satisfactory freshness. Without going into the reasons for the differences, it suffices here to point out that delivery charges are much higher in the United States than in Europe.

FLOUR COST AND BREAD PRICE

The differences between composition of loaf, costs of baking, and expense of delivery find expression in the spread between the flour cost of bread and the selling price of bread. Roughly, one may say that in the United States the flour cost is something like one-fourth to one-third of the retail price of bread; in Europe, the flour cost is two-thirds to three-fourths of the retail price of bread.

Before the war, it was common bakeshop practice in Europe to sell bread per unit of weight for the same price as the cost of flour of the same weight. Three units of flour usually yielded four units of bread. Three pounds of flour, purchased by the baker for 12 cents, would be sold as four pounds of bread for 16 cents, leaving the baker 4 cents for costs and profit. In Great Britain the adjustment was not quite so close as this. Post-war practice in Europe is less efficient. In Great Britain, when with flour at 50 shillings per sack, the four-pound loaf is sold at 10 pence, this means that the cost of the pound of flour is about 4.3 cents and the price of the pound of bread about 5.0 cents. But that is still a much closer relation than now holds in the United States, where the cost of the pound of flour is around 2.5 cents when the price of the pound loaf of bread is 9 cents. Fragmentary information from continental countries suggests that at present when the pound of flour costs four units of currency, the pound of bread will be sold for five.

Before the war the average price of the quartern loaf in Great Britain was 5.75 pence. In 1916 the war price was 9 pence. During the years of low wheat prices, 1921–24, the average price was under 9 pence. During the past three seasons of higher wheat prices, the average has ranged between 10 and 11 pence. According to the schedule of the Food Council, when the price of standard flour is 51 shillings per sack of 280 pounds (equal to 93 quartern loaves), the retail price of bread should be 10 pence per loaf.¹

Despite the fact that wheat is more expensive in Europe than in the United States. and that wheat flour comprises a larger proportion of the cost of the loaf, the price of bread is substantially lower in Europe than in the United States. While bread has been selling for 11 cents a pound in the United States, it has been selling for 10 pence per quartern loaf in Great Britain. This means that the price of bread in the United States is almost double that in Great Britain. In the United States the price of bread per pound will vary from half again as much to twice as much as in Europe, depending on points of comparison. Of course it is not the same bread,

¹ Data from First Report of the Royal Commission on Food Prices.

since the American bread contains shortening, sugar, and milk.

In Europe changes in the price of wheat find expression in closely corresponding changes in the price of bread. The price of flour follows the price of wheat closely; the retail price of bread follows the wholesale price of flour closely—just what would be expected with bread in which the cost of the flour makes up some 65–75 per cent of the retail price of the loaf.

In the United States, on the other hand, the cost of flour constitutes a much smaller proportion of the retail price of the loaf. In 1913, the retail price of a pound loaf of bread in Washington, D.C., was 5.45 cents. All ingredients cost 2.30 cents, or 42 per cent of the retail price; the flour alone cost 1.92 cents, or 35 per cent of the retail price. In 1923, with the retail price at 9 cents, all ingredients cost 3.76 cents, or 42 per cent; but the cost of flour at 2.51 cents was only 28 per cent of the price of the loaf. With flour cost constituting only about 30 per cent of the retail selling price of bread in the United States, but 65–75 in Europe, the retail price of bread in this country does not fluctuate at all closely with wheat and flour prices.

Now, consider the price of wheat as raised 50 cents a bushel over the 1923 level,² and assume a corresponding price of flour at \$9.50 per barrel. Let us disregard the flour going to other uses than bakers' bread, assuming that the price spread for bread would hold for all uses. With flour at \$9.50 per barrel, the cost of the flour in the pound loaf would have been increased from 2.51 to about 3.5 cents; and if other factors had remained constant, the result would have been an increase in the price of bread from 9 to 10 cents per pound loaf.

This argument must not be taken rigidly, since the coarseness of our unit of currency modifies price adaptations. The retail price of bread cannot closely parallel the cost, since costs move in fractions of a

cent. The tendency of large bakers is to use replacement cost with ascending price of flour, and cost-plus with descending price of flour. To some extent bakers are willing to maintain a stable price of bread, taking short profits when flour is high and recouping themselves when flour is low. Some adjustment is possible in the quality of flour that goes into the loaf, through alteration of the dough formula, through increase of absorption of water, and in the case of rolls and pastry by decreasing the portion.

Now, let us apply this to an American family, not an average family statistically, but an illustrative family. Let us say that a family corresponding to three adult males has an income of \$100 a month. Such a statistical family would consume about 600 pounds of flour per annum, all of which is assumed to be in the form of bread, corresponding to 800 one-pound loaves of bakers' bread. An increase of a cent a pound of bread would therefore amount to \$8.00 per annum out of an income of \$1,200. If such a family spent \$480 for its entire food supply, a reasonable proportion, the increase in the cost of the bread supply of the family resultant from increase in the price of wheat of 50 cents a bushel would amount to less than 2 per cent of the income annually devoted to foodstuffs.

In Europe the situation would be very different. The common bread is not sold in pound loaves, but in larger loaves. Also, outside of the United Kingdom, the unit of currency is much finer. Even the British penny, since bread is sold in the quartern loaf, is only half the size of the American cent. The price of bread follows the price of flour closely and this is facilitated by the larger size of the loaf and by the fineness of the unit of currency. An adjustment of price of bread to price of flour that would be impossible in this country is practically automatic in Europe.

If, for example, in a European country, the price of flour were raised 40 per cent, as consequence of rise of 50 cents per bushel in the price of wheat (corresponding to the raise used as illustration in the American price), the effect would be striking. Let us say a European baker was selling the quartern loaf for 16 cents, in terms of American money. If, now, the price of flour were to

¹ Agriculture Yearbook, 1923, p. 127.

² The price of wheat for the crop year 1922-23 was \$1.26 for No. 1 Dark Northern Spring at Minneapolis, \$1.14 for No. 2 Red Winter at Chicago, and \$1.13 for No. 2 Hard Winter at Kansas City. The average wholesale price of spring patent flour in New York during the year 1922-23 was \$6.82 per barrel; that of winter patent flour was \$6.67.

rise 40 per cent, the price of the quartern loaf would rise to 22 cents. A workman of a type that would earn \$1,200 a year in the United States would do well in Europe to earn \$600. Of this \$600, probably 50 per cent (possibly more) would be expended for food—namely, \$300. The worker's family, corresponding again to three adult males, would consume per year, let us say, 1,080 pounds of flour, which we again assume to be in the form of bread, equalling some 360 quartern loaves. An increase of 6 cents per quartern loaf would amount to \$22 a year, out of a food expenditure of \$300 per year.

Now, contrast the two situations. With the hypothetical American family (income \$1,200; of which \$480 goes to food), an increase in price of wheat of 50 cents a bushel would raise the annual bread bill of the family by some \$8. In the hypothetical European family (income of \$600, of which \$300 goes to food), an increase in the price of wheat of 50 cents a bushel would raise the bread bill of the family some \$22 per annum. The effects would be modified if

much flour were used in other forms than bread. These are hypothetical figures; but they are reasonable, in close concordance with facts, and represent approximately what would happen to large classes in the United States and Europe.

In the United States the standard of living is high, demands are relatively elastic, there is leeway in the family budget and adaptation is easy; in Europe the standard of living is comparatively low, demands are relatively inelastic, there is little leeway in the family budget, and adaptations are difficult. A change in wheat price of as much as 50 cents a bushel means little in the United States because of high income; it has a profound meaning in Europe because of low income. Eight dollars per annum means little in the United States even to families in lower income groups; \$22 per annum means much in Europe, even to families in the middle-income groups. The absolute figure of increase in bread cost is much the larger in Europe; average income is much higher in this country. And Europeans have the stronger liking for bread.

EUROPEAN ADAPTATIONS TO HIGH PRICES

In Europe wheat is the premier cereal and bread is the largest single article in the diet. According to the Report of the Royal Commission on Food Prices, food and correlated services take up about 60 per cent of the national income in Great Britain and of this about 20 per cent goes to flour and An increase in wheat price that raises the price of the quartern loaf by one penny means an enlargement in the annual bread bill of some 50 million dollars, and elevates the cost-of-living index number by over two points. On the Continent the percentage applying to flour and bread is higher than in Great Britain, since meat consumption is lower. If hard times come as a result of reduced income with sustained prices, the better-to-do classes cut down consumption of foods more expensive than bread and increase the consumption of bread; the working masses cut down the consumption of wheaten bread and increase the consumption of cheaper substitutes—rye, barley, corn, potatoes, and root vegetables. A corresponding reaction occurs when income is maintained, but prices rise; the better-to-do classes reduce consumption of those foodstuffs whose prices have risen, the poorer classes increase consumption of the lowest-priced foodstuffs. If a high wheat price is coincident with a large potato crop, potatoes will be relatively cheap and will be substituted for rye, and then rye will be substituted for wheat.

Substitution occurs not only within the family, but also in the manufacture of flour and in the baking of bread. When the price of wheat rises, the mills grind to higher extraction, cheapen their blends, and may dilute with other cereals. During the past two years many governments in Europe have countered the high price of wheat by enforcing the compulsory admixture of other cereals. The average unit of flour secured from wheat varies rather widely in Europe, from crop to crop, according to quality; with higher wheat price, the miller has less scope for adaptation. Therefore,

as a rule, the higher the price of wheat, the poorer the average quality of wheat flour.

The bakers also stretch the wheaten flour when prices are high, voluntarily or by governmental regulation. In northern Europe there are three classes of rve breads: (1) mixed rye and wheat; (2) all rye, made of pale flour; and (3) whole rye. When the price of wheat is high, all-wheat bread is often diluted with a little rye flour; the mixed wheat-and-rye bread will contain less wheat and more rye, both of higher extraction; and the proportion of all-rye breads will be increased. Small amounts of barley or oatmeal may be used, but the potato is the chief diluting material. In Europe, north of the latitude of the Alps, the potato has always been widely used in bread, especially in rye bread. In southern Europe, corn and rice are similarly employed. The purpose of these stretching devices is to avoid raising the price of bread proportionately with the increase in the price of flour.

The consuming public objects to the increase in price of bread. It objects also to the change in the quality of the bread. All classes of populations in the countries of Europe have had their surfeit of war bread. With our low consumption of bread in the United States, war-bread did not bother us much, though the fastidious were disturbed. But war bread in Europe became an indigestible burden, because bread constituted so large a part of the diet. Every return to mixed breads and diluted flours recalls war bread to the inhabitants of the European countries. With high wheat prices, the Continent must choose between dearer imports. with a substantially increased bill for bread of the customary type, and restrictions of imports with the consequent result of bread of undesirable type. It is not a pleasant choice.

REACTIONS OF WHEAT TRADERS

In the importing European countries and in the wheat-exporting countries, speculators, traders, and millers attempt to forecast prices and price-movements of wheat. All speculation in grain futures is based upon expectation of rise or fall of price. Up-to-date information and objectivity in interpretation are the foundations of price forecasting. Selling and buying both demand impersonal treatment.

On each side of the trade, however, are psychological considerations, political motives, and class interests. These introduce bias from which even the most objective grain traders cannot always keep themselves free. Beyond this, on each side are interests who try to develop bias in the hope of influencing prices in the desired direction. Wheat bulls are of two kindsbulls from opinion and bulls from policy. Wheat bears are of two kinds—bears from opinion and bears from policy. The bias in Europe, conscious or unconscious, consists in magnifying European crops, world crops and stocks, and minimizing European import requirements—utilizing every piece of information that can be shaded to suggest lower prices. In the exporting countries, the opposite tactics are observed. The crops of Europe and of the exporting countries and the stocks are minimized; rumors and reports of disasters are magnified; the requirements of Europe are inflated; the surpluses of the exporting countries reduced.

The price of wheat is not precisely set by the relation of the gross supply of wheat in the world to the gross requirements of the world. Nor yet is it set by the relation of surpluses of exporting countries to import requirements of Europe. It is not a question of supply of wheat in units against demand for wheat in units; it is immediately and directly always a question of opinion on supply and opinion on demand and transactions based on opinion. A concordance between opinions and statistical data is often not achieved until the close of a crop year, sometimes not even then. In the meantime, adaptations occur on either side, and thus the bulls in the exporting countries and the bears in the importing countries are at times able to make out plausible cases of accomplishment in the desired direction. The bearish position of European buyers springs from a defense reaction—the desire to avoid an increase in the price of bread to the working classes of Europe. The bullish position

of exporting countries springs from an offense reaction—the desire to make wheat growing more remunerative and agriculture more prosperous. Agrarian unrest in exporting countries is thus matched against industrial unrest in Europe.

ECONOMIC AND POLITICAL REACTIONS IN EUROPE

In all classes of Europe since the war, the margin between income and expenditures is narrow in most households. Family reserves have been depleted and current savings are minimal. The cost of living is an outstanding issue. In every European country are socialists ready to make political capital out of increase in the cost of living. It makes little difference how obviously any increase in European prices is the result of conditions outside of Europe; the bare fact of increase in price lends itself to social unrest and is exploited for domestic political purposes. It seems established for the United States that following several years of high prices for farm products, hard times come to the cities. Europeans, recalling similar experiences before the war, naturally view each rise in price of a basic commodity with an apprehension made worse by the exigencies of their post-war

To the industrial classes, employers and employees alike, and the middle classes dispossessed by the war and the subsequent depreciation of currencies, the prospect of a continuously higher level of wheat prices is regarded as little less than appalling. Hence spring many forms of governmental control over wheat, flour, and bread prices within the boundaries of European nations, as well as undisguised apprehension of organized marketing of wheat in exporting countries. Only the agrarians of Europe, secretly in all countries and in some countries openly, welcome the advent of high prices of wheat, however caused.

Under the leadership of the Canadian Wheat Pool, a beginning has been made tentatively to organize in each surplus-producing country a centralized control of marketing. In the United States and Australia this would naturally take the form of co-operative associations. In Argentina it would need to take the form of a land-owners' or a wheat shippers' association. In Russia the export grain trade is already in government hands.

The purpose of centralizing wheat marketing in the principal exporting countries is to secure co-ordination in flow of exports throughout the year, for the purpose of raising the weighted price of wheat. Stabilization of price will be sought, possible efficiencies attained, and economies striven for. It is hoped to divert to growers the profits now accruing to international grain dealers. But the real purpose of the co-ordination is to raise the price of wheat.

Increase in the weighted price of export wheat will be accompanied by increase in the weighted price of domestic wheat in Europe. It cannot be expected that the growth of strongly organized co-operatives in exporting countries will receive no organized opposition from European importing countries. European countries could evoke two defenses: state monopoly of bread grains, or an importers' monopoly fashioned after the Interallied Wheat Executive. At the recent International Economic Conference in Geneva, the suggestion was advanced that it might prove practicable to establish contractual relations between importing groups in Europe and co-operative associations in exporting countries, to the advantage of both. What form European resistance to combination among wheat exporters will take remains problematical; but it is safe to infer that resistance will arise.

Meanwhile importing countries direct attention to control of the cost of living by regulation of the outstanding items of house rent and bread prices. Rents are still under control in many countries in Europe. For example, in Germany house rents are held down by regulation to such a point as practically to represent expropriation of property; and rents are easily controlled by law. The price of bread is not so easily controlled. The higher world prices of wheat after 1924 were accompanied by rising prices of domestic wheats in Europe, varying from country to country. Almost everywhere in Europe the rise of wheat

prices, reflected in flour and bread, provoked discussions in Parliaments, and in many instances formal governmental inquiries were instituted. Agitation has been directed in part against traders, millers, and bakers, in part against the agrarian class and capitalism in general.

One of the best illustrations is to be found in Great Britain. An inquiry into the price of foods was initiated in the fall of 1924, followed by the establishment of a Food Council under the chairmanship of Lord Bradbury. In the beginning, arose the implication that the high price of bread was not due to high world price of wheat, but was due to exploitation—profiteering by exporters in the surplus countries and by importers, millers, flour merchants, and bakers in Europe. In the course of an elaborate inquiry, it was made clear that the price of wheat in Great Britain was the direct expression of conditions in the world market. For the most part, the increase in the cost of bread was shown to be due directly and principally to increase in the world price of wheat. But bakers had, to some extent, intensified the price change, and against bakers in some parts of the United Kingdom, a case of profiteering was seemingly established. The Food Council undertook to name what should be regarded as the going price of a representative flour and to establish a differential between the stated price of flour and the price of the quartern loaf of bread. The British Food Council has accomplished little in reducing the spread between wheat and bread prices, but it did accomplish something for social order by directing the attention of the consuming public to world conditions of supply and demand.

Europe is in position, so far as farm operations are concerned, to adapt her agriculture to changes in price of wheat. She can increase or reduce the acreage planted to bread grains. A foreseeable wheat price level of \$1.50 Chicago would exercise an appeal to European peasants compared to a world wheat price corresponding to \$1.00 Chicago. But enlargement of acreage is not quickly accomplished in Europe. European peasants incline to long-term rather than short-term considerations. Just at present

the trend in peasant policy is in the direction of increase of animal husbandry. Furthermore, a higher world wheat price stimulates exports from Russia. Russia is a great deal closer to European peasants than to American wheat growers. Prospect of expansion of Russian exports is quite certain to check the reaction toward larger acreage that might otherwise eventuate. The head of the Russian delegation at the recent International Economic Conference ventured the prediction that if the forecasted crops of this season are harvested in Russia, the pre-war level of stocks of grains in peasant hands would be again restored. If this should prove to be the case, he expressed the belief that Russian exports of bread grains could be expected again to rise to the pre-war level. So long as such a prospect exists, comparatively high wheat prices are unlikely to induce the planting of a materially larger acreage in Europe.1

Wheat prices regarded as remunerative to growers in exporting countries seem disproportionately high to European consumers. Wheat prices regarded as proportional to income of the masses in Europe seem unremunerative to growers in exporting countries. The disequilibrium exists, to some extent the expression of the worldwide disparity between prices of raw materials and of finished goods, to some extent the expression of current manufacturing inefficiency in Europe. It is intensified by unemployment and part-time employment in Europe. The standard of living is too low in Europe, disponible income too scanty. In exporting countries, existing and contemplated co-operative centralized marketing organizations act to maximize the economic problems of European importing nations. Neither governmental regulation of bread prices nor expansion of wheat acreage in Europe promises notable relief. Alleviation is not to be anticipated, until the purchasing power of the Continent, the earning power of European workers, is expanded by "rationalization" of industry.

¹Europeans seem to hold that peasant life in Russia can be maintained after a fashion almost indefinitely without imports, but that the Russians, desiring a better standard of living, will attempt to secure imports by exporting grains.

FOOD RESEARCH INSTITUTE PUBLICATIONS

MISCELLANEOUS PUBLICATIONS

No. 1. STALE BREAD LOSS AS A PROBLEM OF THE BAKING INDUSTRY

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