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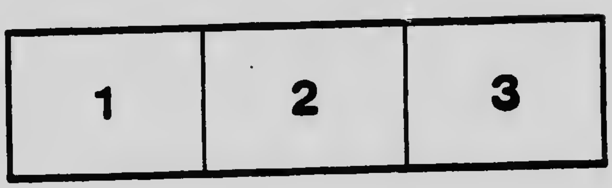
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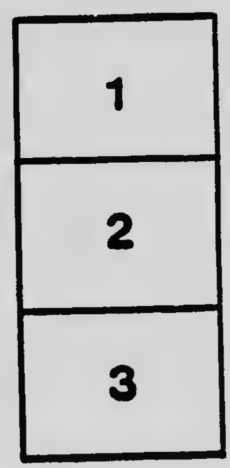
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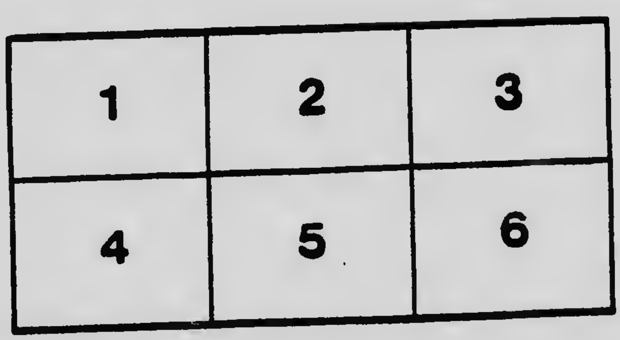
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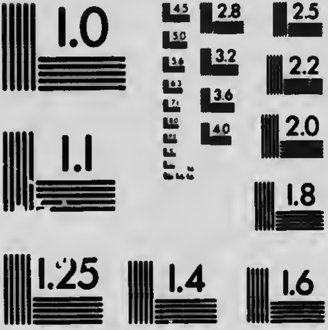

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DIVISION OF ECONOMICS AND HISTORY
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PRELIMINARY ECONOMIC STUDIES OF THE WAR

EDITED BY

DAVID KINLEY

Professor of Political Economy, University of Illinois
Member of Committee of Research of the Endowment

No. 19

PRICES AND PRICE CONTROL IN GREAT BRITAIN AND THE UNITED STATES DURING THE WORLD WAR

BY

SIMON LITMAN

Professor of Economics, University of Illinois

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EDITOR'S PREFACE

Professor Litman's study of prices is a welcome addition to the literature of the subject. The general trend of its conclusions, however, will not surprise a student of economic history. The charges of profiteering and manipulation which have been so rife in the past three years are paralleled in the experience of the world in every great war. Efforts to control these movements by law show in general a similar history and similar results on all occasions. Here and there, under such circumstances, a government is able to catch and punish a profiteer. But legal action on the whole has had little effect at any time in preventing or removing the evil practices that have called forth so much popular denunciation.

Still more true is it that the legal activity of governments, on the whole, has had little influence in fixing prices or in keeping them stable. Most of the evidence to this effect, when carefully studied, shows that the results have been obtained in occasional cases and have had little permanent effect. The truth is that the lines of economic activity for the accomplishment of even one purpose are so numerous that the severing of one usually serves to render the others more open. Most of the good effect which the agitation, legislation and legal prosecutions of the past three years have had in this field has been a result of psychological rather than of legal influences. The great bulk of business and popular opinion in the United States has been in favor of the proposition that individuals should not be permitted to make undue profit at the expense of the people in a crisis. The good results of the agitation can be attributed, therefore, to the general high standard of business integrity rather than to fear of legal prosecution. This may be fairly said, making allowance for all exceptions in the way of successful prosecution by the officers of the government. It was a realization beforehand of the practical impossibility of controlling the situation by law which evidently led the Food Administration to rely largely on appeals to the good sense and patriotism of the people in its attempt to keep the prices of food stable. To have fixed prices for the multitude of articles consumed as food under the multifarious and daily changing economic conditions would have been futile and foolish. On the whole, the policy of our government was sound in laying down prices for certain great staples and relying on the judgment of the people, based on information furnished freely by the government from day to day, to see to it that they were not exploited.

It is too much to hope that another generation will take to heart the lessons taught by the experiences recorded in this and other volumes of this series or works dealing with similar subjects. Each generation, like each individual, must learn in large measure from its own experience. Nevertheless, history shows that there are always some leading minds who are able to exert an influence in a new crisis in the direction of sanity and safety by their studies of similar experiences in the past. To that extent, at any rate, we may hope that the influence of these studies will be helpful.

DAVID KINLEY,
Editor.

Urbana, Illinois,
July 16, 1920.

FOREWORD

The part of the work dealing with price control in the United Kingdom was finished in July, 1918; that which considers prices and price regulation in the United States was begun in November, 1918, and concluded in June, 1919. Detailed discussions of such items as causes of the rise in prices, profiteering, industrial unrest, which are included in the treatment of price control in Great Britain, are omitted from the part considering price fixing in the United States; this was done chiefly because such an inquiry, although it would have presented some additional illustrative material, would have involved too much repetition and lengthened considerably the study, without aiding either in the statement of the problems or in their elucidation. On the other hand, the consideration of the control of articles directly used for war purposes, such as iron and steel, copper, hides and leather, etc., which is omitted from the part dealing with Great Britain, is included in the investigation of price fixing in the United States.

The author wishes to express his deep appreciation to Professor David Kinley for notes and other material which the latter gave him when he found that lack of time would make it impossible for him to do his share of what was originally intended to be a joint undertaking.

SIMON LITMAN.

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PART I

GREAT BRITAIN

INTRODUCTION

The various orders issued by the Army Council, the Ministry of Munitions, the Admiralty and other bodies, to whom authority was given under the Defense of Realm Act to fix prices, are not included in this study. A great many of these orders were requisitionary in nature, and although their indirect effect upon prices for the civilian population may have been important, the consideration of these orders, with their minute provisions, had to be omitted from a preliminary study of price control, the more so as the restrictive regulations of this character have been particularly pronounced during the past few months and seem to grow with each succeeding day. It is futile to try to keep up at present with the measures passed by the Army Council within whose jurisdiction are the woolen, linen, flax, jute, hides, leather and hay supplies, with the orders of the Ministry of Munitions, which has control over iron, steel, aluminum, copper, etc., and with the various other enactments, which fixed maximum prices on matches, on timber, on sulphuric acid, on oils and fats, and on many other commodities.

The investigation has been chiefly confined to those things which most vitally affect the final consumer and which have provoked the greatest amount of dissatisfaction and of discussion.

CHAPTER I

Price Control in the Past

Agitation against speculation and the middleman is not new; neither is the attempt to prevent the first and to control the latter by means of legislative enactments. As far back as 301 A.D. Diocletian undertook to fix the price of certain commodities, but his attempt proved a failure.[1]

In the thirteenth century public authorities in England "felt themselves bound to regulate every sort of economic transaction in which individual self-interest seemed to lead to injustice."[2] Forestalling, engrossing and regrating, practices roughly corresponding to the more modern speculation and to the "evil practices" of the present day middlemen, were punishable by law. By the command of the king, no forestaller was "suffered to dwell in any town"; such a man was branded as "an oppressor of the poor, the public enemy of the whole community and country."[3] Trade regulations were guided by the general principle that a just and reasonable price only should be paid, and only such articles be sold as were of good quality and of correct measure. Not only the state, but also guilds and municipalities acted as price fixers in the Middle Ages. Most enactments were promulgated at that time for the purpose of preventing some particular form of fraud in some particular commodity. But there were a number of measures passed more general in character. Economic conditions in the Middle Ages were such that individuals if unrestrained by law could easily obtain a temporary monopoly over any of the basic products. The supply of these was usually obtained by the consumers from comparatively few neighborhood communities. The establishment of a

[1] J. E. Davies: "Is Price Fixing Possible," *The Independent*, October 20, 1917, p. 134.
[2] W. J. Ashley: *English Economic History*, vol. i, pt. 1, p. 181.
[3] *Ibid.*, p. 187.

"corner" in grain or in any other product was under such circumstances not a difficult matter.

An attempt to control both the wholesale and the retail price of wine by fixing a maximum was made by the British Government in 1199. The measure failed[1] and in 1330, after a long period of ineffectiveness, a new law was passed, which required the merchants to sell at a "reasonable" price, the latter to be based on import price plus expenses. This new measure of control proved as futile as the old one, and in a few years, because of changed conditions of production and trade, the price of wine went up far beyond what it had been, as well as beyond the government expectations.

A result similar to this followed the many efforts to regulate the prices of wheat and bread. In this instance the government endeavored to fix not a maximum price but a sliding scale. The first attempt was made as early as 1202. The most important ordinance on the matter was 51 Henry III. This ordinance fixed changing weights for the farthing loaf to correspond to six penny variations in the price of the quarter of wheat from twelve pence to twelve shillings. The law was enforced locally on sundry occasions, but fell gradually into disuse.

Of particular interest is the more recent experience with maximum prices which France underwent at the close of the eighteenth century. The first law establishing a maximum was passed on May 3, 1793. It was one of the extraordinary measures adopted by the Committee of Public Safety, along with a progressive tax on the rich and forced loans.[2] Spurious decrees of the National Assembly, ordering the people not to pay more than one sou for a pound of bread, were circulated as early as March and April, 1790.[3] The May law was passed in order to curb speculation and profiteering, as well as to assure comfort to the poor.[4] The committee promulgated it under the pressure of public opinion. The necessity for

[1] Ashley: *op. cit.*, p. 191.
[2] J. R. M. Macdonald: *A History of France*, vol. iii, p. 31.
[3] Kropotkin: *The Great French Revolution*, p. 207.
[4] Morris: *The French Revolution*, p. 100.

passing such a law of maximum had been hinted at by Saint Just in the latter part of 1792.[1]

As a result of overissue of paper money and the blockade, an intolerable economic situation gripped the country and led to widespread dissatisfaction; many petitions had been presented to the government, requesting it to take some definite action in order to stop the rapid rise in prices.[2]

The decree of May, 1793, applied to grain and flour, and it provided that in each department the price should be the average of local market prices which prevailed from January to May. It was made a penal offense for the farmers to distinguish between payments in assignats and in coin. Thanks to an abundant harvest, the proletariat of the cities was in a measure supplied with bread, but the difficulties grew from day to day; farmers were inclined to keep their grain away from the markets, and in several departments the enforcement of the law was abandoned by the close of August, 1798, it being generally recognized that this first experiment with the maximum was a failure.[3] Popular uprisings were taking place in different parts of France. In Saint Etienne-en-Forez the people killed one of the monopolists and appointed a new municipality, which was compelled to lower the price of bread; but thereupon the middle classes armed themselves and arrested many of the rebels.[4] The Paris Commune, having obtained large grants from the convention for the purchase of flour, succeeded in keeping the price of bread to three halfpence a pound. The Commune was paying to the holders of wheat high prices at the expense of the state. To obtain bread at the low price, people were compelled to stand in long line for hours, often through the night, at the baker's door.[5]

When it came to the reconsideration of the May measure,

[1] *Cambridge Modern History*, vol. 8. *The French Revolution.*
[2] Dr. Robinet: *Dictionnaire Historique et Biographique de la Revolution et de l'Empire* (1789–1815), pp. 543–546.
[3] Bourne. "Maximum Prices in France," *American Historical Review*, October, 1917, p. 110.
[4] Kropotkin: *op. cit.*, p. 208.
[5] *Ibid.*, p. 372.

the Girondins declared themselves as opposed to any price fixing scheme, but their opposition was swept aside by the Montagne, who considered that the salvation lay not in the retraction of the measure but in its expansion, so that it should include all primary necessities. The extremists (Varlet, Jacques Rout) were agitating for the communalization and nationalization of all commerce, and for the organization of an exchange of all goods at cost price.[1] On September 11, 1793, a plan was adopted of fixing a uniform price for commodities for the whole country, making allowances for the cost of transportation. This plan was soon abandoned and the law of September 29 promulgated, decreeing that prices should be local prices of 1790, plus one-third. This system also proved unworkable, and on November 1 the convention decided that prices should be based upon those of 1790 at the place of production. To these prices were to be added one-third, plus a rate per league for carriage and five per cent for the wholesaler and ten per cent for the retailer.[2] Public authorities had a right to compel farmers to bring grain to the market, where it could be bought at the maximum price. A study of the situation shows that by means of such commandeering or requisitioning, French cities were kept provisioned with grain during the last half of 1793 and the larger part of 1794. It is obvious that such a system of force could be successful for but a short period. Commandeering of supplies was not conducive to keeping farmers at work, neither was the provision of the law setting definite margins to distributors conducive to their staying in business. The merchants had no interest in buying at the maximum in one place and transporting commodities to another when they were obliged to sell at the same price. Thus the accusation brought against farmers that their greed defeated the law was not wholly justified. Many of them after they brought their grain to market were not able to find any one willing to buy it. In criticizing the law of the maximum, it is well,

[1] Kropotkin: *op. cit.*, p. 373.
[2] Bourne: *op. cit.*, p. 112. See also Bourne: "Food Control and Price Fixing in Revolutionary France," *Journal of Political Economy*, February and March, 1919.

however, to remember that at the time of its promulgation the economic condition of France was most wretched. Those of the historians who like Levasseur or Taine see in maximum measures nothing but illustrations of violence and administrative incapacity overlook the enormous difficulties under which the government of France had been laboring. France was blockaded, attacked by the armies of combined Europe, torn by internal dissentions. France was in a condition where one department distrusted another in the matter of food and where the flood of paper money was preventing a proper exchange of commodities. Although proven untenable for any length of time, the maximum seems to have at least partially succeeded in alleviating the misery of the urban proletariat. It is true that food was scarce and of poor quality and that many unfortunate farmers and dealers who refused to put their goods on sale at legal prices were dragged by *sans cullotes* before the Revolutionary Tribunal[1] and put to death, but it is difficult to say how many of them would have met a similar fate without the law and how far the infuriated mobs would have gone in their work of vengeance and destruction if no maximum was on the statute books.

The temper of the Paris Commune may be realized if one reflects on the fact that when in September, 1793, the price fixing law was being discussed in the convention, the municipal council of Paris voted to proceed to the convention in a body and demand the creation of a "revolutionary army, which should march whenever necessary to thwart the manœuvres of egoists and forestallers and bring them to justice—to force avarice and cupidity to disgorge the riches of the earth."[2]

One of the results of the maximum was the growth of contraband trade, which reached enormous proportions. Butter, eggs and meat, particularly, were peddled in small quantities by resellers, and it was practically impossible to control the prices charged by such persons, who "made their way into

[1] Shailer Mathews: *The French Revolution*, p. 247.
[2] Bourne: "Maximum Prices in France," *American Historical Review*, October, 1917, p. 113.

alleys, to the doors of apartments and to the service entrances of the rich."[1] The growth of the contraband trade was one of the contributing causes which made the law unpopular. With the defeat of the extremists in the convention the measure was doomed. It was repealed in December, 1794.

On the American continent efforts to control prices can be traced to colonial days. Weeden in his *Economic and Social History of New England* relates of the price of beaver, estimated by the governor and council of New England at 6s. in fair exchange for English goods at thirty per cent profit, with the freight added.[2] This was in their opinion a normal value. The scarcity of corn, which sold at 10s. "the strike," led to the prohibition of the sale of this food to the Indians. Under the pressure of this prohibition, beaver advanced to 10s. and 20s. per pound, the natives having refused to part with beaver unless they were given corn. The court was obliged to remove the fixed rate, and the price which ruled was 20s.

Another fruitless attempt at regulation referred to the price of labor. Carpenters, joiners, bricklayers, sawyers and thatchers were limited to 2s. per day. Any one who paid more or received more was to be fined 10s. Sawyers could take 4s. 6d. for one hundred feet of boards, at "six scoore to ye hundred," if the wood was felled and squared for them, with 1s. extra if they felled and squared their own timber. Again, master carpenters, masons, bricklayers, were limited to 16d. per day, plus board, and the "second sort" to 12d. These regulations were enforced for about six months and then were repealed.[3] To offset fixed wages, "the court in 1634 limited the rate of profit at 4d. in the shilling of cash cost in England on all importations of provisions, clothing, tools or commodities, except cheese, wine, oil, vinegar and liquors, which were left free on account of the extra risk they occasioned."[4] In 1635 the statutes limiting profits and fixing rates of wages were repealed.

[1] Bourne: *op. cit.*, p. 112.
[2] W. U. Weeden: *Economic and Social History of New England*, 1620–1789, p. 97.
[3] *Ibid.*, p. 99.
[4] *Ibid.*, p. 118.

In 1711, when Walker's expedition against Canada took place, the people of Boston were requested to supply with provisions the British fleet which sailed into that harbor. The Assembly ordered that the prices of provisions and other necessaries of the service should stand fixed at the point where they stood before the approach of the fleet was known. "Sheriffs and constables, jointly with Queen's officers, were ordered to search all the town for provisions and liquors and, if the owners refused to part with them at the prescribed prices, to break open doors and seize them."[1] These measures though ordered by their own representatives caused a great deal of discontent among the colonists. They expected prices to rise with the repeal of the enactments, and the compulsion to sell goods at low fixed rates was very distasteful to them.

The farmers, both in revolutionary France at the time of the maximum and in the United States during the recent war after the price of wheat was fixed, showed no haste to bring their produce to the market.

[1] Parkman: "A Half Century of Conflict," *Boston Transcript*, April 2, 1918, p. 12.

CHAPTER II

Movement of Prices since Outbreak of War

Since the beginning of the war both the general level of wholesale and retail prices and the absolute prices of specific commodities, whether necessities or luxuries, have risen steadily and to great heights.

Wholesale Prices

The extent of the increase in the average wholesale prices may be ascertained from index numbers published regularly by the *Statist*, the London *Economist*, and the Board of Trade *Labour Gazette*.

The average wholesale prices of commodities as gauged by the *Statist's* index number of the prices of forty-five articles were the same in 1914 as in 1913 or 1912. During these three years the index figure stood at 85, or 15 per cent below the *Statist's* standard period (1867–1877 = 100) and 10 per cent above the average of the last ten years, 1904–1915. While the total for 1914 does not show any enhancement in the general level of prices, considerable fluctuation took place during the year in the different groups of commodities which comprise this total. Taking articles of foods and materials separately, one finds that the index figure for food rose during the year from 77 to 81, the largest increase, from 69 to 75, having taken place in the vegetable food, such as corn, etc.; animal food increased in price much less than it did either in 1912 or 1913, rising only one point, from 99 to 100, while the rise was 6 points in 1912 and 3 points in 1913. Sugar, coffee and tea increased from 54 to 58; with this increase the index figure remained 5 points below that of 1911 and 4 points below that of 1912. There was a drop in the price of materials from 91 to 88; minerals declined from 111 in 1913 to 99 in 1914; textiles, from 84 in 1913, to 81 in 1914 (the index figure for 1911 and 1912 was 73); sundry materials advanced 4 points in 1914, from 83 to 87, during the two previous years the figures being

81 and 82, respectively. The fall in the price of materials was partially due to the fact that there was a decline in their price during the first six months; this decline offset the small advance in the latter part of the year. The index number for food was 74.8 in June, 1914, as compared with 75.7 in December, 1913, and 90.9 in December, 1914; the index number for materials was 85.7 in June, 1914, as compared with 89.8 in December, 1913, and 92.1 in December, 1914.[1]

The combined index number of all commodities for 1915 was 27 per cent higher than for 1914 and 1913. It was 8 per cent above the standard period 1867–1877 and 32 per cent above the average of the years 1906–1915. Food rose from 74.8 in June, 1914, to 90.9 in December of the same year and to 111.4 in December, 1915, a rise of 49.0 per cent in the 18 months of the war. Materials rose from 25.7 in June, 1914, to 92.1 in December, 1914, and 123.4 in December, 1915, a rise of 44 per cent. The greatest increase in 1915 was in textiles, which advanced 43.6 per cent. In comparison with the index number immediately prior to the war, there was an advance of 38.6 per cent in textiles at the end of December, 1915.

The advance in minerals was 36.3 per cent in 1915, making a total advance since the beginning of the war of 40.6 per cent. The advance in vegetable food was 29.1 per cent, bringing the aggregate advance to 76.8 per cent since June, 1914. The rise in animal food was less pronounced, amounting to 22.8 per cent during 1915 and to 31.4 per cent since the outbreak of the war. In the group of sugar, coffee and tea, the rise was almost entirely confined to sugar, which rose in 1915 about 30 per cent; the advance for the group was 10.8 per cent for the year and 34.7 per cent since June, 1914. Sundry materials rose 26.8 per cent in 1915 and 50.2 per cent since the war began. The rise was particularly great in timber, linseed and indigo. In the aggregate their advance was 22.5 per cent for the year and since the war began 49 per cent.[2]

[1] George Paish: "Prices of Commodities in 1914," *Journal of the Royal Statistical Society*, March, 1915, pp. 281–283.

[2] Paish: "Prices of Commodities in 1915," *Journal of the Royal Statistical Society*, March, 1916, pp. 179–191.

In 1916 the combined index number was 136, or 26 per cent higher than in 1915, and 60 per cent higher than in 1914, 1913 and 1912. It was 36 per cent above the *Statist's* standard period 1867–1877 and 54 per cent above the average of the years 1907–1916. The greatest rise in average prices in 1916, as in 1915, was in textiles, which advanced during the year 39.4 per cent. This advance was chiefly due to the sharp rise in the price of cotton, particularly in the latter part of the year. Minerals rose during the same period 26 per cent and sundry materials 25.4 per cent. The advance in the average prices for the total group of materials in 1916 was 29.3 per cent, as compared with 22.1 per cent for foodstuffs. There was relatively little difference between the increase in the price of vegetable food, animal food, and sugar, coffee and tea; they rose 22.8 per cent, 21.1 per cent and 22.7 per cent respectively. The rise in the average prices over 1913 was 69.3 for foodstuffs and 54.1 for materials.[1]

The greatest rise in average prices in 1917 was again in textiles, which advanced 49 per cent; the advance, like the one of 39 per cent in the preceding year, was largely due to the continuance of the substantial rise in the price of cotton. Vegetable foods and sugar, coffee, and tea each showed a rise in price of 31 per cent during 1917; sundries were 28 per cent and animal food was 26 per cent dearer. In minerals, because of greater governmental control than in other departments, the rise in prices for 1917 over those for 1916 was only 8 per cent.

In comparing the average prices for 1917 with those of the prewar year 1913, one finds that vegetable foods have shown the most marked increase, one of 150 per cent, textiles, second in the list, having risen 130 per cent. Minerals increased in price less than any other group of commodities, the rise having been 55 per cent. This was due in part to a stricter system of control of minerals introduced by the government, in part to the fact that the price of mineral in 1913 was high, because of a coal strike in the spring of that year. The price of animal

[1] Editor of the *Statist:* "Wholesale Prices of Commodities in 1916," *Journal of the Royal Statistical Society*, March, 1917, pp. 289–294.

food rose between 1913 and 1917, 96 per cent; the price of sugar, coffee and tea, 111 per cent, and that of sundry materials, 109 per cent. Since 1913 the percentage rise for all foodstuffs was 118, for all materials, 98, and the total increase for all groups of commodities, 105.[1]

The annual figures of the *Statist* thus indicate that prices rose from 85 in 1913 and 1914, to 108 in 1915, to 136 in 1916 and to 174 in 1917.[2] The monthly figures show an even greater increase for the latter part of 1917 and the beginning of 1918, the December index number having reached 185.1. This brought the average wholesale prices close to the highest level that has been ever touched by them since we have had any statistical data available for comparative purposes. The earlier the period under consideration, the less reliable are the data, but, assuming the correctness of Professor Jevons's figures, the average for 1809 was 189 and for 1810, 171, the next highest level having been reached in 1818, when the index number was 159.[3]

Since 1913 (the prewar year) monthly fluctuations of the index numbers of the 45 commodities included in the *Statist's* list were as follows:

MONTHLY FLUCTUATIONS OF THE INDEX NUMBERS[a] OF 45 COMMODITIES 1867–77 = 100[4]

	1913	1914	1915	1916	1917	1918
January	86.4	83.5	96.4	123.6	159.3	186.2
February	86.4	83.8	100.9	127.0	164.0	187.3
March	86.7	82.8	103.7	130.4	169.4	
April	86.2	82.3	105.9	134.2	173.0	
May	85.7	82.3	107.2	135.4	175.0	
June	84.1	81.2	106.4	131.0	180.4	
July	84.2	82.4	106.4	130.5	176.9	
August	85.0	87.9	107.0	134.5	175.7	
September	85.7	89.3	107.8	134.4	176.4	
October	84.5	89.8	110.0	141.5	180.6	
November	83.3	88.8	113.1	150.8	182.9	
December	83.8	91.6	118.4	154.3	185.1	
Year	85	85	108	136	174	

[a] The twelve monthly figures of each year do not in all cases exactly (at any rate in the decimals) agree with the annual averages, as the latter are partly calculated from revised figures.

[1] Editor of *The Statist:* "Wholesale Prices of Commodities in 1917," *Journal of the Royal Statistical Society*, March, 1918, pp. 334–338.

[2] *The Statist*, January 19, 1918, p. 203.

[3] *Journal of the Royal Statistical Society*, March, 1917, p. 291.

[4] *Ibid.*, March, 1918, p. 336.

WHOLESALE PRICES OF COMMODITIES FROM JUNE, 1914, TO DECEMBER, 1917[1]

No. of Articles..	8	7	4	19	7	8	11	26
Month	Vegetable Food (Corn, etc.)	Animal Food (Meat and Butter)	Sugar, Coffee, and Tea	Food	Minerals	Textiles	Sundries	Materials
1914								
June	66.5	97.5	51.8	74.8	96.7	80.6	82.5	85.7
July	71.9	101.5	50.0	78.2	94.0	83.1	81.7	85.5
Aug.	81.9	103.6	67.7	86.9	98.4	83.0	86.4	88.6
Sept.	87.1	101.0	66.9	88.0	96.1	80.9	93.2	90.2
Oct.	86.7	100.1	65.0	87.0	94.2	82.5	96.8	91.7
Nov.	90.6	98.4	63.8	87.8	97.6	72.2	97.1	89.6
Dec.	93.2	104.3	63.0	90.9	99.8	77.8	97.7	92.1
1915								
Jan.	102.3	107.0	64.1	96.3	105.3	82.4	101.1	96.5
Feb.	109.3	112.1	66.4	101.3	109.1	86.5	105.4	100.6
Mar.	105.6	123.7	69.7	104.7	115.7	87.3	106.3	103.0
April	109.0	125.0	71.9	107.1	118.6	88.4	108.4	105.0
May	110.1	134.5	72.0	111.1	119.6	86.5	107.5	104.3
June	103.0	127.5	73.4	105.8	126.6	90.6	106.2	106.9
July	105.4	130.3	72.9	107.7	121.2	89.6	107.1	105.5
Aug.	105.6	131.8	71.4	108.1	119.6	92.6	107.7	106.3
Sept.	101.1	129.3	71.5	105.2	121.6	98.3	110.2	109.6
Oct.	110.3	123.4	67.7	106.2	123.9	100.2	114.7	112.7
Nov.	113.3	120.4	68.5	106.5	130.9	104.7	119.2	117.9
Dec.	117.6	128.1	69.8	111.4	136.0	111.7	123.9	123.4
1916								
Jan.	125.7	127.8	72.8	115.3	143.1	119.2	128.8	129.7
Feb.	127.2	137.5	79.0	120.8	149.2	116.9	131.1	131.6
Mar.	122.5	147.2	84.8	123.7	157.9	118.1	133.5	135.3
April	133.2	153.1	87.1	130.8	159.5	119.0	135.2	136.7
May	128.4	165.6	89.3	133.9	157.0	119.8	135.9	136.6
June	120.0	152.4	88.2	125.4	152.2	122.6	133.7	135.3
July	120.4	150.4	86.3	124.3	151.9	123.8	132.6	135.1
Aug.	129.4	154.7	85.6	129.7	154.8	128.9	133.8	137.9
Sept.	133.6	146.1	86.0	128.1	155.7	130.9	134.1	138.9
Oct.	152.3	154.1	90.1	139.9	157.6	137.0	137.5	142.8
Nov.	164.0	156.6	91.6	146.0	163.8	151.0	150.5	154.3
Dec.	173.1	168.7	95.0	155.0	158.9	150.4	152.9	153.8
1917								
Jan.	179.1	175.8	96.6	160.5	161.6	157.8	156.9	158.3
Feb.	177.4	184.3	100.3	163.7	163.0	167.7	162.5	164.3
Mar.	187.1	187.6	104.8	170.0	165.8	174.4	165.2	168.2
April	189.9	190.1	104.5	172.0	165.6	172.7	179.7	173.8
May	186.9	197.5	105.8	173.7	171.4	180.6	175.4	176.0
June	189.6	206.0	110.7	179.0	170.0	200.1	175.3	181.5
July	174.1	201.6	107.9	170.3	169.9	201.2	175.2	181.8
Aug.	168.0	193.7	116.5	166.6	168.9	198.7	179.1	182.4
Sept.	162.5	187.7	120.5	163.0	167.2	204.1	185.4	186.2
Oct.	162.9	189.7	131.8	166.2	169.6	213.4	188.7	191.1
Nov.	161.5	191.6	132.5	166.5	174.5	216.9	191.9	194.9
Dec.	160.8	196.7	135.1	168.6	173.9	216.5	197.8	197.1

[1] *Journal of the Royal Statistical Society*, March, 1918, p. 340.

The two following tables show by groups of commodities the changes which have occurred during the past five years, the first table giving a comparison of the annual index numbers, the second of the numbers at the close of each year.

COMPARISON OF WAR AND PREWAR ANNUAL INDEX NUMBERS[1]

No. of Articles		Annual Index Numbers 1917	1916	1915	1914	1913	Increase % 1916 on 1915	1913	Increase % 1917 on 1916	1913
8	Veg. food.....	174	133	108	75	69	+22.8	+92.1	+31	+150
7	Animal food..	192	152	126	100	99	+21.1	+53.5	+26	+96
4	Sugar, coffee and tea....	113	86	70	58	54	+22.7	+61.2	+31	+111
19	Foodstuffs....		130	107	81	77	+22.1	+69.3	+29	+113
7	Minerals.....	172	158	126	99	111	+26.0	+44.4	+8	+55
8	Textiles......	192	129	92	81	84	+39.4	+53.9	+49	+130
11	Sundries.....	174	136	109	87	83	+25.4	+63.5	+28	+109
26	Materials....	179	[illegible]	108	88	91	+29.3	+54.1	+28	+98
	Total........		136	108	85	85	+26.3	+59.9	+28	+105

COMPARISON OF WAR AND PREWAR MONTHLY INDEX NUMBERS[2]

No. of Articles		Index Numbers 1917 (Dec. 31)	1916 (Dec. 31)	1915 (Dec. 31)	1914 (Dec. 31)	1914 (June 30)	Increase % Dec., 1917 on 1916 (Dec. 31)	1914 (June 30)
8	Veg. food.........	160.8	173.1	117.6	93.2	66.5	−7.1	+141.6
7	Animal food......	196.7	168.7	128.1	104.3	97.5	+16.6	+101.7
4	Sugar, coffee and tea	135.1	95.0	69.8	63.0	51.8	+42.2	+161.2
19	Foodstuffs........	168.6	155.0	111.4	90.9	74.8	+8.8	+125.2
7	Minerals.........	173.9	158.9	136.0	99.8	96.7	+9.4	+79.9
8	Textiles..........	216.5	150.4	111.7	77.8	80.6	+43.9	+168.5
11	Sundries.........	197.8	152.9	123.9	97.7	82.5	+29.3	+139.6
26	Materials........	197.1	153.8	123.4	92.1	85.7	+28.1	+129.8
45	Total............	185.1	154.3	118.4	91.6	81.2	+20.0	+128.1

The index numbers of the *Economist* tell a similar story. The general level of prices rose from 116.6 at the end of July, 1914, to 149.1 for the same date in 1915, to 191.1 in 1916, to 254.4 in 1917 and to 265.7 on the last day of December, 1917. The advance continued through 1918 and in April the index number reached 270.0.[3] How each group of commodities, according to the *Economist*, contributed to the rise may be seen from the two tables which follow. The first table gives the rise in points for yearly periods,[4] the second indicates the monthly fluctuations.[5]

[1] *Journal of the Royal Statistical Society*, March, 1917, p. 290; and March, 1918, p. 338.

[2] *The Statist*, January 19, 1918, p. 103; or *Journal of the Royal Statistical Society*, March, 1918, p. 339.

[3] *The Economist* (London), May 4, 1918, p. 702.

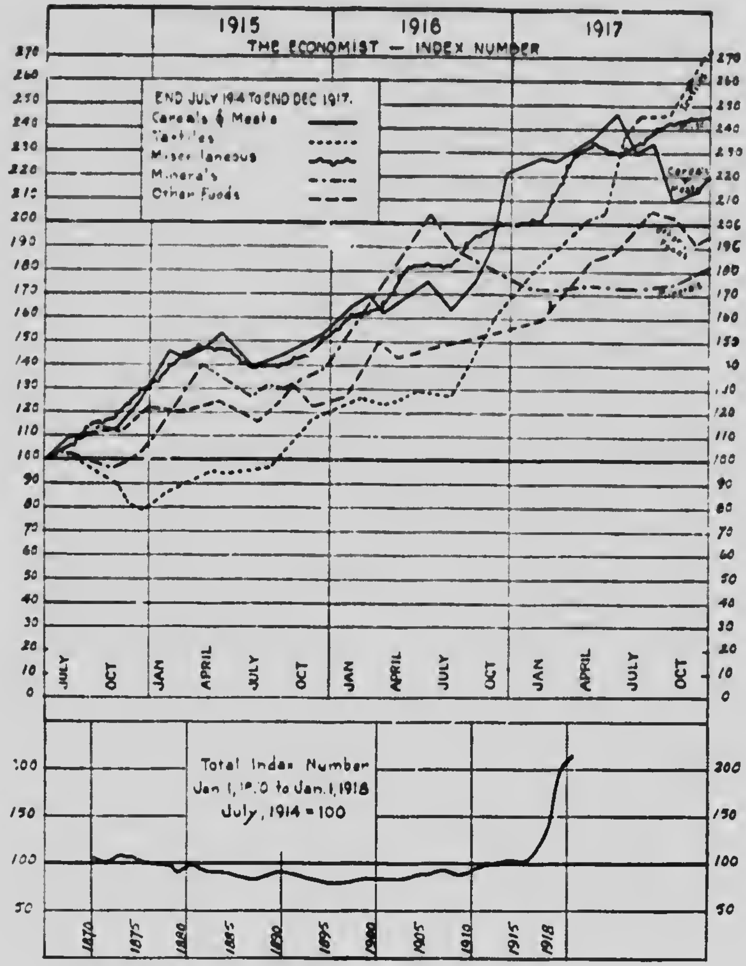
[4] *Ibid.*, February 16, 1918, p. 258.

[5] *Ibid.*, May 4, 1918, p. 702.

	Group total at July 31, 1914	Rise during Periods: From July 31, 1914, to Dec. 31, 1914 Points	From Dec. 31, 1914, to Dec. 31, 1915 Points	From Dec. 31, 1915, to Dec. 31, 1916 Points	From Dec. 31, 1916, to Dec. 31, 1917 Points	From July 31, 1914, to Dec. 31, 1917 Points
Cereals and meat..	579	135	183	397	*−7½	707½
Subsidiary food...	352	62½	31½	107	133	334
Textiles..........	616½	*−107½	222	393½	560	1,068
Minerals.........	464½	11½	235½	112	15	375
Miscellaneous	535	133½	162	263½	236½	795½
Total index number	2,565	235	834	1,273	937	3,280

* Decline.

Date	Cereals and Meat	Other Food Products (Tea, Sugar, etc.)	Textiles	Minerals	Miscellaneous (Rubber, Timber, Oils, etc.)	Total	Percentage Change
Basis (average 1901–5)	500	300	500	400	500	2,200	100–0
Jan. 1, 1914..................	563	355	642	491	572	2,623	119–2
April 1, 1914..................	560	350½	626½	493	567	2,597	118–0
July 1, 1914..................	565½	345	616	471½	551	2,549	115–9
End July, 1914..............	579	352	616½	464½	553	2,565	116–6
" Aug. "	641	369	626	474	588	2,698	122–6
" Sept. "	646	405	611½	472½	645	2,780	126–4
" Oct. "	656½	400½	560	458	657	2,732	124–2
" Nov. "	683	407½	512	473	684½	2,760	125–5
" Dec. "	714	414½	509	476	686½	2,800	127–3
" Mar., 1915..............	840	427	597	644	797	3,305	150–2
" June "	818	428	601	624	779	3,250	147–7
" Sept. "	809½	470½	667	619½	769½	3,33[illegible]	151–6
" Dec. "	897	446	731	711½	848½	3,634	165–1
" Mar., 1916..............	949½	503	796½	851	913	4,013	182–4
" June "	989	520	794	895	1,015	4,213	191–5
" Sept. "	1,018	536½	937	858½	1,073	4,423	201–0
" Dec. "	1,294	563	1,124½	824½	1,112	4,908	223–0
" Jan., 1917..............	1,310	561	1,137	825½	1,119½	4,953	225–1
" Feb. "	1,312½	581½	1,189	829½	1,159½	5,072	230–5
" Mar "	1,346	610½	1,226	834½	1,283	5,300	240–9
" April "	1,362	642	1,240	842	1,293	5,379	244–5
" May "	1,376½	648	1,261½	839½	1,286½	5,412	246–0
" June "	1,432½	652½	1,441	841½	1,278½	5,646	256–6
" July "	1,333½	607	1,512	840	1,296½	5,589	254–4
" Aug. "	1,342	670	1,504½	830	1,311½	5,658	257–1
" Sept. "	1,221½	726	1,509½	822½	1,354½	5,634	256–1
" Oct. "	1,226½	724	1,575½	824	1,351	5,701	259–1
" Nov. "	1,236½	679	1,660½	848	1,344	5,768	262–2
" Dec. "	1,286½	686	1,684½	839½	1,348½	5,845	265–7
" Jan., 1918..............	1,221½	686	1,719½	829	1,329	5,785	262–9
" Feb. "	1,235	693	1,733	838	1,319	5,818	264–4
" Mar. "	1,238	697	1,777	836	1,319	5,867	266–6
" April "	1,244	744½	1,760	850	1,342½	5,941	270–0



The Economist, February 16, 1918, p. 259.

The two preceding tab^les and the chart show that the price of cereals and meat rose steadily until December 31, 1916, the increase having been particularly pronounced during the latter year. The prices fell sharply in the late summer of 1917 on the institution of the nine penny loaf and controlled beef and mutton quotations. But even this group was creeping up again before the end of the year. Until the beginning of 1916 there was a comparatively slow advance in the price of subsidiary foodstuffs; since then, however, a more rapid rise took place. The price of textile materials, particularly of cotton, declined during the first few months of the war, but a reaction towards higher prices set in in 1915 and continued through 1916 and 1917, the rise having been particularly rapid during the latter year. This placed textiles at the head of the *Economist's* list, while they occupy the second place according to the calculations of the *Statist;* however, the *Statist's* figures for December, 1917, show for textiles also the greatest advance over the prices on June 30, 1914. The price of minerals was hardly affected during the early stages of the war, the greatest increase occurring in 1915 and 1916, when the price rose 347½ points, as compared with only 15 points for 1917. The miscellaneous group, which includes leather, rubber, oils, showed a sharp rise upon the declaration of war and, with the exception of slight declines in the summers of 1915 and 1917, the increase in price for this group has been continuous.

In percentages, the least increase appeared in metals, which rose 82.5 per cent, and the greatest increase in textiles, which rose 169.3 per cent. The cereal and meat group went up 113.8 per cent and other foodstuffs 92.9 per cent.[1]

The index numbers of the Board of Trade are based upon the price movements of forty-seven principal articles, weighted in accordance with their estimated consumption in 1881–1890.

The results of the Board of Trade calculations for the past five years were as follows:

[1] *Labour Gazette* (Canadian), January, 1918, p. 46.

THE BOARD OF TRADE (UNITED KINGDOM) INDEX NUMBERS OF WHOLESALE PRICES OF 47 ARTICLES[1]

(BASE YEAR 1900=100)

Year	Coal and Metals	Textiles (Raw Materials)	Food, Drink and Tobacco	Miscellaneous	All Articles Combined
1913	92.5	135.0	117.7	109.4	116.5
1914 (January–July)	86.2	135.1	114.8	106.2	113.6
1914 (August-December)	88.8	116.8	130.4	119.1	122.6
1914 (Year)	86.7	128.8	120.9	111.3	117.2
1915	116.7	119.8	154.1	143.8	143.9
1916	165.8	180.1	189.4	204.4	186.5
1917	182.0	270.1	246.1	256.0	242.9

The miscellaneous group comprises such articles as petroleum, paraffin wax, cotton seed, wood and timber.

In the coal and metals group the greatest rise occurred in 1916, when there was an increase of 42 per cent over the figure for 1915. In 1917 the index number was 10 per cent higher than in 1916. Zinc and lead show decreases compared with 1916, while the other items in the group increased in price.

The figures for textiles (raw materials) show an average rise of about 50 per cent in 1916 over 1915 and of 50 per cent again in 1917 over 1916. This was due principally to advances in the price of raw cotton and flax, which increased 74 per cent and 71 per cent, respectively, in 1916 and in 1917. The index number for the group relating to food, drink and tobacco increased by nearly 30 per cent over the number for 1916, each of the items in the group, except cocoa and hops, contributing to the increase.

In the group of miscellaneous items, petroleum shows a decrease of 6 per cent and rubber an increase of less than one-half of 1 per cent. The other items show large increases, ranging from 22 per cent to 45 per cent, the figures for the whole of the group representing an increase of 25 per cent over those for the previous year.

Comparing the figures for 1917 with those for 1913, it will be seen that there was a rise of 97 per cent in the index number of the coal and metals group, of 100 per cent in textile raw materials, of 109 per cent in the food, drink and tobacco

[1] *Labour Gazette* (British), January, 1918, pp. 6–7.

group and of 134 per cent in the group of miscellaneous materials, the general index number showing a rise of 108.5 per cent.[1]

The yearly average wholesale prices of commodities considered in the *Statist's* groups fluctuated since 1913 (the pre-war year) as follows:[2]

	1913	1914	1915	1916	1917
Vegetable Food:					
Wheat: English Gazette, s. and d. per qr.	31.9	35.0	53.11	58.5	75.9
Wheat: American, s. and d. per qr.	36.5	40.1	59.10	67.7	85.3
Flour: Town made, white (now "G.R.") s. per sack (280 lbs.)	30½	33½	49	52½	58½
Barley: English Gazette, s. and d. per qr.	27.3	27.2	37.4	51.7	64.10
Oats: English Gazette, s. and d. per qr.	19.1	21.0	30.9	33.5	51.7
Maize: American mixed, s. per qr.	23⅝	29¼	41½	52¾	71¾
Potatoes:[a] Good English, s. per ton	78	71½	93½	153½	186½
Rice: Rangoon cargoes to arrive, s. and d. per cwt.	8.2	9.1	13.3	16.10	25.3
Animal Food:					
Beef[b] Prime, d. per 8 lbs.	54	56½	72¾	81¼	104½
Beef[b] Middling, d. per 8 lbs.	49	52½	67¾	76¾	101
Mutton: Prime, d. per 8 lbs.	62	64	75⅜	93½	182
Mutton: Middling, d. per 8 lbs.	56	57½	69¾	86½	199
Pork: Large and small, average, d. per 8 lbs.	55	49	72	87¾	212
Bacon: Waterford, s. per cwt.	77	75¾	93¼	109¾	191
Butter: Friesland, fine to finest, s. per cwt.	119	120	141	191	173
Sugar, Coffee and Tea:					
Sugar: British West India refining, s. per cwt.	9½	11¾	14⅝	24¼	31½
Sugar: Beet, German, 88 p.c., f.o.b., s. per cwt.	9½	12¼	[e]17¼	[e]22¾	[e]25⅝
Sugar: Java, floating cargoes, s. per cwt.	10⅞	13⅝	18¾	26½	32¾
Sugar, Coffee and Tea (Cont.):	1913	1914	1915	1916	1917
Coffee: Ceylon plantation, low middling,[d] s. per cwt.	81	79	78½	77¾	94¾
Coffee: Rio, good, s. per cwt.	53	45	43½	50	58
Tea: Congou, common, d. per lb.	5	6	8⅛	8	16⅞
Tea: Indian good medium, d. per lb.	8¼	8⅝	10½	10¾	
Tea: Average import price, d. and dec. per lb.	9.06	9.19	11.01	11.29	[e]14.68

[a] The annual prices are the average monthly or weekly quotations, except potatoes, which are the average weekly quotations during the eight months January to April and September to December.
[b] Meat (9–13), by the carcass, in the London Central Meat Market.
[c] Comparative values.
[d] East India good middling from 1908.
[e] Approximate.

[1] *Labour Gazette* (British), January, 1918, p. 6.
[2] *Journal of the Royal Statistical Society*, March, 1918, pp. 344–349.

Minerals:					
Iron: Scottish pig, s. and d. per ton	65.6	57.1	71.2	90.0	95.7
Iron: Cleveland (Middlesbrough) pig, s. and d. per ton	58.3	51.0	65.2	84.0	89.7
Iron: Bars, common, £ per ton	7¾	7	10½	13¾	13¾
Copper: Chili bars, £ per ton	68	59½	72¾	115¾	124¾
Copper: English tough cake, £ per ton	73½	64½	82½	134	136¼
Tin: Straits, £ per ton	201	151	164	182	238
Lead: English pig, £ per ton	19⅛	19¼	24	32½	32⅞
Coal: Wallsend Hetton in London, s. per ton	21½	21¼	[e]30¾	[e]27½	[e]27½
Coal: Newcastle steam, s. per ton	15½	14⅛	21⅛	41¼	30
Coal: Average export prices, s. and dec. per ton	13.94	13.65	16.96	24.64	27.16
Textiles:					
Cotton: Middling American, d. per lb.	7.01	6.41	5.87	9.00	16.55
Cotton: Fair Dhollerah, d. per lb.	5 11/16	4 9/16	4⅜	7	13⅜
Flax: Petrograd, £ per ton	34	33	59¾	76¾	113¼
Flax: Russian, average import price, £ per ton	41¼	38	66⅜	85¼	[e]151⅝
Hemp: Manila fair roping, £ per ton	31¾	26¾	41⅛	54¾	84⅜
Hemp: Petrograd clean, £ per ton	38	43	60½	71	105½
Jute: Good medium, £ per ton	26½	27⅛	21⅛	31	39⅞

	1913	1914	1915	1916	1917
***Textiles* (Cont.):**					
Wool: Merino Port Philip average fleece, d.[f] per lb.	18	18½	21⅜	32¾	46½
Wool: Merino Adelaide, average grease, d. per lb.	9½	9⅜	10⅞	16½	23¼
Wool: English, Lincoln half hogs, d. per lb.	12⅜	12⅝	17⅜	20	20⅞
Silk: Tsatlee, s. per lb.	11	10⅞	9 13/16	16¼	21½
Sundry Materials:					
Hides: River Plate dry, d. per lb.	12⅜	13⅛	13	14¾	20
Hides: River Plate salted, d. per lb.	9½	9½	11	13¼	16
Hides: Average import price, d. and dec. per lb.	8.62	9.11	10.04	11.70	15.52
Leather: Dressing hides, d. per lb.	19½	21⅛	28⅜	28½	35
Leather: Average import price, d. per lb.	19¼	19¾	21¾	27	34½
Tallow: Town, s. per cwt.	34⅜	31½	36⅜	46¾	62¼
Oil: Palm, £ per ton	35¼	37¾	34 11/16	44½	46
Oil: Olive, £ per ton	49½	50¾	51⅞	59¼	115¾
Oil: Linseed, £ per ton	24¾	24⅞	30⅛	41¼	56½
Seeds: Linseed, s. per qr.	45½	48⅝	57⅞	80½	112¼
Petroleum:[g] Refined, d. per gall.	8½	7 9/16	8 15/16	12	16⅛
Soda: Crystals, s. per ton	47½	47½	48⅝	78¾	89¾
Nitrate of Soda: s. per cwt.	11½	10⅞	12⅜	17⅞	25
Indigo: Bengal good consuming, s. per lb.	2¾	5¾	13⅜	13⅜	10¼
Timber: Hewn, average import price, s. per load	40	41¾	58⅞	82⅛	97⅞
Timber: Sawn or split, average import price, s. per load	63	64½	94¼	148½	210

[e] Approximate.

[f] Port Philip fleece washed nominal since 1895, exactly in proportion with the value of clean wool.

[g] Petroleum as compared with the average from 1873–77 only.

Retail Prices

Food

The records of retail prices of food paid through the United Kingdom in cooperative stores and other shops largely patronized by the working people are collected by the Board of Trade and summarized month by month in the *Labour Gazette*. It is to be regretted that no complete detailed data are given regarding actual retail prices of various commodities, the monthly tables presenting but average percentage increase since July, 1914, and the text commenting on price fluctuations of selected articles.[1]

Retail prices of food began to move upward on August 1, 1914, and by August 8 they rose as much as 15 or 16 per cent above the "normal prices in July."[2] After that there was a fall in the price of most articles, so that at the beginning of September the average increase was approximately 10 per cent, but by December, 1914, the increase reached again 16 per cent. To some extent, the advance was due to seasonal changes, as such articles as eggs and butter always become dearer towards winter. The greater part of the rise, however, must be attributed to other causes. The average percentage increase at the end of the year 1915 was 45 above the prices prevailing immediately before the war. The greatest rise took place in the latter part of 1916, making the price level towards the end of that year about 87 per cent higher than it was in July, 1914. Prices continued to advance until July, 1917, when the recorded increase was 104 per cent; since then, with the exception of a decline in September, there has been very little change. The decline was caused by the fixing of maximum prices for certain staple foods and, as can be seen from the following figures, was of very short

[1] The Board of Trade figures are based upon between 500 and 600 returns of predominant prices, relating to prices in a number of shops in every town in the kingdom with over 50,000 population, in about 200 towns with populations from 10,000 to 50,000 and in about 250 smaller places. The articles included are beef and mutton (British and imported), bacon, fish, flour, bread, tea, sugar, milk, butter, cheese, margarine, eggs and potatoes.

[2] *Labour Gazette*, January, 1915, p. 6.

duration. The average percentage increase in retail prices of the principal articles of food from month to month since the beginning of the war was as follows:[1]

Month (beginning of)	1914	1915	1916	1917
January		18	45	87
February		22	47	89
March		24	48	92
April		24	49	94
May		26	55	98
June		32	59	102
July		32½	61	104
August	15	34	60	102
September	10	35	65	106
October	12	40	68	97
November	13	41	78	106
December	16	44	84	105

Taking up the various commodities included in the Board of Trade averages, one finds that the prices of British *meat* have not shown much increase during the latter part of 1914, but imported meat has become much dearer than before the war. Percentage increase since July, 1914, was on January 1, 1915, for chilled or frozen beef ribs, 18, thin flank, 32 (these are increases which took place in large towns). The prices of British meat advanced steadily in the early months of 1915; at the beginning of May they reached an increase of about 20 per cent above those which prevailed in July, 1914. During May there was an advance of about 14 per cent, and an additional rise of 6 per cent took place in June. The fluctua- were not very great during the second half of the year. ourse of prices of imported meat was somewhat similar, but the proportionate increase was 10 to 15 per cent greater. The year 1916 opened with butchers' meat averaging retail about 3d. per pound above the level of prices in July, 1914, and during the first three months of the year there was a steady upward movement in prices.

During April and May there occurred a very marked general rise; the average increase in price was ab t 15 per cent, rying from 1¼d. per pound for the cheapest cuts of imported meat to nearly 2d. per pound for ribs of British beef. From

[1] *Labour Gazette*, December, 1917, p. 4[illegible]; also *The Economist*, February 16, 1918, p. 258.

June 1 to December 1, 1916, there was very little movement in meat prices; they averaged about 5½d. per pound above those of July, 1914. Farther advances of 2 to 3 per cent took place during December and on January 1, 1917, average percentage increase since July, 1914, was from 64 for British beef ribs to 101 for imported thin flank. Prices of British meat increased by about 3¾d. per pound between the beginning and the summer of 1917; in July of that year advances in price ranged from 100 to over 190 per cent in comparison with July, 1914, which was equivalent to average increases of 7½d. to 10¼d. per pound, according to cut. As may be noted, in 1915, 1916 and in 1917 up to September, prices showed a continuous rise during the first half of the year, followed by comparatively little change during the second half. In 1917 the action of the Food Controller resulted in a substantial decrease in the price of British beef and mutton after September 1. It declined to the extent of about 2¼d. per pound, so that prices at December 1, 1917, were 7d. per pound above the level of July, 1914. With imported meat, the increase during the summer and the subsequent decrease since September were less than with British meat, the decrease amounting to about ¾d. per pound.

The price of *bacon* was on August 8 about 15 to 20 per cent above that of the previous month; after this rise it showed an almost continuous decline until the end of November, 1915; between then and January 1 the price recovered so that at January 1, 1916, the percentage increase was about 31. Bacon rose in price very little—less than 1d. per pound, or about 5 per cent, during the first seven months of 1916. In August, however, there was a 5 per cent increase, the advance continuing so that prices at the end of 1916 were 56 per cent higher than in June, 1914. The advance was very pronounced in 1917, being especially accelerated during August–October, so that, while the increase from April, 1915, to July, 1917, averaged about ¼d. a pound per month, in the three above mentioned months in 1917 it averaged 1¾d. per month. The total increase during 1917 was about 9d. per pound and on January 1, 1918, the percentage level was 139 above July, 1914.

There were considerable fluctuations in the price of *fish;* on January 1, 1915, the prices showed an increase since July, 1914, of 51 per cent for large towns, and of 31 per cent for small towns and villages. The prices rose steadily throughout the year. At January 1, the increase over July, 1914, reached 97 per cent. It went up to 105 per cent at the beginning of February. Then a decline set in and in July, 1916, fish sold at about 80 per cent above the level of two years earlier, being the lowest point reached during the year. A subsequent rise brought the price up to 97 per cent over the July prewar level. The movements in the price of fish were irregular through 1917, but the tendency was always upwards, and since August successive advances brought the prices to nearly treble of what they were in July, 1914.

There was a sharp rise in the price of *flour* in 1914, the advance having amounted to about 20 per cent by the end of the first week in August. As in the case of sugar, prices fell after the panic ceased and then rose again, so that at January 1 they reached once more the 20 per cent increase over the level in July. *Bread* increased only half as much as flour at the beginning of August (11 per cent), the advance by the end of the month being 8 per cent. As with flour no important changes took place then until November, but during November and December there was a rise amounting to 5 to 6 per cent, so that at January 1, 1915, bread was about 16 per cent higher than in July, 1914. The prices of both flour and bread increased sharply during January and February, 1915, the increase continuing, though less rapidly, up to a maximum at the beginning of June, when flour was about 55 per cent and bread 45 per cent dearer than just before the war. Prices then declined until November, but during the last two months of the year upward movements were resumed. The average price of bread at the beginning of 1915 was 6¾d. for 4 pounds; on June 1 it reached 8½d. and on January 1 it fell to 8¼d., as compared with 5¾d. in 1914, before the war. In the first eight months of 1916 the price fluctuated between 8¼d. and 9d. per 4 pounds. Subsequent increases brought the average to 9½d.

at November 1 and 10d. at December 1. Expressed in percentage form, the price of bread at the end of 1916 was 73 per cent above the level of July, 1914; at the end of 1915 it was about 42 per cent above this level. The retail prices of flour advanced proportionately more than those of bread during the year, viz., from 49 per cent at January 1, 1916, to 88 per cent at January 1, 1917, above the prices prevailing immediately before the war. The average price of bread rose from about 10d. per 4 pounds on January 1, 1917, to 11½d. in May, after which it remained almost stationary until the introduction of the subsidized 9d. loaf on September 17. The movements in the price of bread corresponded to those of flour.

The 14 per cent increase in the price of *tea* at January 1, 1915, was caused by the increase in the duty (3d. per pound in November, 1914). From January to September, 1915, the aggregate increase was nearly 3d. per pound or 50 per cent over the July, 1914, level. In September an additional duty of 4d. per pound was imposed and prices advanced by an average of 3½d. per pound, so that by the end of the year tea was 48 per cent higher than before the outbreak of the war. During 1916 movements in the retail price of tea were insignificant, and 1917 found tea only about 3 per cent higher than it was at the beginning of 1916; this represents an increase of about 9d. per pound, 7d. of which is accounted for by an increased duty. In 1917 there was a continuous rise in the price of tea, which advanced from 2s. 4d. per pound at the beginning of the year to 3s. 2d. at the beginning of December. It declined then about 1½d. per pound, and at January, 1918, the price was 98 per cent above the July, 1914, level.

Sugar rose on August 8, 1914, to 80 and 90 per cent above the level in July. It fell somewhat and then rose again, at the beginning of January, 1915, the price of granulated sugar being two-thirds higher than at the beginning of the war. The price remained unchanged, usually at 3½d. per pound, from January to September, 1915, but in that month it rose to 4d. per pound in most parts of the United Kingdom.

Sugar was 2d. per pound just before the war. In the first three months of 1916, the price rose to 4¾d. per pound. In April there was an increase of ½d. per pound because of increased duty. Since that time small monthly increases occurred which have in the aggregate raised the average price to 5½d. per pound. Of this, 1½d. is attributable to duty. There was no change in price up to the beginning of May, 1917. An increase then took place, and from July to the end of the year the price was 6d. per pound.

The slight advance in the price of *milk* during the latter part of 1914 (it was 6 per cent on January 1, 1915) was purely seasonal. There were few changes in the price of milk until September, 1915. At the beginning of this month the average price was 12 per cent above that of July, 1914, and at the beginning of January, 1916, the corresponding figure was 29 per cent, which represents an increase from 3½d. to 4½d. per quart. The average retail price of milk was about 4½d. per quart during the first four months of 1916 and 4⅝d. from May 1 to August. In September an upward trend in prices set in, which continued throughout the rest of the year and brought the price to nearly 5½d. per quart at the beginning of 1917. This represented a 57 per cent increase over July, 1914, prices. Milk averaged 5½d. per quart from January to September, when an advance began which raised the average price to 7d. at the beginning of 1918, about double the level of July, 1914.

Butter, after a marked rise in August, rapidly fell to little above normal; an increase in price during September, October and November may be ascribed to season. An additional rise of 5 per cent occurred between December 1 and January 1, on which date butter was about 14 per cent higher than in July, 1914. During the first part of 1915, barring slight fluctuations, butter remained steady at about 15 per cent increase over July, 1914. From July, 1915, to October it rose very substantially, reaching an increase of 34 per cent in the latter month. In 1916, the prices remained fairly steady at this level from January until August. During the latter month and in each of the remaining months of the year a substantial increase was recorded, so that at the end of the year butter was about 30 per cent dearer than at the beginning and 70 per cent dearer than in July, 1914. The steep rise was not arrested until March, 1917, when it was nearly 80 per cent (over 11d. per pound) dearer than just before the war. The advance continued, and by the beginning of October prices were approximately double those of July, 1914. By this time the prices of most butters were under control, an exception being afforded by Danish products, which, free from control at the import stage, retailed at 4s. and more per pound. By the end of the year Danish butter was brought into line with other butter; the price of butter has been reduced to about the level of October 1, 1917, viz., 2s. 5d. per pound, or about double the July, 1914, price.

Cheese was not affected greatly by the panic in the early part of August, 1914. During the period September to December the price rose 5 per cent and at the end of the year it reached a level of 10 per cent above that in July, 1914. A steady advance continued throughout the first half of 1915, the total increase during the six months being 20 per cent, or 2d. per pound. The price fell slightly and then recovered again. On January 1, 1916, the increase over July, 1914, was 32 per cent. A steady upward movement in the price (3 to 4 per cent a month) characterized the cheese situation in 1916; the only exceptions to this were the months of June and July, in which the price declined 7 per cent, and November, when a 7 per cent rise took place. At the end of 1916 the price of cheese was about 75 per cent above the level just before the war. Cheese rose by 4d. per pound between January and June, 1917, at which time its average price was 1s. 7½d. per pound, as compared with 8¾d. in July, 1914. At the end of June, 1917, "government cheese" of colonial or American origin was introduced for retail sale at 1s. 4d. per pound and British cheese came under control soon afterwards. The result was that cheese sold at the beginning of 1918 at about 1s. 4¾d. a pound.

During the latter part of 1914 and through 1915 the price of *margarine* showed very little change over prewar figures, apart from a rise of from 15 to 20 per cent and a subsequent fall in the early weeks of the war. During 1916 there was an increase of a little over 1d. per pound, and between January and July, 1917, an advance of 3½d. per pound occurred. On December 1, 1917, the price averaged about ½d. per pound lower than in July, 1917, and 4½d. higher than just before the war; this amounts to 11d. or 1s. per pound for the ordinary kind.

After a sharp rise at the beginning of the war, the prices of *eggs* fell again to a level only about 12 per cent above that of July. Large advances took place from September to November, and on January 1, 1915, the price of fresh eggs showed an increase of 63 per cent above the July level, a part of this rise being due to the time of the year. Variations in 1915 were largely seasonal, but prices were higher than during the corresponding periods in 1914. The same price situation continued through 1916 and 1917, eggs in July, 1916, being about 50 per cent higher than in the same month in 1914. At the beginning of December, 1917, they were twice as dear as they were three years earlier, the price having risen to 4d. for an egg, as compared with 3¼d. on January 1, 1917, and 2d. in April.

Potatoes fluctuated considerably in price from place to place. In large towns prices on August 8, 1914, averaged about 15 per cent above those of July, while in the small towns and villages the increase was only 4 per cent. Subsequently, prices fell continuously until the end of October, when they reached a level below the July prices by 16 per cent in the small towns and villages. On January 1, 1915, they were below the July level by 11 and 22 per cent, respectively. In 1915 variations in prices were largely seasonal and did not show much increase over the prices for corresponding periods in 1914. At the end of the year the decrease for large towns was wiped out and the prices were about equal to those of July, 1914. The price of potatoes remained comparatively normal until April, 1916. In that month there was a rise of over 40 per cent in the average price of old potatoes, and further advances of 8 per cent in May and 31 per cent in June followed. On July 1 the average price of old potatoes was 10d. per 7 pounds, as compared with 4¾d. per 7 pounds until April. Prices of new potatoes on August 1 were 9d. per 7 pounds, dropping to 7½d. per pound at the beginning of September. Prices remained fairly stationary at this high level for some weeks and then a rise of 34 per cent took place in October; additional increases of 4 per cent for the following two months resulted in the prices at the end of the year averaging 10¾d. per 7 pounds, or about 130 per cent higher than twelve months earlier. The average price of potatoes ranged from 10½d. to 11¾d. per 7 pounds in the first half of 1917. The rise has been due to scarcity. When the Food Controller established a maximum price of 1¾d. per pound it was rapidly adopted in most places. The plentiful crop of 1917 resulted in the price of potatoes falling to an average of 6¾d. per 7 pounds.[1]

Taking the price of each article as reported in July, 1914, as a base, the following table shows the per cent of increase in prices of certain articles since July, 1914.[2]

Article	Large Towns (Populations over 50,000)				Small Towns and Villages				United Kingdom	
	Jan. 1, 1915	Jan. 1, 1916	Jan. 1, 1917	Jan. 1, 1918	Jan. 1, 1915	Jan. 1, 1916	Jan. 1, 1917	Jan. 1, 1918	Jan. 1, 1917	Jan. 1, 1918
Beef, British:										
Ribs	8	37	66	78	6	34	62	83	64	81
Flank, thin	15	51	93	107	8	39	74	95	84	101
Beef, chilled or frozen:										
Ribs	18	51	90	120	15	43	81	113	85	116
Flank, thin	32	70	107	152	21	57	96	122	101	137
Mutton, frozen:										
Legs	19	45	90	142	14	38	83	126	86	134
Breast	28	70	127	109	21	56	117	134	122	162
Bacon, streaky	9	34	60	147	5	28	53	130	56	139
Fish	51	119	155	223	31	75	108	169	131	196
Flour, household	18	46	84	50	23	52	93	54	88	52
Bread	18	45	79	57	14	39	68	52	73	54
Tea	14	49	51	98	13	48	50	99	51	98
Sugar, granulated	69	97	173	194	65	89	167	185	170	189
Milk	6	30	59	103	7	28	54	96	57	99
Butter:										
Fresh	12	32	72	102	16	36	74	105	73	103
Salt	10	30	70	106	14	33	71	105	71	105
Cheese	10	32	74	91	10	32	75	91	75	91
Margarin	5	8	25	71	4	6	25	61	25	66
Eggs	62	108	179	252	65	102	171	233	175	242
Potatoes	*11	..	138	51	*22	*10	105	23	122	37
All above articles (weighted percentage increase)	19	48	91	111	17	42	83	102	87	106

* Decrease.

[1] The data for the discussion of retail prices were taken from the *Labour Gazette* for 1915, 1916, 1917 and January, 1918.

[2] *Monthly Review of the U. S. Bureau of Labor Statistics*, March, 1916, p. 83; *Labour Gazette*, January, 1918, p. 5.

With reference to items of expenditure other than food there have been substantial increases, except with regard to rents, but the average advance has not been so great as in food. The increase from July, 1914, to January 1, 1918, in the cost of all the items ordinarily entering into working class family expenditure, including food, rent, clothing, fuel and light, etc., may be estimated at between 80 and 85 per cent, taking the same quantities of the various items at each date and eliminating advances arising from increased taxation, and between 85 and 90 per cent, if increases due to taxation are included.

The average percentage of increase between July 14, 1914, and December, 1917, in retail prices of a number of groceries of less importance in the working class dietaries may be seen from the following statement:

	Per Cent		Per Cent
Lentils, split (red)	230	Milk, condensed	120
Peas, split (yellow)	210	Beans, butter	110
Sago	190	Jam	110
Tapioca	160	Rice, Rangoon	100
Syrup	160	Cocoa (loose)	95
Beans, haricot	140	Coffee	30
Oatmeal, Scotch	140		

The average rise of these items is clearly greater than with the principal foodstuffs.[1] Excluding coffee, for which the advance has been exceptionally small, the average increase is between 140 and 150 per cent, as compared with 105 per cent, shown as the average for the principal articles of food.

Clothing

With regard to clothing, the statistical data available are not so extensive as those drawn upon for food prices, but the following table, made up from selected cases and supplied to the committee by the Department of Labour Statistics of the Board of Trade may be taken as broadly representative of the upward movement in the prices of standard articles of clothing and boots:

[1] *Labour Gazette*, December, 1917, p. 438.

AVERAGE PERCENTAGE INCREASE IN THE PRICES OF THE UNDERMENTIONED CLOTHING MATERIALS, ARTICLES OF CLOTHING AND BOOTS, BETWEEN JULY, 1914, AND SEPTEMBER, 1916[1]

Article or Material	September 1, 1916
Woolen material for garments	75%
Woolen underclothing and hosiery	90%
Men's suits and overcoats	40%
Cotton material for garments	50%
Cotton underclothing and hosiery	50%
Boots and shoes:	
Men's heavy	75%
Men's light	60%
Women's	60%
Children's	70%

Coal

Retail prices of coal vary greatly as between coal producing areas and other parts of the country. Thus, while in Lancashire and Yorkshire increases of 3s. to 5s. per ton are noted as between July, 1914, and September, 1916, in the south of England and in Ireland prices have risen as much as 14s. and 15s. per ton. The following table gives the course of retail prices in 1915–16, the average price in July, 1914, being 25s. 4d. for London and 22s. 5d. for the 30 provincial towns included in the table:[2]

Date	Average Price per Ton at the Beginning of each Month		Average Percentage Increase between July, 1917, to Beginning of each Month	
	London	Provincial Towns	London Per Cent	Provincial Towns Per Cent
1915				
January	29s. 4d.	23s. 5d.	16	5
March	34s. 4d.	26s. 9d.	36	19
May	31s. 4d.	27s. 3d.	24	22
July	31s. 6d.	27s. 10d.	24	24
September	31s. 6d.	27s. 11d.	24	25
November	32s. 4d.	28s. 5d.	28	27
1916				
January	32s. 4d.	28s. 11d.	28	29
March	33s. 4d.	29s. 2d.	32	30
May	33s. 4d.	29s. 4d.	32	31
July	33s. 4d.	29s. 8d.	32	32
September	33s. 4d.	29s. 9d.	32	33

The pit head price of coal was regulated in 1915 by the Price of Coal (Limitation) Act, which imposed penalties for

[1] Interim report of the committee appointed by the Board of Trade to investigate the cause for the increase of prices of commodities, Cd. 8358, 1916.
[2] Interim report of the committee on prices, Cd. 7866, pp. 6–7.

asking or taking a price exceeding by more than a standard amount (4s. per ton) the price for coal of the same description, sold under similar conditions, in the period July, 1913, to June, 1914.

Lowest summer prices of coal were maintained in London from June 16 to September 25, 1914, inclusive; the retail price of "best Derbyshire," a typical coal of good quality, during the period was 26s. per ton. The rise between September 25 and February 17 was 9s., as compared with a rise of only 2s. in the winters of both 1912–13 and 1913–14. The price of trolley coal (coal sold in small quantities generally to working class consumers) rose in even greater degree.[1]

[1] Interim report of the committee on prices, Cd. 7866, p. 7.

CHAPTER III

Causes of the Rise in Prices

The reasons given for the rise in prices are usually prompted by certain aspects of the situation which are forced upon the attention of each individual observer by his own personal experience or by the character of his special investigations. Those occupied with monetary transactions view the subject from a different angle than those who are engaged in the production and distribution of commodities or those who are students of agricultural economics.

Prices have been rising all over the world for over two decades, their upward trend having started in 1895. This phenomenon attracted the attention of statesmen, economists and social workers and much has been written on the subject in an attempt to explain the causes of the rise and to suggest remedies. The problem has become particularly acute since the outbreak of the war. While prices advanced about 50 per cent from 1895 to 1913, their advance between 1912 and 1917 was over 90 per cent.[1]

INFLATION

Inflation has been one of the causes most frequently assigned for the war rise in the general level of prices. Speaking before the House of Lords on November 20, 1917, Lord Rhondda made the statement that "the principal factor in increasing prices was the expansion of currency arising from inflation of credit and the issue of a large amount of paper money."[2] A couple of months earlier Mr. Runciman expressed the view that the main cause of the rise in prices was the impossibility to finance the war without a degree of inflation altogether unprecedented.[3] Mr. McKenna expressed about the same time a similar view.[4]

[1] *Business Digest*, 1917, p. 1491.
[2] *The Economist*, November 24, 1917, p. 837.
[3] *Liberal Magazine*, August, 1917, p. 363.
[4] *The Economist*, July 28, 1917, p. 111.

These expressions of opinion are in keeping with what has been pointed out again and again by the *Economist*, the *Statist*, the *Nation* and other British periodicals. The chief cause of increased prices, writes the *Nation*, has been the immense borrowing of the government, borrowing which has not been confined to the savings of the people, but which stimulated the manufacture of paper credit by bankers and financiers.[1]

The *Economist* believes that as long as the government will continue its policy of creating fresh currency in all its forms so long will prices continue to rise as the result of inflation.[2]

The greater the output and the wider the distribution of notes and certificates, the larger the demand for commodities of which the supply has been steadily declining; the result of it has been and necessarily so a continuous rise in prices.[3]

The currency has been inflated in two ways: (1) by increase of volume and (2) by rapidity of circulation, the latter having been brought about by a great redistribution of wealth. An abnormal amount of money has been thrown constantly into circulation among large masses of the population who spend it from week to week.[4]

But while statesmen have been pointing to inflation as a cause for the rise in prices and while they have been either justifying or attacking the fiscal policy of the government, no careful investigation has been made as to the extent of the disproportion between the issue of currency and checks and the wants of the British trade. Various governmental committees, chambers of commerce and other public bodies confined their inquiries to the study of price fluctuations of some specific commodity; they were not concerned with index numbers, and, when giving reasons for the increase in the price of milk, of meat or of coal, they do not mention inflation at all.

[1] *The Nation*, October 14, 1916.
[2] *The Economist*, June 9, 1917, p. 1061; September 1, 1917, p. 316.
[3] A. Hurd: "Wages, Prices and Supplies—A Vicious Circle," *The Fortnightly Review*, January, 1918, p. 38.
[4] A. Shadwell: "Food Prices and Food Supply," *The Nineteenth Century and After*, April, 1917, p. 741.

Statistical studies that have been made so far by British economists seem to deal with but one side of the question, the circulation media. Sir Inglis Palgrave asserts that Great Britain is clearly suffering from an excessive issue of paper and that she shows all the symptoms of the disease—inflated prices, speculation and a popular and fiscal demand for still larger issues to sustain the inflated price. However, the only definite data that we find in his paper are statistics showing the value of notes and certificates outstanding from the time they were first issued when the war broke out to November, 1917. On August 26, 1914, their value was £21,535,065 as compared with £189,944,339 on November 7, 1917, a rise of 880 per cent. Mr. Palgrave discusses the risks of issuing inconvertible money in response to the demand of the Treasury and not to the wants of trade, but what he says are mere conjectures. However valuable they may be, they do not give any tangible data as to the condition of the British trade and thus they do not permit one to form any definite opinion as to the exact role which inflation has played in raising prices.[1]

Professor Pigou's statement that perhaps four-fifths of the rise has been inevitable and that not more than one-fifth of the responsibility for it may be thrown upon Great Britain's monetary and banking arrangement, may be accepted for what it is worth. It is merely a "perhaps," prompted partially by the thought that in view of the large volume of (British) commodity imports as compared with commodity exports, the shortage of tonnage and consequent rise of freights must have affected prices in Great Britain more than it has affected world gold prices.[2]

One of the most painstaking inquiries into the subject of inflation has been made by Professor Nicholson. However, all of his facts and figures also bear upon the monetary side of the situation and do not throw any light except by inference on the changes in the volume of the country's business

[1] Sir R. H. Inglis Palgrave: "The Influence of the Currency Rates on Prices," *Bankers' Magazine*, December, 1917, pp. 632–636.
[2] A. C. Pigou: "Inflation," *The Economic Journal*, December, 1917, p. 494.

transactions. Professor Nicholson[1] takes up the increase of different forms of currency since the beginning of the war for the purpose of showing to what extent the increase has deviated from the increase in the prewar time, or has been "abnormal." He begins with postal orders, a form of legal tender which was unrepresented before the war. Their use as currency has been confined to the earliest stages of the conflict. Section 6 of the Currency and Bank Notes Act (1914, 4 and 5 Geo. V, ch. 14) which made postal orders legal tender was revoked by proclamation dated February 3, 1915. During the fortnight ending August 20, postal orders over 13,000,000 in number, of the value of £4,600,000 were issued, compared with 5,000,000 in number and £2,000,000 in value during the corresponding fortnight in 1913. They were issued for the purpose of meeting immediate exigencies and by the end of October, 1914, the value in the hands of the public did not exceed the normal amount. According to Mr. Nicholson, postal orders may be considered as the beginning of Treasury notes or the germ of the inflation.[2]

The net issues of silver coinage for the five months of the war in 1914 were £5,327,899. This compares with £318,000 of the first seven months before the war, or is about seventeen times as great. The net increase in silver in 1915 and in 1916 was in each year about eight times the average of the four prewar years.[3]

Professor Nicholson found a close conformity between net issues of silver and money wages. He does not mean to say that the increase in silver of itself raised wages, but that such an increase rendered possible the continued rise. The connection of wages and prices in order of time varies in different cases. At the beginning of the war the special war demand, backed by government funds, raised some wages. Substitution and sympathy raised others. With the expenditure of the new earnings, prices rose in response to the fresh demands.

[1] I. Shield Nicholson: "Statistical Aspects of Inflation," *Journal of the Royal Statistical Society*, July, 1917, pp. 467–494.
[2] *Ibid.*, pp. 468–469.
[3] *Ibid.*, p. 469.

Then came the demand for war bonuses to meet the increased cost of living. The special war bonus was followed by the general sympathetic war bonus.

Such a rise in wages and in earnings was only possible with an increase of currency—silver and notes. If the restraints of peace time on the issues of currency had been in force, a monetary crisis would have put an end to the rise.[1]

The issues of bronze from August to December, 1914 (£132,000) did not exceed the average of 1912–13. The increase in 1915 was below that of 1912–13. In 1916, however, bronze rapidly increased to £450,000, and for the period of the war to the end of March, 1917, the net increase was £951,689.[2]

With regard to the effect of gold on prices many general conclusions have been drawn, most of them tending to show that the purchasing power of gold has been steadily diminishing. The world production of gold has been going on unchecked by the war. Since 1906 it was as follows:

1906	£80,110,204	1912	£94,466,653[3]
1907	82,258,891	1913	94,494,000
1908	88,666,905	1914	90,208,000
1909	91,985,496	1915	96,525,000
1910	90,842,729	1916	94,563,000
1911	91,875,460	1917	88,000,000[4]

Gold, writes the *Economist*, is about the only article which the belligerents do not seek to destroy, so that the war is reducing the quantity of commodities without reducing the quantity of gold in the world.[5] The unprecedented amount of goods destroyed daily in the war zones has changed the ratio of exchange value between the available supply of gold and commodities. "Goods are not higher, but gold is cheaper."[6]

Professor Nicholson gives the estimated amount of gold in the United Kingdom on June 30, 1914, as £161,100,000. The

[1] Nicholson: *op. cit.*, p. 486.
[2] *Ibid.*, pp. 468–469.
[3] *The Economist*, February 17, 1917, p. 292.
[4] *The Statist*, April 13, 1918, p. 631. The figures for the years 1913–1917 are taken from *The Statist:* they differ somewhat from those in *The Economist.*
[5] *The Economist*, February 13, 1915, p. 263.
[6] *The Literary Digest*, November 24, 1917.

gold coin in the country increased from £100,000,000 in 1903 to £113,000,000 in 1910, or less than £2,000,000 per annum. From December 31, 1910, to June 30, 1914, the estimated increase was £48,100,000, or just under £14,000,000 per annum. From the outbreak of the war to December 31, 1914, "the Bank of England received the enormous addition of £64,000,000 in bullion and coin, considerable amounts being purchased and left in South Africa, Canada and other parts of the Empire."[1]

In spite of this strong gold position, large quantities of Treasury notes have been issued since the very first months of the war. At the end of December, 1914, the amount outstanding was £38,500,000; in December, 1915, it was £103,100,000; in December, 1916, £150,000,000. If the issue of Treasury notes was concurrent with the calling in of gold, it would not have caused any inflation of the currency, but, as a matter of fact, Treasury notes were issued before there was any limitation of the gold in circulation. Gold was not (to any appreciable extent) either hoarded or made into ornaments. The effect of the notes was then exactly the same as if new amounts of gold were added. The net amount of gold issued the year before the war was £15,000,000, which was a good deal above the average. But in the first five months of the war (to December, 1914) £38,500,000 of notes were issued; deducting gold for redemption (£18,500,000), it represents a net addition of £20,000,000 in five months. The rate of increase of the notes, £55,000,000 per annum during 1915 and 1916, was nearly six times as large as the annual issue of gold from 1908 to 1914.[2]

Lastly, one must consider the use of checks and the amount of bank deposits against which the checks are drawn. The growth of deposits may be obtained from the *Economist* banking numbers. In 1913 the aggregate was £1,104,000,000; it increased to £1,290,000,000 in 1914, *i.e.*, by £186,000,000. Before the war the increase in deposits for the last ten years

[1] Nicholson: *op. cit.*, p. 471.
[2] *Ibid.*, pp. 471–472.

had been on the average £30,000,000 a year. In 1915 the increase was £123,000,000; in 1916, £210,000,000. In recent years checks became very popular in England and they have supplanted currency to a very considerable extent. In 1913, the aggregate London Bankers' Clearing House returns were £16,400,000,000, these returns by no means including all the checks in the kingdom. There was a considerable decrease in town clearings from the beginning of the war until 1917. From August, 1914, to December, 1914, as compared with the same period in 1913, the decrease was 33.8 per cent. The decrease in 1915 as compared with 1913 was 22 per cent and in 1916 it was about 7 per cent. This decrease was due largely to restrictions on financial dealings. In 1917 the total town clearing rose to £16,877,000,000, thus exceeding by £3,474,000,000 the clearing in 1916 and by £477,000,000 that in 1913.[1]

A study of country clearings which represent commercial checks as distinct from checks purely financial in character shows an increase about fivefold over the prewar rate of increase. The total country clearings for1915 were £1,567,000,000, compared with £1,389,000,000 for 1913, an increase of £178,000,000, or 13 per cent. The increase in 1916 was £483,000,000 over 1913, or 35 per cent.[2] In 1917 the country clearing was £2,244,000,000, an increase of £372,000,000 over 1916, or 19.85 per cent.[3]

In connection with these data, Professor Nicholson makes an attempt to determine the volume of British trade. He assumes that with the same level of prices the increase in the country clearings may be said to measure roughly the increase in the volume of trade. The *Statist* index numbers show a rise in prices from 85 in 1913 to 136 in 1916, an increase of 60 per cent. If the volume of trade had remained the same, the country clearing returns would have shown an increase from £1,389,000,000 in 1913 to £2,222,000,000 in 1916 (60 per cent), instead of an increase to £1,872,000,000, or 35 per cent

[1] *The Economist*, May 18, 1918, p. 781.
[2] Nicholson: *op. cit.*, p. 471.
[3] *The Economist*, May 18, 1918, p. 781.

only. According to Mr. Kitchin, the volume of British trade, taking *Statist* figures as a basis and with 1913 = 100, was as follows: for 1914—86½, 1915—86½, 1916—81.

Before discussing the connection between the abnormal increase of currency and the abnormal rise in prices, Professor Nicholson is careful to repudiate the acceptance of the quantity theory in the simplest form, even after allowing for the rapidity of circulation. He suggests that an alternative explanation of the relation between the two increases is that the rise in prices was due in the first place to obstruction of supply and intensification of demand, and that with rising prices more currency has been called for to do the monetary work. Prices may rise first of all through speculation, and it is only when the inflated prices have to be translated into money wages and other incomes that the real demand for more currency arises.[1] The proper test to apply in any particular case in considering the relations between the two increases is the order of time. As Treasury notes have taken the place of gold in Great Britain, they may be said to form the most important part of the legal tender currency.

In trying to ascertain the relation between the issue of Treasury notes and the rise in prices, Mr. Nicholson took quarterly periods and compared the two sets of increases. He found that if one compares the same periods quarter by quarter there does not seem to be any connection. If, however, the comparison is made of the note increases in one quarter with the index number increases in the following quarter there is a remarkable correspondence. For example, the large note increase in the December quarter, 1914, is followed by a large index number increase in the next quarter—March, 1915. The slight increases of notes in the next two quarters are followed by slight increases only in index numbers. The very large increase in notes in the September and December quarters of 1915 is followed by a large increase in the next two quarters in index numbers. For the remainder of the war period up to July, 1917, the

[1] *The Economist*, May 18, 1918, p. 480.

correspondence in quarters was not so striking, but the general trends of expansion have been the same.[1]

According to Mr. Nicholson, in order of time, the abnormal increase of currency preceded the abnormal rise in prices and in wages, and if the inflation of the currency continues the rise of prices will also continue. In contrast to Professor Nicholson's views are the conclusions to which a Select Committee of the British House of Commons arrived in its search of what caused the rise in prices. While the committee of investigation admits that the extension of bank credits due to the war had had its effect, it calls attention to the fact that the stock of gold in Great Britain had decreased, instead of increased. As to the relation between the advance in prices and the volume of outstanding currency, the committee states that "the issue of paper currency . . . plays a very subordinate part. The large increase in the amount of currency (by about 50 per cent) is, in the opinion of the committee, the result of the growth of transactions and of prices, and not the cause of them." The chief causes of the rise in prices are thus stated by the committee: "the falling short in the supply of goods as compared with demand; the expenditure of payments, made by the government for commodities and services, in buying goods for private consumption."[2]

Of interest in connection with this discussion may be some data showing the extent of the world "inflation." The amount of money, gold, silver and uncovered paper in circulation in forty principal countries of the world increased from $9,830,000,000 in 1895 to $24,660,000,000 in 1917, an increase of 150 per cent, while population increased 13 per cent. The amount of "uncovered" money increased since 1913 in countries at war 400 per cent. Equally large has been the increase in "promises to pay." The total national debts of the world in 1895 were $28,750,000,000, in 1913, $43,840,000,000; by July, 1917, they rose to $160,000,000,000.[3]

[1] *The Economist*, May 18, 1918, pp. 481–482.
[2] *Bankers' Magazine*, July, 1918, p. 7.
[3] *Business Digest*, 1917, p. 1491.

Increased Consumption

Increased consumption has been held responsible for quite a substantial rise in prices before the outbreak of war. A greater equalization of wealth raised "tremendously" the purchasing power of the people.[1] The war brought with it an insistent and inelastic demand on the part of the government for all kinds of commodities needed to feed, clothe, equip, house and transport the army. Money paid by the government filters through to the people engaged in production and thus creates an additional effective demand, higher wages are being paid, war bonuses are being given, family incomes become larger because of remunerative employment of women and children.

"A soldier, whether at the front or not eats about half as much again as in private life," said Mr. Pretyman in a debate on prices in the House of Commons. "Millions of men are now serving . . . and the consumption of food among them is anything from half as much again to twice as much as in normal civilian life."[2] The report of the committee appointed by the United Kingdom to study food prices gives as one of the causes of the rise an "abnormal consumption of food, fodder and clothes by armies in the field."[3]

This abnormal consumption has been partially due to a certain amount of loss through waste, an unavoidable accompaniment of provisioning soldiers on the firing line, and partially to healthy appetites of those who spend their time in strenuous exercising in the open air. The wear and tear on clothing, shoes, etc., is obviously also very great and these articles need continuous replenishing.

At the same time large sections of the working population became buyers of more and better food than formerly. According to Mr. Runciman "the general testimony in favor of this judgment is overwhelming."[4] The workers have been

[1] W. A. Kiddy: "Inflation," *Journal of the Institute of Actuaries*, October, 1917, p. 287.
[2] *The Economist*, August 26, 1916, p. 355.
[3] *Chicago Commerce*, August 30, 1917, p. 14.
[4] Mr. Runciman's speech in the House of Commons, quoted from *The Nation*, October 21, 1916.

spending money "on the liberal scale to which they have become accustomed in the early and seemingly prosperous months of the war, automatically raising the prices against themselves."[1]

The statement with regard to greater consumption on the part of the civilian population hardly holds true in the case of meat. Before the war 40 per cent of the nation's consumption of beef and mutton was supplied by imports; this dropped to only 20 per cent in 1915. The main reasons for the decline were the abnormal demand for frozen meat for the armies of the Allies and the increased dependence of France on foreign imports.[2] These causes continued to operate through the subsequent years of the war.

As a result, on the one hand, of the reduction of the imported supplies and attendant high prices and, on the other hand, of the appeals made by the government to the citizens in general to curtail their use of meat, the civilian consumption of beef and mutton, according to the Board of Trade estimates, has latterly (in 1916) been reduced by about one-sixth.[3]

There is a discrepancy between this finding of the Board of Trade and the contention that one of the main causes of the rise in the price of meat has been the increased demand of the masses of people, owing to the better wages they were earning. According to the *Spectator*, the Board of Trade has had reports from all the principal industrial centers, showing how the working classes are buying meat much more freely than before, and do not hesitate to pay the high prices for the best joints.[4] In order to reconcile the two statements, one must assume that the curtailment of consumption has been exercised by other classes of population than the industrial workmen.

The price of milk has been forced upwards, according to the

[1] Hurd: *op. cit.*, p. 43.
[2] Report (interim) of the Board of Trade committee on prices, Cd. 8358, p. 8.
[3] *Ibid.*, p. 8.
[4] W. F. Ford: "Currency Inflation and the Cost of Living," *Fortnightly Review*, January, 19[illegible], p. 83.

Board of Trade Committee on Prices, by "the increased demand of the producers of margarine, tinned milk and milk chocolate, together with that of the hospitals."[1]

The view that national consuming capacity has on the whole increased is combated by Mr. Ford, who contends that against any possible increase caused by the average soldier consuming more now than he did when he was a civilian must be set a decrease of national consuming capacity as a result of the impoverishment of numerous people who have had to suffer privations because their incomes have been stationary or diminished while prices have gone up.[2] Whether one agrees or disagrees with this view, one must admit that the only right way of determining to what extent, if any, national consumption has increased is to make comparisons between the prewar and the war period and to make these comparisons on the basis of quantities, not prices. The necessary figures to enable one to do this are not available.

Reckless Buying

The forces must be liberally supplied with food, clothing, munitions. The government enters the market as a heavy buyer with "unlimited" means and in a hurry, cost being no object.[3] Military purchases have not been of the most economical type. "There has been too much of the amateur in the market, who generally pays very dear for his operations."[4]

Higher Cost of Production

The average cost of producing and of marketing commodities has risen since the beginning of the war because in order to satisfy a rapidly increasing demand it became necessary to resort to less efficient factors of production. Many skilled workmen were withdrawn from peace time industries for war activities; and a great deal of unskilled labor was injected into

[1] *The Spectator*, vol. 117, 1916, p. 456.
[2] Report (interim) of the Board of Trade Committee on Prices. Cd. 8358. 1916, p. 12.
[3] Shadwell: *op. cit.*, pp. 739–740.
[4] Kiddy: *op cit.*, p. 278.

mines, mills and factories for the purpose of maintaining and raising the output. Under present temporary and abnormal conditions every source of supply must be brought into use and put into operation "upon a basis of cost which would have been prohibitory at any other time within the last thirty years."[1]

In considering the causes of the advance in retail prices of meat, which on September 1, 1916, averaged about 5½d. per pound above those of July, 1914, the Board of Trade Committee on Prices reported that "to a certain extent this increase can be at once accounted for in terms of cost of production, which has steadily risen."[2]

"The government at an early stage of the war put restrictions on the export of feeding stuffs, including oil cakes, maize, barley and oats, and also on fertilizers. . . . Nevertheless the prices of feeding stuffs and fertilizers have risen greatly."

	Average Price per Ton before the War			Average Price per Ton in July, 1916		
	£	s.	d.	£	s.	d.
Feeding stuffs:						
Linseed Cake	8	5	10	12	15	9
Cotton Seed Cake	5	16	3	9	15	9
Soya Bean Cake	6	13	8	12	2	6
Maize Meal	7	10	0	11	8	0
Fertilizers:						
Nitrate of Soda (best)	10	14	9	18	5	0
Basic Slag (prime quality [illegible] p. c. phosphorus)	1	16	7	3	0	6
Sulphate of Ammonia	13	11	8	17	12	1

Decline in the Supply of Commodities

The decline in the supply of many commodities has been due to the diversion of men to the armies and to the production of goods for the operation of war.[3] While some maintain that because of the worldwide diversion of labor there has been a worldwide curtailment in the production of foods,

[1] Marsh: "Economic Difficulties in the Way of Successful Price Fixing," *The Economic World*, July 21, 1917, p. 79.

[2] Report (interim) of the committee appointed by the Board of Trade to investigate the principal causes which led to the increase of prices of commodities since the beginning of the war, Cd. 8358, 1916, p. 7.

[3] *Labour Gazette* (Canadian), September, 1917, p. 714.

raw materials and finished commodities,[1] others blame the reduction in British sea carrying capacity for the shortage. "The nation has apparently not yet realized," writes Mr. Hurd, "that there is plenty of food to be had over the seas and that there are ample supplies of raw material for industry available if we possessed the necessary tonnage. . . . The unrivalled resources of this country for making good the losses to shipping are not being utilized to the fullest extent."[2]

The diversion of men from productive work to other pursuits has led to greater use of machinery, to working overtime and to enlisting more female labor into mills and factories, as well as into agricultural activities, but all this only mitigated the effect of diversion without entirely offsetting it.

The decline in supplies is also the result of the destruction of property on land by the passage of armies and, what is of greater immediate significance to Great Britain, through the sinking of ships, many of which were carrying towards the Isles thousands of tons of food and raw material.

The decline in the available tonnage resulted in the narrowing of the markets; many sources of supply have been gradually eliminated because of distance, as ships can not be spared for long routes on account of the length of time consumed in going and in coming.

The South Wales panel of the Commission of Inquiry into Industrial Unrest in Great Britain[3] was "inclined provisionally to adopt the view that the major part of the increased cost of food is due in part directly and in part indirectly to the destruction of tonnage by enemy submarines."[4]

Milk prices rose because the rapidly rising meat prices of 1915, accompanied as they were by a shortage of labor, led

[1] G. M. Reynolds: "Steady Business to Meet War's Shock," *The Nation's Business*, October, 1917, p. 53. See also the Report of the Committee of the General Federation of Trade Unions of the United Kingdom: "Some 50,000,000 of the world workers . . . (are now) engaged in war and in the production of munitions of war." Quoted from the *Chicago Commerce*, August 30, 1917, p. 14.

[2] Hurd: *op. cit.*, pp. 50–52.

[3] *Infra*, p. 100.

[4] *Industrial Unrest in Great Britain*, Bulletin of the U. S. Bureau of Labor Statistics, No. 237, p. 180.

to some slaughtering of milk cows.[1] It was necessary by orders dated June 22 and August 18, 1915 (the latter of which was amended on March 31, 1916) to put a restraint upon the slaughtering of cows obviously in calf. At the same time a limit was put upon the slaughter of calves under six months old. Not a few farmers were anxious to abandon the dairying business because of the long hours of labor involved in it and because of strict legal requirements as to sanitation and quality of milk.

The bearing of shortage upon prices may be seen in comparing grain conditions of 1915 and early 1916 with conditions towards the end of 1916 and through 1917. It was the record crops of 1915 which made the problem of supply easy to solve. In 1916 there were short crops all over the world. Shortages developed not only in grain but also in potatoes, the result being a rapid rise in prices.[2]

In 1916–17 there were harvested in Argentina, Australia and New Zealand about 61,581,000 quintals, as compared with 97,864,000 in 1915–16, and 67,080,000, the average for the five years, 1909–1913, the decline being due to an exceptionally small crop in Argentina.[3]

One of the contributory causes for the rise in meat prices was the severe drought of 1915 in Australia, which destroyed a large quantity of stock and greatly curtailed Australian supplies.[4] The reduction in the number of live stock in different parts of the world manifested itself again in 1916 because of the demands of the war, shortage of feed and the drought of the summer.[5]

The sharply and rapidly rising prices made the statistics of the values of British imports and exports of no assistance for the purpose of obtaining data as to the amount of commodities imported and exported since the beginning of the war.

[1] Report (interim) of the Board of Trade Committee on Prices, Cd. 8358, 1916, p. 11.

[2] *Labour Gazette* (Canadian), May, 1917, p. 392.

[3] Bulletin of Agricultural Statistics, published by the International Institute of Agriculture in Rome; quoted from *The Economist*, March 31, 1917, p. 584.

[4] Report (interim) of the Board of Trade committee on prices, Cd. 8358, 1916, p. 9.

[5] *Labour Gazette* (Canadian), May, 1917, p. 392.

Some light may be thrown on this question by comparing the yearly returns of foreign trade shipping of the country.[1]

	1916	1915	1914
Entered (with Cargoes)			
British	20,217,334	22,861,738	28,928,883
Foreign	9,842,094	10,862,166	14,131,890
Total	30,059,428	33,723,904	43,060,783
Cleared (with Cargoes)			
British	17,751,953	20,380,530	32,515,814
Foreign	17,844,807	19,148,832	23,452,755
Total	35,596,754	39,529,362	55,968,569

The above figures show that the entry of ships with cargoes decreased from 1914 to 1916 by 13,001,355 tons, and the clearance by 20,371,815 tons.

During the same period the change in the value of imports and exports was as follows:[2]

IMPORTS AND EXPORTS

	Merchandise			
	Imports c. i. f. Values	Exports (British) f. o. b. Values	Exports (Foreign and Colonial) f. o. b. Values	Exports (Total)
	£	£	£	£
1916	949,152,679	506,546,212	97,608,502	604,154,714
1915	851,893,350	384,868,448	99,062,181	483,930,629
1914	696,635,113	430,721,357	95,474,166	526,195,523

The value of imports increased from 1914 to 1916 by £252,-517,506, and the value of exports by £77,959,191. The accounts of goods imported do not include certain goods which at the time of importation were the property of the British Government or the governments of the Allies. The accounts of goods exported include goods bought in the United Kingdom by or on behalf of the governments of the Allies, but do not include goods taken from British government stores and depots or goods bought by the British Government and shipped on government vessels. Unofficial estimates placed the value of the excluded imports at from £120,000,000 to £150,000,000 in 1915.[3]

[1] Trade and Navigation Accounts, *House of Commons Sessional Papers*, December, 1916, vol. 31, p. 1.
[2] *Ibid.*, p. 1.
[3] "Trade in War Time," *The Political Quarterly*, March, 1916, p. 101.

The imports, exports and reexports in 1917 were £1,065,-256,407, £525,308,991 and £69,552 respectively.[1] These figures profess to include for the last six months of the year (July to December) certain government imports not included in the figures of the previous years, namely, articles imported and exported in public as well as private ownership "so far as particulars are available at the time of compilation."

As the *Economist* remarks, no one can tell the degree of omission concealed behind this cryptic reservation. Exports for the use of British forces in any theatre of the war are still excluded. Presumably also supplies shipped straight to the British armies in France and elsewhere do not appear in the published import figures.[2] Imports of food have always been included in the returns. The figures of the *Economist* for 1916 differ somewhat from those given in the preceding table. Taking these figures (£948,506,492), the rise in the value of imports in 1917 over 1916 was £116,749,915. In order to arrive at the quantity of goods imported and exported, the *Economist* until last year had the practice of recalculating the individual items of trade returns at prices of the preceding year, and also at prices of 1913 (the prewar year).

The table opposite gives the recalculated figures of the returns for 1916 at 1913 and 1915 prices, as well as the value of trade during these three years according to the existent prices.

The calculation at 1913 prices shows that while the recorded value of imports rose between 1913 and 1916 by £180,500,000, the quantity of goods imported in reality declined by £112,800,000 (14½ per cent), higher prices making it appear as if the volume of imports rose by £293,300,000 (27½ per cent.)[3] The total turnover of trade, which was higher by £149,800,000, according to the published figures, really declined by £284,200,000 (20 per cent), but higher prices caused an increase of 434,000,000 (31 per cent) in the recorded value. An analysis of the individual groups of imports for 1916 as

[1] *The Economist*, January 19, 1918, p. 76.
[2] *Ibid.*
[3] *Ibid.*, January 27, 1917, pp. 130-131.

	Value Recorded in 1916	Value of 1916 Trade at 1913 Prices	Value Recorded in 1913	Value of 1916 Trade at 1915 Prices	Value Recorded in 1915
Imports:	£	£	£	£	£
Food and drink	419.5	276.9	290.2	353.5	380.9
Raw materials	337.0	249.7	281.8	235.4	286.6
Manufactures	189.3	127.1	193.6	150.8	181.4
Total imports (incl. mis.)	949.2	655.9	768.7	743.1	851.9
British exports:					
Food and drink	29.5	20.6	32.6	24.5	25.1
Raw materials	64.3	38.3	69.9	46.3	52.4
Manufactures	393.7	306.7	411.4	329.9	292.9
Total British exports (incl. mis.)	506.5	379.9	525.2	419.7	384.9
Reexports:					
Food and drink	21.1	17.3	15.9	18.8	22.4
Raw materials	49.1	44.2	64.0	38.1	54.6
Manufactures	27.3	22.0	29.5	24.8	22.0
Total reexports (incl. mis.)	97.6	83.5	109.6	81.7	99.1
Total turnover	1,553.3	1,119.3	[a]1,403.5	1,244.5	[b]1,335.9

[a] *The Economist*, January 27, 1917, p. 130.
[b] *Ibid.*, January 20, 1917, p. 81.

compared with 1913 shows that had prices remained at the 1913 level the value of foodstuffs imported would have declined by £13,300,000 (4½ per cent), but the higher prices were responsible for a recorded increase of £129,300,000. The value of imported raw materials would have declined by £32,100,000 (about 11½ per cent), but a rise in prices made the value appear £55,200,000 higher. Of manufactures, the value would have been reduced by £66,500,000 (34 per cent), the increase in prices resulting in a recorded decline of only £4,300,000.

The calculation at 1915 prices shows that there was actually a decline of £91,400,000 in the value of trade in 1916, as compared with 1915, while the published figures recorded an increase in the total movement of goods. The rise in prices is responsible for an increase of £308,800,000. The volume of trade declined by over 6 per cent, but the average prices increased by 24.8 per cent. An analysis of the individual groups of imports for 1916 as compared with 1915 shows that the quantity of foodstuffs imported declined to the extent of £27,-400,000 (7 per cent), but the average prices were 17½ per cent higher, resulting in a recorded increase of £38,600,000. In the case of raw materials, the decline was equal to £51,200,000 (18 per cent). The prices, however, went up by 35.5 per cent, accounting for an increase of £101,600,000 in value. The imports of manufactures declined by £30,700,000 (17 per cent), but a rise of 21 per cent in prices made the value appear £38,500,000 higher.[1]

One must keep in mind also that imports are given at c. i. f. (cost, insurance and freight) prices and that an increase in freight and insurance rates besides the rise in average prices accounts for the great increase in the value of imports.

Particulars of quantities for food, drink, tobacco are no longer obtained in the returns so as to keep the enemy in ignorance of the actual tonnage of goods received. Statistics are available for other imports and examples of higher value and smaller quantities are furnished by raw cotton, of which 16,213,713 centals of 100 pounds were purchased in 1917 for £110,590,634, as compared with a purchase of 21,710,022 centals for £84,729,677 in 1916, and of 26,476,161 centals for £64,671,623 in 1915.

Mr. Paish stated in May, 1916, that as far as available data permitted an opinion to be formed, the small decline in production in Great Britain in 1915 was offset by increased imports from abroad, due mainly to government purchases, and by reduced exports, so that the country's consumption in 1915 was much greater than it was in 1913, the last complete year of peace.[2] This conclusion differs from the conclusions of the *Political Quarterly*, which wrote in its March, 1916, issue that "the first and the most striking feature of trade returns is the enormous increase in the price paid for food supplies." According to this magazine, "the United Kingdom paid in 1915 an increased

[1] *The Economist*, January 20, 1917, p. 81.
[2] George Paish: "War, Finance," *Journal of the Royal Statistical Society*, May, 1916, p. 276.

price of over ninety millions for if anything a less amount of food than was imported in 1913."[1] In the latter part of 1916 the *Nation* quoted Mr. George Lambert, who pointed out that some actual shrinkage in home production was taking place. According to the *Nation*, against this reduction in the home supply must be set the unknown quantity of imports, which, being bought abroad and brought over by the government for the use of troops, do not figure in the statistics of imported food. "If half our troops," writes the *Nation*, "are supplied in this way, this means that some two and a half million men must be deducted from the population which our ordinary imported and home grown supplies have to provide for. Thus it appears quite intelligible that there may be no real shortage of supplies of bread and meat for our population, in spite of the strain upon transport and the apparent reduction in the number of retail butchers' shops."[2] The *Nation's* reference to government importations is palpably wrong, as the accounts of importations, while excluding until July 1, 1917, certain goods which at the time of importation were the property of the British Government or the governments of the Allies, never excluded food imports. Mr. Lambert's statement that there has been a shrinkage in home production since the beginning of the war was, at the time when he wrote, supported to a certain extent by facts.

There was no real shortage of food during the first two years of war, if one accepts the report of a committee of the Royal Society which, at the request of the President of the Board of Trade, made a searching investigation of the food supply in the United Kingdom. However scientific may be conclusions based on grammes of protein and of carbohydrates or on calories of energy value, they do not give an exact view of the food situation, as they do not show the availability of the most desirable or most sought for articles of diet. People do not go into grocery stores for grammes of carbohydrates, protein or fat; they ask for eggs, cheese or butter

[1] *Political Quarterly*, March, 1916, p. 103.
[2] *The Nation*, October 21, 1916, p. 102.

and if the supply of these articles is not sufficient to meet the demand, their price will go up, even though there may be plenty of sago or fish on the market. This has been particularly true of Great Britain. The Englishman has been described as very exacting in his demands, not content with a sufficient supply: "it must be of the kind that suits him. . . . He is a creature of habit and grumbles extremely if he is forced against his will to change it, even to the extent of drinking another kind of tea."[1] Having been able to draw upon the whole world for necessaries and luxuries of life, he became probably the most pampered person in the world in his choice of food.

A change of diet is not accomplished overnight; it takes time to learn the usage and value of substitutes, and while under a supreme test people will eat horses, dogs and cats, as the Parisians did during the siege of Paris, in 1870–71, they will not give up their customary food even for more nutritious, and what some may consider more palatable, stuff until they actually feel the imperative need for such action.

The Royal Society Committee's report shows what was the country's position with regard to food in July, 1916, as compared with the prewar situation. The report states that the problem is partly statistical, partly physiological, involving (1) a knowledge of quantities of foods available and (2) the determination of the adequacy of the supply for the sustenance of the nation, the latter calculated in the amounts of protein, fat and carbohydrates contained in the given foods.

Taking the average for five years preceding the war (1909–1913), the quantities (in metric tons) of food materials imported (net) and home produced were as follows:

Cereals	4,865,000
Meat	2,685,000
Poultry, eggs, game, rabbits	331,000
Fish	848,400
Dairy products, lard and margarin	5,231,800
Fruit	1,271,000
Vegetables	5,482,000
Sugar, cocoa and chocolate	[a]1,657,000

[a] *The Food Supply of the United Kingdom.* A report drawn by a committee of the Royal Society at the request of the President of the Board of Trade, Cd. 8421.

[1] R. H. Rew: *Food Supplies in War Time*, Oxford Pamphlets, 1914, p. 5.

Generally speaking, a woman or a child requires less food than a man, *i.e.*, has a man value less than a unit. According to the report, the conversion of a population of men, women and children into units or "men" reduces the total number by 23 per cent. In assuming that 100 "men, women and children" as consumers equal 77 units or "men," the quantities of food available in Great Britain during 1909–1913 were per "man" (estimating the population of the country as having been 45,200,000):

Protein Grammes	Fat Grammes	Carbohydrates Grammes	Energy Value Millions of Calories
113	130	571	4009

The above figures compare very favorably with what is actually needed for proper nutrition. The normal requirements per head per day involve the use of:

Protein Grammes	Fat Grammes	Carbohydrates Grammes	Energy Value Millions of Calories
87	100	440	3091

In July, 1916, the total population of Great Britain was estimated at 46,500,000, including fighting forces at home and abroad, prisoners, etc. The available food in time of war must be distributed into two shares: (1) for military and naval establishments (4,000,000 men) and (2) for civilian population (31,800,000 men). Such a distribution of food on the basis of supply equal to that of 1909–1913, as illustrated in the following table, shows that on the prewar basis of supply the food available for the civilian population would have been more than sufficient as regards the supply both of protein and of energy.

	Protein Grammes	Fat Grammes	Carbohydrates Grammes	Energy Value Millions of Calories
Military	140	180	500	4300
Civil	106	120	563	3859

According to the findings of the committee, the supply of food available up to July 29, 1916, provided a margin of about five per cent above the minimum necessary for proper nutrition. The committee adds to its findings the very pertinent remark that "while the supply of food has been adequate for the support of the population, the rise in prices has accentuated the inequalities of distribution, which reduce the daily ration of many below the level of efficiency."

During the period considered by the committee oversea supplies of the principal foodstuffs had been on the whole well maintained:[1]

	1914–15 Cwts.	1915–16 Cwts.
Wheat and flower	111,500,000	111,800,000
Rice	10,100,000	8,300,000
Sugar	35,800,000	32,000,000
Beef	8,000,000	7,300,000
Mutton	4,600,000	3,500,000
Bacon	6,400,000	6,900,000
Hams	1,300,000	1,400,000
Butter	3,700,000	2,800,000
Margarin	1,700,000	2,600,000
Cheese	2,800,000	2,500,000

In the five years before the war, the United Kingdom imported 64 per cent of foodstuffs consumed there, producing only 36 per cent at home.[2]

One factor is often overlooked, and this is the effect of the war on the number of consumers. The population of Great Britain, instead of growing as it did before the war, became stationary, *i.e.*, the war losses have been balanced by the gain in births.[3]

High Freight and Insurance Rates

It is natural that in a country which like Great Britain depends for a large part of necessary foodstuffs and raw materials upon foreign markets, availability of tonnage, freight rates and costs of marine insurance should be considered as important factors in determining the price of commodities. When, after the declaration of war, prices began to rise, many people attributed the increase to disorganization of ocean transportation and to exceedingly high freight charges.

[1] H. S.: "Early Phases of Food Control," *The Edinburgh Review*, January, 1918, p. 114.

[2] John Hilton: "The Foundation of Food Policy," *The Edinburgh Review*, July, 1918, p. 29.

[3] R. Henry Rew: "The Prospects of the World's Food Supplies after the War," *Journal of the Royal Statistical Society*, January, 1918, p. 55.

Some idea as to how war conditions affected freight rates may be formed from the investigation of the Departmental Committee on Prices. It found a wide difference in tariffs on wheat and flour in the period January to March, 1914, as compared with the period July to September, 1916. The freight rate on grain from New York was 13.2d. (28.4 cents) per quarter (28 pounds) in the first period and 9s. 8d. ($2.35) in the second period, an increase of 729 per cent; the rate on grain from Argentina (down river) was 9s. 10d. ($2.39) per ton during the first period and 140s. 6d. ($34.19) during the second period, an increase of 1.329 per cent.[1]

Since war commenced ocean freight rates per ton rose as follows:[2]

	End of 1916 Per ton	End of 1915 Per ton	End of 1914 Per ton	End of 1913 Per ton
River Plate to U. K.	145/0	120/0	45/0	12/0
Bombay to p. p.	230/0	111/3	22/0	18/0
United States—				
Atlantic Ports to L. H. (cotton)	260/0	262/6	90/0	30/0
Atlantic Ports to U. K. (grain)	74/6	79/0	33/10	7/10
Average	177/4	118/2	47/8	16/11

Figures taken from the report of the American consul in Liverpool compare certain rates prevalent before the war with those charged in December, 1916: Cardiff to River Plate, $3.73 and $13.37; River Plate to United Kingdom, $4.39 and $27.98; Bombay to United Kingdom, $4.60 and $57.17; Calcutta to United Kingdom, $5.96 and $66.89.[3]

In 1917 the homeward River Plate fluctuated a little, being 125s. from the lower ports for discharge in the United Kingdom when the year opened, rising later to 140s. from Buenos Aires or La Plata and 145s. from up-river to Great Britain. In 1914 this voyage was valued at 18s. 6d. Heavy grains from the Northern Range of America fixed for neutrals at 30s. to 40s. per qr. to the United Kingdom.

[1] *Monthly Review of the Bureau of Labor Statistics*, February, 1918, p. 113.
[2] "Wholesale Prices of Commodities in 1916," *Journal of the Royal Statistical Society*, March, 1917, p. 294.
[3] Commerce Reports, Annual Series No. 19b, November 1, 1917.

Business which fixed in 1914 from Bombay on the dead weight basis at 19s. could only be done at 200s. at the beginning of 1917, and later the figure rose to 300s. with 400s, quoted to the Mediterranean.[1]

The editor of the *Journal of the Royal Statistical Society* considers that the rise in freights was brought about mainly by the action of the British Government in commandeering and requisitioning for war purposes a considerable proportion of the British merchant marine.[2]

To this cause, which obviously shortened the amount of British shipping available for mercantile purposes, may be added the destruction of many vessels by submarines, the increased cost of working ships, the congestion at the docks and the extra large profits made by the owners of liners and of tramps.

Through 1917 Great Britain experienced a gradually increasing state control of shipping. The extent of the government's requirements in tonnage was indicated by Sir L. Chiozza-Money (Parliamentary Secretary to the Ministry of Shipping) in the House of Commons on May 10, when he stated that of the total tonnage available 92 per cent had been placed at the disposal of the Food Controller, the War Office, the Admiralty and the Ministry of Munitions.[3]

Increased freight rates do not apply to this requisitioned tonnage, as it has been taken over by the government at prewar rates of freight, "although since the commencement of the war the cost of repairs has trebled, the cost of marine insurance, inclusive of war risks, and also the cost of stores and provisions, have increased in the same proportions."[4] The government paid in June, 1917, 6s. 6d. ($1.58) per ton per month to British shipowners under requisitioned conditions, while neutral tonnage was being chartered at 50s. ($12.17) per ton per month.[5]

[1] *Chamber of Commerce Journal Trade Review*, January, 1918, p. 3.
[2] *Journal of the Royal Statistical Society*, March, 1917, p. 294.
[3] *Chamber of Commerce Journal Trade Review*, January, 1918, p. 3.
[4] *Industrial Unrest in Great Britain*, Bulletin of the U. S. Bureau of Labor Statistics, No. 237, p. 181.
[5] *Ibid.*, p. 181.

It is exceedingly difficult to establish the relationship between the rise in freight rates and the increased cost of goods. In a debate in the House of Commons on August 22 and 23, 1916, Mr. Winston Churchill attacked shipowners who, according to him, by extorting enormous profits, were raising the price of commodities; he advocated governmental control of the shipping industry. Mr. Houston, in reply, stated that, "although by arrangement with the Board of Trade and the shipowners of the country" the whole of the refrigerating tonnage employed in the carriage of meat to Great Britain "was fixed at a rate of freight which did not exceed the pre-war rates more than ⅛ of a penny to ¼d. per pound, the prices of meat have risen enormously."[1] Mr. Pretyman gave figures which showed that if at the outbreak of the war the 4 pound loaf was 5½d. and in August, 1916, 9d., the rise in freights represented only 1d. out of 3½d. advance in the price.[1] In October, 1916, Mr. Runciman pointed out that less than a half penny out of the 4d. or 5d. rise in the price of meat went for higher cost of carriage.[2]

In considering the causes of increased meat prices, the Board of Trade committee reported that because of systematic shipping arrangements made by the government, freight rates do not constitute the main item in the increased cost of imported meat, the average amount, including the increase during the war, being not more than 1d. per pound. The report mentions limitations of means of transport as one of the reasons for high prices, the last named factor including the handling of cargoes in port and by rail and the frequent congestion in the docks, which so seriously limited the working power of ships and thus reduced amount available for civilian use.[3]

Most of the food is brought to Great Britain by British owned steamers at the requisitioned rate and the anomaly has been pointed out of Argentina wheat not having been lowered in price, though shipped to British Isles at blue book

[1] *The Economist*, August 26, 1916, p. 355.
[2] *The Nation*, October 21, 1916.
[3] Report (interim) of the Board of Trade committee on prices, Cd. 8358, 1916, p. 10.

rates.[1] In June, 1917, it was authoritatively stated that freights accounted for only ¾d. (1.5 cents) in the price of a 4 pound loaf and 1d. (2 cents) per pound in meat.[2]

It is obvious from the above that one must accept with a great deal of caution the contention of Sir George Paish that one-half of the rise in prices in 1915 and 1916 was due to rise in freights,[3] or the statement of the editor of the *Journal of the Royal Statistical Society* that the rise of prices in 1916 was due, in a large measure, to a continuous advance in freight rates.[4]

The cost of insurance against war risk has increased considerably since Germany started her ruthless submarine campaign. Lloyds during the first part of 1917 demanded 25 per cent for war risk insurance on a three months voyage. "The effect of a 25 per cent war risk insurance on a cargo worth £50,000 carried in a ship worth £150,000, a total of £200,000 ($973,300), with superadded cost of insurance, £50,000 ($243,325) is to double the costs of the cargo."[5] No actual premiums are paid by the government for insuring its requisitioned shipping, but it has to see to it that its risks are covered and its losses recouped. In the opinion of the commissioners for Wales appointed to inquire into the causes of industrial unrest, the cost of war risk insurance, especially for food supplies, ought not to be borne by the cargo, but should be regarded as general war expenditure and be met accordingly.[6]

Taxation

Taxation played some part in the increase of prices. This has been particularly true in the case of indirect taxes, such as license and customs duties. Thus of the increase of 87 per cent noted on January 1, 1917, above the prices of July, 1914, about 6 per cent was due to additional taxation on tea and sugar.[7] On the other hand, taxation tended to lower prices

[1] Commerce Reports, Annual Series, No. 19b, November 1, 1917.
[2] Bulletin of the U. S. Bureau of Labor Statistics, No. 237, p. 181.
[3] H. S. Foxwell: "Ways and Means," *The Economic Journal*, March, 1916, p. 18.
[4] *Journal of the Royal Statistical Society*, March, 1917, p. 294.
[5] Bulletin of the U. S. Bureau of Labor Statistics, No. 237, p. 181.
[6] *Ibid.*, p. 181.
[7] Commerce Reports, October 12, 1917, p. 6.

in so far as it acted as a check on consumption. By resorting mostly to loans and not to taxation, the government failed to exercise its great weapon of finance in this direction. "By rationing the buying power of the citizen by drastic taxation, the Chancellor might have greatly reduced the need for control and its consequent friction."[1]

Money taken in taxation leads to personal retrenchment. Money taken in loans permits the population to spend more nearly as usual; this spending because of simultaneous governmental demand and of decreasing supplies brings about a rise of prices.[2]

The initial cause of the rise in prices, writes the *Economist*, was the financial policy of the government, which has relied too much on loans—largely credit loans—and too little on taxation designed to check unnecessary consumption.[3]

To be effective, taxation must be applied not only to large incomes. While increased money in the hands of the wealthy leads to a relatively larger demand for luxuries, the major part of their incomes is invested in "capital goods." What is needed, according to Professor Cannan, is a tax on all incomes which give a margin over absolutely necessary expenditures; only such a taxation will act as a factor reducing the price of necessaries.[4]

Hoarding by the Consumer

A certain amount of hoarding by the consumer is mentioned by some as an additional cause of high prices.[5] However great may have been the effect of this cause during the panic which occurred in the first two weeks of the war, and however spectacular may have been some cases of hoarding discovered by police officials, who searched the residences of suspects, hoarding by consumers has hardly exercised any appreciable influence in raising prices.

[1] *The Economist*, February 16, 1918, p. 256.
[2] Letter to *The Economist*, October 30, 1916, p. 569.
[3] *The Economist*, September 1, 1917, p. 316.
[4] E. Cannan: "Industrial Unrest," *The Economic Journal*, December, 1917, p. 463.
[5] H. S. Foxwell: "Inflation," *Journal of the Institute of Actuaries*, October, 1917, p. 278.

CHAPTER IV

Profiteering

In discussing the dangers of governmental regulation of food, the *Spectator*[1] asserted that it was very doubtful whether there would have been any political outcry with regard to high prices but for the theory that the rise was due to the wicked machinations of the "profiteer."

The journal attacks the halfpenny press for pandering to the prejudice of its readers by continually suggesting that high food prices are the result of combinations and speculations of the profiteers, the Labor members in Parliament and labor agitators outside of it acting in a similar spirit.[2] It deplores the whole outcry about food prices as one of the worst examples of the way in which interested persons will lend themselves to a popular agitation without the *least* regard to the real facts.

If, according to this periodical, one-tenth of the public money that has been devoted to the war savings campaign and the food economy campaign had been spent upon a campaign to teach the mass of the people the elementary laws governing the movement of prices, a great deal of the present social bitterness would have been entirely avoided.[3]

The *Statist* does not consider profiteering a weighty factor in raising prices; it is rather a symptom of prevailing conditions. Because of shortage in the world's food supplies and the inflated condition of the currency, high prices are inevitable, and "when there is a tendency for prices to rise it is natural that speculators should take advantage of the tendency and force the rise higher and quicker than it otherwise would go."[4]

While admitting that to some extent strategies of unscrupu-

[1] *The Spectator*, August 4, 1917, p. 109.
[2] *Ibid.*, October 21, 1916, p. 465.
[3] *Ibid.*, July 28, 1917, p. 79.
[4] *The Statist*, February 6, 1915, p. 206.

lous profit seekers may have been active during the war, the *Saturday Review* considers that charges made against them are unaccompanied by evidence. "Federated scoundrels can not have ruled over all markets, yet the price of all commodities has gone up and up."[1]

Professor Cannan's opinion is similar to those mentioned above. He speaks of the disappointment of the working men who have now more money to spend and who in spending it raise prices against themselves. Notwithstanding higher wages, the working men are not as much better off as they expected and some of them are even worse off than they were before; they are naturally disappointed and complain of being exploited by profiteers. Newspapers see good copy. Articles appear explaining that the rise of prices is due solely to the machinations "of such or such a ring."[2]

According to Mr. Shadwell, the abnormal state of the market affords unusual opportunities and temptations to unscrupulous persons. He favors a watchful lookout for malpractices which may aggravate existing conditions, but expresses the view that "to regard such malpractices as the main cause of high prices is to misconceive the whole problem."[3] According to him, popular discontent against high prices has been excited not so much by the rise itself as by the belief, assiduously inculcated, that it is caused by manipulation of the market and could be easily prevented by summary measures of control.[4]

That high profits should be regarded rather as a result than a cause of high prices is maintained by the *Nation:* "The increased supply of money which the government by its buying pumps into the business system operates everywhere to set more purchasing power in action. . . . The higher prices thus generated must express themselves in higher profits or higher wages, or in higher prices for the tools

[1] *The Saturday Review*, September 2, 1916, p. 217.
[2] E. Cannan: "Report on Food Prices," *The Economic Journal*, December, 1916, p. 474.
[3] A. Shadwell: "Food Prices and Food Supply," *The Nineteenth Century and After*, April, 1917, p. 727.
[4] *Ibid.*, p. 727.

and materials used in the various processes of production." The journal admits that where there is artificial or contrived scarcity as in shipping, a bigger slice is taken as profits.[1]

As to the views of statesmen, Mr. McKenna, in assigning the general rise in prices as one of the foremost causes of labor unrest, remarked that the main reason for that rise was not profiteering but "inflation,"[2] and Mr. Runciman, in speaking in the House of Commons in August, 1917, declared that the chief cause of the increase in prices was not to be found among profiteers—carriers or producers.[3]

The Board of Trade Prices Committee conducted a careful investigation of specific charges of profiteering; the only positive results which it obtained and which are embodied in its final report were as follows:[4] "In the autumn of 1916 prices for potatoes were demanded by dealers very greatly in excess of cost of production or cost of purchase from farmers. . . . There was a real scarcity and the rush of retailers ran the price up, as with fish. In the spring of 1916 one tea broker was guilty of speculative overbuying; this had an influence in the direction of raising prices."

The committee was appointed on June 17, 1916, by the President of the Board of Trade to report on the supply and prices of foods. The first report, a preliminary one on milk, meat and bacon, was made on September 22, 1916. The second report, on bread, flour and wheat, and the third, on sugar, tea and potatoes, were presented in November and December, respectively, but they were not published till the spring of 1917.

With regard to the rise in the price of milk, the committee found that, while combination among farmers has helped to secure the higher prices, it was mainly an increase in demand and an increased cost of production that have been responsible for the rise. In particular the increased demand of the producers of margarin, tinned milk and milk chocolate,

[1] *The Nation*, October 21, 1916.
[2] *The Economist*, July 28, 1917, p. 111.
[3] *The Liberal Magazine*, August, 1917, p. 363.
[4] *The Nineteenth Century*, April, 1917, pp. 742–743.

together with that of the hospitals, has helped to force up prices. The increased price of cheese has had a similar effect.

The gains made through high war prices have gone, according to the committee's report, chiefly to the primary producers. That retail dairying in London has of late years been a much less profitable business than formerly is sufficiently indicated by the evidence which has been produced to the committee by a number of the principal firms in the trade. On the other hand the business of wholesale distribution must be held to have prospered. A prospectus issued by United Dairies, Ltd., formed in 1915 to combine a number of wholesale concerns, announced that for the year ending April 3, 1915, their combined profits, after providing for all establishment charges, depreciation, directors' remuneration, interest on debentures and the dividend of 6 per cent on the issued preference shares of the company, "would have been more than sufficient to pay a dividend of 14 per cent on its issued ordinary shares." It should be noted, however, that these profits are asserted by the company to have been largely made in the manufacture of dairy utensils and of condensed milk, cheese and cream, and it is even claimed that the largest of the combined companies lost heavily on its milk distribution in London during the eighteen months ended March, 1916. It would appear that the rise in wholesalers' milk prices has been roughly parallel to the rise in the farmers' contract prices.[1]

Costs of distribution in London and large towns generally form the largest item in the price after the milk leaves the farmer. In provincial towns before the war the cost of delivery was reckoned at about 4½d. to 6d. per gallon. In the case of certain farmers' cooperative societies, who collect milk and sell direct to the consumer, organization is alleged to have already, in some areas, effected a considerable reduction in charges. It is calculated by one farmers' milk supply association, which sold in a small town

[1] Interim report of Great Britain Board of Trade Committee on Prices, Cd. 8358, 1916, pp. 12–13.

in Lancashire over £4,500 worth of milk in 1915, that the cost of distribution from the depot to the consumer is nearly 4d. per gallon. Even on this basis, however, it hardly appears that the higher charge for town distribution is exorbitant, the process there consisting in a multitude of deliveries, involving relatively more labor. Under present conditions, the average cost in London must apparently be reckoned at at least 6d. per gallon and dairymen contend that it is considerably more. It has been reckoned that London dairymen could still afford to sell at 1d. per quart less over the counter than is charged for milk delivered to the customer. But by far the greater amount of milk is sold by delivery; and, except in the poorer districts, there is no likelihood that a sufficient number of customers to make a business pay would consent to go or send for their milk in the early morning.

Concerning profits on meat, the committee has the following to say:

It may be taken as certain that considerably increased profits have been made during the war by cattle breeders in the United Kingdom and in foreign countries, especially in South America. This is the first main item in the increase of price; and as regards the cattle breeders of the United Kingdom it is partly offset by the increased cost of labor and of feeding stuffs. An increased amount of capital being thus involved in the handling of the product at each stage, it may be assumed that additional profits have been reaped at some of them.

So much has been said of the large profits of meat trusts and other meat dealers that the committee have been at special pains to investigate in that direction. One of the two British companies (in Argentina) has paid a 12½ per cent dividend for 1915, besides putting £100,000 to reserve. In 1914 that company had paid no dividend. . . . The other British company showed a total profit of over £142,000 in 1915 as compared with less than £26,000 in 1914, and a loss in 1913. . . . Details of the dividends of the "British American" meat firms, which are private companies, are not available to the committee, but it was admitted by a representative of one of these companies that profits had been made in 1914–15 after two years of loss in 1912–13. On the whole, no such profits appear to have been made in the meat importing trade as are recorded in some of the leading "war industries." . . . *The substantial cause of increased profits is rather the short-*

age of supply than any process of combination, and but for the government control of colonial meat, prices might be higher. Reduction of prices at foreign and home sources of supply is obviously difficult under existing circumstances.[1]

Although bacon prices have risen considerably less than those of other meat (about 46 per cent on the average as between July, 1914, and September, 1916), there has been relatively more excitement concerning them than has been shown with regard to other foods. This appears to be due to the fact that in the early part of the summer a large quantity of American bacon was put in cold storage in Liverpool, the inference being drawn that there was a design to force up prices artificially. In view of this and other commonly expressed opinions as to the operation of "rings" in the bacon trade, the committee have made a searching investigation without, however, finding any proof that any serious inflation of prices has been so produced.

Although a large quantity of American bacon was put in cold storage in 1916, it was part of an unusually large importation, and cold storing was practically a necessary step. Reliable evidence has been given to the effect that quantities of American bacon have been sold in England during the summer at an actual loss to the American packer.[2]

The South Wales Commissioners of Inquiry into Industrial Unrest who tried to find out "who and what causes are really responsible for the great increase in the cost of the food supplies" had to "exonerate" retailers, shipowners and bakers.[3]

In the case of *bread*, the precise amount of money taken at each stage has been worked out by Mr. R. J. Torner. He took Canadian wheat, marketed at Winnipeg, at a time when it was delivered in London at 72s. a quarter and bread was 9½d. the 4-pound loaf. The result was as follows:

[1] Interim report of the Great Britain Board of Trade Committee on Prices, pp. 10–11.
[2] *Ibid.*, p. 13.
[3] E. Cannan: "Industrial Unrest," *The Economic Journal*, December, 1917, p. 461.

	Per Quarter	Per Loaf
Price obtained by farmer	50s.	5d.
Lake and rail transport and elevator charges	6s.	[illegible]d.
Commission to dealers, brokers and shippers	1s. 3d.	[illegible]d.
Insurance to London	1s. 3d.	[illegible]d.
Freight	12s.	1[illegible]d.
London commissions & exchange	1s. 3d.	[illegible]d.

Cost—2[illegible]d. per loaf to London, leaving 2[illegible]d. to meet all expenses after arrival (this includes transportation to the mill, grinding, transportation to the baker, baking, delivery and the "middlemen.")[1]

From the preceding it is obvious that if "profiteering" means the holding up of supplies for the purpose of forcing up prices, if it stands for plunging into this or that market in order to obtain speculative gains out of national needs, then, all the mob oratory and public agitation notwithstanding, there has been very little profiteering in England. The subject has been carefully investigated by competent parties and hardly, if ever, were there found evidences of any material amount of pure speculation. "It may have been practised locally and in a small way, but even that has not been proved."

If on the other hand "profiteering" means the securing in the ordinary course of business of a margin of profit on the goods offered for sale, if profiteering is equivalent to taking advantage of market conditions to make money without any illegitimate maneuvering, then no doubt there has been a great deal of so-called profiteering, for a great deal of money has been made.[2] But, as has been asked, "will those who denounce profiteering be prepared to compensate the profiteer when the market turns against him and he suffers a loss?"[3] And if in the case of the small shopkeeper, the food dealer, it were possible to get rid of "profiteering" by fixing prices on the basis of "prewar profits," would this be just? Why should the retail dealer be restricted to prewar profits, while the wage earners claim and receive special wages? Has not his cost of living gone up?[4]

Some idea of the rise in profits since the beginning of the war may be gained from the returns to the excess profits

[1] Shadwell, *op. cit.*, p. 743.
[2] *Ibid.*
[3] *The Quarterly Review*, July, 1917, p. 49.
[4] *The Spectator*, August 4, 1917, p. 110.

tax and the income tax. In 1914 income and property tax (with supertax) yielded £47,000,000, in 1917 £205,000,000. Excess profits duty, nil in 1914, in 1917 yielded £140,000,000. While admitting that there are certain difficulties in the calculations of the rise in profits—as there are no returns of any *Capital Gazette*—Professor Nicholson expresses the view that there can be no doubt as to the altogether abnormal rise.[1]

A certain amount of light on the question of profits and profiteering is shed by the investigations of the *Economist* into the earnings of joint-stock undertakings; these undoubtedly represent only a proportion of the industry and commerce of the country, and many joint-stock enterprises are not included in the *Economist's* summaries, but nevertheless the tables presented by this periodical are illuminating and will repay a careful study.

The net profits of 928 companies whose reports appeared in the *Economist* in 1915 declined from £69,134,726 in 1914 to £66,926,983 or 3.2 per cent. The profits of 932 companies whose reports appeared in 1916 were £86,587,823, showing an increase of £19,357,781 or 28.6 per cent as compared with the previous year. The average profit per company in 1916 was £93,000 against £72,100 in 1915 and £76,000 in 1914.

If one compares the summary of net profits for the year ended June 30, 1917, with the preceding year, one finds a decline in the percentage increase of profits; they rose from £70,773,703 to £82,065,792 or 16.0 per cent, instead of 28.6 per cent as they did in the calendar year 1916.[2] This was due not to a falling off in earning power but to the fact that in 1916 uncertainties as to amounts due for excess profits taxation have to a large extent been cleared up, and many companies which a year ago made a reserve for the duty have this time deducted the amount before striking the profit figure.

The reports of 1,200 companies for the calendar year 1917 record a still further drop in the proportionate rise of profits.

[1] J. S. Nicholson: "Statistical Aspects of Inflation," *Journal of the Royal Statistical Society*, July, 1917, p. 479.
[2] *The Economist*, January 6, 1917, p. 7.

The increase was from £82,537,238 to £90,760,604 or only 10 per cent.[1]

The following tables summarize the results of the *Economist's* quarterly investigations since January 1, 1914:

Reports Published in Quarter Ended	No. of Companies	1914	1915	Increase		Decrease	
		£	£	£	%	£	%
March 31........	293	20,790,280	19,799,226			991,054	4.8
June 30.........	285	23,666,652	22,375,049			1,291,603	5.4
September 30....	142	10,649,014	10,707,025	5[illegible],011	0.5		
December 31....	208	14,028,780	14,045,683	17,903	1.3		
	928	69,134,726	66,926,983			2,207,743	3.2

Reports Published in Quarter Ended	No. of Companies	1915	1916	Increase	
		£	£	£	%
March 31..............	286	20,047,736	23,536,746	3,489,010	17.4
June 30................	311	23,791,858	33,924,702	10,132,844	42.6
September 30..........	139	10,439,072	13,358,836	2,919,764	27.9
December 31..........	196	12,951,376	15,767,539	2,816,163	21.8
	932	67,230,042	86,587,823	19,357,781	28.6

Reports Published in Quarter Ended	No. of Companies	1916	1917	Increase	
		£	£	£	%
March 31..............	253	21,073,682	23,616,670	2,542,988	12.0
June 30................	330	26,309,573	29,322,747	3,013,174	11.4
September 30..........	337	17,477,002	18,260,507	783,505	4.5
December 30..........	380	17,676,981	19,560,680	1,883,699	
	1,200	82,537,238	90,760,604	8,223,366	10.0

There are many instances of exceptionally large profits made by individual industrial concerns; thus thirteen cotton spinning companies in Lancashire have made during the last quarter of 1917 and the first quarter of 1918, £95,287. The share capital of these concerns amounts to £669,991, with loans of £273,197. After allowing for depreciation and interest on loans, the profit on share capital works out at over 45 per cent per annum.[2]

The profits of Courtauld's, Limited, silk and artificial silk yarn manufacturers, rose from £757,110 in 1915, to £1,099,-

[1] *The Economist*, January 6, 1917, p. 7.
[2] *Ibid.*, April 13, 1918, p. 599.

078 in 1916 and £1,173,891 in 1917. For the past two years the company declared a dividend of 30 per cent.[1]

The twelve boot and shoe manufacturing companies whose reports appear in the *Economist* have raised their dividends from 5 and 6 per cent in 1914 to 10, 14½ and 17½ per cent in 1917.[2]

It is difficult to offer precise figures with regard to the amount of profits earned by munitions firms subject to excess profits duty or munitions levy. In the first report (session 1918) of the Committee on National Expenditure one finds a table which has been put in to illustrate one year of control. It appears from this table that in the aggregate 26 firms selected at random earned during that year nearly five times the amount of their standard profit. In the case of one engineering firm, the profit was 340 per cent on the capital as it stood on the books of the company, while in the case of another company on an order for 1,000 products, priced at about £4,000 each, the profit amounted to £1,300,000.[3]

The second report of the Public Accounts Committee of the House of Commons, No. 115, 1916, speaks of clearly exorbitant prices demanded from the government, which led to threats of confiscation. The balances of many industrial firms show that they doubled their profits.

"Workington Iron and Steel" profits were £485,410 in 1915–16, an excess over the firm's profits in 1913–14 equal to £278,839 or 135 per cent; "Calico Printers' Association" profits were £1,104,732 in 1915–16 as compared with £443,786 in 1913–14; the returns from a shipbuilding concern showed a 187 per cent increase.[4]

Instances of exceptionally large individual profits can be multiplied indefinitely. Shipping interests seem to have fared particularly well since the outbreak of the war. The profits of Cunard Company, for instance, notwithstanding the loss of passenger traffic, rose, because of the huge increase in

[1] *The Economist*, March 9, 1918, p. 423.
[2] *Ibid.*, March 30, 1918.
[3] *Iron and Coal Trades Review*, March 15, 1918, p. 277.
[4] *Vestnik Evropi* (*European Messenger*), December, 1916, p. 268.

earnings from carrying freight, from £853,374 in 1913 to £1,003,553 in 1914, £1,347,357 in 1915 and £2,339,752 in 1916.[1] As to dividends on tramp steamers, if the returns on Mr. Bonar Law's investment in single ship cargo companies are indicative of conditions prevailing in tramp traffic in general, the possession of tramps was certainly a paying proposition. On £8,110 invested by Mr. Bonar Law he received, after excess profits tax had been paid, £3,624 in 1915 and £3,847 in 1916; £7,471 on £8,110 in two years.[2]

A study of the profits of London department stores is of particular interest, as it is indicative of the large measure of general prosperity which is being enjoyed by the population of the metropolis. In many instances an increase in the business of the stores is limited only by the depletion of staffs and by the inability to obtain new supplies.

The net profits of the London stores during the last five years were as follows:[3]

Company	1913 £	1914 £	1915 £	1916 £	1917 £
Army and Navy	193,739	226,909	196,554	210,097	241,366
Civil Service Supply	44,911	39,031	43,391	48,363	55,722
D. H. Evans	69,923	44,030	48,438	59,005	69,318
Dickins & Jones	60,406	43,188	26,722	50,788	66,105
Frederick Gorringe	33,222	31,205	32,227	39,543	49,992
Harrod's	295,181	309,227	202,884	235,046	282,293
Jay's	40,857	18,061	12,222	15,197	15,917
John Barker	63,907	76,066	63,141	66,001	85,284
Liberty & Co.	61,534	30,272	13,257	37,787	46,780
Maple & Co.	206,930	133,402	117,267	158,051	285,401
Mappin & Webb	54,250	25,639	Dr. 21,049	30,380	46,780
Selfridge's	112,396	115,831	131,596	206,962	240,832
Spencer, Turner	37,194	30,290	51,873	56,623	55,675
Swan & Edgar	16,948	6,997	6,593	34,021	39,365
Thomas Wallis	23,118	20,660	21,432	30,656	33,241
William Whiteley	70,632	59,545	55,481	66,823	77,745
	1,385,050	1,210,353	1,001,031	1,347,343	1,706,655

The net profits of the above companies were in 1917 £359,312 higher than in 1916, and £321,605 higher than in the last full year of peace. From the nature of the goods sold it is

[1] *The Economist*, April 21, 1917, p. 692.
[2] *Ibid.*, July 7, 1917, p. 10.
[3] *Ibid.*, April 20, 1918, p. 633.

obvious that the appeal for war economy has been woefully neglected by the London shopper.[1] "Shops and stores vie with breweries, hotels and restaurants in the prosperity which they enjoy."[2]

That the *Economist* does not consider retailers responsible for high prices is apparent from the remark of this periodical that "the rise in prices has, of course, been a problem which has required careful handling on the part of the shopkeeper."[3] The retailers' problem has been that of shifting the increased price to the customers, at the same time maintaining their trade. The London stores have succeeded in this, in many instances even increasing their turnover. The branch shop companies have not fared so well as the metropolitan department stores, although their profits continued to be sufficient to permit them to pay dividends varying from 6 per cent to 30 per cent.[3]

In a fairly representative group, which includes two clothing and hosiery companies, two grocers and provision merchants, two confectioners, two boot and shoe companies and two dairy companies, there is only one concern which did not declare any dividends between 1914 and 1916. This company is Eastman's wholesale and retail butchers. Their profits fell from £72,964 in 1913 to £32,588 in 1916. The company is one of the few whose trade has been seriously curtailed by the closing of shops, because of the lack of experienced men to handle the business. The decline of profits in 1915 was attributed by the company to the fact that since the government became heavy buyers of meat prices rose enormously. Supplies released for civilian consumption "were sold at the highest wholesale prices on record, and it was impracticable to advance . . . retail prices sufficiently to earn a fair margin of profit."[4] Eastman's net profits rose again to £50,442 in 1917.[5]

[1] *The Economist*, June 9, 1917, p. 1063.
[2] *Ibid.*, April 13, 1918, p. 596.
[3] *Ibid.*, May 12, 1917, p. 804.
[4] *Ibie.*, May 10, 1917, p. 470; May 12, 1917, p. 804.
[5] *Ibid.*, March 16, 1918, p. 464.

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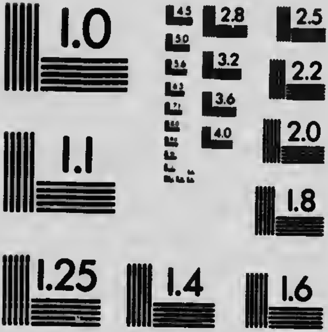

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The changes in the amount of profits made by the branch companies since 1913 were as follows:

	Net Profit				
	1913	1914	1915	1916	1917
	£	£	£	£	£
Chas. Baker & Co.	17,634	12,749	17,488	15,967	15,349
Eastman's	72,964	47,225	41,136	32,588	60,441
Freeman, Hardy & Willis	90,330	97,338	103,104	118,006	
Fuller's	13,475	5,653	8,978	8,702	12,501
Home and Colonial	179,486	225,828	251,657	256,877	226,156
Hope Brothers	41,553	35,122	27,261	[a]51,780	58,171
International Tea Stores	99,000	132,733	163,874	109,619	140,887
J. Sears & Co.	55,312	61,634	75,679	65,321	
Maynard's	10,716	12,202	13,733	26,512	43,322
Maypole Dairy	481,555	488,026	528,275	462,751	736,354
Welford's Surrey Dairies	20,417	19,724	22,088	17,470	

[a] Eighteen months.

These profits have permitted them to declare the following dividends:

	Dividends				
	1913	1914	1915	1916	1917
	%	%	%	%	%
Chas. Baker & Co.	6½	3	7½	8	8
Eastman's	4	nil	nil	nil	5
Freeman, Hardy & Willis	15	15	17½	17½	
Fuller's	17½	10	7½	7½	10
Home & Colonial	20	25	30	30	30
Hope Brothers	6	5	4	6	8
International Tea Stores	8	9	10	7	10
J. Sears & Co.	12½	17½	17½	17½	
Maynard's	10	10	10	20	40
Maypole Dairy	162½	100	100	25	125
Welford's Surrey Dairies	8	8	8	6	

The net profits of Lipton, Limited, which dropped from £183,488 in 1914 to £122,673 in 1915, rose to £169,444 in 1916 and to £302,587 in 1917, the highest point in the company's history.[1]

In order to meet any possible criticism on the part of the consumer that these results were obtained at his expense and in order to show that high prices do not necessarily mean high profits, the directors state that "by selling goods of the highest standard of quality at the lowest possible prices, the company's shops are more popular than ever and hundreds of thousands of new customers have been attracted thereto,

[1] *The Economist*, June 2, 1917, p. 1026.

and the very much larger turnover consequent thereon has resulted in substantially increased earnings." Nevertheless, as the *Economist* remarks, the following eloquent figures are not likely to be lost sight of by those who are agitating for the abolition of "profiteering".

Year Ended March	Gross Profits	Expenses etc.	Net Profits	Depreciation	Dividends
	£	£	£	£	%
1913	315,606	111,967	203,639	41,095	6
1914	314,949	131,461	183,488	23,202	6
1915	272,182	149,509	122,673	*262,274	nil
1916	295,089	125,645	169,444	45,104	nil
1917	442,776	140,189	302,587	44,057	7½

* Including £220,889 drawn from "premium on shares account."

[1] *The Economist*, June 2, 1917, p. 1026.

CHAPTER V

The Condition of Workmen

When the war broke out many mills and factories, anticipating a reduced demand, curtailed their activities, and in consequence of this large numbers of wage earners were thrown out of employment.[1] Many merchants also reduced their staffs and cut the wages of their employes.[2] There was a general fear that business would greatly diminish and that widespread destitution would result. To meet the emergency, the Prince of Wales Fund was established and several million pounds were collected for the purpose of relieving the anticipated distress.

However, those who predicted the ruin of industrial and commercial enterprises, with all the misery that such a breakdown would entail, proved false prophets. The revival of business came almost on the very heels of the shock which the declaration of war produced.

The rate of unemployment in the registered trades of England and Wales rose in August, 1914, to 7 per cent, or to nearly treble of what it was during the month of July, but by the end of November it fell back to the July rate and since that time the percentage of unemployment among English trade unionists has been steadily declining; during the latter part of 1915 the ratio was 0.6 per cent and at the end of 1916 it was again only half of that recorded for December, 1915.[3] This low level was maintained through the first half of 1917; a slight reaction set in in September, when the percentage of unemployment rose to 1.3;[4] this was almost entirely due to the orders restricting the consumption of cotton. In recording this increase, the *Labour Gazette* adds that nearly all prin-

[1] *The Round Table*, vol. vi, p. 73.
[2] *The Nation's Business*, November, 1917, p. 30.
[3] *Labour Gazette* (British), January, 1917, p. 4.
[4] *The Economist*, November 24, 1917, p. 387.

cipal industries were fully employed and that in many cases there was much overtime work. One may also add that payments were provided to textile operatives who became idle as a result of the restrictions of the Cotton Control Board, adult men being given 25s. per week, adult women 15s. and young people from 3s. to 12s., dependent on the character of the work previously done and whether they were employed full time or were half timers.[1] The unemployment in the cotton industry is in the nature of organized short time—the operatives affected not being discharged, but merely suspended in rotation for one week out of four or more according to circumstances.[2] At the end of January, 1918, the unemployment was 1.0 per cent, and at the end of February 0.9 per cent.

The following table shows the mean annual percentages of unemployment among trade unionists reporting to the department in each of the years 1902–1917:

1902—4.0	1906—3.6	1910—4.7	1914—3.3
1903—4.7	1907—3.7	1911—3.0	1915—1.1
1904—6.0	1908—7.8	1912—2.4	1916—0.4
1905—5.0	1909—7.7	1913—2.1	1917—0.7

These figures are confirmed by the statistics of unemployment obtained in connection with National Unemployment Insurance in certain trades, according to which the monthly percentage unemployed in 1917 was 0.6, compared with 0.6 in 1916, 1.2 in 1915, 4.2 in 1914 and 3.6 in 1913.[3]

Another gratifying feature in the industrial situation has been the decline of pauperism. Just as in the rate of unemployment, an increase manifested itself at the outset of the war, the rise reaching its maximum on August 22, 1914, when the figures recorded for England and Wales were 600,737, as compared with 559,476, the corresponding date in 1913.[4] After that date pauperism fell off steadily toward its normal level and by January, 1915, the figures showed a substantial decrease, this decrease, apart from the usual seasonal fluctua-

[1] *Labour Gazette*, October, 1917, p. 355.
[2] *Ibid.*, March, 1918, p. 91.
[3] *Ibid.*, January, 1918, p. 3
[4] *Ibid.*, November, 1916, p. 404.

tions, being since maintained. This has been due to great demand for man-power because of the war.

The following table shows for England and Wales the total number of paupers in receipt of poor relief at the end of March in each of the years 1914, 1915 and 1916:

	1914	1915	1916
Casual paupers	8,609	5,279	4,056
Paupers in receipt of outdoor medical relief only	19,868	18,970	15,997
Lunatics in lunatic asylums	100,941	102,975	100,132
Other classes of paupers	643,643	627,900	561,048

In December, 1917, compared with December, 1916, the total number of paupers decreased by 24,922.[1]

The absence of distress since the war has also been shown in other wavs. In the early days of the war a government Committee on the Prevention and Relief of Distress was appointed, the country was organized under local representative committees and, as previously stated, a National Relief Fund (the Prince of Wales Fund) was opened. "The experience of these committees showed . . . that, after industry had readjusted itself, assistance was required only in isolated cases; at the end of 1916 it was practically confined to watering places on the east coast, where lodging house keepers have suffered exceptionally in consequence of the war."[2]

The records of the distress committees, formed under the Unemployed Workmen Act, 1905, give similar results. In December, 1914, the number of persons receiving relief from such committees amounted to 6,055, or nearly double the number in December, 1913. In December, 1915, the number of persons receiving such relief had fallen to the insignificant total of 74; a small increase (to 289) was recorded for December, 1916.[3]

Concurrently with the decline in the number of unemployed and of paupers, there has been an increase in the number of women engaged in gainful occupations. According to the findings of the British Association for the Advancement of

[1] *Labour Gazette*, January, 1918, p. 24.
[2] *Ibid.*, November, 1916, p. 405.
[3] *Ibid.*, January, 1917, p. 25.

Science, which investigated the effect of the war on the industrial conditions of Great Britain, the number of occupied women in the United Kingdom in July, 1914, was 5,020,000. In mid-April, 1916, the number had risen to 5,490,000, an increase of 470,000 in 21 months of war. This is about five times the normal peace time increase, which for such a period would have been only about 94,830.[1]

As the committee's report points out, this accelerated rate of increase is not due entirely to the recruiting of additional women into industry—*i.e.*, of women entering industry for the first time. Probably fewer women have married and fewer have retired from industry on marriage. The *Labour Gazette*, which in its statistical tables does not take cognizance of women occupied in domestic service or in very small workshops (such as exist, for instance, in the dressmaking trade), gave the number of females occupied in July, 1914, as 3,272,000; by January, 1917, this number rose to 4,344,000, an increase of 1,072,000, all of which but 1,000 represented direct replacement of men by women.[2] In October, 1917, the number of men replaced by women was 1,392,000.[3] The figures are based on returns made by employers to the Industrial (War Inquiries) Branch of the Board of Trade.

The unprecedented demand for labor, coupled with rising prices, led to a marked increase in wages, much of this increase being given as war bonuses or special advances in rates limited to the period of the war. Up to the end of December, 1916, nearly six million work people received some advance. On an average, the weekly increase was about 6s. per head; in some industries directly concerned with the supply of war requirements it ranged from 10s. to 12s. The increase in weekly wages for 1915 was £677,700, for 1916 £595,000, for 1917 £2,183,000.[4]

[1] *Labor, Finance and the War*, edited by A. W. Kirkaldy, quoted from *Monthly Review of the U. S. Bureau of Labor Statistics*, March, 1917, p. 335.
[2] *Labour Gazette*, April, 1917, p. 125.
[3] *The Economist*, November 24, 1917, p. 837.
[4] *Labour Gazette*, January, 1917, p. 3; see also *The Economist*, February 16, 1918, p. 264.

The Board of Trade discontinued in 1914 the publication of index numbers of money wages. Taking 1900 = 100 as a base, the figures for 1913 were 106.5. Professor Nicholson's estimates are 107 for 1914, 117 for 1915 and 137 for 1916. Mr. Kitchin's index number for 1916 is only 126.[1]

It is obvious that the increase in the rates of wages was much below the increases recorded in the price of food and other necessaries, but the figures take no account either of the increased income of the family or of the rise in earnings due to greater regularity of employment, overtime and night work, transfers of individuals to higher paid places, speeding up of piece work, etc.[2] It is to be regretted that no statistics are available which would show the extent to which the total earnings, as distinct from rates of wages, have increased since the beginning of the war.

In a letter to the *Economist* for September 22, 1917, Mr. W. R. Lawson surmises that "the national wages bill has been more than doubled, probably more than trebled." He considers that the fabulous profits that are said to have been made were only a sequel to the fabulous wages and he holds both responsible for the rise of commodity prices. The rise of wages and profits led to an increased demand for goods and intense competition among buyers forced the prices up.

Writing at a much earlier date, Mr. C. H. d'E. Leppington objected as far as Great Britain was concerned to a statement contained in the U. S. Bureau of Labor [illegible] on food prices during the war, that "the hardship [illegible] the increased cost of living has in many cases been [illegible] by a decrease of purchasing power among the work[illegible]." According to Mr. d'E. Leppington,[3] it can not be [illegible] to apply to Great Britain, in view of the enormous wages now earned.

The report on national insurance covering the administration of the law during the last three years bears witness to the

[1] J. S. Nicholson: "Statistical Aspects of Inflation," *Journal of the Royal Statistical Society*, July, 1917, p. 489.

[2] Interim report of the committee appointed by the Board of Trade to investigate the principal causes which led to the increase of prices of commodities, p. 5.

[3] *The Economic Journal*, March, 1916.

fact that the average physical condition of men, women and children has vastly improved. The report sets forth that from the beginning of the war sickness among both men and women has rapidly and steadily decreased. This is particularly true of women. In 1914 the average cost for all women getting the benefits of the insurance fund was five cents a week. In 1915 it fell to three cents, in 1916 to two cents; the figures for 1917 have not been made up, but another important decrease was expected.[1]

The insurance commissioners attribute this result to industrial conditions under which due attention is paid to the welfare of the worker and wages are high enough to insure a sufficiency of good food. Before the war millions of people lived on starvation wages in misery and squalor and the nation was confronted with a progressive physical deterioration among the mass of people.[2]

Another indication of increased purchasing power of the population and of the volume and variety of employment which the war provided may be seen in the statistics of business failures. These declined from 7,191 in 1913 to 5,510 in 1914, to 4,864 in 1915, to 3,210 in 1916 and to 2,255 in 1917. To some extent, the decline has been due to special protective legislation which has been brought into operation since the outbreak of war, but a more important factor still has been the general, though of course highly artificial, prosperity resulting from the active manufacture of war materials at a steadily rising level of prices.[3] *Kemp's Mercantile Gazette* comments on these figures of failures: "The millions paid away weekly in wages and salaries are being freely spent by all these classes who are now more prosperous than they have been before. So the shops and the dealers are doing well, and, therefore, the wholesale and manufacturing firms are making much money, and making it quickly."[4]

It is immaterial for the purpose in view to settle here the

[1] *Literary Digest*, March 23, 1918, p. 84.
[2] *Ibid.*, March 23, 1918, p. 80.
[3] *Bankers' Magazine*, February, 1918, p. 177.
[4] *Ibid.*, February, 1918, p. 179.

question as to whether this revival of industrial and commercial activity was a sign of healthy development or merely the result of a feverish demand on the part of the government for services and for commodities necessary to prosecute the war. What is of importance is that, to use Professor Cannan's description of labor conditions, "the unemployment percentage curve sank almost to the case of the chart; old age pensioners were dragged from their retirement; thousands of "flappers," girls in their early teens, left their trivial home tasks and peopled shanties run up for government departments in St. James's Park and the Embankment Gardens, and hundreds of thousands worked in munition factories everywhere, while their brothers, the "flippers," got promotion at a rate which suggested that Father Time must have taken to an aeroplane. Wages in the new occupations were very high, and even in the depressed trades "war bonuses" had to be given to retain a much diminished number of workers. So far as money receipts were concerned, the working classes never had such a glorious time."[1]

According to Mr. Paish, "the additional earnings of the working classes arising from the shifting of labor to more highly paid industries, full employment with much overtime, advances in the rates of wages and allowances to the families of soldiers and sailors, completely neutralized the advance in the cost of living and caused the consumption of the working classes to show marked increase."[2]

The *Spectator* goes so far as to state that "wages had gone up in the majority of cases far more than prices had risen. In many instances wages have risen three or four hundred per cent since the war began, in some instances even more; while prices have only risen, at most, a hundred per cent. . . . Introduction of female labor into workshops, together with the extended use of unskilled labor on nominally skilled work, increased the family incomes enormously."

[1] E. Cannan: "Industrial Unrest," *The Economic Journal*, December, 1917, p. 455.

[2] George Paish: "War Finance," *Journal of the Royal Statistical Society*, May, 1916, p. 276.

Another evidence that the wage earning classes on the whole were not lacking the necessaries of existence was to be found in their unusual expenditure on the amenities and adornments of life.[1] The reports of the retail stores, both in London and in provincial towns show a record of high profits, their business in many instances having been limited only by the depletion of staffs and the inability of replenishing them fast enough to meet the demand. Undoubtedly, many buyers in these stores were not industrial laborers, and, when the *Economist* states[2] that from the nature of the goods sold it is obvious that the appeal for war economy has been woefully neglected by the London shopper,[3] or that shops and stores have been vying with breweries, hotels and restaurants in the prosperity which they enjoy,[4] the periodical reproaches not only the wage earning class for their thoughtless expenditures but the mass of the people who have not been willing to forego the demand for goods and services which the financial and industrial task imposed upon Great Britain urgently required.[5]

Mr. Selfridge, the net profits of whose department store in London rose from £112,396 in 1913 to £240,832 in 1917, attributes the large increase in his turnover to the fact that he caught the spirit of the changing demand and provided facilities for supplying it. According to him, there has been an increase of purchases by munition workers and other wage earners whose incomes have risen; they buy household necessities and comforts as well as articles of wardrobe and cheap jewelry; few fancy stocks such as party dresses, expensive gloves, etc., are sold.[6] The experience of other stores does not corroborate Mr. Selfridge's contentions as to the decline in the sales of the latter goods. Thus the profits of Mappin and Webb—a largely luxury business—have been showing a steady recovery since their decline in 1914; the [illegible]

[1] H. S.: "Early Phases of Food Control," *The Edinburgh Review*, [illegible] 1918, p. 116.
[2] *Supra*, p. 75.
[3] *The Economist*, June 9, 1917, p. 1064.
[4] *Ibid.*, April 13, 1918, p. 596.
[5] *Ibid.*, February 17, 1917, p. 290
[6] *Ibid.*, June 9, 1917, p. 1064; also *The Nation's Business*, November, 1917, p. 30.

£25,638 in that year to £46,780 in 1917, and Jay's, the fashionable ladies' paradise, though not as prosperous as in the prewar times, seems to be able to maintain itself with a profit which climbed up from £12,222 in 1915 to £15,197 in 1916 and £15,917 in 1917, as compared with £40,857 in 1913.[1] Nor are the purchases of luxuries confined to the people in and around London. The Wales commissioners appointed to inquire into the causes of industrial unrest reported that the workers resented the ostentatious parade of wealth and fashion in the streets of Cardiff, Newport and Swansea.[2] The Scotch commissioners found that on the whole among industrial workers there was no serious difficulty in meeting the cost of living, at least among the workers engaged in the largest industries in Scotland. The experience of shopkeepers and cooperative societies, the reduction of cases in small debts courts, the savings banks returns, the reports of Poor Law authorities, etc., all seem to indicate that on the whole the aggregate weekly incomes of industrial workers keep pace with the cost of living.[3]

While the purchase of nonessentials in time of war is deplorable, one realizes that there are extenuating circumstances for such expenditures, especially on the part of the poorer classes of the community. They have been denied the comforts of every day existence and now for the first time in their lives they find themselves in possession of some extra money. They can hardly be blamed if they want to spend it or if they do not spend it wisely. "Changes in distribution, when the general standard of living is rising rapidly are likely to lead to extravagance, more especially in war time, when all conditions favor waste."[4]

The belief seems to be general that the condition of the working class is one of widespread, if artificial, prosperity, that, measured by all ordinary tests, poor people appear to

[1] *Supra*, p. 74.
[2] *Industrial Unrest in Great Britain*, Bulletin of the U. S. Bureau of Labor Statistics, No. 237, p. 180.
[3] *Ibid.*, p. 206.
[4] A. W. Kirkaldy (editor): *Credit, Industry and the War*, being reports and other matter presented to the Section of Economic Science and Statistics of the British Association for the Advancement of Science, p. 10.

have an unusual amount of money at their disposal.[1] What may be called the cheap luxury trades, the less expensive jewelry, pianos, amusements, etc., have been unusually flourishing, and the consumption of tea, tobacco, beer and spirits has gone up. The greater part of money, however, is no doubt being spent on clothes, food and other necessaries.

While some maintain that the war brought an evident and probably a permanent rise in the standard of life not only to trade unionists and other laborers who were able to make their voices heard but also to the poorly paid unorganized sections of the community, there are many others who express a different opinion.[2]

The Board of Trade Committee on Prices reported that "while the evidence taken goes to show that there is less total distress in the country than in an ordinary year of peace, as shown by increase in the total demand for food, . . . certain classes normally in regular employment, whose earnings have not risen in the same proportion as the cost of living—for example, the cotton operatives and some classes of day-wage workers and laborers—are hard pressed by the rise in prices, and actually have to curtail their consumption, even though the pressure of high prices may have been mitigated, in some cases, by the employment of members of a family in munition works and by the opening of better paid occupations to women."[3]

At the request of the President of the Board of Trade a committee of the Royal Society made a study of the food supply of the United Kingdom, both before and after the declaration of war.[4] In its report the committee came to the conclusion that the supply available up to July 29, 1916, has provided a margin of about five per cent above the minimum necessary for proper nutrition. To this statement is added a remark that "while the supply of food has been adequate for the support of the population, the rise in prices has accentuated the inequalities of distribution, which reduce the daily

[1] "The War and English Life," *The Round Table*, vol. vi, 1915–16, pp. 76–77
[2] *Ibid.*, p. 79.
[3] Report (interim) of the committee on prices, Cd. 8358, p. 5.
[4] *Supra*, p. 55.

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rations of many below the level of efficiency. Any curtailment of supply . . . would result in the poorer classes obtaining less than needful for safety—unless distribution is organized."[1]

There was never so much money in circulation in this country as at present, writes Mr. Hurd, and we were never so poor; the queues of women and children at the shop doors, waiting for hours in the cold for small quantities of butter, tea, sugar or other articles, are a familiar picture now.[2] In a previous article, Mr. Hurd called attention to the fact that the British nation, notwithstanding the popularity of the war with wage earners, who are employed more fully than ever and whose wages are exceptionally high, is confronted with increased economic embarrassment. "The country is becoming poorer day by day—using up wealth at a prodigious rate; on the other hand, it, or rather a large section of it, is enjoying a period of apparent prosperity and spending freely the war wages and war allowances, forgetful that a country which is ceasing to produce wealth to the normal extent, and whose expenditure will fall little short of £1,600,000,000 in the present financial year [1916], must have a rude awakening unless it mends its ways."[3]

Cost of Living

The relation between prices and earnings can be best ascertained by following the Board of Trade's method of taking the standard working class budget as it has been established by their inquiry in the summer of 1904. This is based on 1,944 family budgets. The average weekly income of the families included in the investigation was 36s. 10d. per week and their total expenditure on food was 22s. 6d.,[4] being 61 per cent of the family income.

[1] *The Food Supply of the United Kingdom.* A report drawn up by a committee of the Royal Society at the request of the President of the Board of Trade, Cd. 8421, London, 1917.

[2] A. Hurd: "Wages, Prices and Supplies"—A Vicious Circle, *The Fortnightly Review*, January, 1918, p. 38.

[3] A. Hurd: "British Commerce in War-time: The Abuse of Sea-Power," *The Fortnightly Review*, January, 1916.

[4] *The Cost of Living in 1912*, Cd. 6955 of 1913, pp. 299–300, quoted from A. L. Bowley: *Prices and Earnings in Time of War*, p. 16, and the Report of the Sixteenth Annual Conference of the Labor Party, p. 159.

This expenditure on food at the prices of the summer of 1904 was distributed thus:[1]

	s.	d.		s.	d.
Bread and flour	3	7	Currants and raisins	0	2¾
Meat (bought by weight)	4	5½	Rice, tapioca and oatmeal	0	6
Other meat (including fish)	0	11¾	Tea	1	1½
Bacon	0	11½	Coffee and cocoa	0	3¾
Eggs	1	0	Sugar	0	11¾
Fresh milk	1	3¼	Pickles and condiments	0	3¼
Cheese	0	6½	Jam, marmalade, treacle and syrup	0	6½
Butter	2	1½	Other items	1	9½
Potatoes	0	11			
Vegetables and fruit	0	11			
Total				22s.	6d.

The Board of Trade's weighted index number for retail prices represents the changes in the cost of different foods in this budget.

From the *Labour Gazette* figures it appears that the same quantities of food have cost about 25s. in July, 1914. Taking 25s. then as the basis, we arrive at the following results:

RISE IN COST OF LIVING AND THE REDUCED PURCHASING POWER OF THE SOVEREIGN SPENT ON FOOD IN THE UNITED KINGDOM DURING THE WAR[2]

(Illustrated from the Changes in Cost of the Board of Trade Standard Working Class Food Budget)

			Cost of One Week's Food for Family		Percentage Increase above July, 1914	Purchasing Power of a Sovereign Spent on Food	
1904			22	6	—	—	—
1914	July		25	0	—	20	0
	Aug.	8	29	0	16	17	3
	"	29	27	9	11	18	0
	Sept.	12	27	9	11	18	0
	"	30	28	3	13	17	8
	Oct.	30	28	3	13	17	8
	Dec.	1	29	3	17	17	0
1915	Jan.	1	29	9	19	16	10
	March	1	31	6	26	15	10
	June	1	33	9	35	14	10
	Sept.	1	34	3	37	14	7
	Dec.	1	36	6	46	13	8
1916	Jan.	1	37	0	48	13	6
	March	1	37	9	51	13	3
	June	1	40	6	62	12	4
	Sept.	1	42	0	68	11	11
	Dec.	1	46	9	87	10	8
1917	Jan.	1	47	9	91	10	5
	Feb.	1	48	3	93	10	4

[1] Report of the Sixteenth Annual Conference of the Labor Party, p. 159.
[2] *Ibid.*, p. 160.

The figures on page 89 relate to large towns; for small towns the rise is two per cent less throughout. There is no information as to the country. These figures take no account of alterations in dietary.

When allowance is made for such changes in dietary as are estimated by the Ministry of Food to have taken place, the increase in the average expenditure of a working man's family is considerably less than the rise in prices would indicate. This is brought out in the following table, which compares the general percentage increases in (1) prices and (2) expenditure. The price percentages (1) are based on the same quantities on March 1, 1918, as in July, 1914, a basis which affords a measure of the increased cost of maintaining a prewar standard of living, so far as the articles included in the Board of Trade statistics are concerned; and the expenditure percentages (2) are based on the actual consumption of the same articles, so far as ascertained, at the beginning of 1918 in comparison with prewar consumption. Certain items found in the working class food budget, such as vegetables, fruit, currants, raisins, rice, tapioca, coffee, pickles, condiments, jam, marmalade, are not included in the comparative statistics.[1]

	Average Percentage Increase since July, 1914		
	Large Towns	Small Towns and Villages	United Kingdom
(1) Level of retail prices of articles of food, assuming same quantities at both dates	112	102	107
(2) Expenditure on food allowing for changes in consumption	48	42	45

Some of the changes in the dietary considered by the *Labour Gazette* are the omission of eggs, the substitution of margarin for butter, the reduction in the consumption of sugar and fish to one-half of that prevailing before the war. With such changes, the general percentage increase from July, 1914, to December 1, 1917, would have been 59 instead of 105.[2]

[1] *Labour Gazette*, March, 1918, p. 97.
[2] *Ibid.*, December, 1917, p. 442.

With reference to other items of expenditure, there have been substantial increases, except with regard to rents, which remained practically unaltered. The average increase from July, 1914, to March 1, 1918, in the prices of all the items ordinarily entering into the working class family budget, including food, rent, clothing, fuel and light, etc., may be estimated at 85, taking for the purpose of this calculation the same quantities of the various items in March, 1918, as in 1914; if increases due to taxation are included, the increase between the two dates was 90 per cent. According to the *Labour Gazette*, it is not possible to supplement this comparison of the level of retail prices generally by a comparison of expenditure similar to that given with regard to food. Combination of the average increase in expenditure on the specified principal articles of food and on other items yielded in March, 1918, a resultant increase of between 50 and 55 per cent. This statement is followed by a suggestive remark that it is a matter of general knowledge that there have been considerable reductions in the quantities purchased of some commodities other than foodstuffs, and that the indicated increase of between 50 and 55 per cent in expenditure is therefore somewhat in excess of the average increase in family expenditure since the beginning of the war.[1] If one could obtain exact figures showing the amounts of various commodities and services purchased, and if one could ascertain what have been the laborers' investments in governmental and other securities and their deposits in savings banks, then one could speak with a greater degree of certainty and accuracy as to what have been the actual effects of the war upon the British laboring class.

[1] *Labour Gazette*, March, 1918, p. 97.

CHAPTER VI

Rise in Prices and Industrial Unrest

There was much industrial unrest in the years just preceding the war; strikes were frequent, and the expenditures of the chief British unions on industrial disputes increased from an average of £150,000 a year for the years 1904–1907 to a sum of £1,350,000 for 1913 alone.[1] A truce between capitalists and laborers followed the declaration of war. On August 24, 1914, a special conference called by the joint board of the Trades Union Congress, the General Federation of Trade Unions, and the Labor party passed the following resolution:

> That an immediate effort be made to terminate all existing trade disputes, whether strikes or lockouts, and whenever new points of difficulty arise during the war period a serious attempt should be made by all concerned to reach an amicable settlement before resorting to a strike or lockout.

The number of new disputes fell from 99 in July, 1914, to 14 in August. The general effect of the truce can be seen from the fact that during the first seven months of 1914 there were 836 disputes, involving 423,000 workers; while during the last five months there were only 137, involving 23,000. By December there were only 17 disputes as contrasted with 56 in December, 1913.[2]

However, this peace was but of short duration. Notwithstanding great dangers from outside, old quarrels were soon brought once more to the surface; to the former grievances were added some new ones, the most important of which was the increase in the cost of living, the main cause of which was, in the minds of workmen, "profiteering." According to the *Labour Year Book*, although

> there never was any express agreement, . . . there certainly was the tacit understanding that the maintenance of the truce depended on equal sacrifices on both sides. But, with the piling up of profits and the rise in food prices, there

[1] *The Round Table*, December, 1916, p. 67.
[2] *Labour Year Book*, 1916, p. 22.

came among the workers a growing irritation, increasing in force, until, with the occurrence of specific grievances, the industrial truce came to an end. . . . the fact that employers showed little willingness to cease from "profiteering as usual" made it a one-sided bargain."[1]

During the month of February, 1915, there occurred no fewer than forty-seven disputes between employers and workmen, with 26,129 work people involved directly and 2,878 indirectly.[2]

This unrest, during the early stages of the war, was not due so much to actual distress among wage earners as to the desire on their part to participate more fully in the fictitious prosperity which war activities have created. There were some groups of laborers whose family earnings had not risen sufficiently to meet the added expense of living, but these were not to be found among the trade unionists, who were the loudest in their protestations and recriminations. The unrest may also be attributed to an innate belief, which British workmen possess in common with most human beings, that food, being an obvious absolute necessity for existence, should be within reach of everybody, obtainable on terms easy to meet. Any enhancement in the price of such commodities as bread or milk is immediately resented as an injustice, a taking of unfair advantage which should be set right by public authority.[3]

The irritation of workmen was increased by evidences of unusual prosperity of those classes to whom increased prices brought large business profits. The ostentatious display of wealth on the part of these classes has been a continuous source of irritation throughout the period of the war and is still existent. As late as last winter we find the periodical press of England decrying the extravagance of women in the matter of dress. Furs have never been more magnificent than now or materials more exquisite in texture and ruinous in cost.[4] "The wor of this extravagance," writes the

[1] *Labour Year Book*, 1916.

[2] J. H. Jones: "Labour Unrest and the War," *The Political Quarterly*, May, 1915, p. 86.

[3] A. R. Marsh: "Government Expedients for Controlling the High Cost of Food," *The Economic World*, New York, December 9, 1916, p. 747.

[4] Letter to *The Times*, November 1?, 1917.

Economist,[1] "is that it is flaunted in the streets." And there is no reason to suggest that this feminine extravagance is greater than the even more inexcusable wastefulness on the part of the men. The paper calls attention to an article in the *Herald*, "How They Starve at the Ritz," which is worth study as showing how keenly organs of working class opinion appreciate the manner in which the well-to-do classes are meeting war needs by personal sacrifice. "This thoughtless and ignorant extravagance is . . . producing a very critical and dangerous spirit among the working classes, . . . the belief is growing that the capitalist as such is growing rich out of the war."[2]

In 1915 the British Association for the Advancement of Science appointed a committee to investigate the causes of industrial unrest. This committee stated in its report that the revival of strife after the truce of early months of the war has followed upon a considerable and steady increase in prices, especially of food. One of the main causes of the strife was dissatisfaction with conditions, which prevented the workmen from raising their standard of living.[3] Among other causes of unrest enumerated in the committee's report of special interest in connection with a study of price movements are: (1) the suspicion on the part of the workmen that they are exploited, largely due to the lack of knowledge of economic conditions in the industry in which they are employed, and (2) war measures, especially the Munitions of War Act, which have operated to curtail the freedom of action of both employers and employed. The irritation has been intensified by the physical strain involved in long hours of work at high speed, by the materially increased cost of living and by apparently big profits made by many companies, leading labor to believe that the nation was being exploited for private gain.[4]

[1] *The Economist*, November 24, 1917, p. 831.

[2] *Ibid.*, November 24, 1917, p. 831; see also *The Economist*, September 1, 1917, p. 316, and *The Economic World*, December 9, 1916, p. 747.

[3] *Labour, Finance, and the War*, being the result of inquiries arranged by Section of Economic Science and Statistics by the British Association for the Advancement of Science during the years 1915 and 1916, ch. ii, *Industrial Unrest*, pp. 20–57.

[4] *Monthly Review of Labor Statistics*, April, 1917, p. 521.

The attitude of labor in general towards the governmental policy of noninterference with prices, which characterized Asquith's ministry, is manifest from many recommendations and resolutions that have been passed by workers' committees and by trade union congresses; it is also seen in the motions presented by Labor members in the House of Commons, as well as in the debates which took place there. The War Emergency Workers' National Committee had turned its attention to the question of prices from the very first, and in its program one finds the following proposals:

> The encouragement and development of home grown food supplies by the National Organization of Agriculture, accompanied by drastic reductions of freight charges for all produce, in the interests of the whole people.
>
> Protection of the people against exorbitant prices, especially in regard to food, by the enactment of maxima and the commandeering of supplies by the nation wherever advisable.

Right through the first few months of the war there was a general feeling that each month prices had reached their climax, and that by waiting a little longer the workers would see prices fall. But by the new year it became clear to the laborers that this hope was illusory, and the price campaign was begun in earnest. The Workers' Committee issued a memorandum on January 21, 1915, on the prices of wheat, in which they proved conclusively, according to the *Labour Year Book*,[1] that increased freightage rates were the chief cause of high wheat prices. To corroborate their statements, they reprinted a sentence from the *Journal of Commerce* for November 2 1914, which ran as follows:

> The opportunities now open to British shipping are obvious. There are no more cut rates by subsidized German vessels. German ships being swept off the sea, we have now no serious competitors in the carrying trade of the world.

In a further memorandum on coal, they showed that coal owners, and still more the retail coal merchants, were making profits from war conditions. They also called attention to high contract prices ruling in munition trades and to the full use made by capitalists in general of the law of supply and demand.

[1] *Labour Year Book*, 1916, p. 42.

On January 28, 1915, the Workers' Committee issued a list of recommendations, among which one finds "that maximum prices for coal should be fixed by the government . . . and that the government commandeer coal supplies and distribute to household consumers through municipal or cooperative agencies."

The Secretary of the Labor party was requested to arrange a series of district conferences to be held on February 13, 1915.

Two days before the District conferences were held, a debate took place in the House of Commons on the following motion, which had been tabled by the Labor party:

> That in the opinion of this House, the present rise in the prices of food, coal and other necessities of life is not justified by any economic consequence of the war, but is largely caused by the holding up of stocks and by the inadequate provision of transport facilities.
>
> This House is therefore further of the opinion that the government should prevent this unjustifiable increase by employing the shipping and railway facilities necessary to put the required supplies on the market, by fixing maximum prices and by acquiring control of commodities that are or may be subject to artificial costs.[1]

Replying to Mr. Ferens, who brought forward the motion, and to Mr. Clynes, who, speaking for the Labor members, demanded the fixing of maximum prices, Prime Minister Asquith stated that there were many causes which contributed to the rise in the price of wheat. The Australian crop had failed; the Argentine crop was late in coming to the market; there had been much speculation in the United States; in addition to this the closing of the Dardanelles had seriously shortened supply, and the war was partly responsible for the rise in freights.[2] With regard to coal, the rise of price must be attributed to high freights and shortage of labor. In order to improve the situation, the government proposed to increase available shipping by releasing interned ships and ships occupied by prisoners as well as by accelerating procedure in the prize courts. The Prime Minister refused to resort to what he termed "more heroic steps" and pointed to the example of

[1] *Labour Year Book*, 1916, pp. 42–43.
[2] 69 H. C. Debates, 756–758 (762–764), quoted from *The Political Quarterly*, May, 1915, pp. 157–158.

Germany, where the fixing of maximum prices led to evasion, confusion and the frustration of the purposes which they had in view.[1]

This speech failed to satisfy a large proportion of the public in and out of Parliament;[2] it aroused particularly a great deal of bad feeling among the workmen. In direct disagreement to Mr. Asquith's statements, the Labor party moved on February 17 an amendment in favor of maximum prices, its main contention being that there was no real scarcity, and that the rise of prices was due to machinations in the market.[3] At all the labor conferences which took place at the time the following resolution was carried unanimously:

> That this conference expresses its deep indignation and disappointment at the refusal of the government to take effective measures to deal with the alarming rises in the cost of food and fuel. It appeals to the House of Commons to force the government to take immediate steps to relieve the unsupportable burden which the cost of the necessaries of life is imposing upon the working classes.[4]

In commenting on the demand for the fixing of maximum prices, the *Statist* rightly asks whether if maximum prices were enforced, they would not have restricted the imports of food and made matters worse.[5]

Continuing its attempt to force the government to action, the Workers' Committee called a national conference on food and fuel prices. This conference, which was held on March 12, passed resolutions requesting among other things that the government take an active part in controlling wheat and coal prices.[6]

During the subsequent months of 1915, as well as through the early part of 1916, labor agitation continued, but on the whole conditions were such that the government did not consider the matter very seriously. Trade unions at each meeting expressed dissatisfaction, but it was more because of conviction that profiteering was rampant than because of real hard-

[1] 69 H. C. Debates, 756–768 (762–764), quoted from *The Political Quarterly*, May, 1915, pp. 157–158.
[2] *The Statist*, February 13, 1915, p. 245.
[3] *The Political Quarterly*, May, 1915, p. 158.
[4] *Labour Year Book*, 1916, p. 42.
[5] *The Statist*, February 13, 1915, p. 245.
[6] *Labour Year Book*, 1916, p. 43.

ship experienced by their members. Statesmen in general were for letting difficulties, if there were any, be settled through the natural play of economic forces. The inactivity was justified by pointing to the example of Germany, where according to many British observers the fixing of prices was a failure.[1]

Towards the end of the second year of the war the situation became more acute. The mass of the consumers began to feel the sting of growing prices, especially in case of such commodities as fresh milk. Popular clamor was growing louder and louder and the pressure exercised upon the government stronger and more insistent.

At a meeting of the executive committee of the National Union of Railway Employes held on August 2, 1916, a resolution was passed demanding an increase in wages, because the government had not taken effective measures to regulate prices of necessities.[2] Labor delegation after labor delegation was sent to discuss matters with the representatives of the Cabinet. These delegations included in their demands such items as the conscription of wealth, the regulation of prices and the establishment of a normal relation between prices and the purchasing power of the population (through increase in wages, pensions, etc.). Cries of "hands off from the people's food" began to be heard at mass meetings held by laboring organizations throughout the country.[3] At the Trade Union Congress of 1916, the Parliamentary Committee, which was the executive of the congress, submitted a resolution requesting the nationalization of all vital industries; this resolution was carried unanimously almost without discussion.[3] It requested the appointment of a Minister of Labor and Industry, among whose functions should be the control and organization of agriculture and food supply. This control was to be exercised (a) through the direction of use of all land, (b) through the state's first claim on the use of all British ships, at rates which would yield a fixed national standard of profit, (c)

[1] Mary Stocks: "Attempt to Fix Prices in Germany," *Economic Journal*, vol. xxv, pp. 279, etc.
[2] "Concerning High Prices," *Vestnik Evropi*, December, 1916, pp. 257-283.
[3] *The Round Table*, December, 1916, pp. 76-77.

through nationally owned and controlled storehouses, with reserves of grain, frozen meat, dried fish and all kinds of necessary storable food. The resolution contemplated also complete national ownership and production of all war material and ships of war as well as national ownership and control of all railways, waterways and mines.[1]

In November, when food prices in the larger centers of population had increased 88 per cent above those prevailing in July, 1914, the executive decided to convene a national conference in order to concentrate the opinions of the whole movement in certain definite directions of state organization.

For the first time in the history of the party the cooperative societies throughout the country responded officially at a national conference. The conference was held on January 23–26, 1917, and its final decisions were as follows:

This conference, representative of National Labor organized on both its wage earning and consuming sides, declares that, whilst regretting the long delay of the government in taking action to prevent food prices rising, as they have steadily done during the past two years, welcomes the steps that have now been taken, but is of opinion that they are inadequate, and that no policy will be acceptable to organized Labor unless it includes:

(a) The purchase of all imported essential foodstuffs by the government;

(b) The commandeering or controlling of home products such as meat, wheat, oats, barley, potatoes and milk; and in view of the serious privations being endured by child-bearing women and young children, and the consequent destruction of their health, the conference calls on the government to introduce immediately a bill making it compulsory on municipalities to provide dinners and milk for mothers and young children, half the cost being paid from the national Exchequer;

(c) The commandeering of ships and the controlling of freights and freight rates;

(d) The placing on the retail markets of all supplies so obtained and controlled at prices which will secure the full benefit of government action to the consumer; and the proportional regulation, on a family basis, of the sale of any foodstuffs in which there is a shortage of supplies;

(e) The organization and supervision of production: the government to take into their own hands at least four million acres of land at present abandoned to grass or fallow, including any suitable land now kept as private parks; to secure sufficient labor and machinery to cultivate, sow and gather in the harvest from such land; to empower all local authorities to utilize every acre of available land within their areas that is now lying idle and to take over other land where required for spade cultivation for potatoes and other vegetables; to call upon them to make

[1] *The Round Table*, December, 1916, pp. 76–77.

such arrangements as they can for getting as large a proportion as possible under cultivation; and to advance capital to local authorities, also to cooperative societies, to enable them to bring additional land into arable cultivation;

(f) The conference further demands that for the period of the war and six months afterwards the government shall purchase wheat on sound business lines, and insure that bread and flour shall be sold through the United Kingdom at a price not exceeding 6d. per quartern loaf; such loss as may be incurred by this operation to be met as a portion of the general cost of the war.

Further, in the opinion of the conference, the supply of coal and other necessaries of life should be dealt with by the government on lines similar to those indicated above.

Further, the government should approach the governments of the allied nations with a view to impressing upon them the necessity of working on such lines that allied purchases shall be centralized and competition between the allies destroyed.[1]

Through 1915 and 1916 the workmen confined themselves largely to the passing of resolutions, to the criticism of scandals and to similar acts of political agitation. What their thoughts and feelings were may be gathered from the following excerpt:

With the closing of the food prices campaign, labor found itself economically in a worse position than at any time since 1900. The prices of necessities were still rising; wages were still, in the main, stationary; the financier, the shipowner, the railway magnate and the contractor had been treated by the government with indulgent generosity; the workers were still vainly knocking at the door. As Mr. Cole has rightly pointed out, "Labor alone has been expected to make every sacrifice without return or gratitude. Employed, the worker was handed over to the sweater; unemployed, he fell into the clutches of the Relief Committee; as consumer, he was the victim of profiteers whom the government would not control; but as soon as he stirred a finger in his own interest, he was proclaimed a traitor and ordered back to work.[2]

In December, 1916, the Coalition government gave way to Lloyd George's administration, which, it was expected, would act with greater boldness and determination.[3] On June 12, 1917, Mr. Lloyd George appointed a commission to inquire into industrial unrest throughout England and Scotland. The commission considered its work of such urgency that it divided itself into eight panels (corresponding to eight munition areas); they all reported in a month. The reports

[1] Report of the Sixteenth Annual Conference of the Labor Party, p. 5.
[2] *Labour Year Book*, 1916, p. 46.
[3] *The Economist* (Commercial and Financial Review of 1916), February, 1917, p. 289.

bear the ear marks of too great a dependence upon hearsays, and of quickly drawn conclusions on insufficient and hastily gathered facts.

The commissioners enumerate many reasons for unrest, but all put in the forefront as the leading cause the fact that the cost of living has increased disproportionately to the advance in wages and that distribution of food supplies is unequal. Not only do they consider this as the most important of all causes of unrest in itself, but its existence in the minds of the workers colors many subsidiary causes, in regard to which in themselves there might have been no serious complaints. The commissioners speak (Report of the Commissioners for the Northeast Area) of deep seated conviction in the minds of the working classes that the prices of food have risen not only through scarcity but as the result of manipulations of prices by unscrupulous producers and traders,[1] of conviction (Report of the Commissioners for the Yorkshire and East Midlands Area) that "insufficient steps had been taken by the government departments to prevent profiteering, exploiting and plundering, such as made the poor contribute heavily to the abnormal advantages of those traders and others, who by their selfishness secured immense gains from the sacrifices and sufferings of the poor."[2]

The West Midland commissioners stated that it was absolutely necessary that the government should take immediate steps to reduce prices and prevent profiteering. The London commissioners recommended the fixing of maximum prices; the North Eastern and the Yorkshire commissioners did the same, but added that Exchequer assistance must be given where necessary.[3] The Scotch commissioners suggested that either steps should be taken to reduce the cost of the necessaries of life, or, if this were not possible, the public should be brought to understand that the prevailing high prices were inevitable.

[1] *Industrial Unrest in Great Britain*, U. S. Department of Labor Statistics, Bulletin No. 237, p. 15.

[2] *Ibid.*, p. 77.

[3] E. Cannan: "Industrial Unrest," *The Economic Journal*, December, 1917, p. 461.

The South Wales panel proposed among other things that the government should stamp out all profiteering in food, and fix the prices to be charged by the wholesaler, the middleman and the retailer.

To meet these recommendations and thus to restore to a certain extent domestic tranquillity,[1] all the essential foodstuffs have been gradually brought under control, *i.e.*, bread and flour, meat, potatoes, sugar, tea, milk, butter, cheese and bacon. Control has also been extended to certain subsidiary foods such as jam, oatmeal, dried peas and beans, chocolate and sweetmeats, and also to feeding stuffs for live stock.

Prices are being fixed at every stage of production and distribution of controlled commodities, from the stockyard or barn to the shop counter. The speculative middleman has been eliminated, and the charges that may be made by the necessary middleman and the retailer are being defined and regulated by fixing prices or profits.[2]

These measures did not bring the expected peace. Government methods of controlling the food situation were criticized severely at the Labor congress held during the latter part of December, 1917.

Speaking to a resolution on this subject, Robert Smillie, leader of the miners, said:

> I hope the government will take it that we put this forward as a grave warning to them. If they do not carry out at once the spirit of the resolution they may take it for granted that the workers of the country are no longer going to stand having their wives and children waiting outside shop doors, almost begging for food to be sold to them.

Dr. Marion Phillips, of the executive committee of the Women's Labor League, said that unless steps were taken to improve present conditions infant mortality would rise to a degree which never had been known.

The whole policy of the government, declared Bevan of the dock workers' union, had been to "play into the hands of the American ring. Talk of food control—there will soon be nothing left to control," he said.

[1] *The Statist*, December 1, 1917, p. 1120.
[2] *Labour Gazette*, November, 1917, p. 398.

Resolutions strongly favoring compulsory rationing for all Britain were adopted unanimously by the National Trades Union convention and the congress of the Labor party and war emergency workers.

The working men protested that suffering would result and was resulting from inequitable distribution of foodstuffs through the present voluntary rationing scheme.[1]

[1] *Chicago Tribune*, December 30, 1917.

CHAPTER VII

Governmental Control and Price Fixing

Food

General

After the declaration of war there was a sudden and rapid rise in prices of necessaries, particularly of foodstuffs. The reasons for this rise may be summarized as follows:

(1) With the mobilization of the British army and navy large governmental orders had to be immediately filled.[1]

(2) Many householders with cash at their command rushed to the stores and began laying in supplies for weeks, sometimes for months in advance of their actual needs.[2] In smaller places shops were literally bought out by one or two purchasers. This "frenzied" buying was due to fear that the existing stocks in stores would become exhausted and that prices would rise abnormally high.

Some dealers took advantage of conditions to realize as much as possible on the merchandise which they had on hand.

The situation was aggravated by a temporary disorganization of shipping and by the use of railway facilities for war purposes; this made it difficult for dealers to get new supplies in order to keep up stocks. Poorer classes of the population who could purchase only from day to day as they needed the commodity were thus placed in an extremely difficult position.

That the rise in prices was due largely to a panic and that it was not warranted by the conditions existent at the time, is apparent from the fact that the English and Scottish cooperative wholesale societies after a study of the situation sent out reassuring messages to all their local store committees; they advised them not to raise prices, but to restrict sales to

[1] *The Statist*, August 22, 1914, p. 466.
[2] *Labour Gazette* (Canadian), May, 1917, p. 392.

individuals in accordance with their previous average rate of purchases.[1]

After the most urgent needs of the government, as well as the demands of selfish, thoughtless or overprudent private buyers were satisfied, prices receded from their high levels. It was soon recognized that there was enough food in stock or in store for some time to come. As the result of special inquiries, the government announced that the supplies of wheat then in the country were sufficient to meet the normal consumption for five months, the supplies of potatoes for nearly twelve months. The government also allayed the fears of the submarine menace.[2]

In commenting on the situation, the *Statist* stated that "provided always that the British fleet retains command of the seas and therewith our trade routes . . . the outlook is rather for a gradual trend to lower prices for provisions than to any appreciable rise."[3] No reasons were given for the statement; one wonders whether this prognostication was not based upon the thought that the withdrawal of the Central Powers as buyers from the world's markets would reduce the demand and thus lower prices.[4]

When the panic was at its height, the government, in response to an urgent demand for some immediate action, made an interesting attempt to influence prices without taking upon itself the responsibility of fixing them.

On August 5, 1914, a Cabinet committee on food supplies, under the chairmanship of the Home Secretary, met "the representatives of certain great companies owning 3,000 distributing shops and grocers' federation owning 14,000 shops."[5] It was decided that a standing committee should be formed to advise as to maximum retail prices for staple articles of food. These prices were not compulsory, but represented

[1] *American Review of Reviews*, May, 1916, p. 576.
[2] H. S.: "Early Phases of Food Control," *The Edinburgh Review*, January, 1918, p. 108.
[3] *The Statist*, August 22, 1914, p. 466.
[4] F. Eulenburg: "Die Bewegung der Warenpreise während des Krieges," *Weltwirtschaftliches Archiv*, 6 Band (1915 II), pp. 172–173.
[5] *London Morning Post*, August 6, 1914.

the opinion of experts, acting under governmental sanction, as to what purchasers might reasonably regard as the highest figures they ought to pay. The first list of prices was issued August 7, to be effective through the 10th. These prices gave rise to complaint that the committee was acting in the interest of dealers rather than of purchasers.

The following were the home and colonial quotations and the state maximum compared for August 7, 1914:[1]

Articles	Today's Price, per Pound s. d.		State Maximum, per Pound s. d.	
Granulated sugar	0 3	(6.1 cents)	0 4½	(9.1 cents)
Lump sugar	0 3½	(7.1 ")	0 5	(10.1 ")
Butter	1 3	(30.4 ")	1 6	(36.5 ")
Cheese (colonial)	0 8½	(17.2 ")	0 9½	(19.3 ")
Lard (American)	0.7	(14.2 ")	0 8	(16.2 ")
Margarin	0 8	(16.2 ")	0 10	(20.3 ")
Bacon:				
British (by the side)	1 2	(28.4 ")	1 6	(36.5 ")
Continental (by the side)			1 4	(32.4 ")

By the time the next list was issued on August 11 current prices had risen somewhat, and the maximum set on bacon by the committee was reduced by 3d. (6.1 cents) for British and 2d. (4.1 cents) for continental bacon.[2] Accordingly, the current and maximum prices agreed, except that the committee's price for sugar was still ¾d. (1.5 cents) higher than current quotations. The committee continued to issue price lists for about three weeks, by which time prices had become fairly stable, though at a higher level than that prevailing in July.[3] The issue of price lists for meat was resumed early in 1915.[4]

On August 10, 1914, the presidents of the Board of Trade and the Board of Agriculture and Fisheries met a number of representative millers to discuss the price of flour, and it was arranged to have a standing committee of the millers to confer with the government from time to time.[5] A conference was also held with representatives of the Meat Traders'

[1] *The Daily Citizen*, Saturday, August 8, 1914.
[2] *Labour Gazette*, August, 1914, p. 283.
[3] U. S. Bureau of Labor Statistics, Bulletin No. 170, pp. 12–13.
[4] *Labour Gazette* (Canadian), May, 1917, p. 396.
[5] *Board of Trade Journal*, August 13, 1914, p. 419.

Association. The prices of flour were fixed August 17, 1914, by an agreement between the President of the Board of Trade and the millers' committee.[1]

A weapon to protect the public from hoarding and from corners in foodstuffs was provided by the passage on August 10, 1914, of the "Unreasonable Withholding of Food Supplies Act" (4 and 5 Geo. V, ch. 51). The act was repealed by the Articles of Commerce Act, which became law on August 28, 1914 (4 and 5 Geo. V, ch. 65). This latter act, similar in nature to the first one, authorized the Board of Trade, if authorized by proclamation, to take possession of any articles of commerce unreasonably withheld, upon payment of a reasonable price determined by agreement with the owners or by the arbitration of a judge selected by the Lord Chief Justice. By a proclamation of September 17, 1914 (No. 1403) the Board of Trade was given authority to exercise the power described in this act with respect to "any article of commerce." In Jersey the power to take possession of articles under this act was exercised by the Defense Committee, and persons authorized by them (*Board of Trade Journal*, October 15, 1914, p. 162).

It does not appear that the power granted by this act has ever been specifically exercised. Complaints having been made at one time concerning the rise in the price of wheat and flour, the Board of Agriculture and Fisheries declared that there had been no improper withholding of supplies.[2]

Among other steps taken by the government on the outbreak of the war was the setting up of a Cabinet Committee on Food Supplies. Returns of stocks of all foodstuffs in the country were obtained, and arrangements made for the periodical collection of this information. Soon after the outbreak of the war export of foods was prohibited except under license. A similar action was taken a couple of months later with regard to feeding stuffs for animals.

For the purpose of maintaining the country's food supply,

[1] *Board of Trade Journal*, August 20, 1914, p. 485.
[2] *Ibid.*, January 14, 1915, p. 100.

a plan for state insurance of ships and cargoes was hastily devised and adopted.[1] In the case of ships the government was to insure all war risks at a flat rate of premium ranging from 1 to 5 per cent. For cargoes a special insurance department was set up with an advisory board to fix the rate of premiums.

Among the other early steps taken by the government in connection with the control of food were the appointment of the Royal Sugar Commission and the establishment of agencies entrusted with the purchase, shipment, storage and distribution of meat, wheat and flour. Excepting these measures, the government, during the first two years of war, followed largely the plan of not interfering with production, distribution and prices of foods. Toward the end of 1916 the poor harvests in North America, South America and Europe, the increasing shortage of tonnage due to commandeering by the government and losses by submarines, the growing discontent of the people with what they considered governmental negligence, the rapidly expanding indebtedness and the necessity to pay high prices for all that the government was buying, the inability to forecast how long the war would last and the certainty that if it lasted much longer Great Britain would experience great difficulties in bringing food into the country, all influenced the government to change its policy for that of strict measures of control.

Accordingly, on November 16, December 5 and December 22, 1916, Orders in Council were issued which amended, with this aim in view, the regulations (called the Defense of the Realm Consolidation Regulations, 1914) under the Defense of the Realm Consolidating Act, 1914. These orders gave the Board of Trade wide powers to control any "articles of commerce, the maintenance of which is important as being part of the food supplies of the country, or as being necessary for the wants of the public."[2] The Board of Trade's orders,

[1] U. S. Bureau of Labor Statistics, Bulletin No. 170, p. 14.
[2] *Monthly Review of the U. S. Bureau of Labor Statistics*, March, 1917, p. 397; see also *Board of Trade Journal*, November 23, 1916, pp. 566–570; December 14, 1916, pp. 795–796, and December 28, 1916, p. 945.

under the regulations, "may be made either so as to apply generally or so as to apply to any special locality or so as to apply to any special supplies of any article, or to any special producer, manufacturer or dealer." The orders provided that "a person shall not (subject to any exceptions contained in the order applying this provision) directly or indirectly sell or offer for sale any article to which this provision is applied at a price exceeding by more than the amount named in the order the corresponding price of the article at a date specified in the order" (the corresponding price to be settled, in case of difference, by the Board of Trade). It gave the Board of Trade the power to requisition supplies, to request information as to stocks, to hold inquiries, etc. The only price-fixing orders issued by the Board of Trade directly were two orders regulating the price of milk.

The *Board of Trade Journal* of December 14, 1916, speaks of the appointment of Lord Davenport as Food Controller. Upon him fell the responsibility of administering the new regulations adopted for the purpose of controlling supplies and prices of food. For a short time after his appointment the Food Controller was dependent upon the Board of Trade for the issuance of orders; he lacked the necessary authority, arrangements not having been completed for the transfer to him of the powers of the Board of Trade. This was done on December 22, 1916, when the New Ministries and Secretaries Act (6 and 7 Geo. V, ch. 687) was passed.[1] The act authorized the King for the purpose of economizing and maintaining the food supply of the country to appoint a Food Controller, the latter to "hold office during His Majesty's pleasure."

Upon the Food Controller has been placed the duty to regulate the supply and consumption of food as well as to encourage its production.

In accordance with this act certain of the Defense of the Realm (Consolidation) Regulations which were issued at the outbreak of the war were so amended as to confer on the Food

[1] *Monthly Review of the U. S. Bureau of Labor Statistics*, March, 1917, p. 398.

Controller some of the powers which heretofore were vested in the Board of Trade. The new regulations give the Controller larg[illegible]etionary powers with respect to the issue of orders [illegible]ng the production, manufacture, treatment, storage, [illegible]ribution, supply, sale or purchase of any article (including orders as to maximum and minimum prices).

The Food Controller may take over from private possession any goods on such terms as he may direct, where it appears to him necessary or expedient to do so. He also can demand information from every holder of stocks of goods as to the amount held, price paid or received, cost of production, etc. He may establish control over any food producing factory or workshop; the occupiers of every such factory must then comply with his directions as to the management and use of premises. He is given power, in conjunction with the Board of Agriculture, to take possession of any land improperly cultivated and take any machinery or farm stocks which may be required for the better cultivation of such land.[1]

The amended Defense of Realm regulations confer upon the Board of Trade powers similar to those exercised by the Food Controller regarding any articles to which the latter's powers do not extend.

The first work undertaken by the Food Controller was to take a census of the stock of food on hand and to estimate the visible supply of important commodities.[2]

It is difficult to see from subsequent orders of the Food Controller of what benefit to the Administration was this preliminary step, so essential in any comprehensive scheme of price fixing. There does not seem to have been any definite rule of conduct, any thought out plan of action in what Lord Davenport did during his tenure of office in the first part of 1917. Order after order was promulgated, only to be amended and hastily reamended, without serious consideration of the problems involved. In Lord Davenport's defense,

[1] *Defense of the Realm Manual* (4th Enlarged Edition), May 31, 1917, Regulations 2F to 2J.

[2] *British and Canadian Food Regulation*, 65th Cong., 1st Sess., Senate Doc. No. 47, p. 17.

one may say that the office of the Food Controller was created at a time of intense agitation, when the nation was clamoring for immediate action, when on all sides were heard accusations that the government had been playing into the hands of the rich, of the "profiteers," to the utter disregard of the interests of the great mass of common people.

Lord Davenport resigned because of ill health in the latter part of May, 1917, and Lord Rhondda was appointed Food Controller in his stead. Whatever may be one's opinions regarding price fixing, one must admit that Lord Rhondda's handling of the problem from the very first day of his appointment was much more careful, thorough and systematic than that of his predecessor. His idea was to fix prices of those articles of prime necessity over the supply of which he could obtain effective control at all stages from the producer down to the retailer; in this determination of prices he followed as far as possible the principle of allowing a reasonable prewar profit for those engaged in the production and distribution.[1] Issuing one order after another, Lord Rhondda gradually tightened his grip on business, and established a far reaching and rigid supervision of all food articles; the work of manufacturers and merchants became regulated, maximum prices were established and for certain products (sugar, meat) rationing cards were issued. A statement which Lord Rhondda gave out in December, 1917, offers a concise outline of the system he adopted for Great Britain.[2]

According to this statement, the framework of the British machinery of control is formed in the civil service. They are the administrators, but in all cases the Food Controller secures the best available business men to advise them, as well as a number of expert committees dealing with almost every food commodity.

A Costing Department, under the direction of chartered accountants, has been set up, through which the profits made

[1] *The Liberal Magazine*, August, 1917, p. 301; see also *The Economist*, July 28, 1917, pp. 115–116.

[2] *Monthly Review of the U. S. Bureau of Labor Statistics*, December, 1917, pp. 100–101.

by any manufacturer or retailer of food can be ascertained. The country has been divided into separate areas, in each of which a responsible firm of accountants has been appointed by this department to do the necessary work. Reasonable profit based on prewar rates is added to the present cost and price limits agreed on that basis, after consultation with the representatives of the trades concerned.

Decentralization is obtained by dividing Great Britain into sixteen food divisions, consisting of so many counties. Each division is under the superintendence of a commissioner appointed by the Food Controller. In each of these divisions the borough, urban or rural district councils, or other local authorities, appoint local food committees, with limited powers and certain discretion, to carry out such regulations as regards price and distribution as may be issued from headquarters.

Local tradesmen are registered with their local committees, and if any tradesman does not carry out regulations and orders he may be struck off the register and prevented from further trading. The various orders fixing or amending the maximum prices of meat, milk, potatoes, bread, etc., are communicated to the local committees and the trades and the public are informed through the daily and trades press. A staff of inspectors is kept at headquarters and a number of sentences have been imposed by magistrates throughout the country for contravention of the regulations. The general penalty is a fine not exceeding £100 or a term of six months' imprisonment with or without hard labor, or both. This punishment may be inflicted according to the offense.

Lord Rhondda made also arrangements as rapidly as possible for securing control of all imports of foodstuffs in cooperation with the American and Canadian food controllers.[1]

An Order in Council, dated June 28, amended the Defense of the Realm Regulations. Among other amendments, it conferred on the Food Controller the same powers as were

[1] H. S.: "Early Phases of Food Control," *The Edinburgh Review*, January, 1918, p. 120.

previously granted to the Admiralty, Army Council and Ministry of Munitions regarding the requisitioning of goods and the controlling of prices. This amendment gave Lord Rhondda the authority to requisition the whole or part of the output of any factory and to pay a price based on the cost of production, with an addition of a prewar rate of profit, without regard to the price ruling on the market. Similar powers have been given for dealing with growers or other producers. Where goods are requisitioned from a bona fide merchant or dealer, the price is determined by the price paid by him for the goods, provided that suc.. price is not unreasonable, and by the rate of profit which he would normally earn under prewar conditions, provided that such profit is t excessive.[1]

Lord Rhondda's decentralization scheme led to the passage, on August 22, 1917, of the Food Control Committees Order, 1917 (No. 869).[2] This order requested local authorities to appoint food control committees, whose functions would be to administer a new scheme of sugar distribution, to continue the campaign for food economy, to deal with other food supplies such as bread and meat, and to assume special responsibilities with regard to food prices. The appointment of food control committees was a step towards decentralization, preparatory to the fixing of a general scale of prices on many necessary foodstuffs. The committees were entrusted with the enforcement of this scale; they were also asked to advise on any modification of it that may be shown to be necessary in their districts.

Food control committees thus constituted consist of not more than twelve members each; each committee must include at least on : woman and one representative of Labor. A food control committee may appoint subcommittees, consisting wholly or partly of the members of the committee, and may delegate to the subcommittee, so far as the Food Controller may direct, any of its powers and duties.

From a survey of the orders issued by the Food Controller

[1] *Board of Trade Journal*, July 5, 1917, p. 17.
[2] *Monthly Review of U. S. Bureau of Labor Statistics*, November, 1917, pp. 98–100; see also *Labour Gazette*, August, 1917, p. 276.

it appears that at the beginning of 1918 all the principal foodstuffs—bread, meat, milk, butter, cheese, potatoes, sugar, tea and bacon—have been brought under control, while fixed prices also rule in regard to many articles of secondary importance, such as dried peas, beans, rice, sago, tapioca, oatmeal, jam, sweetmeats and chocolate.[1] The consumption of meat, butter, margarin and sugar is controlled by cards. The consumer must select his retailer and the latter receives supplies for distribution according to the number of his customers.

Sugar

The only foodstuff the supply and distribution of which the government undertook to control from the earliest stages of the war was sugar. The reason for this action was the sudden discontinuance of imports which in normal times came largely from Germany and other European countries. On September 11, 1914, a Royal commission was appointed to "purchase, sell and control the delivery of sugar on behalf of His Majesty's government" and generally to take such steps as would be necessary for the purpose of maintaining supplies.[2] One of the first things the government did was to buy up stocks all over the world, particularly in the East and West Indies.[3] During the latter part of September and in October, the commission purchased by private negotiation over 900,000 tons of sugar, raw and refined. These large purchases were prompted by fear that sugar production on the continent of Europe would cease and that all countries would have to depend upon the cane sugar output. While the British Government was buying, the price of sugar in the world's markets more than doubled; the price dropped again as soon as the commission withdrew from the market. The sugar was sold by the commission to refiners at a fixed price which protected the government from loss, at the same time making it possible to retail the sugar at $3\frac{3}{4}$d. (7.6 cents) per pound for granulated

[1] *The Statist*, December 1, 1917, p. 1120.
[2] *Board of Trade Journal*, September 24, 1914, p. 810.
[3] *Labour Gazette* (Canadian), May, 1917, p. 396.

sugar and 4½d. (9.1 cents) for good cubes;[1] the price of granulated sugar before the war was about 2½d. (5 cents).

Having bought supplies at a higher price than that which subsequently ruled in the open market and being faced with a heavy loss on its transaction, the government passed on October 14, 1914, a law temporarily prohibiting all sugar imports into the British Isles. The whole procedure was denounced in many quarters as an ill devised speculation, the only tangible result of which was the compelling of British sugar users to pay higher prices than those that would have prevailed without governmental interference. Because of "McKenna's gamble in sugar," the consumers were cut off from the world's supplies, wrote the *Spectator*.[2] The commission acknowledged that there have been times, notably at the end of 1914, during which the price of sugar in outside markets has been quoted at rates below those at which the sugar was being placed on the British market, but, according to the commission's report, "at those times the quotations have usually been the result of transient influences (including often the commission's own absence from the market) and have been no true indication of what prices would have ruled under normal conditions."[3] Mr. Layton thinks that in view of the uncertainty at the outbreak of the war it is unreasonable to blame the government for having taken action. Events proved that beet sugar was available for consumption in Europe. If, however, the commission's fears were justified, England "might have been very hard hit."[4] The explanations offered are decidedly weak; they do not give any valid justification either for the hastiness of the commission's decision, unwarranted by facts, or for the clumsiness with which the decision was executed.

The Royal commission's scheme of distributing sugar to wholesalers was based on the distribution of 1915. In a

[1] U. S. Bureau of Labor Statistics, Bulletin No. 170, p. 14.
[2] *The Spectator*, January 13, 1915.
[3] First (interim) report of the Royal Commission on the Sugar Supply, Cd. 8728; quotation from *Labour Gazette*, October, 1917, p. 359.
[4] W. T. Layton: "State Control of Prices and Production in Time of War," *The Political Quarterly*, May, 1915, pp. 82–83.

memorandum issued in January, 1917, the commission laid down that the British refiners should continue to issue sugar only to their 1915 customers, the quantities issued to be proportionate to those of 1915, the proportion varying from time to time, in accordance with the general proportion which all available supplies bear to the total quantity used or distributed in 1915. The sugar commission was to continue to distribute sugar at its disposal to its 1915 customers, giving each as his share of available sugar the amount proportionate to his total use or distribution in 1915, of all sugar other than the British refined. Wholesale dealers were instructed to distribute to their customers on the same principle, that is to say, to let each of their customers of the year 1915 have his equivalent proportion of the available supplies.[1]

The commission's selling prices to wholesalers have been fixed with a view to earning returns which should do no more than cover all expenses of the commission and provide an adequate margin against contingencies. In connection with the control of retail prices the means possessed by the commission have been only slight, but, according to the commission's report, they appear to have been generally effective up to the end of 1916, though less adequate to the increased difficulties in the latter part of that year.[2]

The plan thus adopted by the commission was to sell the sugar to grocers at a price much below that which would have prevailed in an unregulated market; the sugar was sold in the proportions in which the total was divided just before the war. The government insisted on the grocers selling sugar at retail prices corresponding to the wholesale prices charged by the government.

The distribution was entirely out of date. There has been so much shifting in the population since the war that many parts of the country were receiving an excess supply of sugar, while other areas (munition plant districts, etc.) were underserved.[3] In the early part of 1917, a joint committee, repre-

[1] *Monthly Review of the U. S. Bureau of Labor Statistics*, June, 1917, p. 936.
[2] *Labour Gazette*, October, 1917, p. 359.
[3] E. Cannan: "Industrial Unrest," *Economic Journal*, December, 1917, p. 936.

senting the Parliamentary Committee of the Cooperative Congress and the War Emergency Workers' National Committee, submitted to the Food Controller a report in which they showed the inadequacy of the plan adopted by the government for the purpose of insuring equable distribution of sugar. It was pointed out that the average increase in membership of the cooperative societies amounted to 2,291 per society and that their available supplies of sugar in 1915 amounted to 3 pounds 5 ounces per member (or family of from 4 to 5 persons) per week; in 1916 the quantity was reduced to 1 pound 14 ounces for the same period, an amount considerably below that which the sugar commission professed to guarantee. It was also brought out in the report that no arrangements had been made to meet the increased demand in those places where there have been large additions of population.[1] The attention of the Controller was drawn to the course adopted by some retail grocers of supplying sugar only to those persons who bought some other specific commodity. The public was finding these conditioned sales inconvenient, annoying and just as expensive as if the grocers were permitted to sell sugar for what it would fetch. The grocers' predicament consisted in that they had no workable guidance as to whom to sell and in what proportions. They knew that the rule "as in 1913" could not be applied; that selling in equal rations only to old customers meant refusal to sell to all newcomers.[2]

Since no definite rationing system was adopted, consumers did not see why retailers should not sell them whatever amount they asked for. This would have meant compulsory sales of supplies which were insufficient to go around, the serving of the first comers and letting the late comers go away empty handed. According to Professor Cannan, "the Davenport administration did not see much, but it did see

[1] *The Christian Science Monitor* (Boston), February 16, 1917; quoted from *Monthly Review of U. S. Bureau of Labor Statistics*, June, 1917, p. 936.
[2] Cannan: *op. cit.*, p. 466.

this, and therefore refused to yield to the popular clamor for compulsory sale."[1]

The Northwestern Commissioners in their part of the Report on Industrial Unrest state that if other necessaries of life are to be controlled and distributed as sugar has been controlled and distributed in the past the position would become exceedingly dangerous.[2] They consider that the real value of the experiment with sugar was to use it as an example of how not to do it.

Three orders relating to sugar were issued by the Food Controller in February, 1917. The Dealings in Sugar (Restriction) Order, dated February 9, 1917, prohibited private dealing in sugar outside of the United Kingdom. The two other orders considered brewers' sugar.[3] On March 16 manufacturers were limited during the year 1917 to the use of 40 per cent of the sugar used by them for manufacturing purposes during 1915. The order applied to all articles except jam, marmalade and condensed milk.[4] The shortage of sugar led to the issue of two new orders, one in April and the other in May. The April Order, for the purpose of releasing for domestic consumption sugar of a better quality, permitted manufacturers other than brewers to use brewers' sugar.[5] By the Sugar (Restriction) Order No. 3, 1917, the Food Controller has reduced the amount of sugar which could be used by the manufacturers from 40 per cent used by them in 1915 to 25 per cent.[6]

Of special interest is the Food (Conditions of Sale) Order, 1917, which came into effect on March 23, 1917.[7] It contained a clause that "in the sale or proposed sale of any article of food, no person may impose or attempt to impose any condition involving the purchase of any other article." It was particularly directed against grocers who made the sale

[1] Cannan: *op. cit.*, p. 467.
[2] *Industrial Unrest in Great Britain*, U. S. Bureau of Labor Statistics, No. 237, p. 45.
[3] *Board of Trade Journal*, February 15, 1917, p. 484.
[4] *Ibid.*, March 22, 1917, p. 770.
[5] *Ibid.*, April 5, 1917, p. 18.
[6] *Ibid.*, May 24, 1917, p. 411.
[7] *Ibid.*, March 29, 1917, p. 811.

of sugar conditioned upon other purchases, but it applied also to the sale of other articles of food.

Passing over some of the minor orders, such as the Sugar (Domestic Preserving) Order, 1917, one comes to the last important measure, the new sugar distribution scheme. The scheme is largely an adaptation of the plan proposed by the Commission of Inquiry into Industrial Unrest (Northwestern Commissioners). Under this plan, the sugar consumers must provide themselves with sugar registration cards, which they are free to deposit with any retailer they choose. After they have chosen the retailer they become tied to him, as the latter receives the allowance with regard to each card deposited with him and from no other grocer can any sugar be bought. The retailers were forbidden to sell sugar after October 1 unless they held certificates of registration granted to them by their local Food Control Committee.[1] The card system began to be employed after January 1, 1918. The scheme assures that cheap sugar, a gift of taxpayers to sugar consumers, will reach them, the taxpayers, as Professor Cannan puts it, having in addition to pay the cost of administering this somewhat indiscriminate charity."[2] It was hoped that the scheme would do away with congestion in retail establishments and with long queues of people waiting for hours in front of a store.

Milk

Fresh milk was the first foodstuff against the raising of the price of which many British consumers as a whole, through municipalities, registered a vigorous protest. Fresh milk was always out of the reach of the very poor, those with a family income of 20s. a month having had to use condensed milk. The number of those who had to give up fresh milk gradually grew la r and larger, and it was the knowledge that the elimination of milk from the diet impairs the health of the children and thus injures the growing population of the

[1] *Labour Gazette*, September, 1917, p. 318; see also *The Economist*, August 11, 1917, p. 204; and Commerce Reports, October 15, 1917, p. 204.
[2] Cannan: *op. cit.*, p. 467.

country which prompted the government to revise its policy of non-interference with regard to the price fixing of foods.

An Order in Council (No. 792) dated November 16, 1916, gave the Board of Trade power to adopt special regulations for the maintenance of the food supply, including the power to fix prices.[1] Under this authority the Board of Trade announced on November 23, 1916, maximum and minimum prices for milk, sold in wholesale and in retail trade.[2] This order was amended by an order issued on December 12, 1917,[3] under the authority of the Food Controller, to whom were transferred by the Order in Council of January, 1917, the powers of the Board of Trade relating to the food supply. Under this new order, the price of milk was not to exceed by more than a specified amount the price in the corresponding month before the war. This amount was 2d. (4 cents) per quart for retail milk and from 5½d. (11 cents) to 6½d. (13 cents) per imperial gallon for wholesale milk, the latter amount if milk was delivered on the premises of the buyer and these premises were not used as a creamery or factory. The maximum price for "accommodation" milk was raised to 1s. 8d. (41 cents) per imperial gallon, inclusive of all charges for transport to the railway station at which delivery is taken by the purchaser.[4]

Contracts for the sale of milk made on or before November 15, 1916, were allowed to remain valid for their full period (up to April 1, 1917) even if the price stipulated exceeded that otherwise permissible.

This milk order was amended by the Price of Milk Order, 1917 (No. 68), dated January 26, 1917. The general effect of the new order was to provide that the retail price of milk in any month should not exceed the retail price in the corresponding month in the twelve months ending March 31, 1914, by more than 2d. per imperial quart, subject to certain exceptions.[5] The Price of Milk Order (No. 2), 1917 (Order No.

[1] *Supra*, p. 108.
[2] *Board of Trade Journal*, vol. 95, p. 570.
[3] *Ibid.*, p. 861.
[4] *Monthly Review of the Bureau of Labor Statistics*, March, 1917, p. 388.
[5] *Defense of the Realm Manual*, 4th enlarged edition, May 31, 1917, pp. 305-309; see also *Labour Gazette*, February, 1917.

160), dated February 20, 1917, varies from the previous milk orders with regard to wholesale prices.[1]

As some farmers seemed to have been under a misapprehension regarding wholesale summer prices of milk, as fixed by the Milk Order No. 68, the Controller explained that the maximum price of milk in the summer of 1917 was to be 6½d. per imperial gallon above the price which the farmer obtained in the summer of 1913 for milk delivered at the premises of the buyer or at the railway station of the buyer, under a contract to supply a minimum quantity. In case of milk sold under other conditions, the farmer could not charge more than 5½d. per gallon above the price of the summer of 1913. Any one charging or asking a price higher than the maximum fixed was guilty of a summary offense.[2]

That the government itself recognized the impracticability and inexpediency of maximum prices for milk and that it feared the effect of such rigid prices upon production may be seen from the fact that shortly after the promulgation of the last two orders the President of the Board of Agriculture and the Secretary for Scotland conferred with the Food Controller and agreed to the following statement:

> The prices to be fixed for next winter will be considered by the agricultural departments in good time before the period for making contracts arrives, so as to make the maintenance of milk production certain and commercially profitable in comparison with other branches of the farming industry.[3]

The haste with which the orders were issued is evidenced from the Food Controller's announcement soon after the orders were promulgated that he would issue an amendment basing the increase in prices of milk on the summer prices of 1914 instead of those of 1913.[4] The *Board of Trade Journal* for April 5, 1917, contains a notice that at the request of the President of the Board of Agriculture and the Secretary for Scotland the Food Controller amended the Price of Milk Order, so as to allow winter contracts which under that

[1] *Labour Gazette*, March, [illegible]
[2] *Monthly Review of the U. S. Bureau of Labor Statistics*, June, 1917, p. 939; see also *Board of Trade Journal*, March 15, 1917, p. 730.
[3] *Ibid.*, p. 939.
[4] *Board of Trade Journal*, March 29, 1917, p. 811.

order were terminated on March 31 to run to April 30, and also to allow the prices chargeable in April, 1917, to be calculated with reference to the prices prevailing in March, 1914.[1] The inclusion of April in the winter months of 1916–17 was found necessary because of weather. A couple of weeks later the Food Controller gave notice that unless prices of feeding stuffs were substantially reduced, the winter contract prices for milk in 1917–18 will be not less than 1s. 8d. per gallon.[2]

On September 7, 1917, the Milk (Prices) Order was issued, which fixed maximum winter prices to the producer as follows: October, 1s. 5d. per imperial gallon; November, 1s. 7½d., and December, January, February, March, 1s. 9d., with the addition in each case of the actual cost of railway carriage for delivery to the railway station of the purchaser. The retail prices were limited to 2s. per imperial gallon in October, 1917, and to 2s. 4d. per imperial gallon thereafter until the end of March, 1918. An addition of 1d. per quart was permitted for milk delivered in bottles to the consumers, making the retail price of milk 7d. per quart in October and 8d. in the five following months.[3]

The consumers of milk were informed that the above prices were justified because of increased cost of production and distribution and that unless prices based on increased costs are paid the continuity of supply can not be insured.

The prices do not represent any reduction on the maximum prices of the preceding order, as the government in the spring of 1917 pledged itself not only not to reduce the price of milk but to allow an increase in order to secure the maintenance of dairy herds at full strength. The local food control committees were given powers to take measures for the proper distribution of milk. To safeguard the interests of the poor 2,200 tons, equal to 4,000,000 gallons, of whole milk were furnished to medical officers of health and to institutions.

[1] *Board of Trade Journal*, April 5, 1917, p. 19.
[2] *Ibid.*, April 19, 1917, p. 113.
[3] *Ibid.*, September 13, 1917, p. 561.

Further, local committees were authorized to provide for an adequate supply at reduced prices to infants and invalids.[1]

Potatoes

The first order regulating the price of potatoes was issued on January 9, 1917, by the Food Controller, after consultation with the Agricultural Departments of Great Britain and Ireland. It was to apply to the 1917 crop and fixed the prices as follows:

Potatoes in not less than 6-ton lots, f. o. b.

115 s. ($27.98) per ton for delivery from September 15 to January 31;
120 s. ($29.20) per ton for delivery in February and March;
130 s. ($31.63) per ton for the remainder of the season.[2]

The price of potatoes in June, 1916, was 245s. ($59.61) as compared with 87s. 6d. ($21.29) in June, 1914. At the time of the issuance of the order the government intended the prices to be contract or maximum ones. They were for produce of the first quality, delivered as required, in sound marketable condition. Previous to the issuance of this order the Board of Trade, under date of November, 1916, brought out an order requiring a return of stocks of potatoes in Great Britain.[3] Two orders (one for Great Britain, the other for Ireland) were also promulgated for the purpose of safeguarding the supply of seed potatoes for 1918 year's crop.[4] On December 21, 1916, the *Board of Trade Journal* announced that arrangements had been made to finance a scheme for the distribution of seed potatoes. The President of the Board of Trade has invited the war agriculture committees to request borough, urban and parish councils to ascertain what quantity of seed potatoes is required in each village, to collect cash with orders and to distribute seed. In a debate which took place in the House of Commons soon after the issuance of the price fixing order, Mr. Curdy asked whether the prices fixed were maximum or minimum prices and whether the government, since it fixed prices for wheat and for oats,

[1] *The Statist*, December 17, 1917, p. 120.
[2] *Monthly Review of the U. S. Bureau of Labor Statistics*, March, 1918, p. 402.
[3] *Board of Trade Journal*, December 21, 1916, pp. 861-863.
[4] *Ibid.*, p. 863.

proposes also to fix them for artificial manures and fertilizers. In his reply, Bonar Law said that the prices in the order were maximum.[1] Mr. Lough thought that a great deal of harm has been done by the order; many farmers, according to him, were prevented from planting any potatoes; this was sure to lead to a tremendous diminution of the crop.[2] The President of the Board of Agriculture replied that it was the government's object to discourage the growth of potatoes. It is difficult to see why the Board of Agriculture should have desired to curtail the potato crop, which in 1916, because of military drain on farm labor, the falling off in the acreage planted, increased cost of production and bad weather when the crop was ready for digging, fell from 7,476,458 tons in 1914 and 7,540,240 tons in 1915 to 5,468,881 tons. That this was surely not the aim may be seen from the announcement of the Under-secretary of the Board of Agriculture on the next day that the price was to be taken as minimum. In corroboration of this announcement, the Food Controller stated on January 25, 1917, that the prices fixed for potatoes of the 1917 main crop had been further considered and that in view of a possibility of an unfavorable season it had been decided that the prices named for potatoes "shall not be regarded as contract prices but as minimum prices guaranteed by the government for potatoes of the first quality."[3]

Thus the pressure of public and agricultural opinion compelled the government to revise its hastily conceived plans and declare that it did not intend to compel the farmer to

[1] *Parliamentary Debates*, House of Commons, 1917, vol. xc., p. 26.

[2] *Ibid.*, p. 61. The cost of growing an acre of potatoes on good land was calculated at that time to be:

Seed	£15 per acre
Manure	10 per acre
Rent rates	3 per acre
Labor (plowing, cultivation)	9 per acre
Lifting of the crop	3 per acre
	£40 per acre

According to this calculation the grower on the basis of two years' average crop (five tons per acre) would have expended £40 per acre, for which he would have received £30. W. W. Berry: "Food Control and Hasty Decisions," *Contemporary Review*, February, 1917, p. 186.

[3] *Board of Trade Journal*, January 25, 1917, p. 264.

sell his potatoes for £5.153 a ton, but that this price was a guaranteed price to him. Nothing was to prevent him from selling to other buyers if by doing so he could obtain better terms with regard to the unsold portion of the 1916 crop. The Seed Potatoes (Growers' Prices) Order, 1917, dated January 19, 1917,[1] gave a long schedule of maximum prices for seed potatoes, according to the variety and quality of potatoes. The price was fixed at £12 a ton for choice early varieties.[2] This was followed on February 1, 1917, by the Potatoes, 1916, Main Crop (Prices) Order, 1917, which fixed maximum prices for the best table potatoes of the 1916 crop if sold by the grower, as follows:[3]

For delivery in February, 1917	£8 a ton
For delivery in March or April, 1917	£9 a ton
For delivery in May or June, 1917	£10 a ton

The order provided that except under the authority of the Food Controller no table potatoes of the 1916 crop may be sold after February 19, 1917, by or on behalf of any person not the grower, at a price exceeding 1½d. a pound, such price including all charges for delivery to the buyer and for bags or other packages.

The growers' prices current in 1916 were from £12 to £20 per ton for seed potatoes and £10 to £12 per ton for table potatoes. Since a substantially reduced price was likely to lead to greatly increased demand, Lord Davenport was asked "how [he] was going to insure a sufficiency of potatoes to last until next crop comes into the market?"

The order of February 1 was obviously issued in part to protect the consumer from what was considered extortionate prices for potatoes. Within a few weeks Scotland, which was in a worse position than England in regard to its potato supply, appealed to the Controller to be excluded from the operation of the order; at the same time English retailers became more and more uneasy. The crop was a bad one,

[1] Statutory Rules and Orders, 1917, No. 50.
[2] *Ibid.*, No. 89; see also *Monthly Review of the U. S. Bureau of Labor Statistics*, June, 1917, p. 933.
[3] Berry, *op. cit.*, p. 185.

stocks were running short and it was argued that the lowering of prices by increasing consumption would only result in more trouble. Wholesale merchants complained that the farmers were holding their potatoes for better prices later on and that, although the growers' price was £8 per ton ($38.93), as much as £3 or £4 ($14.60 or $19.47) was charged for carting and other incidental expenses.[1]

Wholesale prices were not restricted by the order, and wholesalers were thus free to make what profit they could. Retailers, therefore, in their turn, complained that while they were ordered to sell at a maximum price 1½d. per pound, which amounted to £14 per ton, they had to pay wholesale merchants from £14 to £15. The retailers maintained that unless they could buy at £10 10s., they would refuse to handle potatoes. In his reply to retailers, the Food Controller stated that he did not think any action on his part would be necessary; the margin between growers' and retail prices was ample to allow a reasonable profit both to wholesalers and to retailers, who should arrange the matter among themselves.[2] There was no improvement in the situation, and the matter was brought to a head when the Lord Mayor of Manchester sent a telegram to the Prime Minister, representing the possibility of an immediate potato famine in Manchester and the surrounding district, and requesting that the subject be brought before the War Cabinet. He proposed that the order be so amended as to make it compulsory on growers to release stocks on demand. In reply to this message the Prime Minister announced on February 17 that inasmuch as the recent prolonged frost had reduced the available stocks and interrupted their regular distribution, it had been found necessary to readjust as fairly as possible the interests of all parties.

[1] *Monthly Review of the U. S. Bureau of Labor Statistics*, June, 1917, p. 933. Just the reverse happened from what was predicted by some writers. "How," asked Mr. Berry, "is the Food Controller to decide which farmers are to have their crops taken off their hands in September, and which are to be compelled to hold their potatoes until May or June. It is obviously better business to receive £5 15s. in September than to wait for the price established for late deliveries." Berry, *op. cit.*, p. 185.

[2] *Monthly Review of the U. S. Bureau of Labor Statistics*, June, 1917, p. 933.

At the Minister's request the departments concerned conferred with representatives of the wholesale and retail trades (which they should have done before) and submitted certain proposals, which were approved by the War Cabinet. According to the Prime Minister's announcement,

> the price which the growers will be entitled to charge to dealers and merchants for potatoes after the present date, February 17, up to March 31 will be £9 per ton, free on rail or free on board. After that the corresponding price will be £10. The price at which the growers or any other person may sell to the retailer will be £10 10s. until March 31, and £11 10s. thereafter, in addition to the cost of carriage. The price which the retailer may charge will be 1½d. per pound up to March 31, and 1¾d. per pound thereafter to the end of June.[1]

In conformity with this announcement, on February 24 an amending order was issued by the Food Controller, which contained the maximum prices announced by the Prime Minister. The new prices were not to affect existing contracts.[2]

A grower, according to the interpretation placed on the order by the Food Controller, was allowed to charge after March 31 the maximum price of 1¾d. per pound if he was selling potatoes in the ordinary way of business, by means of retail sales.[3]

Many amendments were issued in connection with the regulation of seed potato prices. In the latter part of February, prices were fixed for the sale by any person other than the grower at 3d. per pound, if sold in quantities of one-half hundredweight or less. In case of sale in larger amounts the prices were those charged by the grower, plus cost of transportation, and £2 and 10s. per ton if the sale were over one-half hundredweight, but less than 10 hundredweight; £1 and 5s. per ton if the sale were over 10 hundredweight, but less than 4 tons, and £1 per ton if the sale were 4 tons or over.[4] The Seed Potatoes (Prices) Order (No. 2) 1917, dated April 3, extended the provisions relating to seed potatoes to the end of

[1] *Board of Trade Journal*, February 22, 1917, p. 552.
[2] *Ibid.*, March 1, 1917, p. 613; see also Potatoes, 1916 Main Crop (Prices) Order No. 2, 1917, dated February 24, 1917. Statutory Rules and Orders, No. 178.
[3] *Board of Trade Journal*, April 5, 1917, p. 18.
[4] *Ibid.*, March 1, 1917, p. 613.

April, as well as raised by £2 per ton the prices chargeable for seed potatoes.[1] An amendment, dated April 30, 1917, extended until June 1, 1917, the orders regulating the prices at which seed potatoes might be sold.[2]

A measure of far reaching consequence was that guaranteeing to the grower on and after September 15, 1917, a price of £6 per ton, in lots of not less than 4 tons, for all sound marketable potatoes grown in 1917.[3]

The potato crop in 1917 was 8,603,000 tons or 3,154,119 tons larger than the crop of 1916. In a debate in the House of Commons during the latter part of October, 1917, the government was severely criticized by Mr. Runciman and others. The guarantee of a minimum price was coupled with the prohibition to sell potatoes below the fixed price of £6 a ton. It was stated that in Ireland potatoes were spoiling in large quantities, because there was no market for them at the high price fixed. While the authorities were advising the people to use potatoes instead of bread, they were at the same time fixing the price of potatoes beyond the reach of the poor.[4] Thus, with supplies more than ample, cheap distribution was hampered by official control. In his reply to critics, Mr. Prothero did not deny that there might be a surplus of potatoes, much of which, if prices were to be maintained at a minimum of £6 per ton, was likely to become bad. But, he affirmed, the government could not break its pledge to the producer.[5]

As one way out of the difficulty, Mr. Prothero proposed that some of the surplus should be used for mixing with flour for making bread and some for industrial alcohol.

A general license was issued by the Food Controller on November 17, 1917, permitting growers to sell their own potatoes below the minimum prices fixed by the government.[6] The government, however, undertook to recoup the growers

[1] *Board of Trade Journal*, April 5, p. 18; see also Statutory Rules and Orders, No. 178.
[2] *Ibid.*, p. 230; see also Statutory Rules and Orders, No. 402.
[3] *Ibid.*, p. 230.
[4] *The Economist*, October 27, 1917, p. 692.
[5] *Ibid.*, November 3, 1917, p. 726.
[6] *Board of Trade Journal*, November 22, 1917, p. 403.

with the difference between the price at which they sold their potatoes and the guaranteed price of £6 per ton. In order to safeguard the Exchequer, a base price for different areas was fixed as follows: for England and Wales £5 per ton, free on rail, grower's station; for Scotland £4 10s. per ton; for Ireland £4 per ton; potatoes sold below the base price were to be considered as sold at this price. The cost of the above scheme to the government was estimated at £5,000,000. It placed a burden on the taxpayer for the benefit of the farmer. The government, in justification of its policy, claimed that this guarantee of a high minimum price was instrumental in producing the great crop which was so desirable.[1] While admitting that this claim has some force in it, the *Economist* finds "the real lesson of the potato comedy" in that it revealed the danger of meddling with economic laws; such action should never be taken except in cases of urgent national necessity.[2]

Grain

On April 16, 1917, the Food Controller issued an order that no wheat, barley (other than kiln dried) or oats harvested in the United Kingdom in 1916 may be sold at prices exceeding:

Wheat, per quarter	78s.
Barley, per quarter	65s.
Oats, per quarter	55s.

On the same day the Food Controller took over all barley other than home grown barley, which had not been kiln dried.[3] The average *Gazette* quotations at the time of the issue of the order were as follows:

Wheat, per quarter	85s. 2d.
Barley, per quarter	71s. 10 d.
Oats, per quarter	57s. 2d.

The fixed prices were superseded on August 14, 1917, by the following:[4]

[1] *The Statist*, December 1, 1917, p. 1121.
[2] *The Economist*, November 17, 1917, p. 807.
[3] *Board of Trade Journal*, April 19, 1917, p. 112.
[4] *Ibid.*, August 23, 1917, p. 395.

For Delivery	Wheat and Rye per Quarter of 504 Pounds s. d.	Oats per Quarter of 336 Pounds s. d.	Barley per Quarter of 448 Pounds s. d.
Before 1st December, 1917	73 6	[illegible]	62 9
In December, 1917, or January, 1918	74 6	45 3	62 9
In January, 1918, or March 1918	75 6	46 3	62 9
In April or May, 1918	76 9	47 3	62 9
On or after 1st June, 1918	77 9	48 6	62 9

The order contains certain provisions permitting additions to these prices; thus where oats are bought by a miller specifically for the manufacture of oatmeal, rolled oats or flaked oats, 3s. per quarter may be added to the maximum price. In the case of damaged wheat, rye, barley or improperly cleaned oats, certain deductions are allowed.

A number of *flour and bread* orders were issued before the establishment of a standard price for bread and flour in 1917.

The orders fixed the percentages of flour that could be extracted from wheat of various origins and qualities, prohibited the use of wheat in the manufacture of beer and dealt with the various conditions on which bread might be manufactured and sold.[1] On April 30, 1917, the Food Controller took over all flour mills in the United Kingdom which used any wheat in the making of flour, except mills the output capacity of which was less than 5 sacks of flour per hour. The effect of this order was that the mills passed into the possession of the Food Controller, the work in them to be carried on in accordance with his directions.

The Flour and Bread Order, 1917, dated September 17, established the following maximum retail prices for bread and flour:

Bread	
Per 4 pound loaf	9d.
Per 2 pound loaf	4½d.
Per 1 pound loaf	2¼d.
Flour	
Sack of 280 pounds, or half sack	per sack 50s.
7 pounds or more, but under half sack, per 14 pounds	2s. 8d.
Per quarters (3½ pounds)	8½d.
Per half quarters	4¼d.
Per 1 pound	2½d.
Self-raising flour per pound	3½d.

[1] Great Britain Statutory Rules and Orders, 1917, No. 377, or *Board of Trade Journal*, April 26, 1917.

To enable the retailer to sell to the public at the retail prices named, wholesale prices had been fixed for flour. On and after September 17 wheat meal and flour manufactured in the United Kingdom was sold at 44s. 3d. per sack of 280 pounds at the mill door. Imported flour was to be sold at a higher price according to quality. The price of 44s. 3d. has been fixed with a view of allowing the retailer a reasonable and not more than a reasonable profit.[1]

The prices established by the government mean a reduction of 20 to 25 per cent on those previously charged. The yearly cost to the Exchequer of thus "subsidizing" flour and bread is about £40,000,000. The *Statist* condemns the arrangement by means of which the government "dipped into the taxpayer's pocket with one hand and with the other presented him with a 4 pound loaf for 9d."[2] On the other hand, the *Economist*, while admitting that the subsidized loaf is open to serious objections, supports Lord Rhondda in his claim that "it is the best expedient in the present circumstances."[3]

The Oats and Maize Products (Retail Prices) Order, 1917, dated May 9, 1917 (No. 444) fixed maximum retail prices of 4d. per pound for maize flour, maize meal and other like products, and of 5½d. per pound for oatmeal, rolled oats and flaked oats.[4] This order was superseded by the Oats and Maize Products (Retail Prices) Order, No. 2, 1917, dated May 23, 1917 (No. 482), which reduced the maximum prices, from June 18, for maize flour, maize flakes, hominy, etc. to 3½d. per pound and for oatmeal, rolled oats, flaked oats to 4½d. per pound in Scotland and 5d. elsewhere in the United Kingdom.[5]

Meat

In August, 1914, an act was passed in Queensland giving the Queensland Government full control over the meat supplies of the state for imperial purposes. Early in April, 1915,

[1] *Labour Gazette*, September, 1917, p. 318.
[2] *The Statist*, December 1, 1917, p. 1120.
[3] *The Economist*, July 28, 1917, p. 116.
[4] *Defense of the Realm Manual*, May 31, 1917.
[5] *Ibid.*, see also *Labour Gazette*, June, 1917, p. 201.

a similar law was passed in New South Wales. In February, 1915, the Australian and New Zealand Governments agreed to buy on behalf of the British Government all the beef, mutton and lamb available for export. F. o. b. prices were amicably arranged in all states and the whole exportable supply was shipped.[1] The great difficulty as to the imported meat supply throughout the war had been the shortage of shipping, to overcome which systematic shipping arrangements were made by the British Government. The method adopted by the government for distributing Australian meat among the civilian population was to resell it to firms who "formerly received the Australian supplies." These were selling the meat on commission and were bound to sell it "in the usual manner," so that "as far as possible it should pass through the usual channels and in the usual quantities." In case of supplies running short the available amount was "pro rata." "The distributors were held bound to sell only to bona fide retailers in the old proportion." This scheme was similar in its essential characteristics to that adopted for the distribution of sugar and was open to the same objections. For two years unusual conditions had been confronting the country, a redistribution of population took place and yet the government imposed on dealers the sale of meat in the "old proportions."[2] In no case were the wholesale distributors allowed to add more than ½d. per pound to the price which they paid to the selling agents. No price was fixed for retailers. The Board of Trade Committee on Prices thought that the wholesale selling policy probably was sufficient to secure a general check on inflation, the instructions to the agents being that they should aim at steady and moderate prices.[3]

Part II of the Meat (Sales) Order, 1917, which came into force on June 4, 1917, was directed towards securing the elimination of jobbing transactions in the sales of dead meat and towards limiting the salesmen's profits. A salesman

[1] Report (interim) of the committee on prices. Cd. pp. 9–10.
[2] E. Cannan, in the *Economic Journal*, December, 1916.
[3] Interim Report on Prices. p. 11.

selling a carcass, side or quarter could only charge 3d. a stone above the price at which he bought (1d. additional if carcass is cut into smaller joints).[1]

By the Meat (Maximum Prices) Order, 1917, dated August 29,[2] schedules for maximum dead meat prices as from September 3 were fixed. The beef prices corresponded to, and were based upon the maximum prices for live hundredweight for cattle purchased by the army:

SCHEDULE OF MAXIMUM WHOLESALE MEAT PRICES[2]

1917	Beef and Veal Price per Ton: Home Killed Carcass	Beef and Veal Price per Ton: Imported Hind-quarters	Mutton and Lamb Price per Stone: Home Killed	Mutton and Lamb Price per Stone: Imported	Pork Price per Stone: Home Killed	Pork Price per Stone: Imported
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
September	8 8	8 4	8 8	7 8	9 6	8 6
October	8 4	8 0	8 8	7 8	9 6	8 6
November	8 0	7 8	8 8	7 8	9 6	8 6
December	8 0	7 8	8 0	7 8	9 6	8 6
1918						
January	7 4	7 0	8 0	7 8	9 6	1 8

The retail butcher could not sell meat over the counter at prices which in the aggregate exceeded the price paid by him by more than 2½d. per pound, or 20 per cent, whichever was the less. Out of this difference the retailer had to pay all his expenses of business. Furthermore, the local food control committee was empowered to fix schedules of maximum retail prices for the various joints. These schedules varied from district to district, according to local conditions.[3]

An official statement issued on July 20, 1917, announced that in agreement with the Army Council and the Agricultural Departments of England, Scotland and Ireland, Lord Rhondda had decided that the following should be the maximum prices for live cattle for the Army: September, 74s. per live hundredweight, October, 72s., November and December, 67s., January 60s.[4] As shown above, maximum prices were fixed on a corresponding basis for civilian population and steps

[1] *Board of Trade Journal*, June 7, 1917, pp. 532–533, or Statutory Rules and Orders, 1917, No. 520.
[2] *Board of Trade Journal*, September 6, 1917, p. 505.
[3] *Monthly Review of the U. S. Bureau of Labor Statistics*, November, 1917, p. 101.
[4] *Liberal Magazine*, August, 1917, p. 363.

were taken to control the profits of butchers and others in such a manner as to ensure that the benefit of the reduced prices would accrue to the consumer. The fixing of maximum dead weight prices for cattle limited the profits of the farmer and of the cattle buyer, and the fall in wholesale price at the end of 1917 compared with July of the same year was 19 per cent in the case of mutton and 17 per cent in the case of beef.[1]

Fearing that the new scale of fixed prices might lead to a reduction in the supply, the Food Controller reduced the cost of feeding stuffs to the farmer, and by an order of November 1 substantial reductions were effected in linseed and other kinds of cake, milling offals and various cattle foods.[2] This, however, helped matters very little.

An anomalous situation with regard to meat arose at the end of 1917 owing to high prices of live stock as compared with fixed maximum prices for meat. The Food Controller issued an interim order, limiting the prices which could be paid for live stock.[3]

The effect of price fixing in the case of meat is not easy to follow. While one can readily ascertain and, if necessary, limit the number of cattle, sheep and pigs slaughtered, the more important thing to know is the rate of breeding to replace the numbers slaughtered. If farmers reduce the number of calves bred, it takes time before the fact becomes apparent, and any legislation which leads to such results is harmful from the standpoint of future supplies. Mr. Prothero has been all along opposed to the reduction of the price of meat from 67s. to 60s. on January 1, 1918. In his words, "it put a premium on grass as the cheapest form of cattle feeding; it penalized stall feeding on arable farms, and so tended to diminish the supply of manure, without which it was impossible to carry on arable farming with success."[4] A new order left the price of cattle at 67s. per live hundredweight during

[1] *The Statist*, December 1, 1917, p. 1120.
[2] *Ibid.*, p. 1120.
[3] *Board of Trade Journal*, December 27, 1917, pp. 664–65.
[4] *The Economist*, October 20, 1917, p. 564.

the first six months of 1918, the reduction to 60s. to take effect on July 1.

In view of the excessive slaughter of calves, the Food Controller issued the Live Stock (Restriction of Slaughter) Order, which forbade the slaughter of heifer calves after January 1, 1918, and of male calves after March 15, 1918. The order also prohibited the sale of lamb (other than imported lamb) between February 1, 1918, and June 15, 1918, and the slaughter of in-pigs sows, in-lamb ewes, in-calf cows or in-calf heifers as from December 15, 1917.

The Meat (Retailers' Restriction) Order, 1918, issued on January 17, 1918, provided that a retail butcher could not in any week purchase a greater number of cattle or quantity of meat than the number or quantity prescribed by the Food Controller. The next step was strict rationing of consumers, to which it obviously had to come.

Bacon, Ham and Lard

The Bacon, Ham and Lard (Maximum Prices) Order, 1917, dated August 30, fixed maximum producers' and importers' prices. In connection therewith, it was pointed out that the importers' prices were mainly determined by the market prices ruling in foreign countries, over which the Food Controller has no control, and that they must be maintained at such a figure as will ensure the regular shipment to Great Britain of adequate supplies.[1] One day previous to the issue of this order, the importation, except under license, of bacon, hams and lard was prohibited. The object of this step was to enable the government to take over the whole import of these articles, and to concentrate the purchase of them in various countries in a single organization. One of the immediate actions taken was the establishment in the United States of a single buying agency, analogous to the Wheat Export Company. It was provided that the goods imported on behalf of the Ministry of Food should be distributed through the ordinary channels on fixed terms as to commission and profits.[2]

[1] *Labour Gazette*, September, 1917, p. 318.
[2] *Board of Trade Journal*, September 6, 1917, p. 505.

Butter

The Butter (Maximum Prices) Order dated August 31, 1917, established from September 3, 1917, maximum wholesale prices for butters of various kinds, and also provided that after September 10 no person should retail butter at more than 2½d. per pound in excess of the actual cost to him; an additional ½d. per pound was allowed for credit or for delivery. Food control committees were empowered to prescribe from time to time a scale of maximum prices, in accordance with the general directions of the Food Controller.[1] This order applied to home made butter, leaving imported butter out of control. The plan was found unworkable. On September 20, first hand maximum prices of butter have been fixed for or on behalf of the importer or maker of French butter at 238s. per hundredweight for French Paris (unsalted).[2] At about the same time the Food Controller announced that he had appointed an advisory committee to consider the control of purchase and distribution of butter supplies and that the committee was engaged in working out the details of a scheme for the complete control of the imports of butter.

Danish butter was selling at that time at a much higher price than the domestic product. Two orders were issued at the beginning of November, 1917, one making certain alterations in the previous Butter Order and the other fixing the first hand price of both Danish and Dutch butter (at 229s. per hundredweight) as well as the price of blended butter from English factories.[3] The purpose of these orders was to bring imported and home produced butter to approximately the same level of prices. The importation of Dutch butter ceased. Lord Strachie in a letter to the *Times* of January 9, 1918, pointed out that Lord Rhondda has fixed the price at which butter imported from Holland may be sold in the United Kingdom at 229s. per hundredweight, while the cost of producing such butter is 445s. "It is unnecessary,"

[1] *Labour Gazette*, September, 1917, p. 318.
[2] *Board of Trade Journal*, September 27, 1917, p. 676.
[3] *Ibid.*, November 8, 1917, p. 295.

writes the *Spectator*, "to look any further for an explanation of the stoppage of supply of Dutch butter. A similar consideration applies to Danish butter."[1] Maximum prices fixed for some of the other kinds of butter were as follows: Australian, 220s., New Zealand, 224s, Argentina, 220s., British made, 230s.[2] The government expected that eventually most kinds of butter would be sold to retail for 2s. 3d. to 2s. 5d. per pound, without any loss to the Exchequer.

Cheese

Cheese imported from the United States, Canada, Australia and New Zealand was taken over by the Food Controller on May 29, 1917 (Cheese Requisition Order, 1917, No. 510).[3] Prices fixed for this cheese were such as to enable the retailers to resell at 1s 4d. per pound. The wholesale price of the British made cheese was fixed by an order dated August 31, 1917. This order also regulated prices to be charged by others than makers.[4] The order was less than a month old, when the Food Controller announced that in view of the forthcoming advance in the controlled price of milk, and in order to encourage the making of cheese so far as any surplus supply of milk may be available, the maximum first hand price of all whole milk cheese would be raised to 137s. per hundredweight.[5] The announcement enumerated certain exceptions to this price and then stated that on and after November 1, 1917, the maximum first hand price of whole milk cheese, with the above exceptions, would be not less than 142s. per hundredweight.

By an order dated December 8, 1917, the Food Controller applied the provisions of the British Cheese Order to Dutch cheese. It fixed the maximum first hand prices chargeable by an importer, on full cream cheddar shapes at 100s., with a proportionate decline on poorer grades.[6]

[1] *The Spectator*, January 12, 1918, p. 31.
[2] *Commerce Reports*, November 6, 1917, p. 497.
[3] *The Defense of the Realm Manual*, May 31, 1917, p. 308.
[4] *Board of Trade Journal*, September 6, 1917, p. 506.
[5] *Ibid.*, September 27, 1917, pp. 676–677.
[6] *Chamber of Commerce Journal*, January, 1918, p. 11.

Tea

On March 16, 1917, the Food Controller announced that an arrangement had been made with the various tea associations, representing importers, brokers and distributors, that on and after May 1 tea shall be sold retail at 2s. 2d. and 2s. 4d. (52.7 and 56.8 cents) per pound and upward. To insure a reasonable supply at the lower price, 40 per cent of the imports from India and Ceylon were to be allocated to the trade by the importers for this purpose.[1] The popular retail price of tea up to November, 1916, advanced 8d. per pound, of which 7d. per pound was increase in duty and only 1d. per pound was an advance due to other causes. In November, 1916, the price was 2s. as compared with 1s. 4d. in 1914. A number of reasons brought about a rapid rise in price in the early part of 1917. Some of these reasons were (1) market rumors that the Food Controller was going to take action with regard to tea, (2) exceptionally large demand on the part of consumers who anticipated shortage, (3) curtailment of supplies, first by the prohibition of the importation of tea from China and Java, and, second, by restriction of space allotted to tea shipments from Calcutta and Colombo.[2]

In July the scheme of distribution was so amended that by arrangement with the trade 30 per cent of the total imports of tea from India and Ceylon was allocated to be sold retail at 2s. 4d., per pound, 35 per cent at 3s. 8d., and 25 per cent at 3s. per pound, the balance of 10 per cent to consist of fine teas at above 3s. per pound.[3]

At the time, the position of the tea supply attracted some attention in the press, and various statements, some of an alarming nature, appeared. In view of this the Food Controller reassured the public. According to him, though the importation of China and Java teas had been stopped, this has been more than balanced by the prohibition of exports except under license. The difficulty in providing tonnage

[1] *Monthly Review of the U. S. Bureau of Labor Statistics*, June, 1917, p. 940.
[2] *The Economist*, February 16, 1918, p. 268.
[3] *Monthly Review of the U. S. Bureau of Labor Statistics*, November, 1917, p. 98.

has been met and adequate imports were insured. Economy in the use of tea, as in the case of all foodstuffs, has been urged.[1]

There seems to have been a great deal of confusion in the tea trade, the blame for which the Cooperative Wholesale Society placed upon the Tea Advisory Committee; it bitterly attacked the composition of this committee and suggested that under state purchase and distribution a tea director be appointed with compulsory powers:

(1) To acquire all stocks of tea in the country in the hands of growers and importers and all cargoes afloat at a reasonable profit commensurate with capital, expenditure, etc.

(2) To distribute supplies as far as possible through existing distributive channels.

(3) To ensure the public their supplies of tea at a minimum profit.

While the discussion was going on, the finer teas which the order permitted to be sold at above 3s. per pound soared higher and higher in price, and, what seemed puzzling to the public, the controlled tea, the 90 per cent from India and Ceylon which had to be offered for sale at maximum prices, seemed to have practically disappeared; all that the housewives were able to buy were the choicer teas at extravagant prices.[2]

By an order dated October 17 it was provided that no tea should be sold after October 31, 1917, at a price exceeding 4s. per pound.[3] Further regulations were made as to the prices of tea on December 14. The effect of this and of the previous order may be summarized as follows:

Maximum prices at which teas could be sold until December 30, 1917: Class A, 2s. 4d. per pound; class B, 2s. 8d. to 3s. per pound; class C, 3s. to 3s. 4d. per pound; class D, 4s. per pound; uncontrolled 4s. per pound.

On and after December 31 the maximum prices were fixed to be: Class A, 2s. 4d. per pound; class B, 2s. 8d. to 3s. per pound; class C, 3s. to 3s. 4d. per pound; class D, 3s. 8d. per pound, and uncontrolled, 2s. 8d. per pound.

[1] *Labour Gazette*, September, 1917, p. 319.
[2] *The Economist*, November 3, 1917, p. 726.
[3] *Board of Trade Journal*, October 25, 1917, p. 185.

Beans, Peas and Pulse

By the Beans, Peas and Pulse (Requisition) Order, 1917, dated May 16, 1917 (No. 457), the Food Controller took over from the original consignees all beans, peas and pulse suitable for human food which had arrived or was to arrive in the United Kingdom.[1] The order was supplemented by a Retail Prices Order on May 29, 1917 (Order No. 571), which fixed three schedules of maximum retail prices for various kinds of beans: one schedule, the highest, to apply until June 30, 1917, one, during July, 1917, and one, on and after August, 1917. The prices for the third period were fixed as follows: large butter beans, 8d. per pound; white haricot beans, 8d.; colored haricot beans, 5½d.; large manufactured lentils, 8d.; small manufactured lentils, 7d.; blue and green peas, 9d.; yellow split peas, 6d.[2] The sale of peas in packages was authorized under certain conditions.

A couple of weeks before the issue of the first of these two orders the Food Controller took over by a special order all "Burmah" peas and beans arriving in Great Britain.[3] The price to be paid was fixed at £37 per ton for handpicked white beans, prices for other varieties being at corresponding levels. Before this order market prices ranged around £80 per ton. The commandeered beans were to be sold at a retail price of 6d. per pound, which was about half the price existing before the Food Controller's intervention. The classification "Burmah" covers various types of beans imported from Egypt, Spain, Japan and China, including the Soya bean. At the beginning of July, the Food Controller authorized, until August 15, sales and purchases of beans, peas and pulse contracted before May 30 at prices exceeding those permitted by the Order of May 29.[4]

[1] *Defense of the Realm Manual*, May 31, 1917, p. 261.
[2] *Ibid.*, p. 262; or *Board of Trade Journal*, May 31, 1917, p. 472.
[3] *The Economist*, May 5, 1917, p. 774.
[4] *Board of Trade Journal*, July 12, 1917, p. 82.

Miscellaneous

An order, passed in March, 1917, and directed against the manufacture of "extravagant *sweets*," enforced a maximum retail price of 3d. an ounce for chocolates and 2d. an ounce for other sweets.[1]

Jam (Prices) Order, 1917, dated August 15, fixed maximum wholesale and retail prices for various kinds of jam and jelly. The maximum retail price per pound ranged from 9d. for plum and apple to 1s. for strawberry and five other kinds.[2]

Previous to the issuance of this order the Stone Fruit (Jam Manufacturers' Prices) Order and the Raspberries (Manufacturers' Prices) Order fixed maximum prices at which jam manufacturers could buy home grown plums, damsons, green gages and raspberries.[3]

An order which came into force on December 10, 1917, fixed the maximum retail price of roasted or ground *coffee* at 1s. 6d. per pound and that of raw coffee at 1s. 4d. If a trader had coffee on offer at these rates he could sell better qualities of roasted or ground coffee at any price not exceeding 2s. 6d. per pound, and of raw coffee at any price not exceeding 2s. 4d.[4]

An order issued towards the end of December, 1917, limited the retail price of *home grown onions* to 3d. per pound and prohibited retail sales to one customer of more than 7 pounds in one week. It also fixed growers' and wholesale prices.[5]

By an order in force on January 14, 1918, the maximum price of wild *rabbits* was fixed at 2s. if sold with the skin, 1s. 9d. if sold without the skin, and 10d. a pound for any part of a rabbit.[5]

The Food Controller fixed also maximum prices on *fish*.

[1] *Monthly Review of the U. S. Bureau of Labor Statistics*, March, 1917, p. 403.
[2] *Labour Gazette*, September, 1917, p. 318.
[3] *Ibid.*, July 1917, p. 238.
[4] *Chamber of Commerce Journal*, January, 1918, p. 11.
[5] *Ibid.*, February, 1918, p. 38.

CHAPTER VIII

Governmental Control and Price Fixing

COAL

From the earliest stages of the war questions concerning the prices of coal, the profits of coal operators and the wages of miners received a great deal of attention. Because of the sharp rise in prices and the shortage of supply, the Board of Trade appointed a committee to investigate the conditions in the retail coal trade. This committee reported the results of its investigation in April, 1915. It studied mainly the conditions in London, and found that the actual increase in prices for best coal between June 16, 1914, and February 17, 1915, amounted to 9s. per ton, the price having risen from 26s. to 35s.; the cheaper kinds rose more rapidly, "stove nuts" having increased in price from 20s. to 34s. The chief cause of the increase was a reduction of supply due to the fact that some 130,000 miners had joined the colors.[1] Four other causes helped to intensify the scarcity of coal in London: (1) decrease in sea borne supplies; (2) congestion on the railways and shortage of wagons arising especially from military requirements; (3) lack of storage accommodation in London, except among wealthy people; (4) excessive demand at certain periods due to "panic" orders. The committee found that the cost of production at the mine had increased only slightly, by less than 1s. (24.3 cents). The wages of miners and railway rates had not changed, and the increased cost of wagon hire, horses, fodder, etc., as well as increased wages of carters and loaders were found to amount to no more than 2s. per ton. The total rise in the cost of production and distribution was therefore at most 3s. per ton, while the price to the consumer in London

[1] Report (interim) of departmental committee to inquire into the causes of the present rise in the retail prices of coal sold for domestic use (Cd. 7866). London, 1915; see also *The Economist*, April 10, 1915, p. 705.

had risen above normal winter rates by an amount varying from 7s. to 11s.

The committee did not attribute high prices to definitely constituted "rings" or close corporations in the coal trade.[1] However, it called attention to the fact that there were opportunities for "conferences" on the London coal exchange and that the advertised "public prices" were fixed by a few leading firms. Prices charged, according to the committee's report, included a large surplus above ordinary profits, after making due allowance for increased cost of production and distribution.

The committee recommended (1) restriction of exports to neutral countries, (2) accumulation of reserves in or near London, (3) reduction of freight rates on interned steamers, (4) assumption of control of the output of collieries by the government, should the prices not return shortly to a reasonable level. The investigation left an impression on the committee that the conduct of an industry on which such great national interests depend can not be left safely in time of a crisis to the working of an unregulated system of supply and demand.

Acting upon one of the recommendations of the Coal (Retail Prices) Committee, the Board of Trade prohibited the export of coal from England after May 13, 1915, except to British colonies, to the Allies and to Portugal. The object of the prohibition was twofold: (1) to relieve the shortage of supplies and thereby reduce prices and (2) to prevent British coal from reaching enemies via neutral countries. A committee was appointed to supervise the coal export trade.

On February 23, 1915, the Board of Trade appointed a committee to inquire into the conditions prevailing in the coal mining industry, with a view to promoting such organization of work as would secure the necessary production of coal during the war. The report of this latter committee (Cd. 7939) appeared a couple of months later than the one presented by the Coal (Retail Prices) Committee. This report corroborated the conclusions reached by the Board of Trade

[1] *Labour Gazette*, April, 1915, p. 117.

Committee on Employment, namely, that indiscriminate recruiting in vital industries, such as coal mining, should be called to a halt.[1]

The committee found that the number of persons from coal mines who had joined His Majesty's forces up to the end of February was 191,170, or at the rate of 27,310 persons a month. This number represented 17.1 per cent of the total number of persons of all ages employed in coal mines at the beginning of the war (1,116,648); but the proportion of persons who left between the ages of 19 and 30, *i.e.* of those who were most fit to undertake arduous work, was estimated approximately at 40 per cent.[2] There has been a certain amount of replenishment of labor in coal mines from outside sources, but this replenishment did not make good the loss due to enlistment. Those who left were mostly trained, young and vigorous men; those who took their places were workmen of an entirely different character.[3]

Enlistments continued into 1916, and it was estimated that by the end of September, 287,000, or more than 25 per cent of the labor employed in the collieries at the outbreak of the war, had joined the colors.[4] Because of inflow of labor from other industries and reentry of men returned from the forces, the actual decline in the number of miners at work fell between August, 1914, and June, 1916, by 13.7 per cent. The effect of the decrease in the number of miners was a decline in the output of coal. The following figures tell the story:

PRODUCTION OF COAL[5]

	Million Tons
January to December, 1913	287.0
January to June, 1914	140.0
July to December, 1914	125.6
January to June, 1915	127.6
July to December, 1915	126.6
January to June, 1916	128.3
July to December, 1916	128.1
January to June, 1917	126.4
July to December, 1917	121.3

[1] *The Economist*, June 12, 1915, p. 1195.
[2] *Monthly Review of the U. S. Bureau of Labor Statistics*, July, 1915, p. 57.
[3] *Board of Trade Journal*, January 24, 1918, p. 92.
[4] *Labour Gazette*, January 17, 1917.
[5] *Board of Trade Journal*, January 31, 1918, p. 122.

On June 16, 1916, the government prohibited all recruiting from miners and decided further that all miners in the ranks of home service units, who were unfit for foreign service, should be returned to the mines.[1]

The production of coal declined from 287,000 million tons in 1913 to 257,700 million tons in 1917, at a time when the country because of governmental requirements needed coal more than at any time in her history. The domestic situation was somewhat relieved by restrictions placed on exports of coal. These restrictions coupled with reduction of tonnage available for shipments of coal led to a decline in export of coal from 77 million tons in 1913, to 42 million tons in 1916 and 38 million tons in 1917; the balance available for home consumption, admiralty and bunkers was thus 210 million tons in 1913, 214 million tons in 1916 and 207 million tons in 1917.[2]

On July 29, 1915, the Price of Coal (Limitation) Act (5 and 6 Geo. V, ch. 75) was passed. It prescribed that the price of coal at the pit's mouth should not exceed by more than 4s. per ton (or such other amount as the board might order) the price of the same description of coal sold in similar quantities under similar conditions at the corresponding date during the twelve months ended June 30, 1914. The act also limited the charge for transportation from the pit's mouth on trucks owned by the mine operator to 50 per cent above that which prevailed at the "commencement" of the act.

The Board of Trade authorized an increase of 5s. instead of 4s. in the Forest of Dean district on September 17, 1915. An increase of 6s. 6d. instead of 4s. was authorized by the board in the Monmouthshire and South Wales district on July 13, 1916. A similar increase of 6s. 6d. was authorized in the Forest of Dean district and the 1915 order was rescinded on October 18, 1916.

[1] Great Britain. Coal Mining Organization Committee—third general report of the departmental committee appointed to inquire into the conditions prevailing in the coal mining industry due to the war. London, 1916. The second report of the committee was issued in December, 1915; quoted from *Monthly Review of the Bureau of Labor Statistics*, p. 534.

[2] *Board of Trade Journal*, January 24, 1918, p. 92.

After the passage of the Price of Coal (Limitation) Act, voluntary arrangements were made with the London coal merchants for limiting retail prices of house coal, and it was suggested to local authorities throughout the country that they might make similar voluntary arrangements with the coal merchants in their districts. The leading coal merchants in various important centers throughout the country undertook to limit charges added by them to the cost of coal, as delivered to the merchants, or not to advance prices above an agreed level without first consulting with the municipal authorities. In London a definite schedule of prices for sales of coal in small quantities was established, and the London County Council required this schedule to be kept posted in the small shops where coal was sold in penny worths and similar small quantities.[1]

In order to assure the continuity of supplies to home consumers a Coal Exports Committee was created in May, 1915; the next steps were the setting up during the second winter of the war (December, 1915–January, 1916) of district coal and coke supplies committees in different colliery districts and the establishment of a central committee, consisting of representatives of the Board of Trade, the Admiralty, the Home Office, the Ministry of Munitions, the Railway Executive Committee, the coal mining industry and the coal trade. The functions of the local committees were to arrange for the most economical system of distribution and in particular to ensure adequate supplies to the war industries, while the central committee was entrusted with the consideration of questions of policy. At first the committees were on a voluntary basis, but legal difficulties because of committees' interference with contracts made it necessary to establish the system on a compulsory basis.[2]

On November 29, 1916, a regulation was passed under the Defense of the Realm Act giving the Board of Trade power to take possession of any coal mines where it appeared to them

[1] Report (interim) of departmental committee on prices, Cd. 7866, p. 7.
[2] *Board of Trade Journal*, January 24, 1918, p. 93.

expedient "for securing the public safety and the defense of the realm." Because of a wage rate dispute this regulation was at once (December 1, 1916) made applicable by order to the South Wales coal field;[1] on February 22 all the mines in the kingdom came under control of the Coal Mines Department,[2] which had been established by the President of the Board of Trade. A Controller of Coal Mines (Mr. Guy Calthrop) was appointed, as well as an Advisory Board, consisting of representatives of coal owners and coal miners.

The powers given to the Coal Controller's department were very comprehensive; they gave him full control over the production, distribution, storage and consumption of coal, including the fixing of maximum or minimum prices. The effect of the shortage of shipping was felt in the early part of 1917 in the form of a considerable reduction in the quantity of coal exported and a serious fall in export prices. In order to deal with the position as regards prices, a code of directions as to the sale of coal was issued by the Controller of Coal Mines on June 28, 1917, embodying a schedule of prices of coal for exporting or bunkering.[3] A series of amendments to these directions was issued on October 12, and the schedule prices were increased by 2s. 6d. per ton, except as regards shipments to France and Italy;[4] the latter was a rather unsatisfactory arrangement. "The scheme for the supply of coal to France and Italy at limited coal prices and rates of freight has been to deprive colliery companies, and particularly those producing mainly for export, of their private commercial character and virtually to convert them into a part of the state domain."

The prices ranged from 30s. to 33s. per ton, f. o. b., for the better classes of large steam coals, and roughly from 20s. to 23s. per ton for the better qualities of small coals. They were graded according to their relative economic value, and, on an average, were many shillings per ton higher than the current

[1] *Liberal Magazine*, December, 1916, p. 573; *Board of Trade Journal*, vol. 95, p. 717.
[2] *The Economist*, November 3, 1917, p. 726; *Board of Trade Journal* vol. 96, p. 880.
[3] *Board of Trade Journal*, January 31, 1918, p. 121.
[4] *The Economist*, November 3, 1917, p. 726.

market prices. The scheme was thus vitally different from that which had been in force for the supply of coal to France since June, 1916, for under that scheme there was one maximum price of 30s. for large coals, irrespective of their relative qualities, and of 20s. for small coals. The new fixed prices were to be enforced without regard to current market conditions.[1] The scheduled prices operated as fixed prices in the case of shipments to France and Italy, and as *minima* in the case of shipments to neutral countries. Contracts entered into prior to May 1, 1917, were not to be interfered with, and the coals supplied to the Admiralty were excluded from the scheme.[2]

The price of coal in the United Kingdom was increased by 2s. 6d. per ton at the pit's mouth in October, 1917, in order to meet the cost of the special war wage of 1s. 6d. per day to adults and of 9d. per day to boys under 16, which was granted by the Coal Controller. But according to this new arrangement the coal owners who were supplying the home market exclusively were able to realize the extra 2s. 6d. on the whole of their outputs, while those who were selling to France and Italy were excluded from the benefit of this additional amount. Because of this, the concession granted by the Board of Trade did not represent more than 1s. 10d. per ton when applied to the total production of the coal fields. The most affected collieries were those of South Wales and those in proximity to Tyne and other Northeast ports. The war wage advance of 1s. 6d. per day was to be paid to all workmen, whether they worked or not; this placed a heavier burden upon those collieries where the loss of working time through tonnage scarcity was the greatest.[3] The government increased the wages of miners and passed the price fixing law without consulting the colliery owners.

One of the first measures taken by the Controller after his appointment was the preparation of a scheme of compensa-

[1] *The Economist*, July 7, 1917, p. 11.
[2] *Ibid.*, July 14, 1917, p. 45.
[3] *Ibid.*, October 20, 1917.

tion to the owners of the mines. The Mining Association strongly recommended the acceptance of the control agreement to the coal owners, but so many owners were opposed to the scheme that it was decided to abandon all attempts at a voluntary agreement. On October 25 Sir Albert Stanley introduced in the House of Commons a bill "to confirm and give effect to a certain agreement relating to the compensation to be paid in respect to the control of coal mines and other matters arising out of such control." The bill was passed as the Coal Mines Control Agreement (Confirmation) Act.[1] One of the main features of the agreement was the surrender by the owners of 95 per cent of any profits in excess of the "profits standard" (that is, the average profits of the best two out of the three years before the war, or the best four years out of six), the Controller receiving what remained after payment of excess profits duty of 80 per cent. The Controller on the other hand, guaranteed the prewar profits standard to all collieries, subject to a reduction where the output was reduced.[2]

Since the assumption of governmental control colliery companies have been held responsible for the working of the pits. When in October, 1917, the financial arrangements of state control were disclosed, it became apparent that many of the pits had been working at a loss.

In view of continuous complaints that were coming in as to excessive prices charged by dealers selling coal in small quantities, the Board of Trade made an arrangement with wholesale merchants, by dint of which they agreed to refuse to furnish supplies to dealers who charged prices higher than the recognized maximum prices, which were established as follows:[3]

Street Sales from Trolley

North London	1s. 10d. per cwt.
South London	1s. 11d. per cwt.

Shop Sales

1d. per cwt. higher than the above trolley price for the district.

[1] *Board of Trade Journal*, January 31, 1918, p. 119.
[2] *Ibid.*, p. 119.
[3] *Labour Gazette*, February, 1917.

Under the régime of the Controller of Coal Mines the regulation of prices was extended to cover both wholesale merchants' charges and retail prices. Powers to fix prices were confirmed by the Wholesale Coal Prices Order and the Retail Coal Prices Order made by the Board of Trade on September 5 and 11, respectively. The function of fixing in each locality the maximum retail prices of house coal which would comply with the requirements of the Retail Coal Prices Order was assigned to local authorities.[1]

As the requirements of the Admiralty and of essential war industries expanded enormously, supplies available for inland consumers had to be cut down. The situation became very acute in the spring of 1917, after a prolonged and severe winter, which had resulted in a largely increased consumption of house coals. Strictest economy was insisted upon and the London district definitely rationed, under the Household Coal Distribution Act, which was passed in September, 1917, for London and a large area around the city. The unit of distribution was the room.

No person could, after October 1, 1917, sell, deliver, purchase or acquire for consumption in a dwelling house, flat or tenement, coal exceeding the quantities allowed in the following table:

Number of rooms occupied	Coal allowance from October 1 to March 31
Not more than 4	2 cwts. per week
5 or 6	3 cwts.
7	1 ton
13, 14 or 15	2 tons
More than 15	2 tons, 10 cwts.

For the period from April 1 to September 30, the allowance was at the rate of half that shown.

Coal allowances in excess of hundredweights were to be reduced in the event of stocks of coal falling below a determined level.

Additional allowances not exceeding 2 hundredweights per week were granted in certain cases: (1) the presence of aged and infirm persons, invalids or young children, (2) the absence of any provision for gas, electricity, etc.[2]

[1] *Board of Trade Journal*, January 31, 1918, p. 121; September 20, 1917, pp. 621-622.
[2] *Labour Gazette*, August 17, p. 277.

CHAPTER IX

Home Production of Food and Minimum Prices

In the hope of obtaining practical proposals for increasing the production of food, three departmental committees were appointed in June, 1915, one by the Board of Agriculture and Fisheries, one by the Board of Agriculture for Scotland and one by the Department of Agriculture and Technical Instruction for Ireland, "to consider and report what steps should be taken by legislation or otherwise for the sole purpose of maintaining and, if possible, increasing the present production of food" in England and Wales, Scotland and Ireland.[1] The English committee was appointed on June 17 and a month later it presented its interim report.[2]

In this report it was laid down that the main problem was how to increase the area under wheat, 95 per cent of the home supply of which is produced in England and Wales. The committee came to the conclusion that this could be solved only by extending largely the area of land under tillage. This would enable more of the existing arable land to be put down in wheat, leaving the newly broken upland for the other necessary crops thus displaced, such as oats and potatoes. In order to induce farmers and landlords to change some of their methods, with their comparative security of profits, and to influence them to undertake the responsibility of increased arable area in the face of certain shortage of labor and of a possible fall in grain prices at the conclusion of the war, the committee proposed the guaranteeing of a minimum price of 45 shillings a quarter for all marketable home grown wheat for a period of four years. The committee estimated that, if such a guarantee were given, the area cropped, which was just under 2,000,000 acres, would be increased by at least another million

[1] *International Review of Agricultural Economics*, vol. lxi, pp. 102–104; see also C. S. Orwin: The Report of the Departmental Committee on the Home Production of Food," *Economic Journal*, March, 1916, pp. 108; *Labour Gazette*, November, 1915, p. 326

[2] Cd. 8048.

acres in 1916, in which case there would be 4 or 5 million quarters more wheat grown at home (an additional six weeks' supply for the whole of the United Kingdom).

The committee recognized that a guaranteed price for wheat should entail upon the farmer the obligation to pay a fair rate of wages to his laborers; in fact, some members were evidently in favor of accompanying the minimum price with a minimum wage. They contented themselves, however, with recommending that an inquiry into wages and earnings should be instituted at once.

As to the method of carrying out the guarantee, the committee recommended that payment to the farmer should be regulated by the difference between 45s. and the *Gazette* average price of wheat for the year in which the wheat is harvested, the farmer being left to dispose of his produce in the open market.

The committee noted the objection to their proposal that it was conceivable that no great quantity of additional wheat might be produced beyond what would have been grown had no guarantee been offered, and that the state might, if wheat prices fell, be obliged to pay a considerable sum for a comparatively unimportant result. Rejecting as unworkable in practice the suggestion that the guarantee should be limited to the additional wheat grown by farmers over and above their prewar production, measured by the harvest of 1913, the committee recommended that the guarantee should be confined to those farmers who were able to show that they had made a reasonable effort to increase the production of wheat. As a test they proposed that a farmer claiming the grant should be asked to show (a) that he had increased his area under arable production by at least one-fifth over the similar area in October, 1913, or, in the alternative (b) that at least one-fifth of his total acreage under grass and annual crops was actually under wheat.

The committee considered the question whether, if a minimum price was secured to the farmer, there should not be a maximum price at which the government would have the right to take over all home grown wheat. Without making any definite recommendation in this matter, the committee suggested that if, in the opinion of the government, a maximum price was desirable, it should be fixed at not less than 55s. per quarter.

After a consideration of the interim report, the government decided not to adopt the recommendation of a guaranteed minimum price for wheat. The reasons for this decision were set forth by Lord Selborne, President of the Board of Agriculture, at a meeting of representatives of the Royal Agricultural Society, the Central Chamber of Agriculture, the National Farmers' Union and other organizations, which was held in London on August 26. Lord Selborne stated that shortly after the report had been received the agricultural returns for 1915 came to hand. As compared with 1913, there were 500,000 more acres of wheat under cultivation, an increase of nearly 30 per cent, while the increase in cattle was 384,000 and in sheep 450,000. In view of these remarkable figures, of the fact that the call of agricultural laborers to the colors would be very heavy in the coming year, of the superabundant harvests in Canada and Australia and of the financial stringency which would prevail after the war, the government decided that they would not incur the additional financial liability involved in the proposed guarantee of a minimum price for wheat.

On October 15, 1915, the committee presented its final report (Cd. 8095). They again took the opportunity of stating their firm conviction that the conversion of arable land into grass, which has taken place to the extent of nearly 4,000,000 acres during the last 40 years and is still going on, was bound to result in a diminution of the food produced, and that much of this land would carry more stock if put under the plow, while at the same time producing corn for human consumption. The remainder of the final report dealt with the provision of fertilizers and feed, increased pig breeding, labor, labor saving machinery and the employment of women. Attention was also called to the use of waste land in towns and villages for the production of vegetables.

The report of the Scotch committee contains no recommendation as to the establishment of a minimum price. The advisability of resorting to artificial means in order to stimulate the production of wheat was considered by the committee and some of the witnesses gave evidence in favor of a guaranteed minimum price, but they did not see their way to overcome the practical difficulties which were likely to arise.

The Irish committee recommended that the government should guarantee a minimum price for oats and wheat for one year; they expressed the opinion that in view of the risk of loss run by the farmer in breaking up grass, there would be no departure from sound economic policy in agreeing to a minimum price to secure him against contingencies. No actual figures were suggested for the guaranty.

The question of guaranteed minimum prices for wheat and for oats was brought to the front in connection with the Corn Production Bill, which Mr. Prothero introduced into the Parliament in the early part of 1917. For the purpose of obtaining a larger home grown food supply, the bill proposed that the following minimum prices be fixed for wheat and oats of the following years:

Year	Wheat per Qr.	Oats per Qr.
1917	60 0	38 6
1918, 1919, 1920	55 0	32 0
1921, 1922	45 0	24 0

The average price was to be arrived at from the weekly averages, ascertained in accordance with the Corn Returns Act, during the seven months beginning on September 1. As a corollary to guaranteed minimum prices, the bill provided (1) a minimum wage, to be fixed by an Agricultural Wages Board, which would aim at securing for able bodied men wages which, in the Board's opinion, are "equivalent to wages for an ordinary day's work, at the rate of at least 25s. a week"; (2) a restriction of the power of landlords to raise the rents of existing tenants. The Board of Agriculture could enforce proper cultivation by determining varying covenants or conditions of tenancy, or by entering on the land and doing all such things as appeared necessary for cultivating it.[1]

The bill provided that, if the average price of wheat or oats of any year for which a minimum price was fixed was less than this minimum price, the farmer was entitled to be paid by the Board of Agriculture and Fisheries for each quarter of wheat or oats which he produced and sold a sum equal to the difference between the average price and the minimum price per quarter.

Previous to the introduction of the above bill a far-reaching "endowment of agriculture" had been partly adopted as a war measure. The announcement to this effect was made by the Prime Minister in his speech on February 23, 1917. The measures were outlined in the report of the Agricultural Policy Subcommittee of the Reconstruction Committee (Cd. 8506), which was appointed in August, 1916. The guaranteed prices recommended by this subcommittee were 42s. a quarter for wheat and 23s. a quarter for oats. The farmer was to receive from the state the difference between these prices and the *Gazette* average price for the year in case the latter was lower. The guarantee was to be perpetual.[2]

Both the subcommittee's report and the Corn Bill aroused a great deal of opposition, the *Nation* (among many others) having expressed itself with great frankness and vehemence on the subject. In an article "Quack Medicine for Agriculture," the periodical pointed out that the reasons for the British low production in agriculture were a medieval system of land tenure, half serf labor, lack of brains, science, capital, enterprise, cooperation, personal interest.[3] These conditions could not be cured by guaranteed prices and by state subsidies.

The Corn Bill was also attacked because of its failure to protect the community. It was brought out in the debate in the House of Commons on July 10 and 11 that the farmers and the landlord were guaranteed against loss or risk in return for

[1] *The Economist*, April 28, 1917, p. 727.
[2] *Ibid.*, March 31, 1917, p. 580.
[3] *The Nation*, March 31, 1917, p. 873.

the extra efforts they were asked to make, but that the bill contained no provision for claiming for the state any part of the extra profits which were by no means unlikely to be realized. This, according to the critics of the bill, was unfair to the taxpayer who shoulders the liability in case of loss.[1]

Mr. Runciman, who was President of the Board of Agriculture from 1911 to 1914, suggested for improving the wheat situation, instead of guaranteed prices, the storage of corn, an adequate labor supply, rural housing, the extension of agricultural education, cooperation and farm experiments. As the *Round Table* correctly commented on these suggestions, though admirable as a peace program, "they sounded singularly unhelpful in the present crisis of the war."[2] This magazine considers the guarantee an ingenious way of giving the farmer a stimulus for the cultivation of cereals without the setting up of a tariff and its accompanying uncertainties and inconveniences.

Others who were in favor of artificial aid to agriculture attacked the government for not having acted upon the advice of the British committee in 1915; they reproached the government because of its short sightedness, neglect and oversanguine view regarding the submarine peril.[3] Even the *Spectator* came out in the support of the Corn Production Bill, "because England is a besieged nation."[4]

At the beginning of January, 1917, the Food Controller fixed the minimum price to the growers, for wheat of first quality of the 1917 crop, at 60s. per quarter of 504 pounds. Minimum prices were fixed at the same time for oats and for potatoes.[5] As this guarantee came practically too late in the season to have very much effect on the acreage under grain, one may safely state that during the first three and a half years of the war, except for receiving some supplies of fertilizers and feeding stuffs and some advice and information, the farmers were not interfered with in their activities by the state.

[1] *The Economist*, April 28, 1917, p. 727; July 14, 1917.
[2] *The Round Table*, June, 1917, p. 554.
[3] Politicus: "The Food Problem and Its Solution," *The Fortnightly Review*, vol. ci, 1917, p. 435.
[4] *The Spectator*, July 28, 1917, p. 78.
[5] *Board of Trade Journal*, January 11, 1917, p. 96; February 15, 1917, p. 485.

What they have done may be seen from the official estimates of the crops of the United Kingdom in each of the four years since the outbreak of the war:[1]

	1914 Qrs.	1915 Qrs.	1916 Qrs.	1917 Qrs.
Wheat	7,804,000	9,239,000	7,472,000	8,040,000
Barley	8,065,000	5,862,000	6,612,000	7,189,000
Oats	20,664,000	22,308,000	21,334,000	26,023,000
Total	36,533,000	37,409,000	35,418,000	41,252,000
	Tons	Tons	Tons	Tons
Potatoes	7,466,000	7,540,000	5,468,000	8,603,000

The areas under cultivation were increased between 1914 and 1917 as follows:[2]

	1914 Acres	1917 Acres	Increase or Decrease Acres
Arable land	19,414,000	19,652,000	+238,000
Wheat	1,906,000	2,104,000	+198,000
Barley	1,873,000	1,797,000	− 76,000
Oats	3,899,000	4,762,000	+863,000
Total corn crops	7,678,000	8,663,000	+985,000
Potatoes	1,209,000	1,365,000	+156,000

A compulsory census taken in April, 1918, gave the following acreage under the leading crops:

ENGLAND AND WALES

Crop	Acres	Increase over 1916	
Wheat	2,665,000	+752,000	+39%
Barley	[illegible],490,000	+ 58,000	+11
Oats	[illegible],620,000	+735,000	+35
Rye, dredge corn and pulse	682,000	+280,000	+69
Potatoes	645,000	+217,000	+50
Total of corn and potatoes	8,302,000	+2,042,000	

The area under wheat was the highest recorded since 1882; that under oats and potatoes the highest on record by 20 per cent and 27 per cent, respectively.[3] Similar estimates for

[1] R. Henry Rew: "The Prospects of the World's Food Supplies after the War," *Journal of the Royal Statistical Society*, January, 1918, p. 44.
[2] *Ibid.*, p. 43.
[3] Report (interim) issued by the Director General of Food Production. *The Economist*, June 1, 1918, p. 940.

Scotland and Ireland were 300,000 and 1,500,000 acres, respectively, making a total increase of over 4,000,000 acres. On the dint of the above figure the Director General of Food Production estimated that if an "average" crop is realized, the United Kingdom harvest of 1918 will supply four-fifths of the yearly requirement of breadstuffs, as compared with one quarter of the year 1917–18 and one-fifth of the year 1916–17. The *Economist* warns against accepting the latter part of the report on its face value, as it is based largely upon "estimates" and "anticipations" and not upon definitely ascertained facts.[1] A similar view is held by the *Statist.* This periodical reminds its readers that the average yield of crops has fallen rather heavily since the commencement of the war and that further developments in this direction are possible.[2]

The rising price and the shortage of fertilizers and, to some degree, of feeding stuffs, coupled with the withdrawal of labor from the land, all tended to diminish the average yield per acre. In comparing the yields of some of the chief crops in the three years affected by war conditions with the standard of the previous ten years, one obtains the following results for England and Wales.[3]

AVERAGE YIELD PER ACRE

	1905–14	1915–17	Increase or Decrease
	Bushels	Bushels	Bushels
Wheat	32.0	29.4	−2.6
Barley	33.2	30.3	−2.9
Oats	40.2	33.8	−1.4
Beans	30.3	25.0	−5.3
Peas	26.4	23.2	−3.2

In the United Kingdom the number of cattle increased from 12,184,000 in 1914 to 12,342,000 in 1917, an increase of 158,000 head; the number of sheep declined from 27,964,000 to 27,771,000 a decrease of 193,000, and that of pigs from 3,953,-000 to 2,999,000, a decrease of 954,000.

[1] *The Economist*, June 1, 1918, p. 940.
[2] *The Statist*, June 8, 1918, p. 983.
[3] Rew: *op. cit.*, p. 45.

The yearly quantities in tons of home grown and imported meats (beef, mutton and lamb) available for consumption in the United Kingdom for the last five years were:[1]

	1913	1914	1915	1916	1917
Home grown	1,095,300	1,115,560	1,118,010	1,142,910	1,085,000
Colonial frozen	272,900	286,609	286,380	211,409	226,000
South American, chilled proper	447,360	403,476	323,762	267,309	258,000
North American, chilled and frozen	401	4,380	53,835	54,998	66,000
Live stock and fresh killed	10,245	7,852	2,552	827	......
Totals	1,826,206	1,817,877	1,784,539	1,677,453	1,635,000

[1] *The Economist*, March 30, 1918, p. 534.

CHAPTER X

Criticism of Price Fixing

Criticisms of price fixing have been numerous and varied, the arguments used by the critics ranging from a blanket assertion that "high prices are nature's cure for scarcity" to most elaborate and painstaking demonstrations as to how this or that measure passed by the government affected the production, importation and distribution of some particular commodity. The dangers of governmental control of prices as pointed out by its opponents are double in character, political and economic. The political danger lies in giving too much power to uncontrolled Cabinet authority and in making the people rely more and more on the government for action in order to remedy conditions which can best be met through the exercise of private initiative and through the operation of economic laws.[1] The government begins to regulate prices largely because of the pressure of public opinion. But as the lowering of prices when there are not enough commodities to go around can not satisfy the demand, the only tangible results of it are inconveniences and disappointments. People go to the shops in the expectation of obtaining food at the legal price and after waiting for hours they go away empty handed.[2] False hopes are raised and dissatisfaction and discontent result. People are made to believe that high prices are the result of artificial manipulations removable at will[3] and not an "inevitable consequence of the world conditions brought about by the war;"[4] they clamor for stricter measures of control and for more price regulation.

In discussing the reasons for and the value of high prices the assertion has been repeatedly made that the rise in prices indi-

[1] *The Spectator*, January 23, 1917, p. 692.
[2] *Ibid.*, March 31, 1917, p. 382.
[3] A. Shadwell: "Food Prices and Food Supply," *The Nineteenth Century and After*, April, 1917, p. 736.
[4] E. Cannan: "Industrial Unrest," *The Economic Journal*, December, 1917.

cates one of two things, either increase of demand or shortage of supply. Under such circumstances high prices are necessary; they act as a check on consumption, as an eliminator of waste, as well as a factor stimulating production and importation. It is madness on the part of the government to artificially interfere with prices, as by such interference they are taking the first step towards creating the shortage which it is imperative to prevent.[1]

High prices not only draw commodities from the ends of the earth and offer an inducement for enlarging production, but they are supplying the very means by which the expansion of business can be carried on. "Efforts to increase output now . . . must be made upon a level of costs that is temporary and abnormal and unless prices are high these efforts can not and will not be made.[2]"

It is obvious that prices must be such as to afford a working profit to the least efficient producers whose output is needed to satisfy the demand. Since the war began many discarded blast furnaces, many abandoned mills have been refitted and put once more into operation. These are often worked by inexperienced laborers, the cost of production of such plants is necessarily high and, as long as their output is needed, it must be met by high prices for the finished products.

The most important consideration before the country, as has been pointed out by Mr. Runciman in his numerous speeches, and as has been asserted by many other speakers and writers, is not the question of price, but that of supply; by restricting prices the government is "encouraging consumption, discouraging production and preparing disaster."[3]

It is much easier to fix maximum prices than to ensure the availability of supplies at such prices. After the price has been fixed the government must see to it that people who own stocks of goods do not withhold them from sale in expectation that the price will be raised, and that farmers and manufac-

[1] *The Spectator*, February 6, 1915, p. 181.
[2] *The Economic World*, July 21, 1917, p. 78.
[3] Politicus: "The Food Problem and Its Solution," *Fortnightly Review*, vol. 101, p. 438; also *The Spectator*, March 31, 1917, pp. 382–383

turers continue production; this is equivalent to industrial conscription in an extreme form.[1] Without such conscription, a necessary corollary of arbitrary maximum prices fixed below the ruling market prices, "a period of acute shortage even of starvation for the poor can be easily brought about."[2]

When price fixing is once begun there is no way of stopping it. One can not thrust the ramrod of maximum prices into the delicate mechanism of industry and commerce in but a few arbitrarily selected places.[3] It is idle to fix prices for a few cereals and tubers, leaving other foodstuffs unregulated. Such procedure opens the way to substitution and it may lead to total disappearance of the regulated articles from the market. If the price is fixed only for milk, milk may be converted into butter; if the price of butter is also regulated, milk and butter may be converted into cheese; if cheese is added to the list of controlled foods, milk cows may be converted into beef; if the price of beef is also fixed, the farmers may withdraw entirely from dairying and cattle raising,[4] and so on, until the policy, in order to have any chance of success, is extended to all the products as well as to all the processes, the materials and the labor involved in their making. According to the *Bankers' Magazine* "the only just and fair system for regulating and controlling prices, in an equitable manner, is to fix all prices: (1) the prices of all commodities—all articles of marketable wealth: (2) the rates of hire—rent, interest, freight for every kind of both fixed and circulating capital; (3) the rates of hire—wage, salary, pay—for every kind of both skilled and unskilled labor."[5]

This, however, leads to the binding of the entire trade of the country into an inextricable tangle of official regulations; it involves the appointment of numerous boards and com-

[1] *The Saturday Review*, September 9, 1917, p. 242; also *The Spectator*, vol. 117, 1916, p. 465. In the latter an attack is made on Mr. Barnes, Labor member in the House of Commons, for his speech demanding among other things the fixing of the price of milk and making it a penal offense for any farmer to give up the business of dairying.

[2] *The Nation*, January 2, 1917.

[3] *Ibid.*, January 20, 1917.

[4] *The Saturday Review*, September 9, 1917, p. 242.

[5] *Bankers' Magazine*, January, 1918, p. 94.

missions, the employment of countless supervisors, clerks and other officials, the issuance of innumerable orders, rules and regulations; it also "involves endless frauds, including the wholesale forgery of food tickets, together with a general lowering of the moral standards of the community."[1]

Beginning with the promulgation of a few orders regulating prices, Great Britain "reached a stage when practically everything is controlled, and the greater the control the more complete the confusion and the greater the economic loss."[2]

Light was shed on the present conditions by a list published at the end of 1917; this list enumerates certain commissions and committees set up to deal with public questions arising out of the war. The following committees deal, directly or indirectly, with food, fuel and clothing:[3]

Agricultural and Fisheries Board and Royal Agricultural Society (Joint Committee); Agricultural and Consultative Committee; Cargoes (Diverted) Committee; Cargoes (Delay in Unloading) Committee; Cattle, British Committee on Utilization of; Coal Exports Committee; Coal Mines (Controller of) Advisory Board; Coal Mines Department; Cotton Control Board; Cotton Exports Committee; Distributing Trades (Scotland) Committee; Exports Committee; Fertilisers Commitee; Fish (Coarse) Irish Committee; Fish (Cured) Committee; Fish Food and Motor Loan Committee; Fish Food Committee; Fresh Water Fish Committee; Fisheries, Sea, (Scottish) Committee; Flour Mills Control Committee; Food Ministry; Food Production Advisory Committee; Food Production Department; Food Production in Ireland Advisory Committee; Food Production in Ireland Departmental Committee; Food Production in Scotland Committee; Foodstuffs (Carriage of) Requisitioning Committee; Forage Committee (Farm Produce); Fruits (Import Licenses) Committee; Grain

[1] I. Hilton: "The Foundation of Food Policy." *The Edinburgh Review*, July, 1917, p. 50.

[2] A. Hurd: "Wages, Prices and Supplies—A Vicious Circle," *Fortnightly Review*, January, 1918, p. 45.

[3] List of certain commissions and committees set up to deal with public questions arising out of the war, Cd. 8741; quoted from A. Hurd: "Wages, Prices and Supplies—A Vicious Circle," *Fortnightly Review*, January, 1918, p. 45.

and Potato Crops (1917) Committee; Grain Supplies Committee; Import Restrictions Department; Indian Wheat Committee; Kitchen (Central) Committee; Leather Supplies Committee; Meat Supplies, Interdepartmental Committee; Milk Distribution Committee; Oats Control Committee; Pig Breeding Industry (Ireland) Departmental Committee; Port and Transit Executive Committee; Poultry Advisory Committee; Committee on Production; Rationing Consultative Committee; Relief of Distress Committee; Sugar Supplies Royal Commission; Tea Advisory Committee; Tea Control Committee; Wheat Executive; Wheat Supplies Royal Commission; Wool Purchase Central Advisory Committee.

In discussing maximum price fixing for agricultural products, the *Nation* asked very pertinently: "Does Mr. Prothero, when he says a farmer can get a profit at £6, mean any farmer, or a farmer with the best potato lands?" It called attention to the folly and injustice of fixing selling prices not merely for existing but for future supplies, without any guarantee against further rises in the cost of production.[1]

The *Spectator* called attention to the profound mistake made by the government in assuming that it can regulate agricultural produce with the same ease that it can control the output of staple manufactures. The factory is designed and equipped for one more or less narrow line of product and is incapable of being readily diverted to any other line. The manufacturer keeps books and his business can be easily supervised. Agriculture, on the other hand, is carried on by a great number of farmers, who do not keep books and produce a variety of foodstuffs, altering their production as prices fluctuate.[2]

The food administrators, writes Mr. Hilton, have hovered confusedly between penalizing the food producer, out of tenderness for the poor, and spoon feeding him to the greater prosperity of agriculture. At one moment he must sell his milk for less than it is worth; at another he must have a

[1] *The Nation*, January 20, 1917.
[2] *The Spectator*, August 4, 1917, p. 110.

bounty if the price of grains drops. "Yesterday he must not receive more per ton for the remnant of his frost killed and disease perished *potato* harvest than he would have got had his stocks remained intact; today he must have a maximum price changed to a minimum price, apparently on the ground that he seems somehow keen on it, and, anyhow, it is only a matter of two letters."[1]

At the best, the fixing of a price or the establishment of a ruling, in accordance with which goods should be distributed, lacks the element of elasticity, and because of this it can not solve satisfactorily all the complex problems of economic life. But when the government fails to secure the help of the most experienced men in those industrial activities which it sets to regulate, when it supplants those whose life work has been the direction of business affairs by experimenting officials, rigid action is likely to lead into a sea of difficulties.

Nonemployment by the government of the existing channels of trade—particularly merchants and distributors—to carry out its purpose, has been bitterly attacked in a report issued by the Merchants Committee of the London Chamber of Commerce. This report points out that the government in the steps it has taken to regulate supplies has not sufficiently availed itself of the services of the mercantile community. The action of the Controller has in many cases led to high prices and ultimate scarcity.[2] According to the report, the main cause of the rise in prices has been the shortage of shipping tonnage. The only means for overcoming this is to stimulate production the world over by all possible means and to see that the tonnage available is used to the best purpose. This can best be done by encouraging ordinary trading channels in every way, with a minimum of governmental interference. The committee saw no adequate ground for dispensing with the services of the merchant, whose relations with the suppliers and expert knowledge of goods involved should entitle him to be treated on reasonable terms by the state in

[1] Hilton: *op. cit.*, p. 47–48.
[2] *Iron and Coal Trades Review*, London, August 10, 1917, p. 137.

a business with which he alone had actual experience in the past.[1]

> The government in its control of trade has for the most part overlooked the merchants' collecting, conserving and distributing functions and acted on the assumption that products must inevitably be offered to the people in the United Kingdom. That assumption can be justified by the expectation that the country is ready to pay higher prices, and this is just the contingency which the government wishes to avoid.

Instead of employing merchants and their correspondents and agents in all parts of the world to scour their respective fields, the government does nothing in many fields except to fix prices or limit imports, thus checking production and stopping the machinery by which production is fostered.[2] The merchants asked in their report for more enlightened control, a control that would check speculation, but would not break up the mercantile system of the country.

The feeling of dissatisfaction in commercial circles against the methods adopted by departments of the government in controlling and restricting trade has been steadily growing. A public meeting was held in London on October 25, 1917, under the auspices of the London Chamber of Commerce, to protest against the administrative methods used, particularly in connection with the import and export business of the country. Opinions were expressed that the merchant community was disregarded, activities of importing merchants seriously reduced, and that the effect of this was a serious shortage of supply.[3] All sections of the business community demanded that the government should cease to act as intermediary between producers and consumers and should largely call upon those who have a practical acquaintance with particular trades, to assist and direct the various control departments.

In calling attention to the views expressed at the merchants' mass meeting, the *Statist* wrote that these views were those of a section, but of a section of such importance in relation to

[1] *The British Trade Journal*, September 1, 1917, p. 326.
[2] *Ibid.*, p. 326.
[3] *Chamber of Commerce Journal*, December, 1917, p. 297.

the workaday world as we now find it, that the opinions, criticisms and decisions of this body of men are in every way worthy of very serious consideration by the rest of the community and particularly by the government.[1]

The English grocers were also raising objections to the manner in which control measures were being executed. The Federation of Grocers' Associations, at its annual convention held in August, 1917, at Portsmouth, adopted a resolution opposing any form of rationing, unwarrantably costly, and necessitating a new army of officials which could neither furnish the consumers with any larger supply of food than could be distributed through the existing methods nor ensure more equable distribution. Retailers expressed a desire that a small advisory committee of each trade affected by orders should assist the Food Controller.[2]

If the control exercised by the government has been a cause for criticism, its failure to exercise any, through its great weapon of finance, was also attacked on many occasions. It was emphasized that by rationing the buying power of the citizen by drastic taxation, the Chancellor might have greatly reduced the need for control and its consequent friction.[3]

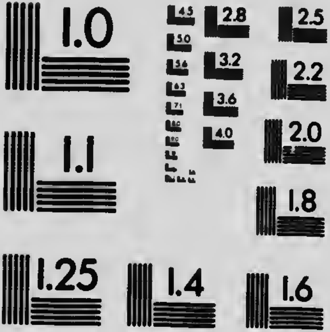
As to the alternative for price fixing, the government should have dealt with the particular evil which had revealed itself. That evil was not the rise in prices, but the suspicion of "profiteering. . . . If the government believed that the cry against 'profiteering' was justified, they ought to have dealt with it specifically . . . by limiting the profits, by taxing them."[4]

[1] *The Statist*, November 3, 1917, p. 731.
[2] *The Interstate Grocer*, August 25, 1917, p. 1.
[3] *The Economist*, February 16, 1918, p. 256.
[4] *The Spectator*, January 12, 1918, p. 32.

APPENDIX TO PART I

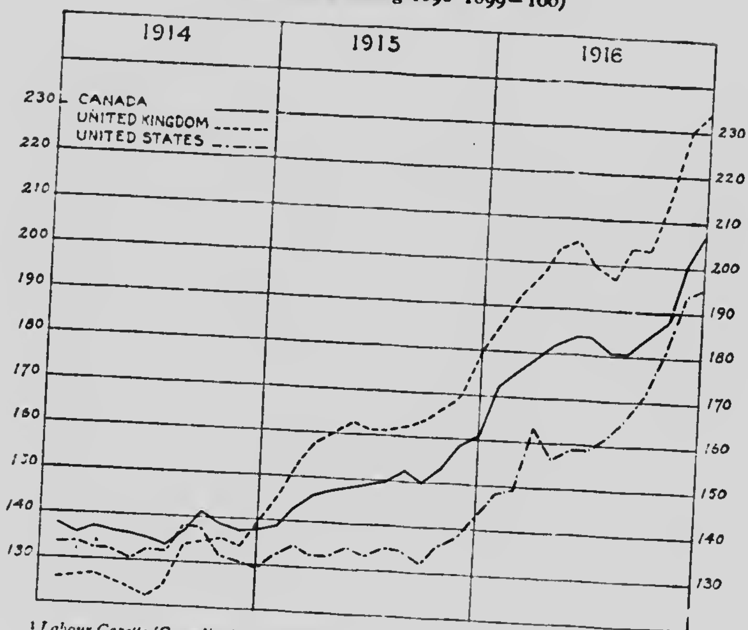
MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



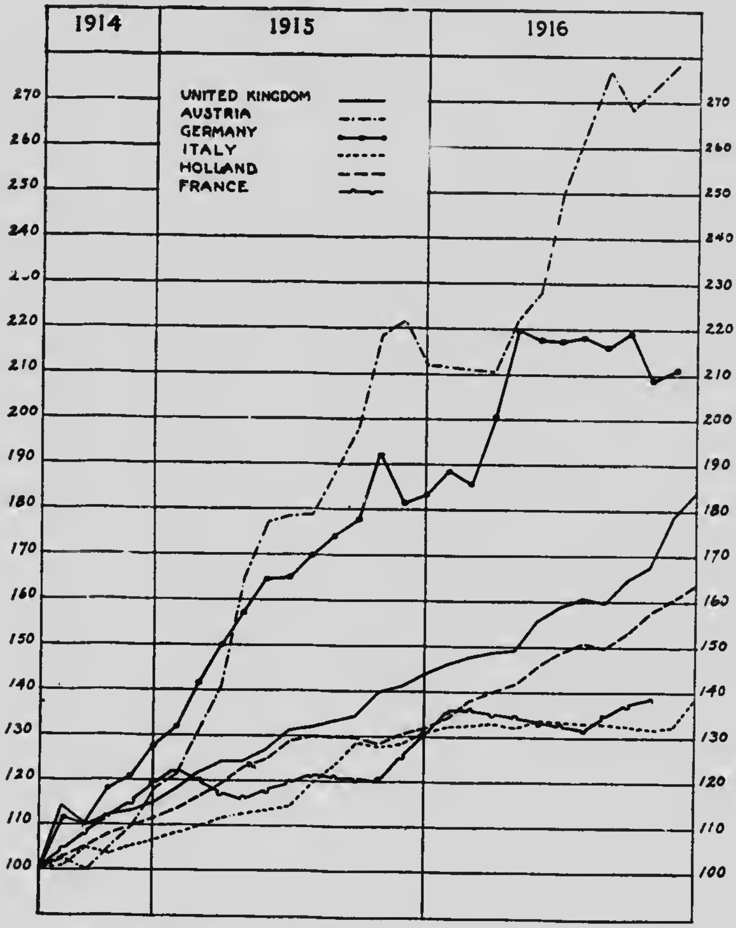
THE COURSE OF WHOLESALE PRICES[1]

(Price levels during 1890–1899 = 100)



[1] *Labour Gazette* (Canadian), September, 1917, p. 744.

THE RISE IN THE RETAIL PRICES OF FOODS[1]
(Prices in July, 1914=100)



[1] *Labour Gazette* (Canadian), September, 1917, p. 741.

QUARTERLY MOVEMENTS OF PRICES[1]

Summary of Index Numbers, 1867–1877 = 100

Years	Quarters	Vegetable Food (Corn, etc.)	Animal Food (Meat, etc.)	Sugar, Coffee and Tea	Total Food	Minerals	Textiles	Sundry Materials	Total Materials	Grand Total	Silver
1913	I	71.6	101.5	55.7	79.2	113.1	83.0	84.2	91.6	86.4	44.9
	II	71.4	99.1	52.7	77.7	114.4	81.1	83.2	90.9	85.3	45.2
	III	69.3	99.1	52.1	76.6	110.1	85.2	83.2	91.1	85.0	45.6
	IV	65.8	98.7	54.0	75.4	104.8	86.7	83.3	90.1	83.9	44.1
1914	I	66.6	98.7	52.0	75.3	104.4	83.1	84.1	89.3	83.4	43.7
	II	67.0	97.8	51.8	75.2	98.4	82.9	82.5	86.9	82.0	43.4
	III	80.3	102.0	61.5	84.4	96.2	82.4	87.1	88.1	88.1	39.4
	IV	90.1	100.9	63.9	88.6	97.2	77.5	97.2	91.1	90.1	37.1
1915	I	105.0	114.6	66.7	100.8	110.0	85.4	104.2	100.0	100.3	37.9
	II	107.4	129.0	72.5	108.0	121.6	88.5	107.4	105.4	106.5	38.3
	III	104.0	130.5	72.0	107.0	120.8	93.5	109.4	107.1	107.1	37.9
	IV	113.8	123.9	68.7	108.0	131.2	105.5	119.3	118.0	113.8	42.5
1916	I	125.1	137.5	78.9	119.9	150.0	118.1	131.1	132.2	127.0	45.5
	II	127.[illegible]	157.0	88.2	130.0	156.2	120.4	135.0	136.2	133.3	54.2
	III	[illegible]	150.4	85.9	127.4	154.1	127.8	133.5	137.3	133.1	57.3
	IV	[illegible]	[illegible]	92.2	147.0	160.1	146.2	147.0	150.3	148.8	57.5

The average of the numbers for the four quarters of each year do not agree in all cases with the annual averages, as the latter are partly calculated from revised figures. See also the *Journal*, 1893, p. 221; 1895, p. 144; 1901, p. 90; and 1909, p. 70.

[1] *Journal of the Royal Statistical Society*, March, 1917, p. 295.

COMPARATIVE STATEMENT OF PRICES OF CERTAIN COMMODITIES IN APRIL, 1918, AND AT THE CLOSE OF THE THREE PRECEDING MARCH QUARTERS

		1914	1915	1916	1917	1918
Cleveland No. 3 pig iron	per ton	51/3	67/3	90/	87/6	95/
Steel rails	per ton	130/	150/	217/6	225/	237/6
Coals, best Yorkshire (Silkstone) House, pit head price	per ton	13/3	18/	18/3	19/	24/
Copper (standard)	per ton	£65	£69 1/8	£116	£136¼	£110¾
Tin (standard)	per ton	£174 5/8	£171½	£199	£214 7/8	£316
Lead (English)	per ton	£19 3/4	£24	£36	nom.	£29
Wheat	(Gazette)	31/4	54/6	53/6	81/5	72/3
Barley	(Average	25/7	31/9	53/8	71/10	56/9
Oats	(per qr.	18/8	30/6	30/5	51/10	50/3
Mutton (prime)	per 8 lbs.	7/6	8/	9/6	10/6	9/6
Sugar (West India)	per cwt.	11/6	nom.	nom.	40/	44/6
Coffee (Santos)	per cwt.	49/9	52/6	52/	..	..
Tea (common)	per lb.	5d.	9½d.	7¼d.	[a]16d.	[a]19d.
Rice	per cwt.	7/7½	12/	16/9	26/6	26/3
Cotton (middling)	per lb.	7.08d.	5.48d.	7.83d.	12.82d.	24.76d.
32's twist	per lb.	[a]11⅜d.	8¼d.	12 3/8d.	17 3/8d.	42½d.
Tallow	per cwt.	32/3	37/6	48/6	57/6	70/6
Hemp (Manilla)	per ton	£27	£41	£56	£96	£100
Silk (Canton)	per lb.	13/	11/6	17/3	17/9	24/
Jute	per ton	£33½	£22¼	£34	£43	£43
Flax	per ton	£28½	nom.	nom.	£94	£147
Petroleum	per 7 lbs.	8d.	8¼d.	11d.	14d.	19.5d.
Rubber (fine hard Para)	per lb.	3/	2/5½	3/0¼	3/1½	2/9 3/4

[a] Broken and Fannings.

[1] *The Economist*, April 6, 1918, p. 564.

The following table shows the growth in the national debt of Great Britain during the war period, and the means by which the money has been obtained, as accurately as can be traced from the weekly statements of income and expenditure and other sources of information:[1]

(In million pounds)

		Aug. 1, 1914	Mar. 31, 1915	Mar. 31, 1916	Mar. 31, 1917	Mar. 31, 1918	Apr. 27, 1918	Change Since Aug. 1, 1914
	Funded debt	586.7	583.3	318.5	317.8	317.8	317.8	−268.9
	Term annuities	29.6	28.0	26.1	24.0	24.0	24.0	−5.6
Unfunded Debt	3½% War stock	..	349.1	62.8	62.7	62.7	62.7	+62.7
	4½% War stock	..	..	900.0	20.0	20.0	20.0	+20.0
	4 & 5% war stock	..	..	..	1,962.4	2,073.0	2,068.4	+2,068.4
	Nat. war bonds	..	..	..	..	614.2	680.7	+680.7
	Treasury bills	15.5	77.2	566.8	463.7	972.6	953.4	+937.9
	Excheq. bonds	20.5	67.4	177.0	320.3	414.6	414.6	+394.1
	War savings crts.	..	..	1.4	74.5	136.7	143.9	+145.9
	War expend. Do	..	..	..	23.6	22.9	22.9	+22.9
	Other debt	..	..	9.2	316.5	936.9	973.3	+973.3
	American loan	..	..	51.4	51.4	51.4	51.4	+51.4
	Temp. advances	1.0	..	19.9	217.5	192.2	261.7	+260.7
		653.3	1,105.0	2,133.1	3,854.4	5,839.0	5,996.8	+5,343.5
	Other cap. liabilities	57.2	57.0	56.7	52.2	51.2	51.0	−6.2
	Total liabilities	710.5	1,162.0	2,189.8	3,906.6	5,890.2	6,047.8	+5,337.3

[1] *The Economist*, May 4, 1918, p. 698.

ACREAGE UNDER CROPS AND NUMBER OF LIVE STOCK IN THE UNITED KINGDOM, 1914–1917[1]

	1914	1915	1916	*1917
		Acres		
Total area (excluding water)		76,455,391		
Total acreage under crops and grass	46,763,816	46,675,407	46,687,512	46,208,314
Arable land	19,414,166	19,346,593	19,499,475	19,652,251
Permanent grass	27,349,650	27,328,814	27,188,037	26,556,063
Wheat	1,905,933	2,335,091	2,053,568	2,103,704
Barley or bere	1,873,280	1,524,316	1,653,376	1,797,149
Oats	3,899,074	4,182,296	4,171,353	4,761,588
Rye	66,890	60,040	65,971	69,399
Beans	301,488	273,016	242,803	218,502
Peas	169,938	130,307	113,474	131,944
Potatoes	1,209,150	1,214,458	1,155,404	1,365,148
Turnips and swedes	1,760,629	1,625,589	1,623,161	1,679,676
Mangold	516,893	499,804	461,823	484,466
Cabbage, Kohl-rabi	192,145	184,584	183,346	151,450
Vetches or tares	137,751	123,657	102,629	93,247
Lucerne	...	....	....	50,226
Hops	36,661	34,744	31,352	16,950
Small fruit	101,083	97,438	96,250	95,777
Clover, sainfoin and grasses under rotation	6,606,046	6,462,279	6,763,011	5,994,450
Other crops	288,673	282,104	351,459	275,672
Bare fallow	348,532	316,870	430,494	362,015

* The figures for the United Kingdom for 1917 do not include the Channel Islands.

[1] *Journal of the Royal Statistical Society*, January, 1918, p. 59.

NUMBER OF LIVE STOCK IN THE UNITED KINGDOM[1]

	1914 No.	1915 No.	1916 No.	1917 No.
Horses used for agricultural purposes	1,326 783	1,224,055	1,294,664	1,320,894
Stallions	....[a]	....[a]	....[a]	....[a]
Unbroken horses: One year and above	351,794	320,542	346,962	375,308
Unbroken horses: Under one year	172,465	167,261	192,589	174,568
Total	1,851,042	1,711,858	1,834,215	1,870,770
Other horses	....[b]	....[b]	....[b]	....[b]
Total of horses	....	....	....	....
Cows and heifers in milk / Cows in calf but not in milk	4,144,937	4,068,957	4,034,382	3,998,642
Heifers in calf	450,191	425,793	464,939	498,881
Other cattle: Two years and above	2,330,200	2,221,218	2,344,667	2,297,825
Other cattle: One year and under two	2,596,988	2,665,551	2,801,698	2,747,444
Other cattle: Under one year	2,662,189	2,789,933	2,805,854	2,762,588
Total of cattle	12,184,505	12,171,452	12,451,540	12,342,268
Ewes kept for breeding	11,255,727	11,341,904	11,603,904	11,405,015
Other sheep: One year and above	5,042,321	5,397,745	5,576,513	5,474,331
Other sheep: Under one year	11,665,929	11,536,321	11,669,238	10,841,761
Total of sheep	27,963,977	28,275,970	28,849,655	27,770,555
Sows kept for breeding	494,736	439,290	434,464	373,096
Other pigs	3,457,879	3,355,841	3,181,427	2,624,561
Total of pigs	3,952,615	3,355,131	3,615,891	2,998,657

[a] Stallions are included in unbroken horses.
[b] No figures given for "Other horses."

ES[illegible] CROPS OF THE UNITED KINGDOM, 1914–1917[2]

	1914	1915	1916	1917
	Qrs.	Qrs.	Qrs.	Qrs.
Wheat	7,804,041	9,239,355	7,471,884	8,040,000
Barley	8,065,678	5,862,244	6,612,550	7,189,000
Oats	20,663,537	22,308,395	21,333,782	26,023,000
Beans	1,120,078	924,155	892,572	474,000
Peas	374,038	300,338	261,090	278,000
	Tons	Tons	Tons	Tons
Potatoes	7,476,458	7,540,240	5,468,881	8,603,000
Turnips and swedes	24,195,755	24,431,083	23,318,170	24,841,000
Mangolds	9,522,921	9,696,192	9,009,752	10,369,000
"Seeds" hay	4,210,924	4,526,192	5,487,369	4,734,000
"Meadow" hay	8,192,555	7,922,591	9,710,503	8,424,000

[1] *Journal of the Royal Statistical Society*, January, 1918, p. 61.
[2] *Journal of the Royal Statistical Society*, January, 1918, p. 62.

PART II

THE UNITED STATES

CHAPTER I

Movement of Prices during the War

Wholesale Prices

The various index numbers of wholesale prices constructed in the United States all tell substantially the same story. General prices remained comparatively stationary during the first year and a half of the war and then they began to advance, rising to new heights with each succeeding month, the only exception being the latter part of 1917, when the upward trend was temporarily checked because of governmental regulation. Taking the most comprehensive of the index numbers, that of the United States Bureau of Labor Statistics, one finds that price fluctuations in the United States since 1913 were as follows:[1]

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES AND BY YEARS, 1913 TO 1916, AND BY YEARS AND MONTHS, 1917 AND 1918
(1913 = 100)

Year and Month	Farm Products	Food, etc.	Cloths and Clothing	Fuel and Lighting	Metals and Metal Products	Lumber and Bldg. Mat'ls	Drugs and Chemicals	House Furnishing Goods	Miscellaneous	All Commodities
Average for 1913	100	100	100	100	100	100	100	100	100	100
Average for 1914	103	103	98	92	87	97	103	103	97	99
Average for 1915	105	104	100	87	97	94	113	101	[illegible]	100
Average for 1916	122	126	127	115	148	101	143	110	[illegible]	123
Average for 1917	188	177	181	169	208	124	185	155	153	175
1917										
January	147	150	161	170	183	106	144	128	137	150
February	150	160	162	178	190	108	146	129	[illegible]	155
March	162	161	163	181	199	[illegible]	[illegible]	129	[illegible]	160
April	180	182	169	178	208	114	[illegible]	151	144	171
May	196	191	173	187	217	117	164	151	148	181
June	196	187	179	193	239	127	165	162	153	184
July	198	180	187	183	257	132	185	165	151	185
August	204	180	193	159	249	133	198	165	156	184
September	203	178	193	155	228	134	203	165	155	182
October	207	183	194	142	182	134	242	165	164	180
November	211	184	202	151	173	135	232	175	165	182
December	204	185	206	153	173	135	230	175	166	181

[1] *Monthly Review of the Bureau of Labor Statistics*, February, 1918, p. 16; March, 1919, p. 115.

INDEX NUMBERS OF WHOLESALE PRICES—*Continued*

1918										
January	205	188	209	169	173	136	216	188	178	185
February	207	186	213	171	175	137	217	188	181	187
March	211	178	220	171	175	142	217	188	184	187
April	217	179	230	170	176	145	214	188	193	191
May	212	178	234	172	177	147	209	188	197	191
June	214	179	243	171	177	148	205	192	199	193
July	221	185	249	178	183	153	202	192	192	198
August	229	191	251	178	183	156	207	227	191	202
September	236	199	251	179	183	158	206	233	195	207
October	223	199	253	179	186	157	204	233	197	204
November	219	203	253	182	186	163	201	233	207	206
December	221	207	246	183	183	163	182	233	204	206

An analysis of the figures shows that prices in 1918 were almost double those in 1913; the highest level was reached in September, 1918, when the index number stood at 207; it declined to 204 in October, but rose again to 206 during the next month. Taking commodities by groups into which they are classified by the Bureau of Labor Statistics, one finds that the average index numbers increased from 1913 to November, 1918, in the case of farm products 119 per cent; food, etc., 103 per cent; cloths and clothing 153 per cent; metals and metal products 86 per cent; lumber and building materials 63 per cent; chemicals and drugs 101 per cent; house furnishing goods 133 per cent; miscellaneous group (including such articles as cottonseed meal and oil, newsprint and wrapping paper, rubber, tobacco, whiskey and wood pulp) 107 per cent.

An interesting and suggestive table of index numbers is contained in the *Federal Reserve Bulletin* for October, 1918. The numbers were constructed according to the method adopted by the Bureau of Labor Statistics, but with a different grouping of the commodities included. The grouping chosen comprises (1) raw materials, including subgroups of farm, animal, forest and mineral products; (2) producers' goods, such as steel rails, copper wire and cotton yarn, and (3) consumers' goods, such as flour, beef and cotton textiles. The classification was made as far as possible in accordance with the principal use of the commodity, since certain articles are used both by producers and consumers and since it is often difficult to distinguish between raw materials and producers' goods.[1]

[1] *Monthly Labor Review*, December, 1918, p. 147.

The movement of wholesale prices in the United States since 1914, according to this tabulation was:

AVERAGE FOR 1913=100

Year and Month	Raw Materials: Farm Products	Animal Products	Forest Products	Mineral Products	Total Raw Mat'ls	Producers' Goods	Consumers' Goods	All Commodities (Bureau of Labor Statistics Index Number)
Average for 1914	103	104	97	90	99	95	101	99
Average for 1915	111	100	93	91	99	100	102	100
Average for 1916	128	119	96	123	118	140	123	123
1917								
Average for year	210	169	118	179	173	187	172	175
January	161	136	99	175	147	166	147	150
February	157	145	100	185	151	168	155	155
March	169	156	103	191	160	171	156	160
April	198	163	105	189	169	181	172	171
May	225	168	108	196	180	189	179	181
June	227	166	120	205	185	199	178	184
July	230	168	126	198	187	212	174	185
August	232	181	128	175	183	211	175	184
September	214	195	129	167	181	203	175	182
October	227	190	129	150	178	185	181	180
November	238	187	129	157	182	181	183	182
December	233	178	129	158	178	180	185	181
1918								
January	240	174	130	171	183	181	192	185
February	242	176	131	172	184	184	193	187
March	249	178	135	172	187	187	189	187
April	243	193	137	170	190	190	193	191
May	226	201	138	173	189	192	194	191
June	232	198	138	171	189	194	197	193
July	237	209	140	180	196	196	202	198
August	246	215	143	180	200	199	205	203

The rise in wholesale prices of individual commodities from July, 1914, to July, 1918, was:[1]

WHOLESALE PRICES IN JULY, 1914, 1915, 1916, 1917 AND 1918, AS COMPARED WITH AVERAGE PRICES IN 1913

(ACTUAL MONEY PRICES)

Article	Unit	1913	July 1914	July 1915	July 1916	July 1917	July 1918
FOODSTUFFS							
(a) *Animal*							
Cattle, good to choice steers	100 lbs.	$8.507	$9 219	$9 213	$9.985	$12.560	$17.625
Beef, fresh, good native steers	Lb.	.130	.135	.132	.141	.164	.240
Beef, salt, extra mess	Bbl.	18.923	17.250	17.500	18.250	30.500	34.875
Hogs, heavy	100 lbs.	8.365	8.769	7.281	9.825	15.460	17.720

[1] *Monthly Labor Review*, September, 1918, pp. 102-103.

WHOLESALE PRICES IN JULY, 1914-18—*Continued*

Bacon, short clear sides .... Lb.	.127	.141	.111	.157	.248	.276
Hams, smoked, loose Lb.	.166	.177	.161	.190	.240	.303
Lard, prime, contract .... Lb.	.110	.102	.081	.131	.201	.264
Pork, salt, mess.... Bbl.	22.471	23.625	18.500	27.167	42.250	48.500
Sheep, ewes .... 100 lbs.	4.687	4.538	5.469	6.545	8.600	10.975
Mutton, dressed ... Lb.	.103	.095	.109	.131	.145	.205
Butter, creamery extra .... Lb.	.310	.270	.261	.276	.376	.432
Eggs, fresh, firsts ... Doz.	.226	.187	.169	.223	.318	.374
Milk .... Qt.	.035	.030	.030	.031	.050	.054
(*b*) *Vegetable*						
Wheat, No. 1 northern .... Bush.	.874	.897	1.390	1.170	2.582	2.247
Wheat flour, standard patent ...... Bbl.	4.584	4.594	7.031	6.100	12.750	10.702
Corn, No. 2, mixed. Bush.	.625	.710	.783	.808	2.044	1.665
Corn meal .... 100 lbs.	1.599	1.780	1.750	1.982	4.880	4.825
Oats, standard, in store .... Bush.	376	.369	.529	.405	.764	.765
Rye, No. 2 .... Bush.	.636	.618	1.036	.966	2.226	1.705
Rye flour, pure, medium straight .... Bbl.	3.123	2.975	5.388	5.150	11.620	9.425
Barley, fair to good, malting .... Bush.	.625	.533	.743	.746	1.391	1.125
Rice, Honduras, head .... Lb.	.051	.054	.049	.045	.070	.094
Potatoes, white .... Bush.	.614	1.206	.444	.863	2.375	1.035
Sugar, granulated .. Lb.	.043	.042	.058	.075	.075	.074
TEXTILES AND LEATHER GOODS						
Cotton, upland, middling .... Lb.	.128	.131	.092	.130	.261	.312
Cotton yarn, carded, 10/1 .... Lb.	.221	.215	.160	.253	.450	.640
Sheeting, brown, Pepperell .... Yd.	.073	.070	.060	.078	.140	..
Bleached muslin, Lonsdale .... Yd.	.082	.085	.075	.088	.160	.250
Wool, 1/4 and 3/8 grades, scoured .... Lb.	.471	.444	.557	.686	1.200	1.437
Worsted yarn, 2/32's Lb.	.777	.650	.850	1.100	1.600	2.150
Clay worsted suitings, 16-oz. ...... Yd.	1.382	1.328	1.508	2.000	3.250	4.450
Storm serge, all-wool, 50-in. ...... Yd.	.563	.505	.539	.760	1.176	1.470
Hides, packers', heavy native steers Lb.	.184	.194	.258	.270	.330	.330
Leather, chrome calf Sq. ft.	.270	.275	.280	.460	.540	.640
Leather, sole, oak .. Lb.	.449	.475	.495	.635	.815	.830
Shoes, men's, Goodyear welt, vici calf, blucher .... Pair	3.113	3.150	3.250	3.750	4.750	5.500
Shoes, women's, Goodyear welt, gun metal, button Pair	2.175	2.260	2.350	2.750	3.500	4.500

WHOLESALE PRICES IN JULY, 1914-18—*Continued*

MINERAL AND METAL PRODUCTS						
Coal, anthracite, chestnut........2240 lbs.	5.313	5.241	5.200	5.507	5.933	6.693
Coal, bituminous, run of mine.....2000 lbs.	2.200	2.200	2.200	2.200	5.000	3.750
Coke, furnace, prompt.........2000 lbs.	2.538	2.000	1.750	2.750	15.000	6.000
Copper, electrolytic Lb.	.157	.134	.199	.265	.318	.254
Copper wire, bare, No. 8...........Lb.	.167	.148	.210	.325	.338	.285
Pig iron, Bessemer.2240 lbs.	17.133	14.900	14.950	21.950	57.450	36.600
Steel billets.......2240 lbs.	25.789	19.000	21.380	41.000	100.000	47.500
Tin plate, domestic coke............100 lbs.	3.558	3.350	3.175	5.875	12.000	7.750
Pig tin............Lb.	.449	.311	.391	.389	.620	.930
Pig lead..........Lb.	.044	.039	.058	.069	.114	.080
Spelter...........Lb.	.058	.051	.220	.113	.093	.088
Petroleum, crude...Bbl.	2.450	1.750	1.350	2.600	3.100	4.000
Petroleum, refined, water-white.....Gal.	.123	.120	.120	.120	.120	.171
Gasoline, motor....Gal.	.168	.140	.120	.240	.240	.241

It may be seen from the table that a great many commodities more than doubled in price. Conspicuous examples are wheat, wheat flour, corn and corn meal, oats, rye, cattle, hogs, bacon, lard, pork, cotton and cotton yarn, wool and worsted yarn, leather, coke and pig iron.

In October, 1918, a number of commodities averaged less than in July of the same year.[1] A decided drop in price took place in the case of barley, corn and corn meal, rye flour, sheep, mutton and salt pork. Smaller decreases were shown for rye, wheat flour, potatoes, hides and leather, cotton yarn and pig tin.

On the other hand, increases between July and October took place in the prices of bacon, ham, butter, eggs, milk, white cotton, hogs, cattle, fresh beef, wheat, sugar, shoes, copper, pig lead and spelter. For wool, coal, coke, pig iron, steel billets, tin plate, crude and refined petroleum and gasoline, the price in October was practically the same as in July.

Very valuable records of the movement of wholesale prices have been gathered by the Price Section of the Division of Planning and Statistics of the War Industries Board. The

[1] *Monthly Labor Review*, December, 1918, p. 110.

grouping of commodities made by the board is somewhat different from that of the Bureau of Labor or of the Federal Reserve Board; the commodities are classified under seven major groups—food; clothing; rubber, paper, and fiber; metals; building materials; fuel, and chemicals. The quotations recorded by the Price Section are averages of prices taken at monthly or weekly intervals from the leading trade journals, from government bureaus, particularly the Bureau of Labor Statistics, and from private sources. In order to make possible a comparison of price fluctuations of different commodities during the war, relative prices on a fixed base have been figured to correspond to each actual quotation. These relative prices were made to represent the percentages of rise or fall of the actual prices from the level for the year immediately preceding the outbreak of the European war (July 1, 1913, to June 30, 1914).

The first bulletin containing monthly quotations and average prices was issued by the War Industries Board in October, 1918; it considers 88 commodities.

Data showing the effect of governmental price fixing upon the trend of wholesale prices are contained in a bulletin "Fluctuations of Controlled and Uncontrolled Prices," which the War Industries Board issued in December, 1918. As pointed out in this bulletin, a comparison could be made much more easily if all of the controlled commodities had been brought under regulation at the beginning of the price fixing period, for then the list of controlled commodities would have remained constant and furnished a definite basis for constructing an index number to measure the price changes. The fact that price control was extended gradually made it necessary to resort to two methods of comparison. The first method uses an index number based on the list of controlled commodities as it stood in September, 1918, and compares the relative movement of controlled and uncontrolled prices from August, 1916, to that date. It necessarily treats some commodities as controlled before they were actually under control. In the second method the prices of commodities under control in any given month are compared with the prices of the same commodities in the previous month and the percentage of change is indicated. This month to month comparison permits price fixed commodities to be kept strictly in date with price fixing.

In the following table the index number of controlled prices is constructed from the prices of 78 commodities which by September, 1918, had come under control. The index number of uncontrolled prices is built on quotations for 193 commodities. In both cases the commodities used are those represented in the Bureau of Labor Statistics Index Number of Wholesale Prices.[1]

INDEX NUMBERS OF ALL COMMODITIES

AVERAGE PRICES AUGUST, 1916–JULY, 1917 = 100

	Controlled Prices	Uncontrolled Prices	Total
1916			
Aug.	74	83	79
Sept.	77	86	82
Oct.	83	88	86
Nov.	91	93	92
Dec.	96	93	94
1917			
Jan.	98	96	97
Feb.	99	101	100
March	103	103	103
April	111	110	111
May	112	113	117
June	123	116	119
July	123	117	119

	Controlled Prices	Uncontrolled Prices	Total
1917			
Aug.	119	118	119
Sept.	111	121	117
Oct.	103	125	116
Nov.	104	127	117
Dec.	104	126	116
1918			
Jan.	106	128	119
Feb.	107	129	119
March	107	129	120
April	108	133	122
May	109	133	122
June	109	135	123
July	111	140	128
Aug.	110	145	130
Sept.	112	151	134

The next table shows the extent to which price fixing had progressed in the several groups of commodities in September, 1918, the relative importance of the controlled and uncontrolled commodities being measured by their aggregate values in exchange.[2]

[1] War Industries Board, *Fluctuations of Controlled and Uncontrolled Prices*, p. 8.
[2] *Ibid.*, p. 3.

EXTENT OF PRICE FIXING IN SEPTEMBER, 1918

Group	Number of Commodities		Relative Importance	
	Con-trolled	Uncon-trolled	Con-trolled	Uncon-trolled
All Commodities	78	193	39.7%	61.30%
Group I—Farm Products	8	22	18.04%	81.96%
Group II—Food, etc.	10	77	28.22%	71.78%
Group III—Cloths and Clothing	18	34	41.35%	58.65%
Group IV—Fuel and Lighting	8	6	63.44%	36.56%
Group V—Metals and Metal Products	19	6	83.33%	16.17%
Group VI—Lumber and Building Materials	9	21	55.71%	44.29%
Group VII—Drugs and Chemicals	2	7	7.95%	92.05%
Group VIII—House-furnishing Goods	0	5	..	100.00%
Group IX—Miscellaneous	4	15	17.40%	82.60%

The average prices of commodities by groups rose by September, 1918, as follows:

INDEX NUMBERS, SEPTEMBER, 1918

AVERAGE PRICES AUGUST, 1916–JULY, 1917 = 100

Group	Controlled Prices	Uncontrolled Prices	Total for Group
All Commodities	112	151	134
Group I—Farm Products	107	168	152
Group II—Foods	112	131	125
Group III—Cloths and Clothing	165	147	154
Group IV—Fuels and Lighting	99	138	110
Group V—Metals and Metal Products	92	130	96
Group VI—Lumber and Building Materials	132	159	143
Group VII—Drugs and Chemicals	94	152	145
Group VIII—House-furnishing Goods	0	145	145
Group IX—Miscellaneous	131	169	142

RETAIL PRICES

Reports of retail prices of food collected by the Bureau of Labor Statistics for June 15, 1914, and for subsequent dates, show the movement of these prices as affected by the war.[1] As the table opposite indicates, the price of food as a whole in June, 1915, was not higher than in June, 1914; the increase over June, 1913, was 2 per cent; in June, 1916, the price was 13 per cent higher than in June, 1914. The greatest advance took place during the latter part of 1916 and the early months of 1917. The result of this was an increase in June, 1917, of 55 per cent over the June, 1914, price; an additional rise of

[1] *Monthly Labor Review*, August, 1918, p. 115.

AVERAGE MONEY RETAIL PRICES AND PER CENT OF INCREASE OR DECREASE JUNE 15 OF EACH SPECIFIED YEAR COMPARED WITH JUNE 15, 1913

Article	Unit	Average Money Price June 15						Per Cent of Increase (+) or Decrease (−) June 15 of Each Specified Year Compared with June 15, 1913				
		1913	1914	1915	1916	1917	1918	1914	1915	1916	1917	1918
Sirloin steak	Pound	$0.258	$0.260	$0.260	$0.286	$0.328	$0.426	+1	+1	+11	+27	+65
Round steak	"	.223	.234	.232	.257	.301	.406	+5	+4	+15	+35	+82
Rib roast	"	.200	.204	.202	.224	.261	.335	+2	+1	+12	+31	+68
Chuck roast	"	..	.171	.164	.180	.222	.295	..	..	..	..	..
Plate beef	"	..	.125	.123	.134	.170	.227	..	..	..	..	..
Pork chops	"	.209	.218	.207	.232	.309	.372	+4	−1	+11	+48	+78
Bacon	"	.276	.273	.273	.292	.425	.515	−1	−1	+6	+54	+87
Ham	"	.271	.266	.258	.292	.391	.465	−2	−5	+8	+44	+72
Lard	"	.158	.154	.151	.172	.280	.326	−3	−4	+9	+77	+106
Lamb	"	.194	.200	.218	.239	.304	.374	+3	+12	+23	+57	+93
Hens	"	.219	.221	.210	.244	.288	.376	+1	−4	+11	+32	+72
Salmon, canned	"	..	..	.200	.202	.263	.295	..	..	..	..	..
Eggs	Dozen	.275	.278	.265	.295	.409	.425	+1	−4	+7	+49	+55
Butter	Pound	.353	.339	.349	.367	.469	.511	−4	−1	+4	+33	+45
Cheese	"	..	..	.233	.245	.338	.332	..	..	..	..	..
Milk	Quart	.090	.090	.089	.090	.106	.130	(2)	−1	(2)	+18	+44
Bread	16-oz. loaf[1]	.050	.051	.058	.057	.085	.087	+2	+16	+14	+70	+74
Flour	Pound	.033	.032	.042	.038	.081	.067	−3	+27	+15	+145	+103
Corn meal	"	.028	.030	.031	.031	.055	.067	+7	+11	+11	+96	+139
Rice	"	..	..	.091	.091	.108	.125	..	..	..	..	..
Potatoes	"	.018	.023	.017	.029	.064	.029	+28	−6	+61	+256	+61
Onions	"	..	..	.040	.054	.070	.048	..	..	..	..	..
Beans, navy	"	..	..	.076	.096	.195	.175	..	..	..	..	..
Prunes	"	..	..	.133	.130	.157	.166	..	..	..	..	..
Raisins, seeded	"	..	..	.126	.127	.146	.151	..	..	..	..	..
Sugar	"	.053	.051	.069	.087	.093	.091	−4	+30	+64	+75	+72
Coffee	"	..	..	.302	.302	.302	.302	..	..	..	..	..
Tea	"	..	..	.551	.551	.568	.618	..	..	..	..	..
All articles combined		..	..	..	..	..	..	+2	+2	+13	+55	+66

[1] 16 ounces, weight of dough.

[2] No change in price.

73 per cent occurred from June, 1917, to June, 1918, bringing the total up to 66 per cent. In November, 1918, a few days after the conclusion of the armistice, the prices of all articles of food combined were 75 per cent higher than in November, 1913.[1] If one considers the rise of individual commodities, one finds that in the five year period from June, 1913, to June, 1918, lamb increased 93 per cent, lard 106 per cent, and corn meal 139 per cent. The increase for flour was 145 per cent in 1917, and 103 per cent in 1918; however, the fluctuation in the price of flour was not as great as in the case of potatoes, which showed an increase of 256 per cent in June, 1917, and only 61 per cent in June, 1918. The rise in the price of meats varied from 65 per cent for sirloin steak to 82 per cent for round steak and 87 per cent for bacon. Sugar rose 72 per cent, bread 74 per cent, eggs 55 per cent, butter 45 per cent, and milk 44 per cent.

To enable the reader to follow the percentage changes in prices more readily, the money prices of 16 articles of food have been reduced by the Bureau of Labor Statistics to relative prices, the price of each article having been weighted according to the quantity consumed in the average working man's family. The relative figures are based on the average price for the year 1913.[2]

RELATIVE RETAIL PRICES OF FOOD ON JUNE 15, 1913-1918

Article	Unit	1913	1914	1915	1916	1917	1918
Sirloin steak	Pound	102	103	103	113	129	168
Round steak	"	101	106	105	117	135	182
Rib roast	"	102	103	103	113	132	169
Pork chops	"	99	103	98	110	148	177
Bacon	"	101	100	99	107	158	191
Ham	"	102	100	97	119	145	170
Lard	"	100	97	95	130	177	208
Hens	"	103	103	98	114	136	177
Eggs	Dozen	..	..	..	..	..	..
Butter	Pound	92	88	90	95	123	133
Milk	Quart	99	100	96	99	119	146
Bread	16-oz. loaf	100	110	126	124	170	174
Flour	Pound	101	99	130	117	246	203
Cornmeal	"	98	103	109	108	182	223
Potatoes	"	104	132	99	167	366	171
Sugar	"	97	93	126	158	170	165
All articles combined		98	99	100	112	152	162

[1] *Monthly Labor Review*, January, 1919, p. 89.
[2] *Ibid.*, August, 1918, p. 116.

Retail prices vary considerably between different cities and it is almost impossible to arrive at any fair comparison of prices between such places, for instance, as New York and Denver, or Chicago and San Francisco. Qualities and market conditions vary, and the grades differ not only from city to city but also from store to store within the same city and often from month to month within the same store.[1] This is true not only of food products but also of other commodities offered for sale.

A very pronounced increase in retail prices of dry goods in different cities took place between October 15, 1917, and October 15, 1918. A table prepared by the Bureau of Labor Statistics gives the average retail prices of ten dry goods on these two dates. It shows that the price of calico rose from 13.9 cents to 26.4 cents in New York; from 10.8 cents to 25 cents in Atlanta; from 13 cents to 35 cents in Baltimore; from 14.2 cents to 20.4 cents in Salt Lake City, etc.; the price of percale advanced from 20.8 cents to 42.4 cents in New York; from 24.3 cents to 40 cents in Atlanta; from 23 cents to 40.9 cents in Baltimore, and from 23.8 cents to 42.4 cents in Salt Lake City.[2]

Information secured by the National Industrial Conference Board from 112 stores in 46 cities throughout the country indicated that average prices of common articles of wearing apparel had advanced since July, 1914, to November, 1918, all the way from 64 per cent in the case of women's blouses to 185.7 per cent in the case of men's overalls.[3] Men's and women's coats which were selling for $10 in 1914 cost from $19 to $20 in November, 1918. Prices of knit underwear advanced nearly 130 per cent. There was an increase of 68 per cent in the price of men's shoes and of 90.5 per cent in that of women's shoes. Men's shirts which cost $1 in 1914 were selling at $1.80 in November, 1918; the price of women's aprons

[1] *Monthly Review of the Bureau of Labor Statistics*, February, 1918, p. 3.
[2] *Monthly Labor Review*, December, 1918, pp. 101–104. Contains tables giving retail prices of dry goods in 45 cities.
[3] *Industrial News Survey*, Cost of Living Supplement, December 30, 1918–January 6, 1919, p. 5.

rose during the same period from 30 cents to 95 cents, the price of woolen skirts from $2.00 to $4.00, of house dresses from $1 to $1.90.

Furnishings, especially household linens, draperies and other fabrics often advanced in price 100 per cent or more. Large increases occurred also in the price of kitchen utensils and furniture. The advance in the cost of tobacco has been placed by well known retailers at 30 per cent to 40 per cent.[1]

Prices of coal secured by the Board in 38 cities and by the United States Fuel Administration in 21 States indicated that the average price of anthracite when bought in ton lots for household use had risen about 45 per cent between July, 1914, and November, 1918. The average increase in the price of bituminous coal for household use was about 60 per cent. This comparison does not show the exact situation, since the summer price of coal is usually slightly lower than the winter price; the true advance within the war period is somewhat less than the figures indicate.

According to the data gathered by the Bureau of Labor Statistics, the average and relative retail prices of coal in ton lots for household use increased January 15, 1913, to January 15, 1919, as follows:[2]

AVERAGE AND RELATIVE RETAIL PRICES OF COAL IN TON LOTS, FOR HOUSEHOLD USE

JANUARY 15 OF EACH YEAR 1913 TO 1919, INCLUSIVE

[Average price for year 1913 = 100.]

Period	Pennsylvania Anthracite, White Ash				Bituminous	
	Stove		Chestnut			
	Average Price	Relative Price	Average Price	Relative Price	Average Price	Relative Price
Average for year, 1913	$7.73	100	$7.91	100	$5.41	100
Jan. 15, 1913	7.99	103	8.15	103	5.48	101
Jan. 15, 1914	7.80	101	8.00	101	5.97	110
Jan. 15, 1915	7.83	101	7.99	101	5.71	106
Jan. 15, 1916	7.93	103	8.13	103	5.69	105
Jan. 15, 1917	9.29	120	9.40	119	6.96	129
Jan. 15, 1918	9.88	128	10.03	127	7.68	142
Jan. 15, 1919	11.52	149	11.61	147	7.90	146

[1] *Industrial News Survey*, Cost of Living Supplement, December 30, 1918–January 6, 1919, p. 7.
[2] *Monthly Labor Review*, March, 1919, p. 101.

As may be noted in the table the first big advance in the price of all kinds of coal came during the period from January 15, 1917, to January 15, 1918. From January 15, 1918, to January 15, 1919, the average price of bituminous coal rose but slightly, from $7.68 to $7.90; the price of anthracite during the same time advanced for stove size, from $9.88 to $11.52, and for chestnut from $10.03 to $11.61.

From data furnished by chambers of commerce, real estate boards and brokers, and charitable and civic organizations in nearly 100 cities, the Industrial Conference Board came to the conclusion that rent rose throughout the country approximately 20 per cent. There were marked local variations in rent changes.

CHAPTER II

Wages and Cost of Living

WAGES

There are in the United States no comprehensive wage statistics for the entire country comparable with the price statistics of the Bureau of Labor. The meager evidence which is available shows that wage advances since the beginning of the war have been very uneven, varying according to districts and occupations and fluctuating from 6 per cent for daytime newspaper compositors and linotype operators, to 105 per cent for blacksmiths (shipyards, Delaware River).[1] While advances from 40 to 75 per cent have been common in such types of labor as metal workers and workers in textile mills and shoe factories, many classes of laborers, as, for instance, bakers, bricklayers, motormen and conductors on street railways, have received increases not in excess of 10 to 20 per cent. The above data were secured by Messrs. Hugh S. Hanna and W. Sett Lauck from records and reports of federal and State departments, and from trade and labor publications. In an interesting study on "Wages and the War" they brought out the facts that from the beginning of the war to the close of 1917, "there has been absolutely no uniformity in the degree of increase" in rates of labor compensation, and that "the great advances had taken place in those lines of industry for the products of which the war had created a special demand."[2] Many individual workers, of course, profited by transferring themselves to those industries where the demand for labor was great and where an important

[1] *American Economic Association*. Report of the Committee on War Finance, pp. 105–107; also *Monthly Review of the Bureau of Labor Statistics*, March, 1918, pp. 135–136.

[2] Hugh S. Hanna and W. Sett Lauck: *Wages and the War: A Summary of Recent Wage Movements*, *Monthly Labor Review*, March, 1918.

advance in wages took pl .ce. An idea as to what were the changes in relative wages and earnings in December, 1917, as compared with 1914-15 may be gained from the following table:[1]

RELATIVE WAGES IN LEADING OCCUPATIONS, DECEMBER, 1917, COMPARED WITH 1914-15

1914-15 = 100

	1917 Compared with 1914-15
Compositors and linotype operators (newspapers, day)	106
Electrotypers (finishers)	111
Hod carriers (plaster tending)	112
Plumbers and gas fitters (building trades)	113
Structural-iron workers (building trades)	113
Steam fitters (building trades)	114
Motormen and conductors (street railways)	115
Sheet-metal workers (building trades)	116
Mining (anthracite)	118
Inside wiremen (building trades)	120
Blacksmiths (railroad shops, southeastern)	123
Boiler makers (railroad shops, southeastern)	124
Longshoremen (New York)	125
Machinists (navy yard, Philadelphia)	126
Machinists (railroad shops, southeastern)	129
Pick mining, bituminous (Hocking Valley district)	130
Ship smiths (navy yard, Philadelphia)	133
Ship fitters (navy yard, Philadelphia)	136
Pipe fitters (navy yard, Philadelphia)	137
New York State, average (weekly earnings)	139
Silk industry (earnings)	140
Riveters, chippers, and calkers (shipyard, Washington, Oregon)	144
Blacksmiths (shipyard, San Francisco)	144
Machinists (shipyard, San Francisco)	144
Electricians (shipyard, San Francisco)	144
Shipwrights, joiners, boatmen, millmen (shipyard, San Francisco)	147
Machine mining, bituminous (Hocking Valley district)	149
Cotton finishing manufacturing (earnings)	153
Hosiery and underwear manufacturing (earnings)	157
Common labor (iron and steel)	160
Blast furnaces (iron and steel)	161
Loftsmen (shipyards, Delaware River)	165
Electricians (shipyards, Delaware River)	165
Sheet-metal workers (shipyard, San Francisco)	165
Cotton manufacturing (earnings)	165
Open hearths (iron and steel)	167
Sheet-metal workers (shipyards, Delaware River)	167
Machinists (shipyards, Delaware River)	167
Woolen manufacturing (earnings)	170
Riveters (shipyards, Delaware River)	175
Inside labor (most occupations), bituminous (Hocking Valley)	176
Boot and shoe industry (earnings)	177
Holders-on (shipyards, Delaware River)	197
Blacksmiths (shipyards, Delaware River)	205

[1] Hugh S. Hanna and W. Sett Lauck: *op. cit.*, p. 136.

According to the information in the possession of the Bureau of Labor Statistics, the per capita earnings in the iron and steel plants of the country were 88 per cent higher in October, 1917, than in January, 1915. By departments the increases in the average earnings per hour, in September, 1917, as compared with May, 1915, were as follows: in blast furnaces, 52 per cent; in Bessemer converters, 58 per cent; in open hearth furnaces, 38 per cent; in blooming mills, 35 per cent; in plate mills, 50 per cent; and in sheet mills, 95 per cent. An additional ten per cent increase was granted by most companies in October, 1917.[1]

Generally speaking, increases in wages were greater in those trades and localities which were poorly organized; this was due largely to the fact that they were, as a rule, previously on a much lower level of compensation. Much smaller advances on the average are shown by the figures for union wage scales. Taking the rates for 1913 as 100, these figures give the increases in the rates of wages per hour as follows:[2]

1913	100
1914	102
1915	103
1916	107
1917	114

For agricultural laborers the increase in average wages per month was:[3]

Section	Average Wages per Month 1910	1917	Rate of Increase Per Cent
North Atlantic	$33.19	$48.06	45
South Atlantic	19.75	30.80	56
North Central east of Mississippi River	31.81	44.98	41
North Central west of Mississippi River	35.45	49.46	40
South Central	21.90	31.07	42
Far Western	46.48	63.59	37
United States	27.50	40.43	47

It is difficult to arrive at any definite conclusion as to what was the actual increase in the rates of wages from the

[1] N. C. Adams: "Wages and Hours of Labor in the Iron and Steel Industry, September, 1917, compared with May, 1915," *Monthly Review of the U. S. Bureau of Labor Statistics*, March, 1918, p. 29.

[2] *Monthly Labor Review*, June, 1918, p. 146.

[3] Monthly Crop Report, March, 1918, quoted from the report of the Committee on War Finance, *American Economic Association*, p. 105.

beginning of the war to the end of 1918; it does not seem that wages rose as rapidly as the prices of commodities. However, a mere study of the rates of wages is not sufficient for the determination of the changes in the standard of living and in the general welfare of the laborers; there are many other factors to be taken into account, such as reduced amount of unemployment, opportunity for going into higher paid occupations, overtime work with extra pay, employment of additional members of the family, additional expenses of the household for transportation, board, etc.

The purchasing power of union wages measured by retail prices of food is given by the Bureau of Labor Statistics as having declined as follows:[1]

The wage figures are for May of each year.

Year	Purchasing Power Measured by Retail Prices of Food	
	Of Rates of Wages per Hour	Of Rates of Wages per Week, Full Time
1913	100	100
1914	100	99
1915	101	101
1916	94	93
1917	78	77
1918	79	77

The table shows that an hour's wages in 1918 purchased but 79 per cent as much food as in 1913 and a week's wages but 77 per cent as much.

Cost of Living

The increase in the cost of food in the United States in the opinion of the Food Administration has been greatly over-estimated by laying too much emphasis on special cases. A computation of the nation's food bill prepared by the Ad-inistration for each three months, beginning with the second quarter of 1917, down to the second quarter of 1918 showed the following results:[2]

[1] *Monthly Labor Review*, March, 1919, p. 119.
[2] Official Statement of the U. S. Food Administration, October 1, 1918, p. 5.

THE NATION'S FOOD BILL

	2d Quarter, 1917 Total Cost in Dollars	2d Quarter, 1917 Cost per Capita	3d Quarter, 1917 Total Cost in Dollars	3d Quarter, 1917 Cost per Capita	4th Quarter, 1917 Total Cost in Dollars	4th Quarter, 1917 Cost per Capita	1st Quarter, 1918 Total Cost in Dollars	1st Quarter, 1918 Cost per Capita	2d Quarter, 1918 Total Cost in Dollars	2d Quarter, 1918 Cost per Capita	Per Cent Increase or Decrease over 2d Quarter, 1917
Breadstuffs	$314,906,915	$3.0383	$393,732,314	$3.7844	$348,554,753	$3.3372	$351,952,618	$3.3567	$349,626,283	$3.3216	+ 9.3
Vegetables	330,709,747	3.1905	152,884,830	1.4694	136,899,969	1.3107	143,179,060	1.3655	123,903,476	1.1768	−63.1
Sugar	200,674,663	1.9363	205,527,930	1.9754	210,439,897	2.0148	190,016,407	1.8122	188,723,860	1.7930	− 7.4
Fruits	78,361,156	.7559	71,290,290	.6852	70,506,614	.6750	75,057,007	.7158	103,881,429	.9868	+30.5
Oils and nuts	52,302,765	.5046	58,304,496	.5604	68,495,873	.6558	72,652,456	.6929	81,964,541	.7786	+54.3
Fish	26,140,445	.2522	26,326,613	.2530	33,133,947	.3172	40,631,802	.3875	24,732,401	.2349	− 6.9
Meats	764,882,651	7.3804	777,233,981	7.4705	878,708,620	8.4131	838,387,663	7.9961	938,789,266	8.9192	+20.8
Poultry and eggs	221,956,895	2.1417	226,038,723	2.1726	266,500,892	2.5516	304,216,881	2.9014	262,577,561	2.4947	+16.5
Dairy products	573,665,667	5.5354	584,068,678	5.6138	641,510,693	6.1421	676,389,410	6.4510	619,553,054	5.8863	+ 6.3
Total	$2,563,600,904	$24.7353	$2,495,407,855	$23.9847	$2,654,751,258	$25.4175	$2,692,483,304	$25.6791	$2,693,751,871	$25.5919	+ 3.5

The above table is based on taking the total food consumed by the nation divided into the items of breadstuffs, vegetables, meat, etc., at the average wholesale price for the quarter and thus arriving at what the nation as a whole actually expended. The increase according to this table was from our entry into the war to the second quarter of 1918 from $2,563,600,904 to $2,693,717,871, or 3½ per cent. There had been many local variations, prices having increased to a larger per cent where there had been an increase in population; on the other hand, there were corresponding sections of the community where actual decreases or no increases had taken place. According to the Food Administration's statement, the cost of rent, clothing, transportation and other items of living advanced several times as much as the aggregate increase in the cost of foodstuffs.

It is surprising that the Food Administration should have used wholesale prices for the purpose of presenting the nation's food bill. The value of the whole compilation as an indicator of changes in the cost of living is very doubtful. It certainly does not reflect actual conditions. Retail prices alone can be used with any degree of accuracy in order to measure changes in the cost of living and even retail prices are an uncertain guide unless one ascertains the relative importance of each item in the family budget.

The National Industrial Conference Board, which in estimating changes in the cost of food relied chiefly upon the figures collected monthly by the United States Bureau of Labor Statistics, arrived at the conclusion that the increase in the cost of food entering into the family budget was between July, 1914, and the middle of June, 1918, 62 per cent, as compared with an increase of 15 per cent for rent, 77 per cent for clothing, 45 per cent for fuel and light and 50 per cent for sundries (including such items as recreation, furniture, reading material, tobacco, etc.). The increases in cost between July, 1914, and November, 1918, of the items entering into the family budget were:[1]

Food	83%
Shelter	20
Clothing	93
Fuel and light	55
Sundries	55

The increase for the budget as a whole was 65.9 per cent.

In combining the percentages of increase for the respective items, in order to determine the average increase for the total budget, food was taken as constituting 43 per cent of the

[1] *Industrial News Survey*, Cost of Living Supplement, August 19–26, 1918, p. 1; December 30–January 6, 1919, p. 1.

family expenditure, rent 18 per cent, clothing 13 per cent, fuel and light 6 per cent, and sundries 20 per cent.

The budgets considered were those of wage earners in representative industrial communities.

A brief submitted to the Director General of Railroads by the Brotherhood of Locomotive Firemen and Engineers in connection with their demands for increased wages contains some valuable cost of living data, which show the cost of specified items of expenditure in the working men's budget in 1900, and an estimated cost of similar budgets in 1911, 1914 and 1917. The budget of 1900 is based upon the average expenditure of 2,567 families, as ascertained by the United States Bureau of Labor Statistics and published in its report on cost of living (18th Annual Report, 1903). The figures for 1911, 1914 and 1917 are obtained by applying to the principal items of the 1900 budget the percentages of increase in those years as compared with 1900. According to these estimates, the total expenditure per family increased 43 per cent from 1914 to 1917.[1]

ESTIMATED WORKING MEN'S BUDGETS IN 1911, 1914, AND 1917, AS COMPARED WITH 1900

Items of Expenditure	Average Expenditure of 2,567 Working Men's Families in 1900	Estimated Average Expenditures of a Working Man's Family in—		
		1911	1914	1917
Food	$327.00	$430.00	$477.00	$716.00
Rent	100.00	133.00	132.00	159.00
Mortgages	12.00	12.00	12.00	12.00
Fuel and lighting	40.00	40.00	46.00	82.00
Clothing	108.00	120.00	121.00	210.00
Taxes	6.00	6.00	6.00	6.00
Insurance	21.00	21.00	21.00	21.00
Organizations	9.00	9.00	9.00	9.00
Religious purposes	8.00	8.00	8.00	8.00
Charity	3.00	3.00	3.00	3.00
Furniture and utensils	26.00	26.00	30.00	39.00
Books, newspapers	8.00	8.00	8.00	9.00
Amusements, vacation	12.00	12.00	12.00	13.00
Liquors	12.00	12.00	12.00	14.00
Tobacco	11.00	11.00	11.00	12.00
Sickness, death	21.00	21.00	21.00	21.00
Other purposes	45.00	51.00	50.00	67.00
Total	769.00	923.00	979.00	1,401.00

[1] *Monthly Review of the Bureau of Labor Statistics*, April, 1918, p. 192.

An investigation by the Bureau of Labor of the changes in retail prices in connection with the cost of living in shipbuilding centers of the country showed that the percentages of increase in these centers were greater than the findings of the Industrial Board or of the Brotherhood of Locomotive Firemen and Engineers indicate for the country as a whole. The per cent of increase in December, 1918, over December, 1914, was, in a family budget for Philadelphia: food, 83.35 per cent; clothing, 111.16 per cent; housing, 8 per cent; fuel and light, 47.94 per cent; furniture and furnishings, 107.69 per cent; miscellaneous, 67.47 per cent; all items, 75.02. The increase for the total budget in New York was 78.79 per cent; in Baltimore, 86.37; in Seattle, 70.47: in Chicago, 74.14; in San Francisco and Oakland, 58.38.[1]

A number of other local investigations into the increase in the cost of living were made from time to time; such was, for instance, an investigation by a committee of employes of the Bankers Trust Company of New York, which came to the conclusion that retail prices of food had risen 60 per cent between 1915 and June 30, 1918.[2] The Bureau of Labor of the State of Washington placed the increase in the cost of groceries, meat and fish between April, 1914, and April, 1918 at 51 per cent in Seattle, 47 per cent in Tacoma and 55 per cent in Spokane.

As to any definite conclusions regarding increased cost of living and the effect of this increase upon the status of the working man and his family, one may subscribe without reservation to the statements of the United States Commissioner of Labor Statistics, that "after all these years of investigation and statistical toil in the cost of living field, we don't know clearly the difference between the higher cost of living and the costs of higher living," and that "we can not, to save our lives, tell whether the Seattle family with an income of $1,569.10 is better or worse off than the New York family

[1] *Monthly Labor Review*, May, 1919, pp. 166–168.
[2] *Industrial News Survey*, Cost of Living Supplement, August 19–26, 1918, p. 4.

with $1,348.64 income. We do know that most workmen's families spend all their income. Does it mean that American families are extravagant or does it mean that they are living at or below the margin of decency and health?"[1]

[1] Royal Meeker: "The Possibility of Compiling a Cost of Living Index," *Monthly Labor Review*, March, 1918, p. 7.

CHAPTER III

Legislation Authorizing Price Fixing and Price Fixing Agencies

The National Defense Act, approved June 3, 1916, gave the President po·· · to fix prices at which materials could be purchased for the use of the government. There was some question as to whether his power extended to the materials to be used by the Allies, but the consensus of legal opinion was that the power applied that far. To the War Department was delegated the authority to require that manufacturers of arms, ammunitions, supplies and equipment for the army should sell their products at a reasonable price, agreed upon by the Department.

Similar authority was given by the law of March 4, 1917, to the Navy Department; the law referred to ships and war materials for the navy; it differed from the act dealing with the army's requirements in that it provided that if the owner was not satisfied with the compensation fixed by the President he could accept fifty per cent and have the actual amount to which he was entitled ascertained by the courts.[1]

When in June, 1917, special appropriations were made for use by the Shipping Board in acquiring merchant vessels, the President was given powers to place orders for the construction of merchant ships at prices considered by him as reasonable. He was also empowered to requisition shipbuilding plants, as well as merchant vessels which were under construction in American yards, charters for merchant vessels, etc. Those who felt dissatisfied with the compensation allowed by the President could accept seventy-five per cent of this compensation, leaving the proper amount to be decided by the federal courts.

[1] Chamber of Commerce of the U. S. Referendum No. 22 on the Report of the Special Committee on Control of Prices during the War, p. 12.

The first agreements as to prices between governmental agencies and producers can be traced to the Council of National Defense and its Advisory Commission, both of which were created in a section of the Army Appropriation Act, approved August 29, 1916. The council was established to study the industrial and transportation systems of the United States and to make recommendations as to the best methods which might be utilized in case of some possible future war. The Advisory Commission, consisting of seven industrial or commercial experts, was to guide the council in this work.[1]

The commission divided itself into seven committees, two of which, the one on supplies, with Julius Rosenwald as chairman, and the other on raw materials, minerals and metals, under the chairmanship of Bernard M. Baruch, soon assumed, in addition to their advisory functions, a large place in the actual administration of the affairs of the contracting departments.[2] Although having to contend with a certain amount of opposition to their activities from the military officials in charge of various bureaus, they succeeded in inaugurating the policy of personal conferences at Washington with manufacturers and producers of essential commodities. As a result of such conferences, informal price agreements were entered into, the effect of which was "not only to save the government a great deal of money" but also to prevent wholesale open market bidding by government bureaus, which would have caused great price stimulation and which would have led to a more rapid advance in prices than took place at the time. This method of agreements was used extensively in the subsequent fixing of prices by the War Industries Board, which was established on July 28, 1917, to succeed the General Munitions Board. The latter was created early in 1917 as the first attempt at a coordinating agency to counteract the tendency on the part of the purchasing bureaus of the War

[1] C. N. Hitchcock: "The War Industries Board," *Journal of Political Economy*, June, 1918, p. 548.
[2] *Ibid.*, p. 551.

Department to bid against each other for supplies and materials. The board had also the task of planning for the production of munitions. It gave particular attention to the question of prices. Notwithstanding the energetic efforts as well as the tact and diplomacy of Frank A. Scott, the chairman of the board, the lack of adequate powers and the loose organization of the board prevented it from being of much service. The initiative and the final decisions continued to rest with the heads of the War Department bureaus, who merely consulted the board "when time permitted." The Munitions Board, despite its manifest weaknesses, served in a limited measure as a clearing house for orders, thus preventing the more flagrant cases of competition between different bureaus and giving an opportunity for common counsel on questions of price.

The War Industries Board, like the Munitions Board, which it succeeded, derived its power from the Council of National Defense. One of the functions of the new board, in the words of the statement which created it, was to "consider price factors." As the council itself had no authority to fix prices, it could not delegate any such authority to the board.

The Price Fixing Committee of the War Industries Board was not created until March 14, 1918. Its functions were made independent of those of the board, and it could report directly to the President.

The articles dealt with by the Price Fixing Committee included iron and steel, copper, lumber, hides and leather, wool, cotton fabrics, nickel, aluminum, quicksilver, zinc, nitric and sulphuric acid, cement, hollow tiles, brick, sand and gravel. Thus, its scope was of wide range with regard to articles affected. The reason why all these commodities were brought under control may be found in the war needs for great quantities of each of these articles. Almost the entire supply of some of them was sought either by the United States Government or by the Government of the Allies.

The primary function of the Price Fixing Committee was the protection of the interests of the government. Private consumers were considered only in so far as the principle of one price for all was adhered to in the committee's agreements with various producers. The committee's regulations never extended to retail dealers and only in a small degree to wholesalers.[1]

The regulation of prices after the United States entered the war was carried on by two other agencies: the Food Administration and the Fuel Administration. They were both established in order to administer the provisions of the Lever Food Control Act. Unlike the Price Fixing Committee of the War Industries Board both the Food Administration and the Fuel Administration undertook to regulate prices all the way from producer to consumer. This was done by means of fixing basic prices as well as by establishing maximum margins for the middlemen.

The Food Control Act

Various food bills had been submitted to both houses of Congress since April 2, 1917. Of all these bills two have been drafted in committee and after having been introduced twice in different forms, passed both branches of legislature. The first of these, the Food Survey, or Production Bill, provided merely for an investigation of food conditions; it was enacted without much opposition. The second bill, the Lever Food Control Bill, after weeks of delay, was reported on June 13, 1917, by the House Committee on Agriculture for favorable action. This bill gave rise to very bitter debates both in the House and in the Senate.

The opponents of the bill attacked it as being entirely out of place in a "republic of freemen" (Senator Reed of Missouri).[2] Senator Gore denounced it as the "sweepings" of all the British and Canadian food acts and orders in council, and declared that if passed "it would cause losses to producers (in 1917) of $250,000,000 in wheat and $500,000,000 in corn and result

[1] F. W. Taussig: "Price Fixing as Seen by a Price Fixer," *Quarterly Journal of Economics*, February, 1919, p. 208.
[2] *The Literary Digest*, June 30, 1917, p. 1976.

in famine next year through reduced production." Senator Gore sought to amend rather than defeat the bill. He, like the majority of the bill's opponents, felt that the situation required some government action, but he objected to an act which according to him was placing too much power in the hands of one man.

One of the most vicious press attacks on the measure appeared in the New York *Evening Sun* which held the proposed food legislation of extreme danger to the country because it was bound to produce the very evils it pretended to avert, namely, "reduced production, chaos in marketing, the withdrawal of capital and expert skill from the food trades, panicky buying, high prices and grievous shortage at the points of consumption." According to this paper the bill was bound to erect an all-pervasive despotism which would cover the land, the factory, the mart and the home.

President Wilson in recommending the adoption of the measure stated that its object was not to control the food of the country, but to release it from the control of speculators and other persons who will seek to make inordinate profits. Secretary of Agriculture Houston defined as the purposes of the bill "to facilitate and clear the channels of distribution, prevent hoarding, assure fair prices, restrain injurious speculation, prohibit evil practices on exchanges, protect the public against corners and extortions and reduce waste."[1]

As finally passed on August 8, 1917, the bill embodied most of the provisions which President Wilson requested. The proposed amendment providing for a three-man food administration instead of one administrator was defeated as were also many other amendments aiming at the curtailment of the powers of the food controller.

The most important provisions of the Food Control Act (H. R. 4961) as they applied to price regulation were:

Section 1 provided for the establishment of governmental control over the supply, distribution and movement of food, feeds, fuel, and fertilizer and fertilizer ingredients, tools,

[1] *The Literary Digest*, June 30, 1917, p. 1976.

utensils, implements, machinery 'd equipment required for the production of foods, feed .d fuels. All commodities mentioned were called nec s.

Section 4 made it unlawfu for any person wilfully to destroy any necessaries for the purpose of enhancing the price or restricting the supply thereof; knowingly to commit waste or w.fully to permit preventable deterioration of any necessaries; to hoard, to monopolize or attempt to monopolize necessaries; to make unjust, or unreasonable charges in handling or dealing with necessaries. It was forbidden to combine, conspire or agree with a / other person to restrict the supply, distribution or manufacture of necessaries in order to enhance the price.

Section 5 gave the President authority to license the importation, manufacture, storage, mining or distribution of any necessaries. No one but licensees were permitted to engage in these activities, exception having been made for producers of agricultural products, cooperative societies dealing with agricultural products produced by their members, retailers whose business was less than $100,000 per annum and common carriers.

Section 6 provided that necessaries shall not be hoarded beyond the reasonable requirements of the individual or business.

Section 10 authorized the President to purchase, store and provide storage facilities for and to sell at reasonable prices wheat, flour, meal, beans and potatoes.

Section 12 provided for the taking over and operation by the government of any factory, packing house, pipe line, mine or other plant, in which necessaries were manufactured or mined, if such action was deemed necessary to secure an adequate supply of necessaries for the army and navy or for other public use.

Section 13 authorized the President to prescribe regulations for the exchanges, boards of trade and similar organizations, dealing in necessaries, should he find such regulations necessary in order to prevent enhancement, depression, fluctuation of prices or injurious speculation and manipulation.

Section 14 provided that should the President find an emergency existing requiring stimulation of the production of wheat, he could guarantee for a period not exceeding 18 months a price which would ensure producers a reasonable profit; No. 1 northern spring wheat at the principal interior markets was made the basis upon which the guaranty for the various crops was to be calculated. A guaranteed price of $2 a bushel for No. 1 northern spring wheat was established for the crop of 1918. The President was given authority to increase the import duties on necessaries should he find this advisable to prevent undue importation from other countries.

Section 19 appropriated $150,000,000 to be used in carrying out the business operations authorized by the act.

Section 24 provided that the act should cease to operate at the termination of the war between the United States and Germany.

Section 25 gave the President most comprehensive powers in regard to the production and dealing in coal and coke. He was authorized to fix the price of coal and coke, wherever and whenever sold; he could requisition and take over the plant, business and appurtenances of any producer or dealer who failed to conform to the imposed prices and regulations. If he thought it necessary for the successful prosecution of the war, he could require that the total output of coal should be sold exclusively to the United States, to be resold by government agencies. To make the provisions of the act effective, the Federal Trade Commission was authorized to make a full inquiry into the management and costs of coal and coke, in order that the President might fix the maximum price for the coal and coke of any locality.

The Food Administration

While the Food Administration had no authority to fix prices by decree, it could effectively regulate them through the system of licensing dealers in foodstuffs, through the control of food buying for the army, the navy and the Allies, and through the power of preventing hoarding, speculation and the taking of unreasonable profits.

The Food Administration had from the very outset of its activities set before itself as one of its main tasks the attaining of price stability in the essential commodities. Mr. Hoover realized the necessity of stimulating production on one hand and of enforcing conservation on the other, but he did not believe that these two aims could best be served by "a run-away market and by exorbitant prices." His first public statement after his appointment as Food Administrator thus defined the work before him: "to so guide the trade in the fundamental food commodities as to eliminate vicious speculation, extortion and wasteful practices and to stabilize prices in the essential staples."[1]

Two methods were open for the purpose of carrying into effect the provisions of the Food Control Act: (1) recourse to criminal proceedings, (2) administrative action, *i.e.*, revocations of license, temporary suspensions, requisitions, etc. The general attitude of the Food Administration towards the offender has been that penalties were less important than securing compliance with the Administration's policies.[2]

The comparative success of the Food Administration in dealing with the countless and complex problems which were involved in the stimulation of production, prevention of hoarding and of speculation, stabilization of prices, equalization of distribution and enforcement of conservation may be attributed to the great skill with which Mr. Hoover organized his administration and to his understanding of the psychology of the American people aroused by the demands of the war.[3] Mr. Hoover has shown that it is possible to have a bureaucratic machine without its concomitant defects of unwieldiness and of rigidity. His office had none of the traits of the conventional Washington office.[4] While in the Food Administration there were as many subordinate bureaus as perhaps

[1] C. R. Van Hise: *Conservation and Regulation*, Part ii, p. 83.
[2] Official Statement of the U. S. Food Administration, June 6, 1918, p. 1.
[3] "Hoover, His Food Administration," *Review of Reviews*, p. 283.
[4] C. Merz: "Strategy in Food," *The New Republic*, January 26, 1918.

in any other organization in Washington, these bureaus were called merely "divisions"; they appeared and disappeared as the occasion demanded, and the chiefs of these divisions passed from one responsible position to another wherever they could be most genuinely useful. Because of its flexibility, the Food Administration possessed the facility of rapidly adapting itself to any new situation and of being able to handle the work expeditiously.

Mr. Hoover sought and in most instances obtained the voluntary cooperation of the representatives of various business interests which were placed under his control. Most of the measures passed by him were the result of his conferences with those who were to be affected by his regulations, and most of the important positions in the Food Administration were entrusted to successful organizers and administrators of private business enterprises. Mr. Hoover was careful to make it clear from the very beginning of his activities that he did not wish to disturb the normal channels of business, that he did not contemplate to supplant any economic factors which were performing a useful function. Realizing the futility of attempting to solve in one central organization the manifold and pressing problems of production and distribution of foodstuffs throughout all parts of the country, he enlisted the services of every State and municipality in the union. Each State was placed under the supervision of a Federal Food Administrator who was appointed by the President upon Mr. Hoover's recommendation. Like Mr. Hoover, these officials were volunteers, receiving no pay for their services. Administrators were also appointed for each county in the State; the county administrators, in their turn, organized special committees to look after the food problems in every city and township.

Mr. Hoover constantly objected to the introduction of a system of compulsory rationing. His objections were based on the following grounds: (1) fifty per cent of the population in the United States are either producers or live in intimate contact with the producers and therefore can not be restrained in their consumption by any system of rationing; (2) the habits of consumption of the American population with regard to any given commodity vary considerably in different parts of the country; thus while the northern worker consumes about eight pounds of wheat products a week, the southern worker does not require more than two pounds of such products. The rationing of wheat on any broad national lines would increase the consumption beyond necessity in the south, while in the north it would decrease it below necessity. (3) Restriction of consumption of the very poor is undesirable, as its consumption is not above what is strictly necessary for the maintenance of health and strength of these people; (4) compulsory rationing would mean an annual cost of from $10,000,000 to $15,000,000 to the government; it will mean the issuance of tickets and coupons to every householder, the maintenance of a vast administrative organization which would have to see to it that the rates are enforced and obeyed.

The Licensing System and the Control of Margins

The first proclamation issued by the President under the licensing power granted to him by the Food Control Act applied to the owners, lessees or operators of wheat or rye elevators and to all persons, firms, corporations and associations engaged in the business of manufacturing any products derived from wheat or rye (except those operating mills and manufacturing plants of a daily capacity of one hundred barrels or less and farmers and cooperative associations of farmers). This proclamation was issued on August 14, 1917, to become effective on September 1, 1917, after which date no one was allowed to engage in the wheat and rye warehousing or manufacturing business without having previously secured a license.[1] The next interests brought under the licensing control were the importers, manufacturers and refiners of sugar, sugar syrups and molasses; they were required to secure a license on or before October 1, 1917.[2]

[1] U. S. Food Administration, *Proclamation and Executive Orders by the President*, p. 6.
[2] *Ibid.*, p. 7.

A more far-reaching measure was passed on October 8, 1917. It established a licensing system to go into effect on November 1, which gave the Food Administration power to effectively regulate the activities of all persons engaged in the importation, manufacture, storage and distribution of certain basic foodstuffs. The commodities enumerated in the new proclamation were:

Wheat, wheat flour, rye or rye flour,
Barley or barley flour,
Oats, oatmeal or rolled oats,
Corn, corn grits, corn meal, hominy, corn flour, starch from corn, corn oil, corn syrup or glucose,
Rice, rice flour,
Dried beans,
Pea seed or dried peas,
Cottonseed, cottonseed oil, cottonseed cake or cottonseed meal,
Peanut oil or peanut meal,
Soya bean oil, soya bean meal, palm oil or copra oil,
Oleomargarine, lard, lard substitutes, oleo oil or cooking fats,
Milk, butter or cheese,
Condensed, evaporat[illegible] r powdered milk,
Fresh, canned or cu[illegible] pork or mutton,
Poultry or eggs,
Fresh or frozen fish
Fresh fruits or vegetables,
Canned: Peas, dried beans, tomatoes, corn, salmon or sardines,
Dried: Prunes, apples, peaches or raisins,
Sugar, syrups or molasses.

Among those exempt fro[illegible]e operation of the ruling were: retailers whose gross sales of food commodities did not e[illegible]ed \$100,000 per annum; common carriers; farmers, gardeners, cooperative associations of farmers or gardeners and fishermen.[1] The announced object of this licensing system was (1) to limit the prices charged by every licensee to a reasonable amount over expenses, and to forbid the acquisition of speculative profits from a rising market; (2) to keep all food commodities moving in as direct line and with as little delay as practicable to the consumer; and (3) to limit, as far as practicable, contracts for future delivery and dealings in future contracts.[2] No licensee could "import, manufacture, store, distribute, sell or otherwise handle any food commodities on an unjust, exorbitant, unreasonable, discriminatory or unfair commission, profit or storage charge."

With respect to enumerated commodities, the regulations required that profits should be no greater than a reasonable advance over the actual purchase price of the particular goods sold, without regard to the market or r placement value. In determining the amount of such advance, the Food Administration announced that the licensee could average the cost of goods of each class. For example, the cost of all canned corn on hand was to be averaged and a reasonable advance over such average was to be deemed a fair sale price for canned corn; but the licensee was not permitted to average the cost of all licensed commodities on hand and add an advance over such average.

"Purchase price" was not meant to be used in the literal sense of the net invoice price of the goods, but included freight to the public railway terminal in the dealer's town. In a subsequent definition of the "purchase price" in connection with cold storage butter, eggs and poultry, the purchase price was stated to include original buying price, transportation, storage and insurance charges, interest on the money invested at the current rates during the period of storage and actual cost of printing when butter is put in print form from tubs or cubes.[3]

[1] For a detailed list of exemptions, see U. S. Food Administration, *Proclamation and Executive Orders by the President*, p. 8.

[2] *Monthly Review of the U. S. Bureau of Labor Statistics*, December, 1917, p. 1167; also U. S. Food Administration, *Policies and Plan of Operation*, p. 97.

[3] Special Rules and Regulations Governing Dealers in Cold Storage Eggs and Frozen Poultry, effective March 2, 1918; Special Regulations Governing Manufacturers, Dealers, Brokers and Commission Merchants in Butter, July 19, 1918.

When no specific margin has been laid down by the Food Administration, the standard of reasonableness was the profit which the "dealer customarily enjoyed on the same commodity in the prewar period on an even market under freely competitive conditions." Even when maximum margins were specified, it was expressly stated that they were to be regarded as "guides only" and were in no way to limit the general principle that the advance was to be reasonable in relation to the customary prewar profit of the individual;[1] as in the very next sentence it was asserted that "high margins, even if customary during prewar period, are not justifiable now," it was evidently possible to consider as a reasonable margin the customary prewar margin only in the case when the latter was reasonable in the prewar period.[2] An attempt was made to meet the difficulty by asserting that the reasonable margin for any particular dealer depended upon his "cost of operation," the cost of operation referring to the costs assignable to the particular class of commodity.

Resales within the trade without reasonable justification, especially those tending to result in higher market prices, were declared unfair practices.

Special rules prescribed that foods which have been held in cold storage for more than 30 days were to be marked "cold storage goods" when offered for sale; other rules prohibited speculation in futures on canned goods; forbade the shipment of potatoes which had been seriously damaged; protected the producer who shipped his products to markets on consignment against unfair charges by commission men, brokers and auctioneers, and covered many other points.

Although the small retailers of food were exempt from the licensing provisions of the Food Control Act, they were forbidden under the terms of that act to hoard, monopolize, waste or destroy food, or to conspire with any one to restrict production, distribution or supply, or to exact excessive prices

[1] Maximum Margins on Sales by Wholesalers to (1) Retailers, (2) Importers of Beans and Peas, (3) Merchandise Brokers, April 6, 1918.

[2] L. C. Gray: "Price Fixing Policies of the Food Administration," *American Economic Review Supplement*, March, 1919, p. 257.

on any commodity. The act forbade manufacturers or wholesalers to sell to any retailers who were guilty of the above mentioned unfair practices. Retailers doing more than $100,000 business annually were required to secure licenses. The penalty for those who failed to obtain a license was five thousand dollars fine or two years' imprisonment. The penalty for the violation of the rules and regulations was the revocation of the license and criminal prosecution.

In order to check hoarding, no licensee was permitted to keep on hand or under control food supplies for more than sixty days ahead. Certain exceptions were made to this ruling.

The Food Administration attempted to keep track of the operations of all licensees by means of regular reports which the licensees were requested to submit once a month. It found itself swamped with such reports, which it was unable to examine carefully. After May 1, 1918, the policy of requiring detailed monthly reports was abandoned.

While the Food Administration had no authority to fix prices, it inaugurated in November, 1917, the policy of establishing "price interpreting boards" in the principal centers of population and of publishing, from day to day, fair retail prices at which foodstuffs were to be sold.

A couple of weeks after the inauguration of the licensing system, Mr. Hoover prohibited combination sales on all groceries.[1] The order forbade "the sale of one or more food commodities upon condition that the purchaser shall buy one or more other food commodities from the seller." The single exception to the ruling was the permission to sell sugar in combination with corn meal at the rate of one pound of sugar with two pounds of corn meal; the exception was made as a wheat conservation measure. The reason given for the issue of the order was that "combination sales frequently result in the sale of more foodstuffs than the particular purchaser would ordinarily buy and are therefore determined to be a wasteful

[1] *Interstate Grocer*, November 24, 1917, p. 1.

practice within the meaning of section 4 of the Food Control Act of August 10, 1917."

On December 10, 1917, the control by means of licenses was extended to include all those engaged in the manufacture for sale of bread, cake, crackers, biscuits, pastry and other bakery products. This was followed by the licensing in February, 1918, of the importation, manufacture, storage and distribution of feeds, copra, palm kernels, palm kernel oil, peanuts and green coffee, also the malting of barley or other grains.

In May, 1918, the President extended the licensing power of the Food Administration to tuna fish, near beer, cottonseed and a number of other commodities.[1]

One of the net results of the licensing system as applied to food dealers was that the Food Administration, by limiting traders' margins and regulating their methods, has relieved them of the responsibility with which they were formerly charged, by both producers and consumers, for the high cost of living.[2]

Other classes of business gradually brought under license were the arsenic industry (since November 20, 1917), the ammonia industry (since January 21, 1918), the fertilizer industry (since March 20, 1918) and the stockyards (since July 25, 1918). The carrying into effect of the provisions of the various acts which extended licensing to the above industries was entrusted to the Secretary of Agriculture.[3]

At the beginning of July, 1918, the Food Administration recommended that the publication of "fair prices," heretofore confined to large cities, should be extended to every county in the country.[4] Only a limited number of staple products, such as rye, flour, corn meal, sugar, lard, canned corn, canned tomatoes, dried fruits, eggs, butter, potatoes, cheese, ham and lard, was to be included in the list. It was suggested that price interpreting boards be instituted, consisting of representa-

[1] *Commercial and Financial Chronicle*, May 25, 1918, p. 2715.
[2] F. I. Nourse: "Price-Fixing. Discussion." *American Economic Review Supplement*, March, 1919, p. 273.
[3] U. S. Food Administration, *Proclamation and Executive Orders by the President*, pp. 9, 21, 23, 24.
[4] Official Statement of the U. S. Food Administration, July 6, 1918, p. 4.

tives of wholesale grocers, retailers and consumers. The board was to meet at least once a week, secure from the wholesale representatives the prices charged by them to the retailer and add thereto the proper margin of profit for the latter.

The cooperation of newspapers was secured for a regular publication of "fair prices," and a checking system was instituted which enabled the county administrators to know whether the dealers were not charging prices in excess of those published; for this purpose the aid of the retail price reporters located in each county was invoked. A price reporting scheme was also established in order to keep the Food Administration in Washington informed of the prices charged for the staple commodities in the various parts of the country.

CHAPTER IV

Wheat, Flour and Bread

Wheat

The production of wheat in the United States fell from its high level of 891,017,000 bushels in 1914 and 1,025,801,000 bushels in 1915 to 639,886,000 bushels in 1916; but, because of a large surplus from the preceding year, the wheat situation in 1916 was not grave. In addition to the crop, 178,-203,000 bushels carried over from the previous harvest[1] provided a sufficient supply for both domestic consumption and for export trade; the latter equaled 203,707,598 bushels, as compared with 122,998,754 bushels, our three year prewar average. For the crop of 1917, the farmers had increased the total area under cultivation, but the winter killing had resulted in much abandonment and a low average yield, so that the total production in 1917 was not far in excess of that of 1916, *i.e.*, 650,828,000 bushels. The carry over from the preceding year was only 51,078,000 bushels, the lowest in many years.

Obviously, the amount of wheat was insufficient to meet all demands, particularly because of the fact that ruthless German submarine campaign so reduced world tonnage as to make unavailable the wheat from Argentina, India and other distant markets. Upon the United States and Canada fell the burden of supplying the bread needs of the Allied and neutral countries of Europe.

What were the Allied needs for 1917 wheat may be seen from the following table:[2]

	Bushels	Bushels
Three year average prewar imports		380,804,000
Three year average prewar production	590,675,000	
Estimated production, 1917	350,000,000	
Deficiency		240,675,000
Total requirements to maintain normal consumption		621,479,000

[1] U. S. Food Administration, *Policies and Plan of Operation* (*Wheat, Flour and Bread*), p. 7.
[2] *Ibid.*, p. 11.

The average price of No. 1 northern spring wheat in Minneapolis, July 1, 1913, to June 30, 1914, was 89 cents a bushel. The price rose immediately upon the declaration of war and for the second half of 1914 wheat was selling at $1.09 a bushel.[1] It continued to advance steadily through the winter and spring months of 1915, rising to $1.58 cents in May, a level it did not reach again until September, 1916, when wheat was quoted in Minneapolis at $1.61 cents. Due to an exceptional harvest, prices were comparatively low during the latter part of 1915 and the first half of 1916; they fluctuated between 98 cents a bushel in September, 1915, and $1.29 cents in January, 1916. The advance which commenced in July, 1916, carried the price to $2.98 cents a bushel in May, 1917, the highest price it ever reached in the Minneapolis market.

The ascent of prices in Chicago during the period from July, 1916, to July, 1917, for cash No. 2 hard winter wheat was:[2]

July, 1916	$1.159	January, 1917	$1.791
August, 1916	1.457	February, 1917	1.696
September, 1916	1.570	March, 1917	1.880
October, 1916	1.739	April, 1917	2.377
November, 1916	1.885	May, 1917	3.013
December, 1916	1.735	June, 1917	2.675

The highest price for wheat in the history of the Chicago Board of Trade was reached at the beginning of May, when cash wheat was selling at $3.25. There was very little benefit from these high prices for the farmer, who, according to the reports of the Department of Agriculture, received for the 1917 wheat an average of $1.44 per bushel, the bulk of the crop having been marketed by the producers during the early part of the harvest year. Manufacturers and distributors were accused by many of having forced the prices up by means of manipulating the market. While some of them may have made large profits from rising prices, it is hardly fair to put upon them or upon the speculators on the exchanges the blame for the excessive rise. The facts are that American

[1] War Industries Board, *Bulletin of Monthly Prices during the War*, November, 1918, p. 62.

[2] U. S. Food Administration, *Policies and Plan of Operation*, p. 7.

business interests on the whole had been endeavoring to restrict the upward trend of wheat prices, and, as far as speculative interests were concerned, many of them have sold short in an anticipation that the price will go down. The short sellers overlooked the fact that the situation on the other side of the Atlantic was abnormal. The Wheat Export Company, representing the Allies, was feverishly buying all the wheat in sight, buying not only in the cash market, but also for future delivery, and the same was true of the firms representing neutral governments. To this uncontrolled buying from Europe, buying that was absorbing all the wheat thrown on the market, irrespective of the price it commanded, was added an unusual demand for flour by many panic stricken private consumers in this country. In order to be provided against any contingencies they were laying in vast supplies. The blame for the latter situation was placed by some writers upon the United States Government which was sending out alarming crop reports and whose officials were continuously warning the public that unless it curtailed consumption a famine would be the result.[1]

The wheat market became so "oversold" and the situation so alarming that on May 12, 1917, the Chicago Board of Trade suspended all tradings in May wheat. It appointed at the same time a price fixing committee; the latter held a series of conferences in Chicago, in which the United States District Attorney and representatives of the British Government took part. The committee prescribed the settlement of all May contracts at $3.18 a bushel. Subsequently, speculative trading in July and September futures was also prohibited. The settling price for July and September futures was fixed at $2.75 and $2.45 respectively. The action of the Chicago Board of Trade suspending speculation was followed by similar actions at St. Louis, Duluth, Kansas City, Minneapolis and Toledo.[2]

The Food Control Act guaranteed a minimum price of $2.00

[1] W. C. Edgar: "Bureaucracy and Food Control," *American Review of Reviews*, 1917, p. 626.
[2] *Commercial and Financial Chronicle*, March 30, 1918, p. 1281.

a bushel for the wheat crop of 1917–18. This was the only price fixed by legislation and the only guaranteed minimum price which was in existence in this country during the war. The minimum was later raised under the discretionary powers of the President to $2.20, and the same price was extended to the crop of 1918–19.

The figure of $2.20 was reached by no careful cost inquiries or statistical computations but in consequence of a desire to increase the production of wheat and also to placate the farmers.[1]

Opinions as to the "fairness" of this minimum price varied. Prof. G. E. Call of the Kansas State College of Agriculture estimated that it meant an average net profit for the farmer of $1.41 per bushel. He based this estimate on an average value of $48 per acre for the wheat land of the country, an average crop of fourteen bushels to the acre, and an average cost of 78.7 cents per bushel to the farmer. On the other hand, at the meeting of the National Non-Partizan League held at St. Paul in the latter part of September, 1917, Mr. I. M. Hagan, North Dakota's Commissioner of Agriculture, presented figures to prove that it cost a North Dakota farmer over $21 an acre to raise wheat. As the average for the State was only seven bushels an acre, the cost for raising one bushel of wheat was, according to him, $3.00.[2] A calculation made by a Missouri farmer placed the average cost for raising a bushel of wheat in 1917, with a yield of 19¼ bushels per acre, at $1.8152.[3] No item of expense seems to have been too small or too remote not to have been included in this calculation of costs.

The correctness of the judgment of those who fixed the price at $2.20 per bushel was demonstrated by an increased acreage under winter wheat; it rose to 42,000,000 acres, an advance of about 2,000,000 acres over any acreage before known in American history, and an increase of 7,000,000 acres

[1] F. W. Taussig, "Price Fixing as Seen by a Price Fixer," *Quarterly Journal of Economics*, February, 1919, p. 207.
[2] *The Literary Digest*, Sept. 29, 1917, p. 10.
[3] Food Administration, *Doubling the Wheat Dollar*, p. 6.

over prewar average.[1] The price of $2.20 was a compromise between $1.84 demanded by labor representatives and $2.50 advocated by the representatives of the farmers.

As the minimum price established by the Food Control Act did not apply to the 1917 harvest, the President appointed a committee, selected from the various producing sections and consuming interests of the country, to determine the price at which grain was to be purchased by the government before the coming on the market of the 1918 wheat crop. This committee was appointed on August 15; among its members were four farmers, one capitalist, three college professors, one banker, one professor of economics and two representatives of labor.[2] Mr. H. A. Garfield was made the chairman of the committee.

In a report presented on August 30, 1917, the committee recommended that the price of No. 1 northern spring wheat, or its equivalent, should be $2.20 per bushel at Chicago.[3] It based its conclusions upon the "cost estimates for the crop of 1917 furnished by the United States Department of Agriculture, checked by the results of independent investigations and the evidence submitted to the committee by producers and their representatives." The time which intervened between the appointment of the committee and the presentation of the report was so short that a painstaking investigation by the committee of the cost of wheat production was obviously out of the question.

Acting upon the committee's recommendation, the President issued an order establishing the price for 1917 wheat. According to this order, taking $2.20 as the basic price, the prices of other grades in Chicago ranged from $2.10 for No. 1 humpback to $2.24 for No. 1 dark hard winter, No. 1 dark northern spring and No. 1 amber durum. Equivalent to No. 1 northern spring, or basic, were No. 1 hard winter, No. 1 red winter, No. 1 durum and No. 1 hard white.

[1] *Commercial and Financial Chronicle*, March 2, 1918, p. 876.
[2] *Monthly Review of the U. S. Bureau of Labor Statistics*, September, 1917, p. 70.
[3] U. S. Food Administration, *Policies and Plan of Operation*, pp. 24–25.

Differentials between the different primary markets of the United States were established as follows:

Kansas City and Omaha, 5 cents less than basic; Duluth and Minneapolis, 3 cents less; St. Louis, 2 cents less; New Orleans and Galveston, basic; Buffalo, 5 cents more; Baltimore and Philadelphia, 9 cents more; and New York, 10 cents more than the basic.[1] The prices for Nos. 2, 3 and 4 of each grade were recommended to be, respectively, 3, 6 and 10 cents less than basic.

Many unsuccessful attempts were made to increase the minimum price for the 1918 crop to $2.50 (Senator Gore's bill) and even to $2.75 (Senator McCumber's bill). On February 20, 1918, the Food Administration announced that it would use all its influence to prevent the enactment of any price increasing bill because the passage of such a bill would upset its entire wheat and bread program.[2]

In an effort to force an increase, an amendment raising the price of wheat to $2.40 was included in the annual agricultural appropriation bill for the fiscal year 1918–19. President Wilson vetoed this bill. Those who opposed the higher minimum argued[3] that any such change would disorganize the plans made by the administration, would be unjust to those farmers, millers, etc., who had made contracts on the established basis, and would raise unduly the price of flour to the consumers (from $10.50 to $12.50 a barrel). It was also pointed out that the Allies were buying Argentinian wheat at $1.40 a bushel.

The Food Administration's measures affecting the wheat trade were very largely the result of recommendations by a Committee of Grain Exchanges in Aid and National Defense. This committee was organized in April, 1917, after consultations between the Council of Grain Exchanges and the Secretary of Agriculture. The committee at the request of Mr. Hoover, submitted a plan of action which in its opinion would be acceptable both to the government and to the trade.

[1] *Monthly Review of the U. S. Bureau of Labor Statistics*, November, 1917, p. 80.
[2] *Commercial and Financial Chronicle*, February 23, 1918, p. 771.
[3] *The New York Evening Post*, December 31, 1918.

The committee expressed itself in favor of fixing a wheat price and of maintaining it for the entire crop year without change; it also went on record as desirous of governmental control of the distribution of the available wheat supply; the discontinuance of trading in futures in wheat on the grain exchanges; and the limitation of the practice of buying flour far in advance of actual needs.[1]

The other body which helped to shape the control of wheat trade was the United States Millers' Committee appointed by Mr. Hoover on June 22. It consisted of nine leading members of the flour milling industry, representing the several sections of the country. The committee reported on June 28 a plan which proposed that each mill should be entitled to sell its products on a cost plus profit basis, provided the cost of manufacturing and marketing did not exceed seventy-five cents per barrel, while the amount of profit was to be limited to twenty-five cents per barrel. The mills agreed to abide by the government's allocation of business among them on the basis of their average output for the three preceding years. They also agreed that their sales of flour should be limited to a period of thirty days in advance. These proposals were ultimately adopted as the basis of milling regulations.[2]

In order to eliminate speculation in wheat and flour, the Food Administration adopted the following measures:

First. It limited the right to storage of wheat and flour without the approval of the Food Administration to thirty days.

Second. The flour mills of the country were prohibited from contracting for sale of flour more than thirty days in advance.

Third. All the grain exchanges of the country were requested to suspend during the period of war all trade in futures of every kind.[3]

One of the effects of the Food Administration's rulings was

[1] W. Eldred: "Wheat and Flour Trade," *Quarterly Journal of Economics*, November, 1918, p. 6.
[2] *Ibid.*, p. 9.
[3] U. S. Food Administration, *Policies and Plan of Operation*, p. 16.

the elimination of the ordinary means by which the greater part of the country's grain trade is financed, *i.e.*, through the purchase and sale of futures. It became necessary to use government funds for the purpose of carrying the movement of wheat and to provide some machinery which would assume the functions of the normal agencies of distribution. The problem was solved by the establishment of the United States Food Administration Grain Corporation.

There were precedents in the government doing business through business corporations; such were for instance the Emergency Fleet Corporation and the Panama Railways. Mr. Hoover saw the advantages of economy, flexibility and expedition which lie in such a system as compared with relying upon the ordinary machinery of the Treasury, so ill adapted to trading operations. Like all the other organizations created by Mr. Hoover, the Grain Corporation was not bureaucratic either in its personnel or in its character.

Some of the country's best experts in the wheat trade were made responsible heads of the corporation. It opened its offices on September 4, 1917, and immediately proceeded to regulate the conditions in the wheat markets. Provided with $50,000,000 of the government funds, it became the dominant purchasing factor all over the United States. The country was divided into fourteen zones, each containing an important terminal market. Government representatives who were large scale dealers themselves before the war were appointed as buyers. Grain corporation agents at various milling centers acted as distributors of wheat; they apportioned the wheat as it arrived at each center among the various mills of the place in accordance to the needs of each mill.

The agreement between the Grain Corporation and the flour millers provided that the latter should in purchasing wheat observe and be governed by all rules and regulations enacted by the corporation. The Grain Corporation guaranteed millers against losses by a decline in value on all accumulated surplus of unsold wheat bought in accordance with the Grain Corporation's regulations; it further agreed to endeavor to maintain in available positions, an adequate supply of suitable wheat to meet the milling demands of the miller at the general price level of wheat.

On June 21, 1918, the capital stock of the Food Administration Grain Corporation was increased to $150,000,000. The purpose of the executive order which authorized this increase was twofold: first, to enable the Food Administration to make the necessary readjustments in wheat prices at guaranty terminals to cover the increase in railway rates; and second, in view of the large harvest, to provide the Grain Corporation with the increased capital necessary to carry out the guaranty to the producer. The intention was to readjust prices at primary markets in such a way as to place the farmer in as nearly as possible the same position as the one which he enjoyed prior to the increase in freight rates.[1]

The "fair price" for "basic" wheats in Chicago was fixed at $2.26; prices in the other markets ranged from $2.18 in Kansas City and Omaha to $2.39½ in New York. As in the previous regulations, certain classes and varieties of wheat were dealt in either at premiums over or at discounts under the prices for "basic" wheats. The "premium" was 2 cents for No. 1 dark hard winter, No. 1 dark northern spring and No. 1 amber durum; the "discounts" varied from 2 cents for No. 1 yellow hard winter and No. 1 soft white to 7 cents for No. 1 red durum and No. 1 red walla. Discounts for grades other than No. 1 were fixed at 3 cents under No. 1 for No. 2 wheat and 7 cents under No. 1 for No. 3 wheat. Grades below No. 3 were to be dealt in on sample on merit.[2]

Two courses were open to the farmers: either to ship direct to the Grain Corporation at any of the principal primary markets, or to ship to a commission merchant and through him offer the wheat for sale in the open market, thus securing the benefit of competitive buying. The competitive market was held in check as the millers agreed not to pay for the wheat a price in excess of that adopted by the Food Administration

[1] Official Statement of the U. S. Food Administration, July 6, 1918, p. 1.
[2] *U. S. Dept. of Labor Monthly Labor Review*, August, 1918, p. 358.

for government purchases. This fixed the maximum price offered by domestic purchasers. Export buying for the Allies was concentrated in the hands of the Wheat Export Company, which, as well as the buyers representing neutral nations, acted in concert with the Grain Corporation. Competition among foreign buyers was in this way also eliminated and a stabilized price for foreign purchases assured.

Because the price of wheat was reduced below what it would have been under competitive conditions, it became relatively lower than the price of other foods, with the result that although a portion of the population refrained from eating wheat in response to the Food Administration's appeals, the total consumption in the first part of 1917–18 was somewhat larger than in 1916–17. An unduly large proportion of the year's crop was consumed by February, 1918. The year's exports were much lower than in the previous year. It became necessary to resort to the use of wheat substitutes.[1]

The Food Administration first compelled the purchase of other cereals with wheat flour on January 28, 1918, when the "50-50" rule went into effect. On February 3, the first compulsory baking regulations were imposed upon the trade. On that date bakers were required to mix 5 per cent of other cereals with their wheat flour; by February 24, the proportion of substitutes was increased to 20 per cent. In April the wheat shortage had become so acute that the bakers were compelled to increase the use of substitutes to 25 per cent. These baking regulations, as well as the 50-50 rule, remained in force until August 28, when the bakers were once more allowed to make a bread containing only 20 per cent of wheat substitutes and the 50-50 rule was changed to 80-20. On November 14 the Food Administration suspended all regulations requiring the use of wheat substitutes.[2]

The guaranteed price of wheat for the 1919 crop has not been affected by the end of the war. This guarantee expires June 1, 1920.

[1] G. F. Warren: "Some Purposes and Results of Price Fixing," *American Economic Review Supplement*, March, 1919, p. 240.
[2] Official Statement of the U. S. Food Administration, December 1, 1918, p. 7.

Flour

Control of the Mills

Flour rose in price upon the declaration of the war in Europe from $4.49 a barrel in Minneapolis, in June, 1914, to $5.51 in August of the same year;[1] the average prices of flour for 1914, 1915 and 1916 respectively were $5.09, $6.66 and $7.26 as compared with $4.58 for 1913. The pronounced advance did not begin until July, 1916; the quotation rose from $6.10 during that month to $9.82 in November, 1917; a slight decline occurred in December when the price dropped to $8.68. The average for the first quarter of 1917 was $9.30. Upon the declaration of the war by the United States, flour went up to $11.62 in April and to $14.88 in May, 1917, the highest point it ever reached. When the government began its price regulating activity in August, 1917, flour was selling for $13.07 a barrel. According to the findings of the Federal Trade Commission, the net profits made by millers increased from 11 cents per barrel in the crop year, 1912–13, to 52 cents per barrel in the crop year, 1916–17.[2] The price of flour went down to $11.26 in September, and to $10.13 in December, 1917, around which figure flour was selling during the first half of 1918, the price fluctuating between $9.52 in May and $10.30 in February.

In order to carry out the provisions of the Food Administration's regulations dealing with flour mills the country was divided into nine milling divisions, and a committee of representative millers was appointed by the Food Administration in each division.[3] The chairmen of the different divisions constituted a central committee, whose headquarters were in New York. The entire structure was known as the United States Food Administration Milling Division.

The millers undertook to regulate their trade by voluntary agreement, which became effective on September 10, 1917.

[1] War Industries Board, Bulletin of Monthly Prices during the War, November, 1918, p. 44.

[2] Report of the Federal Trade Commission on Flour Milling and Jobbing, April 4, 1918, p. 7.

[3] U. S. Food Administration, *Policies and Plan of Operation*, p. 37.

The principal points of the agreement were: (1) they could not purchase wheat at a higher price than the fair price; (2) the Grain Corporation was to endeavor to supply the millers with wheat on the basis of an average of their assessed capacity; (3) the millers were to operate their mills at a net profit not exceeding 25 cents a barrel on flour and 50 cents a ton on feed (the latter was equivalent to about 1.7 cents per barrel of flour additional); this maximum profit was based upon the needs of the small mills.[1] The Federal Trade Commission objected to the regulation of flour millers' profits at a fixed margin above cost of production, because such a method of remuneration possesses an inherent weakness of not encouraging production and of affording to those unpatriotically inclined a temptation to dishonesty in cost accounting.[2] Not a few millers took advantage of the situation and loaded their cost reports with such items as new construction and equipment, bad debts of ancient standing, excessive depreciation charges, losses on miscellaneous outside investments, etc.; all these were added to current costs of production and so charged to the consumer;[3] (4) the millers could not contract for flour more than 30 days in advance; (5) they could not store wheat without permission of the Food Administration for more than 30 days' supply; (6) they were to apportion over the entire milling trade the export purchases of flour.[4]

Inasmuch as a minority of millers failed to enter this agreement it became necessary, both in protection to the voluntary adherents, to the administration and to the public, to legally license the entire trade of a capacity in excess of 75 barrels per day. On November 27, 1917, agreements received showed that the past three year average production of mills operating under voluntary regulations was 101,131,481 barrels out of a comparative production of all mills in the United States of 118,000,000 barrels. Some of the results accom-

[1] Report of the Federal Trade Commission on Flour Milling and Jobbing, April 4, 1918, p. 19.
[2] *Ibid.*, p. 10.
[3] W. Eldred: "The Wheat and Flour Trade under Food Administration Control," *Quarterly Journal of Economics*, November, 1918, p. 47.
[4] U. S. Food Administration, *Policies and Plan of Operation*, p. 39.

plished through the cooperation and regulation of these mills were according to the Food Administration:

Basic wheat prices had been maintained and observed throughout the industry, and, in conjunction with the Grain Corporation, the Milling Division effected an equitable distribution to mills of all available wheat supplies.

A price reduction in the mill sale of flour took place which reflected the proper relation between the cost of raw material and the finished product. It takes approximately 4½ bushels of wheat to make a barrel of flour. In reviewing the course of prices of wheat and flour on this basis, Mr. Hoover formulated the following table:[1]

Harvest Year	Average Realization of Farmers[a] per Bushel	Raw Material of One Barrel (4½×1)	Average Price of Flour at Mill Door, Minneapolis	Average Differential between Farmers and Flour	Highest Differential between September and June	Lowest Differential between September and June
1915–6	$0.98	$4.41	$6.09	$1.68	$2.71	$0.81
1916–7	1.44	6.48	9.88	3.40	9.26	.50
1917–8[b]	2.01	9.05	10.15	1.10	1.60	.90

[a] Department of Agriculture figures.
[b] Since control mid-September.

The Food Administration also prepared a chart (page 232), showing graphically the results of the activities of the Milling Division from its establishment to November 4, 1917.

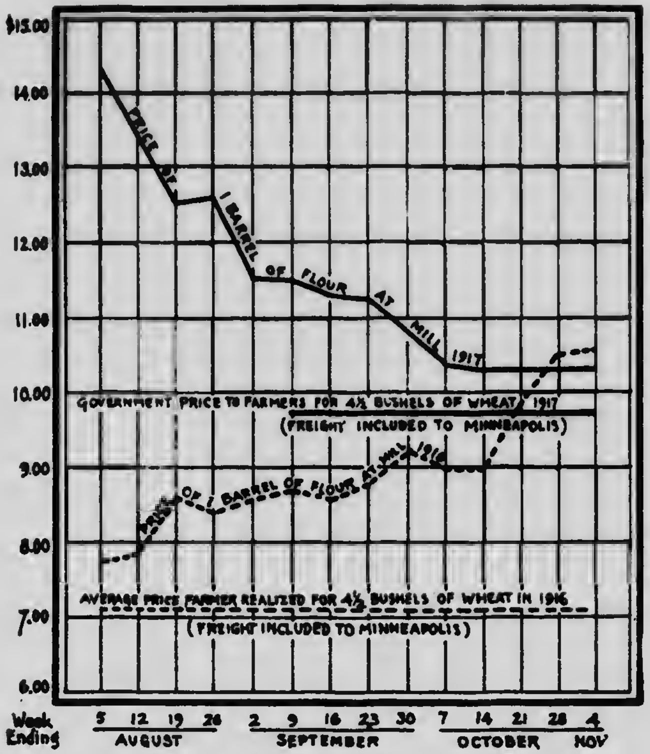
Reduction of cost to the consumer was secured by the standardization of flour packages and the elimination of wasteful and costly containers.

The Milling Division had furnished the material and the machinery for the purchase of all of the flour requirements of the European Allies, with the least disturbance of domestic conditions and at a price in accordance with a minimum of expense; it also materially assisted the army and navy in securing and distributing adequate supplies of flour, promptly and advantageously.

A new policy regarding the milling industry was inaugurated

[1] "America's Grain Trade," Herbert Hoover's Address at the Conference of the Grain Trade of the United States, April 30–May 1, 1918, p. 5.

PRICE OF WHEAT AND BULK FLOUR AT MINNEAPOLIS



Approximately 4½ Bushels of Wheat are Required for 1 Barrel of Flour

on July 1, 1918. Instead of a permissible profit of 25 cents a barrel, millers under the new arrangement were allowed to receive for the milling of the new harvest wheat $1.10 a barrel, out of which they were to pay all their expenses.[1] This temporary arrangement was superseded a few weeks later by a plan of flour and feed price control which relieved the mills "of the trouble of calculating prices through the announcement of a fair price at every mill point in the United States.[2]

[1] *Commercial and Financial Chronicle*, June 29, 1918, p. 2705.
[2] Official Statement of the U. S. Food Administration, September 12, 1918, pp. 10–11.

Prices at typical points for carload lots, in bulk, at the mill, were established as follows:

Milling Points	Flour	Bran	Mixed Feed	Middlings, Shorts, Red Dog
Boston	$10.65	$30.66	$31.91	$32.66
New York	10.61	30.26	31.51	32.26
Philadelphia	10.57	29.86	31.11	31.86
Baltimore	10.55	29.66	30.91	31.66
Nashville, Tenn.	10.38	27.46	28.71	29.46
Atlanta, Ga.	10.73	31.06	32.31	33.06
Louisville, Ky.	10.30	26.86	28.11	28.86
New Orleans, La.	10.16	27.26	28.51	29.26
Galveston, Tex.	10.23	29.66	30.91	31.66
Buffalo, N. Y.	10.33	28.16	29.41	30.16
Cleveland, Ohio	10.33	27.76	29.01	29.76
Chicago, Ill.	10.14	25.26	26.51	27.26
Minneapolis, Minn.	10.01	23.36	24.61	25.36
Aberdeen, S. Dak.	9.65	19.95	21.20	21.95
Wichita, Kans.	9.58	19.41	20.66	21.41
Fort Worth, Tex.	10.12	28.66	29.91	30.66
Omaha, Nebr.	9.89	22.26	23.51	24.26
Kansas City, Mo.	9.89	22.26	23.51	24.26
St. Louis, Mo.	10.09	24.46	25.71	26.46
Indianapolis, Ind.	10.27	26.86	28.11	28.86
Denver, Colo.	9.29	16.92	18.17	18.92
Little Rock, Ark.	9.86	26.76	28.01	28.76
Detroit, Mich.	10.31	27.46	28.71	29.46
Sioux City, Iowa	9.78	21.56	22.81	23.56
Oklahoma City, Okla.	9.63	26.66	27.91	28.66
Minot, N. Dak.	9.65	19.69	20.94	21.69
Kalispell, Mont.	9.33	17.32	18.57	19.32
Memphis, Tenn.	10.28	26.46	27.71	28.46
Spartanburg, S. C.	10.85	32.26	33.51	34.26
Charleston, W. Va.	10.43	28.36	29.61	30.36
Albuquerque, N. Mex.	10.56	33.35	34.60	35.35
Salem, Ore.	9.75	21.27	22.52	23.57

These prices were not fixed prices, but were figures named as maximums at which it was considered "fair" by the Food Administration that sales be made. It was expected that competition would result in many sales being made at under these figures. Margins over and above the carload cash or draft basis, were specified and limited; they averaged approximately 55 cents where flour was packed in No. 98 or larger sacks; the cost of small containers ran proportionately higher, going up as high as $2.40 per barrel over the bulk price where flour was shipped in No. 2 packages.

In the early part of December the Food Administration announced the cancellation of all flour milling regulations, including fair price schedules and price and quantity restrictions on sale of wheat flour by millers.[1]

Control of Wholesaling and Retailing

The control of flour wholesalers and flour jobbers was covered by the Presidential Proclamation of October 1, which placed the dealers in flour under license. Like the distributors of other necessaries, they were limited in their charges to a price which would give them a reasonable margin over cost without regard to the market or replacement value of the commodity. This margin was not to be greater than that which they had normally enjoyed in the prewar period.[2] The Food Administration acknowledged that the departure from the market or replacement value was a radical one, but it deemed it necessary to resort to it because of shortage of supplies, the vast export demand and the constantly increasing home demand.

The licensees were required to keep the flour moving to the consumer in as direct a line as possible and without unreasonable delay; this was done in order to prevent resales within the trade which tend to increase the price to the retailer or the consumer.

In order to prevent speculation and hoarding, licensees were strictly limited to a 30 days' supply. Moreover, they were forbidden to sell to any person, licensed or unlicensed, if the sale was to give such person more than a thirty days' supply.

According to the findings of the Federal Trade Commission, the gross profits of the car lot distributors increased from 22 cents per barrel in the calendar year 1914 to 54.4 cents per barrel in the first half of the calendar year 1917. As the expenses, exclusive of salaries, advanced only from 10 cents to 13.5 cents, the net profits per barrel rose from 18 cents to 41 cents and the rate of profit on investment increased from 31.5 per cent to 60.7 per cent.[3] The gross profits of small lot

[1] *Industrial News Survey*, December 16–23. 1918, p. 7.
[2] U. S. Food Administration, *Policies and* [illegible] *n of Operation*, p. 45.
[3] Report of the Federal Trade Commission on Flour Milling and Jobbing, pp. 7, 18.

jobbers increased during the same period from 52 cents per barrel to 86.3 cents per barrel, which represented an advance in the net profits from 21 cents to 47.5 cents and in the rate of profit on investment from 26.2 per cent to 51.9 per cent.[1]

Under the regulations the maximum gross profit of car lot jobbers had been fixed at 25 cents a barrel and of small lot jobbers at from 50 to 75 cents per barrel. These were gross profit margins, leaving the jobbers free to earn what they could by efficient operation.[2]

Retailers were allowed margins of 80 cents to $1.20 cents per barrel over cost.[3]

New licensing regulations, which became effective November 4, 1918, allowed maximum margins on sales by wholesalers to retailers equal to 60–90 cents per barrel.

Upon the signing of the armistice the Food Administration announced that regulations restricting margins of profit on flour and mill feeds and regulations prohibiting profiteering, hoarding and unfair practices were to remain in effect until the signing of the treaty of peace.[4]

Bread

The average retail price of a pound loaf of bread rose from 5 cents on July 15, 1914, to 6.4 cents on November 15, 1914; the subsequent advances brought the price of the pound loaf on November 15, of 1915, 1916, 1917 and 1918 to 7 cents, 8.4 cents, 9.9 cents and 9.8 cents respectively.[5] Thus at the time of the signing of the armistice the price of bread was about 80 per cent higher than it had been just before the outbreak of war. The increase in the price in many localities was much greater than the general average indicates.

When the Food Administration was organized it placed the control over the production and distribution of bread in the hands of a Baking Division. The latter took steps almost immediately to standardize baker's bread, both from the stand-

[1] Report of the Federal Trade Commission on Flour Milling and Jobbing p. 7.
[2] *Ibid.*, p. 10.
[3] *Commercial and Financial Chronicle*, August 17, 1918, p. 651.
[4] *Industrial News Survey*, Vol. ii, No. 43, p. 7.
[5] *Monthly Labor Review*, January, 1919, p. 89.

point of weight and of the ingredients used in the baking. The object of standardization was to reduce the cost of public baking and distribution, to reduce the waste of flour and to limit the use of sugar and lard in the preparation of bakery bread.[1] The minimum weight of a loaf was fixed at one pound; larger loaves could weigh $1\frac{1}{2}$, 2 and 4 pounds. Previous to this ruling there were 38 different weights on the market.

The most prevalent system of bread distribution in this country before the war was the sale of bread by the groceryman, who delivered it and charged for it. The retailer himself obtained the bread from a wholesale bakery. Bread thus distributed had cost the consumer from nine to [illegible] cents per pound. The other less expensive systems of distribution were the "cash and carry" stores and the small baker who delivered his own product directly to the consumer. It was anticipated by the Food Administration (an anticipation that did not materialize) that "cash and carry" grocery stores conducting their own bakeries would sell the one pound loaf for about 7 cents.

In New York the Federal Food Board on March 20, 1918, after a series of conferences with representatives of the baking industries, authorized a price for the 16 ounce loaf, unwrapped, of 8 cents wholesale and 9 cents retail and wrapped, $8\frac{1}{2}$ cents wholesale and 10 cents retail. On September 20, 1918, a notice was sent to all Federal Food Administrators, stating that an investigation by the Baking Division of manufacturing cost and wholesale and retail prices of bread warranted establishing a maximum retail price for a one pound loaf at 10 cents and a one and half pound loaf at 15 cents. These were maximum prices to be enforced in each State and to apply to either cash and carry or credit and delivery sales. The investigation showed wholesale prices of 8 and 12 cents in many sections. These wholesale prices warranted a retail price of 9 cents for the pound loaf and 14 cents for the pound and a half loaf, cash and carry.[2]

[1] U. S. Food Administration, *Policies and Plan of Operation*, p. 49.
[2] U. S. Food Administration Official Statements, October 1, 1918, p. 17.

CHAPTER V

Sugar

The abnormal conditions in the American sugar industry which prevailed from the beginning of the great war were due largely to the destruction of many European beet fields and factories, the production in Europe having declined from 8,179,013 tons in 1913–14, to 7,583,215 in 1914–15, 5,077,760 in 1915–16 and 4,555,407 in 1916–17.[1] According to the statement of the Food Administration, sugar beet production has declined in all the European sugar producing countries as follows:[2]

Country	Equivalent in Short Tons 1917–18	1916–17	1915–16	1914–15
Germany	1,760,000	1,705,000	1,663,000	2,860,000
Austria-Hungary	737,000	1,038,000	1,033,000	[illegible]762,000
France	248,000	228,000	166,000	370,000
Russia, Ukraine, Poland, etc.	880,000	1,458,000	1,838,000	2,176,000
Belgium	149,000	149,000	124,000	224,000
Holland	220,000	296,000	267,000	333,000
Sweden	146,000	151,000	140,000	169,000
Denmark	147,000	124,000	138,000	168,000
Other Countries	220,000	275,000	230,000	404,000
Totals	4,498,000	5,424,000	5,699,000	8,466,000

The situation was aggravated by a gradual elimination of distant areas as sources of supply, the lack of transportation facilities making, for instance, the enormous tonnage of Javan sugar unavailable for European and American consumers.

It should be noted in this connection that the largest importer of sugar, the United Kingdom, received before the war 54.2 per cent of her sugar supply from Germany and Austria-Hungary[3] and that France and Italy, which before the war obtained most of their sugar from their home production,

[1] *Conditions in the Sugar Market, January–October, 1917*, The American Sugar Refining Co., p. 8.
[2] Official Statement of the U. S. Food Administration, December [illegible], [illegible]918, p. [illegible].
[3] *Ibid.*, September 12, 1918, p. 8.

were forced during the war period to rely upon importations in order to cover the major part of their needs.

The Cuban market, which prior to the war had been almost the exclusive field of the United States refiners, became the center of a feverish purchasing activity on the part of the Allied governments and of neutrals. The quantity of sugar imported into the United Kingdom and the continent of Europe increased from 304,565 tons in 1913–14 to 730,993 tons in 1915–16.[1] To what extent the Allies depended through 1917 and 1918 for their sugar upon Cuba and the United States may be seen from the following table:[2]

	Prewar Annual Average (1909–13)	1917	[a]1918
Exports of unrefined sugar from:			
Cuba	143,824	956,765	1,200,000
Hawaii	....	....	30,000
Philippines	....	56,785	....
Exports of refined sugar from the United States	23,167	264,167	150,000

[a] Estimated in September, 1918.

Just before the outbreak of the great war sugar was selling in the United States at a lower figure than it had been for many years. Average yearly wholesale and retail prices for granulated sugar were:[3]

	Wholesale Prices	Average Retail Price
In 1911	5.33 per pound	6.10 per pound
" 1912	5.05 " "	6.30 " "
" 1913	4.27 " "	5.50 " "
" 1914	4.71 " "	5.90 " "

Sugar was quoted only a little above $4.00 per 100 pounds in New York when the war broke out. Within a month it had risen to $7.10, from which height it soon temporarily fell; the average wholesale price for 1915 was $5.56 and for 1916, $6.88. In April, 1917, the price was $8.14, as compared with $3.67 during the same month in 1914; in August, 1917, it went up to $9.75; the retail price at the same time reached in some places 20 to 25 cents a pound. Mr. Hoover's efforts to control the

[1] *Conditions in the Sugar Market, January–October, 1917*, pp. 12–13.
[2] Official Statement of the U. S. Food Administration, September 12, 1918, p. 9.
[3] *The World's Sugar Supply*, National Bank of Commerce in New York, p. 38.

supply and to stabilize the price of sugar began almost from the very first days of his appointment to the office of Food Administrator, on August 10, 1917. The legislature did not give him power to fix prices directly or to purchase sugar, but he could declare profits extortionate and could revoke licenses of those who, according to him, violated the law. Mr. Hoover adopted the plan of entering into voluntary agreements with producers regarding maximum prices and margins. On August 15 he named George M. Ralph as chief of the Sugar Division of the Food Administration. On August 16 the New York Coffee and Sugar Exchange at Mr. Hoover's suggestion suspended all trading in sugar for future delivery, and shortly thereafter the beet sugar refiners were summoned to Washington.[1] A number of meetings were held, at which the representatives of the domestic beet sugar industry agreed to sell the 1917-18 crop of beet sugar at $7.25 cane basis, seaboard refining points.

Under this arrangement the price paid for beet sugar in the interior of the country was equal to $7.25, plus the cost of transportation from the nearest seaboard refinery; the further from the seaboard the sugar was sold the higher was the price; this was in conformity to the practice before the war, beet sugar always having been sold at interior points at prices to meet the competition of imported sugars, rather than in relation to the cost of production.[2]

According to Mr. Hoover's statement, the basic price of $7.25 was arrived at after the examination of costs in various factories; the cost was found to range from $4.00 to $7.00 per 100 pounds and the price agreed upon was such as to permit the highest cost producer to continue in business, thus assuring the maintenance of a maximum production. On December 12 the price was changed to $7.35; this change was made in order to bring the price of beet sugar in greater conformity with the cane basis, as established by an agreement with

[1] R. G. Blackey: "Sugar Prices and Distribution under Food Control," *The Quarterly Journal of Economics*, August, 1918, p. 568. Also *Commercial and Financial Chronicle*, March 2, 1918, p. 876.
[2] *Ibid: op. cit.*, p. 575.

Cuban producers. The price was raised to $7.45 on January 8, 1918, and again in the latter part of June to $7.50.[1]

The distribution of beet sugar was entrusted to a Sugar Distributing Committee appointed by Mr. Hoover; this committee was composed of representatives of beet sugar producers and brokers of the beet sugar territory of the United States. Local representatives of this central organization were established at many points throughout the country; they allocated the sugar to dealers and saw to it that government regulations were complied with. Sugar was shipped to dealers from the nearest factory. All those engaged in the business of importing sugar, of manufacturing sugar from sugar cane or beets or of refining sugar were required to secure on or before October 1, 1917, a license.[2]

Shortly after an agreement was reached with beet sugar factories, steps were taken to bring under control all other sugar interests. On September 21, 1917, the International Sugar Committee was created, which included the representatives of England, France, Italy and Canada, as well as of the United States. An international agreement was necessary in order to deal with the Cuban situation. The committee took charge of the buying and transportation of Cuban sugar to the Allies, the neutrals and the American cane sugar refiners. The sugar set aside for the United States was allotted to the refiners by the American Refiners' Committee, composed of refiners and their sales agents. The subsequent distribution of cane sugar was left in the hands of the Food Administration. At the time of the appointment of the International Committee, the amount of unsold Cuban sugar was very small, not over 50,000 tons. In an effort to keep down the price for the 1917–18 crop, concerning which the Food Administration was then negotiating with Cuban producers, the committee requested the American refiners to keep out of the Cuban market. The committee itself did not go in its offers to producers beyond $6.90 per 100 pounds,

[1] U. S. Food Administration, *Proclamations and Executive Orders by the President*, p. 7.
[2] *Industrial News Survey*, July 1–8, 1918, p. 5.

delivered at New York; this was about $1.00 below the maximum price reached in August. While negotiations were pending, some of the eastern refiners in Atlantic coast towns had to close down for lack of raw sugar. There was also a lack of refined sugar and in many places people were obliged to pay 12 to 15 cents a pound or more.[1] As a result, an investigation into the shortage of sugar was instituted by the Senate. During the hearings before the Investigating Committee in December, 1917, accusations were made by Mr. Claus A. Spreckels that the shortage of sugar was due to Mr. Hoover forbidding the purchase of raw material at a price higher than the one fixed by the Sugar Committee; it was also charged that by announcing a prospective sugar shortage Mr. Hoover had caused a panic among consumers, with a subsequent hoarding of the staple, and that therefore he himself was partially responsible for the shortage. The Investigating Committee, under the chairmanship of Senator Reed, seemed to be very reluctant in admitting Mr. Hoover's statement in defense of his position. The publication of this statement was authorized by the President without the permission of Senator Reed's Committee. In his reply to the critics, Mr. Hoover attributed the shortage in the United States to the heavy movement of sugar from the western hemisphere to Europe. While before the war the exports from this hemisphere to the Allies were only about 300,000 tons annually, the exports to them in 1917 were about 1,400,000 tons; but for this fact, according to Mr. Hoover, there would not have been any shortage.

A certain admission that the shortage of sugar in the east was due at least in part to price regulations was made by the Food Administration when it raised the price of beet sugar to $8.15. Committed to a definite price and assured of this price all the year round, the beet sugar factories were not shipping sugar to the Atlantic seaboard as they ordinarily would have done in case of a shortage there.

Furthermore, the Atlantic coast received much less Louisiana

[1] *Commercial and Financial Chronicle*, March 2, 1918, p. 876.

sugar than usual. This was due to several causes: first, the prices set enabled the Louisiana producers to dispose of their sugar to better advantage by clarifying and washing it on their plantations and by selling it in their own State to the manufacturers of confections than by shipping it to the Atlantic seaboard refiners; second, a part of the Louisiana crop was damaged by frost; third, a larger amount of the Louisiana sugar than contemplated was exported to the Allies.[1]

During the negotiations for the 1917–18 crop, the Cuban representatives held out for $5.25 f. o. b. Cuban ports, while the American representatives were in favor of paying $4.50; the average cost of production was found to be $3.38. After lengthy negotiations, the deal was finally closed at $4.50 f. o. b. Cuban ports plus 30 cents per hundredweight for freight.[2] This price, like the one agreed upon in the case of beet sugar and also of the Louisiana cane sugar (the price of which was fixed at $6.35 f. o. b. New Orleans) was sufficiently high not only to give a good profit to average producers, but also to keep in business most of the highest cost producers.

Sugar refiners agreed to work for a differential of $1.30 per 100 pounds; before October 1, 1917, the differential was $1.60 to $2.05.[3] The figure of $1.30 was arrived at by taking the average margin for five years previous to and including 1914 and adding the increased cost of operation which refiners had to face.[4] The amount agreed upon included the brokerage of 3 to 5 cents which refiners pay agents for selling their sugar to wholesalers. As to the latter, they were limited in all their dealings to their prewar normal profits, which they interpreted to mean in the case of sugar as 25 cents a hundred pounds. Retailers were kept within the limits of reasonable prices through fear of having their supply of sugar cut off by the jobbers as well as through their desire to live up to the rulings of the Food Administration.

[1] R. G. Blackey: "Sugar Prices and Distribution under Food Control," *Quarterly Journal of Economics*, August, 1918, p. 590.
[2] *Commercial and Financial Chronicle*, March 2, 1918, p. 876.
[3] *Ibid.*, June 27, 1918, p. 2611.
[4] U. S. Bureau of Labor, *Monthly Labor Review*, November, 1917, p. 82.

The rationing of manufacturers using sugar began in October, 1917, when those producing nonessentials were limited to 50 per cent of their normal requirements. A subsequent ruling directed that manufacturers of nonessentials starting after April 1, 1918, should be allotted no sugar whatever. There was no definite rationing of consumers until the middle of 1918. Previous to this date, requests had been made that the consumers curtail their consumption of sugar voluntarily. The War Emergency Food Survey of August 31, 1917, so far as it related to sugar, showed that the amount of sugar consumed in the United States for the year ending August 31, 1917, was approximately 9,100,000,000 or 88.3 pounds per capita, as compared with an average annual consumption of the five year period ending in 1916 of 8,300,000,000 or 84.7 pounds per capita.[1] In view of the shortage, the Food Administration suggested at first that the consumption of sugar be cut to 67 pounds per person, but it soon realized that such a consumption could not be maintained.

On June 24, 1918, Mr. Hoover issued a statement acknowledging that the sugar situation was more difficult than the Food Administration anticipated at the beginning of the year. He assigned as the causes of the difficulty, first, increased shipping needed by the growing American army in France, which necessitated the curtailment of sugar transportation, not only from remote markets, but even from Cuba; second, the smaller yield than was expected from the accessible sugar producing areas, such as certain West Indian Islands, as well as from the domestic beet sugar fields and from Louisiana; third, the destruction of a number of beet sugar factories in the battle areas of France and Italy; fourth, the sinking of a considerable amount of sugar by submarines.[2]

The refiners' reserve stocks, which are in normal times used to bridge the gap in the eastern part of the country between the end of the arrivals of cane sugar from outside and the

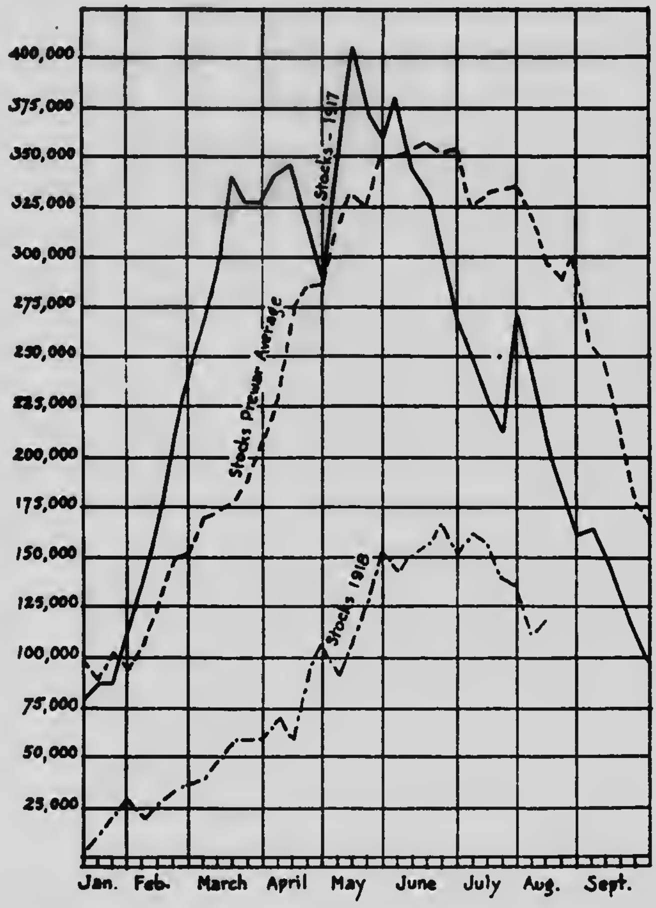
[1] U. S. Dept. of Agriculture, Circular No. 96, *Sugar Supply of the United States*, p. 2.

[2] U. S. Bureau of Labor, *Monthly Labor Review*, August, 1918, p. 139.

arrivals of beet sugar from the Western States, dropped in August to about 40 per cent of the normal reserve supply. The chart compares the movement of refiners' stocks of raw sugar in 1918 with the preceding year and with the prewar average.[1]

REFINERS' STOCKS OF RAW SUGAR

[In long tons of 2,240 pounds each]



[1] Official Statement of the U. S. Food Administration, September 12, 1918, pp. 9–10.

A reduction in the consumption of sugar in the United States was declared to be a necessity, as only 1,600,000 tons of sugar were to be available for distribution in the country until the end of the year. According to regulations, which became effective on July 1, the householders were limited to 3 pounds of sugar per month per person, with a special allowance of 25 pounds of sugar for home canning purposes. This meant a reduction of some 25 per cent from normal consumption, but, as the Food Administration remarked, it was still nearly double the ration in the Allied countries and was ample for every economical use.

In order to secure justice in distribution and to make the restrictive plans as effective as possible, no manufacturer or wholesaler of sugar was allowed after July 1 to sell any sugar except to buyers who secured a certificate from the local food administrators indicating the quantity they were allowed to buy. The users of sugar were divided into five classes:

A. Candy makers, soft drink, chocolate and cocoa manu-manufacturers, tobacco manufacturers, makers of flavoring extracts, syrups, sweet pickles, etc.

B. Commercial canners of vegetables, fruits and milk, makers of drugs, explosives, etc.

C. Public eating places, as hotels, restaurants, boarding houses, dining cars, boats, clubs, etc.

D. Manufacturers of all bakery products.

E. Retailers and others selling for direct consumption.[1]

Each class was entitled to a certain allotment of sugar for the months of July, August and September, 1918, the allotment varying from 50 per cent of the amount of sugar they used in the corresponding months of 1917 (Class A) to all the sugar that the manufacturers required (Class B).

No sugar was allowed to leather tanners and to manufacturers of nonedibles.

On July 13, 1918, at the direction of the President, the United States Sugar Equalization Board was formed for the purpose of better controlling distribution and prices of sugar.

[1] U. S. Department of Labor, *Monthly Labor Review*, pp. 139–140.

The board was empowered to purchase, manufacture, sell, store and handle raw and refined cane and beet sugar, syrups and molasses.[1] The Equalization Board entered into an agreement with Cuban sugar producers and became the sole American purchaser of Cuban sugar at fixed prices. In 1917, 48 per cent of the sugar supply of the United States came from Cuba; in 1916, out of a total consumption in the United States of 3,658,607 tons, 1,666,548 tons were supplied by Cuba, and in 1915 the proportion was: total consumption, 3,801,531, imports from Cuba, 1,841,602.[2] The government expected by controlling the Cuban supply to have an effective grip on the sugar industry of the country. The American refiners of Cuban sugar agreed to buy raw sugar exclusively from the board at fixed prices.

Toward the middle of 1918 the sugar refining companies applied for an increased differential for refining, claiming that increased cost of labor and supplies rendered margins determined upon in October, 1917, inadequate. A committee appointed to investigate refining costs reported that an increased margin was justifiable and it was raised in September, 1918, from $1.30 a hundred pounds to $1.45. At the same time the cane sugar wholesale price was fixed by the Equalization Board at 9 cents a pound, f. o. b. seaboard refining points.[3] Wholesalers and retailers were to sell on the old basis until the exhaustion of their stocks of lower priced sugar. The price was raised again in December, 1918—this time to 10 cents a pound.[4]

In view of a continued shortage of sugar the per capita consumption of sugar was cut from 3 pounds to 2 pounds per month, the reduction to remain in force from August 1 to January 1. Other changes in the sugar regulations were the increase of the wholesalers' margin from 25 cents to 35 cents per 100 pounds, and the raise in the New York price of Cuban

[1] U. S. Food Administration, Proclamations and Executive Orders by the President, p. 30.

[2] *Conditions in the Sugar Market, January–October, 1917*, The American Sugar Refining Co., p. 10.

[3] *Commercial and Financial Chronicle*, September 14, 1918, p. 1056.

[4] *Ibid.*, December 15, 1918, p. 2325.

raws by 5 cents per 100 pounds; the latter was done to cover extra war risks, after the appearance of a few German submarines in American waters.

The handling of the sugar situation on the whole seems to have been conducive to a more equal distribution of sugar among the different sections of the country as well as among the various classes of the population. Mr. Hoover claimed that but for his regulations the price of sugar would have soared to 20 and 25 cents per pound retail; this would have led to a transfer of over $200,000,000 from consumers to profiteers. It is difficult to state what the ultimate effect of the fixing of basic prices for raw sugar and of margins to refiners and distributors would have had upon the supply of sugar had the war and the Food Administration's rulings lasted longer than they did. According to a statement issued by the Department of Agriculture, there were planted in 1918 under sugar beets 689,700 acres; this was 117,000 acres less than in 1917 and 79,000 acres less than in 1916,[1] a decrease of 14 per cent and 10 per cent respectively.

These figures do not square with those given by the Statistical Division of the United States Food Administration, according to which the acreage and the production of beet sugar for the United States were as follows:[2]

	Acreage	Production
1915	611,000 acres	6,511,000 short tons
1916	665,000 "	6,228,000 " "
1917	675,000 "	6,237,000 " "
1918	690,000 "	6,360,000 " "

According to the same source, the production of cane sugar in Cuba rose from 3,369,000 short tons in 1915 to 3,387,000 tons in 1916 and to 3,584,000 tons in 1917 (1918 figures were not available). In the United States the acreage and the production of cane sugar increased as follows:[3]

	Acreage	Production of Sugar
1915	183,000	139,000 short tons
1916	221,000	311,000 " " (An obvious mistake; the yield per acre is given as 1 short ton)
1917	244,000	246,000 short tons

[1] Monthly Crop Reports, July, 1918, p. 70.
[2] *Reference Handbook of Food Statistics in Relation to the War*, p. 41.
[3] *Ibid.*, pp. 38–39.

That the production of raw sugar in those areas upon which the United States and the Allies had to rely for their supply has not kept pace with the increased demand is seen from the following statement of the Food Administration.[1]

	Crop of 1916–1917	Crop of 1917–1918
Cuba, amount available for export	3,265,696	3,571,000
Hawaii, amount available for export	636,000	553,000
Porto Rico, amount available for export	478,511	410,000
United States cane	303,900	243,600
United States beet	820,657	765,207
Total	5,504,764	5,542,807

[1] Official Statement of the U. S. Food Administration, September 12, 1918, p. 9.

CHAPTER VI

Meat and Dairy Products

Meat Products

One of the effects of the war was a reduction in the number of meat producing animals in different parts of the world. A survey of the situation in 1917 showed the following results:[1]

Live Stock	Decrease Western Allies	Decrease in other Countries, Including Enemies	Total Net Decrease
Cattle................	8,420,000	26,750,000	28,080,000
Sheep................	17,500,000	34,000,000	54,500,000
Hogs................	7,100,000	31,600,000	32,425,000
Total...............	33,020,000	92,350,000	115,005,000

The decrease in the world's herds was due to a great demand for meats combined with difficulties of importing fodder and to diversion of some grains to uses directly as food for man instead of as fodder.[2]

Europeans have always relied to some extent upon the United States for pork products; the war brought about a situation among the Allies which called for an ever increasing demand for overseas meat supplies of every kind. American exports rose from 493,848,000 pounds, the three year prewar average, to 1,339,193,000 pounds in 1915–16, 2,166,500 pounds in 1916–17 and to 3,011,000,000 pounds during the fiscal year ending June 30, 1918.[3]

Hogs

The number of hogs in the United States, which dropped from 65,620,000 in 1911 to 58,933,000 in 1914, began to rise again after the outbreak of the war; the number increased to 64,618,000 in 1915. However, by the end of 1917, conditions

[1] Herbert Hoover: "Grain and Live Stock," *U. S. Food Administration Bulletin No. 10*, p. 10.

[2] G. B. Roorbach: "The World's Food Supply," *Annals of the American Academy of Political and Social Science*, November, 1917, p. 27.

[3] Official Statement of the U. S. Food Administration, August 22, 1918, p. 1.

in the hog industry were far from satisfactory; the amount of hogs declined to about 60,000,000 head. One of the most disquieting symptoms was the ruthless slaughtering of animals in 1916–17.[1]

	Three-year prewar average	Fiscal year 1916–17
Hog population Jan. 1	61,600,000	67,450,000
Number of hogs slaughtered	53,204,000	64,798,000
Per cent of hogs slaughtered	86.3	96.1
Average live weight in pounds	219.21	211.26
Exports of pork products in pounds	992,885,000	1,501,271,000
Domestic consumption in terms of pounds of pork products per capita	72.08	75.77

The table shows that whereas the three year prewar average of slaughtered hogs was 86.3 per cent the percentage rose to 96.1 for the fiscal year 1916–17; the average weight of the slaughtered animal had fallen at the same time from 219 to 211 pounds.

There was a great deal of dissatisfaction among hog producers due to the fact that the price of feed, particularly of corn, had been rising more rapidly than the price of hogs; notwithstanding an increased demand for hog products the producers received in some instances less for the hogs than the price of the feed used in the production of the animals. The highest price for hogs in the Chicago market in 1914 was $10.20 per 100 pounds. The price did not begin to advance until 1916, when it rose to $11.60, the most pronounced rise occurring after the United States entered the war. On August 21, 1917, hogs were quoted in Chicago at $20.00 per hundred pounds.

It was evident to the Food Administration that the production of hogs was not keeping pace with home consumption and with the exportation of hog products. Accordingly, on November 8, 1917, Mr. J. P. Cotton, chief of the Food Administration Meat Division, issued a statement in which he outlined the future policy of the Administration relative to the prices of hogs. He pointed out the necessity of stabilizing the price, so that the farmer should know where he stands and

[1] U. S. Food Administration, Bulletin No. 10, p. 12.

should be justified in increasing hogs for next winter. The statement contained a promise that the prices so far as the Food Administration could affect them would not go below a minimum of \$15.50 per hundredweight on the Chicago market. The difference between the minimum price for hogs which became effective on November 10, 1917,[1] and the minimum price for wheat was that in the latter case the minimum was guaranteed and the guarantee was backed by the purchasing activity of the Grain Corporation, while in the case of hogs the minimum merely expressed the intention on the part of the government to use its influence in keeping up the price.

Four days after the fixing of the minimum the special commission appointed by the Food Administration to determine the cost of hog production in bushels of corn made public the results of its investigation. It found that for ten years ending with 1916 hog production had been maintained on a ratio of 11.67 bushels of corn to one hundred pounds of hog. The commission doubted that such a ratio yielded any profit to hog raisers and it indicated that in order to bring swine production back to normal an equivalent value of 3.3 bushels of corn per one hundred pounds of hog was necessary. As an emergency measure it recommended a minimum price of \$16.00 per hundredweight, the price to vary subsequently in accordance with the variation of the price of corn. Acting upon the recommendation of the commission, the Food Administration announced that it would attempt to secure for the farmer a price for every 100 pounds of hogs equal to the average price of 13 bushels of corn as it prevailed during the hog raising period. This ratio has never received a real trial and it is difficult to tell what would have been the results of its application on the production and on the price of both corn and hogs.

The packers' views on this matter were expressed in a letter to the Food Administration sent in October, 1918, which reads in part as follows:[2]

[1] *Commercial and Financial Chronicle*, November 10, 1917, p. 1850.
[2] Official Statement of the U. S. Food Administration, November 1, 1918, p. 7.

The 13 to 1 "basis fixes what might prove an unduly high price on hogs at the starting of the packing season and provides for a gradual reduction in prices, and a normal descending corn market would result in the lowest prices probably being arrived at in the spring of the year, whereas the ordinary course of the market is the reverse. This plan may result in the warehouses being filled up with high priced products even though the Allied orders are very considerably increased, as the Allied requirements only take certain cuts produced from certain weight choice hogs, and the Allied orders do not provide an outlet for the cuts of all kinds of hogs."

The minimum price for hogs was fixed in October at $17.50 per hundredweight. This was done "in execution of the declared policy of the Food Administration to use every agency under its control to secure justice to the farmer."[1]

One of the reasons why so much attention has been given to hog products lies in the fact that increased production in pork fats may be accomplished much more rapidly than increased production of either dairy or vegetable fats;[2] there was an urgent need for fats on the western battle front. As Mr. Hoover has put it tersely, "if we discontinue exports (of fats), we will move the German line from France to the Atlantic seaboard." To meet the increased demand both at home and abroad the stimulation of the production of fats was deemed by the Food Administration an absolute necessity; it concentrated its attention on hogs because no fat producing crop responds more quickly than does the hog crop.[3]

Cattle

There has been a steady decline in the number of cattle in this country, the amount having dropped from 56,592,000 head in 1907 to 40,850,000 at the beginning of 1917.[4] In 1914

[1] Official Statement of the U. S. Food Administration, November 1, 1918, p. 7.
[2] Food Administration, Bulletin No. 10, p. 10.
[3] *Ibid.*, No. 9, p. 7.
[4] Food Administration, Bulletin No. 9, p. 7. These figures apparently do not include milk cows. The *Reference Handbook of Food Statistics in Relation to the War* (Statistical Division, Food Administration) places the number of cattle on January 1, 1918, at 66,830,000.

the United States had 20,739,000 dairy cows and 35,855,000 other cattle, or 56.5 heads per 100 of population as compared with 90.6 per 100 of population in 1890.

There is no dominant feed for cattle as there is for swine, therefore no attempt could be made to stimulate production by establishing a ratio between beef and feed, as has been done in the case of hogs. One of the important measures which had been taken in order to help the cattle raising industry was the licensing of all manufacturers of and dealers in bran, coarse grains and various kinds of commercial feeds. Hoarding and speculation were thus brought under control. A concrete illustration of how the Food Administration dealt at the end of 1917 with the Texas situation will show plainly the methods used and the accomplished results. With the price of cottonseed cake up to seventy dollars a ton from a normal figure of forty-five dollars a ton, many cattle raisers had not thought it worth while to save the cattle, which owing to the drought during the month of October and November, 1917, began to starve on their ranges. Mr. Hoover brought together the cattle men and the cottonseed people. After some bitter debate a price of $50 for cottonseed cake was fixed. The fixing of an equitable price did not, however, end the trouble, as most of the crop was under contract to be shipped to the dairy cattle men in the north. To insure a sufficient supply for the Texas cattle, the Food Administration requested the Railroad War Board to put an embargo on the export out of Texas of cottonseed cakes, the feeders and dairymen outside of the drought stricken district of the Southwest being directed to secure their cottonseed cake and meal from Arkansas, Louisiana and points east of the Mississippi River.[1] All the cottonseed which was to have gone to neutral countries was seized by the Food Administration, the War Trade Board having been asked to prohibit the export of cottonseed except by license.

In the corn belt the situation was aggravated by the inade-

[1] D. Lawrence: "As Mr. Hoover sees it," *The Country Gentleman*, December 29, 1917, p. 29.

quacy of transportation facilities. In February, 1918, Mr. A. Sykes, president of the Corn Belt Meat Producers' Association, called the attention of the Senate Agricultural Committee to the fact that for weeks the meat producers were compelled to keep their fattened cattle and hogs, feeding them continually, while the prices of foodstuffs soared and the reserve seed stock diminished. According to him, 75 per cent of live stock in the corn belt of the middle west was unmarketable at the time because there were no cars to move it. Mr. Sykes accused the Food Administration of having been too slow and expressed dissatisfaction at not having practical live stock men or farmers in the organization. Prompt remedial action was urged by him as well as by others who appeared before the Agricultural Committee.

In August, 1918, meat dealers, hotels, public institutions and housewives were urged by the Food Administration to buy light weight cattle which were coming on the market from the drought affected regions of Texas and Oklahoma. The heavier grades were needed for the army and navy and for the Allied army, and the purchase of lighter beef by domestic consumers was advocated so as to maintain a reasonable average price for light weight cattle and at the same time secure for domestic use supplies of meat at prices very much cheaper than that demanded for heavy beef.[1]

Control of the Meat Packing Industry

While conferring with the meat packers in Chicago during the latter part of August, 1917, Mr. Hoover assured them he had no intention of fixing the price of beef and pork products, as had been unofficially announced, but that he hoped "to develop by discussion with representative committees of the hog producers, the cattle producers, the commission men and the packers greater stabilization of the industry during the war, and in such a way as to encourage production, to eliminate speculative profits and risk, so far as may be, and by so doing to protect the consumer."[2]

[1] Official Statement of the U. S. Food Administration, September 12, 1918, p. 13.
[2] *Monthly Review of the U. S. Bureau of Labor Statistics*, November, 1917, p. 83.

The packers' committee on September 12 expressed the approval of the government plan to place the packing industry under license; and it assured the Food Administration of its desire to cooperate in working out the problems arising out of the war.

On December 8, 1917, the rules and regulations for controlling of slaughtering and meat packing industries were made known. Every detail of the meat business was put under government supervision. Maximum profit was fixed at[1]

9 per cent on investment } for packers doing an annual business exceeding
15 per cent on investment } $100,000,000
2½% on gross value of sales for smaller packers.

The "meat business" was defined as including all foods of animal origin, fresh or prepared, also operation of cars and marketing branches and all immediate by-products of live stock such as hides, wool, fat, bones, offal and tankage, but not the manufactured specialty products. Elaborate regulations and accounting were provided to make sure that the meat profit was not diverted or concealed in the specialty business, the main purpose of these regulations being the protection of small packers against their powerful competitors.[2] To control the packers, a Meat Division was established, under Joseph P. Cotton, with headquarters at Chicago.

The limiting of profit on investment was protested by five of Chicago's largest packers, Armour & Co., Cudahy & Co., Morris & Co., Swift & Co. and Wilson & Co., who contended that it would affect adversely their borrowing capacity and would prevent the necessary plant expansion.[3] Mr. Hoover in his reply stated that investigations showed that prewar earnings of the companies were less than 9 per cent, and that the packers' request for increase was tantamount to their asking that consumers pay for plant expansion.

The Federal Trade Commission, which conducted an exhaustive investigation into the slaughtering and meat packing business, came to the conclusion that the big packers

[1] *Commercial and Financial Chronicle*, March 2, 1918, p. 877.
[2] G. Soule: "The Control of Meat," *The New Republic*, February 2, 1918, p. 14.
[3] *Commercial and Financial Chronicle*, December 15, 1917, p. 2325.

dominated prices both of the live stock and of the meat products. It charged them with illegal profiteering. The packers pointed out that their profits were only a fraction of a cent on a pound of meat and that therefore they could not be held responsible for high meat prices.[1]

Dairy Products

Milk

The price of milk began to go up in various large cities of the country in the autumn of 1916. One advance after another took place until in October, 1917, milk was selling in New York at 14 cents a quart retail,[2] as compared with 9 cents in September, 1916. During the same period the price went up in Chicago from 8 cents to 13 cents a quart.

In an attempt to solve the problem of milk prices, the Food Administration set up regional commissions on which producers, consumers, distributors and milk experts were represented. Leading citizens of each community were selected to serve on these federal boards, and public hearings at which all interested parties were given an opportunity to present facts bearing on prices were held at various places throughout the country.[3]

No uniform national price could be established, because of great variations in the costs of production and distribution territorially.

The situation in Chicago may be considered as representative of the whole movement dealing with milk prices. A study of this situation gives an insight into what were the conditions in the production and distribution of milk which led to the rapid advance in the price of this essential and indispensable food product. The dominant factors in Chicago were the rise of the large dealer or distributor and the establishment of the Milk Producers' Association (an organization

[1] E. Wildman: "Our Daily Meat," *The Forum*, November, 1910, p. 587.
[2] *The Literary Digest*, October 20, 1917, p. 12.
[3] D. Lawrence: "As Mr. Hoover sees it," *The Country Gentleman*, December 29, 1917, p. 29.

of over 16,000 dairymen) in order to cope with the concentrated control of distribution.[1]

In 1893 there were 2,700 distributors of milk in Chicago; the number declined in 1906 to 1300 and in 1917, to 688, two of which controlled about 40 per cent of the city's milk business. The basic standard price which the dealers paid just before the Milk Producers' Association made its full strength felt, in the spring of 1917, was $1.55 per hundred pounds. In April, 1917, the dealers had to submit to the farmers' demands for increase in price, which was raised from $1.55 to $2.12 per hundred pounds for the summer months (May to September);[2] the consumers' price was advanced at the same time to 10 cents a quart. When it came to the fixing of the price for the winter milk, to begin on October 1, 1917, the producers made a demand for $3.42 per hundred pounds, claiming that only at such a price would they be able to produce milk during the feeding season. The distributors protested, but had to submit to the demands of the producers. The price of $3.42 was fixed at the urgent appeal of the Food Administration to the farmer for the month of October only, the Administration having promised that it would attempt to regulate the price of dairy feeds. The retail price of milk went up to 13 cents a quart, which caused a great deal of agitation in the public press and among the consumers. When in the end of October the time came for the renewal of the contract between producers and dealers, the latter refused to sign unless the price was reduced. The Milk Producers' Association threatened to stop the shipment of milk to Chicago. The State Food Administrator interfered at this juncture, appointing an arbitration commission, whose duty it was after an investigation to name a price for milk to be paid to producers, which price "would cover the cost of production and a reasonable profit thereon," also the retail price to be paid to distributors, based upon "the cost of distribution and a reasonable profit to the dis-

[1] C. S. Duncan: "The Chicago Milk Inquiry," *Journal of Political Economy*, April, 1918, pp. 322–323.
[2] *Ibid.*, p. 324.

tributor."[1] It was agreed that pending the investigation the producers would accept $3.22 per hundred pounds and the distributors would retail the milk at 12 cents a quart.

A mass of data was presented to the commission by dairymen, bankers, dairy experts, distributors of milk and members of the dairy departments of agricultural colleges. In arriving at its decision, the commission assumed that in each hundred pounds of milk produced there enter 19 per cent home grown grains, 19 per cent mill feeds, 35 per cent hay, 27 per cent labor. Acting on this assumption, and having taken into consideration the increased price of feeds and labor, the commission, on February 2, declared that the following prices should be paid to the dairymen: February, $3.07; March, $2.83; April, $2.49; May, $2.04; June, $1.80.

The price to consumers was left at 12 cents a quart. Six out of nine commissioners concurred in the decision, which was immediately declared by the producers to be not acceptable to them. Two representatives of the federal Food Administration were called in to review the findings of the commission. In the meantime, one of the commissioners, Dean Davenport of the College of Agriculture of the University of Illinois, seceded from the commission and in an open letter to the State Food Administrator expressed his disapproval of its findings. The commission which met on February 21 for review reaffirmed the conclusions of the first decision and for the month of February the price to producers as set by the commission remained in force.

Upon arrival of the two representatives from Washington, efforts were made to reach a satisfactory adjustment. On March 1 an agreement was concluded with the producers by means of which they were to receive the price of $3.10 per hundred pounds for the month instead of $2.83, as determined by the first findings of the commission. The dealers consented to pay this higher price without raising the price to the consumer. Prices for the succeeding months were to be

[1] C. S. Duncan: "The Chicago Milk Inquiry," *Journal of Political Economy*, April, 1918, p. 326.

determined on the basis of the prices published by the Department of Agriculture.[1]

Butter

The average price of creamery butter for 1913 was 29.69 cents per pound, in Chicago; in July, 1914, it was 25.56 cents, about the same as in July of the previous year, the price of butter being usually somewhat lower during the summer months. There was no advance in the price during 1915 and the average for the year was lower than for 1914, namely, 27.43 cents a pound. The rise began in the autumn of 1916, and by December of that year butter was quoted in the Chicago market at 37.31 cents a pound; it has never gone much below this figure since, the lowest quotation being 36.81 cents in January, 1917, and 37 cents in July, 1917. In December, 1917, butter sold at 46.75 cents, and the average price for the year was 40.34 cents; the continued advance through 1918 brought the price up to 55.25 cents a pound in October.[2]

Until the early part of 1918 the Food Administration made no attempt to establish maximums or to fix any definite prices for butter, its control having been confined to the elimination of speculation. With this aim in view, it promulgated a set of rules governing transactions on the butter exchanges during the war (November 15, 1917).[3]

On January 19, 1918, the Food Administration announced the following wholesale prices for storage creamery butter:[4]

1. New York and other points in seaboard territory: 47 cents a pound "for the remainder of the season" (about two months).

2. Chicago: 45½ cents a pound till February 1, when the price was to be advanced one-fourth of a cent on the 1st and 15th of each month until all creamery butter was released from storage.

These prices were established with the voluntary cooperation of the butter trade.

[1] C. S. Duncan: "The Chicago Milk Inquiry," *Journal of Political Economy*, April, 1918, pp. 341–344.

[2] War Industries Board, Bulletin of Monthly Prices during the War, November, 1918, p. 39.

[3] *Commercial and Financial Chronicle*, March 2, 1918, p. 877.

[4] *Ibid.*, February 2, 1918, p. 446.

Comprehensive regulations governing margins which dealers in butter could add to the cost price were promulgated in June, 1918. According to these regulations, licensees dealing in cold storage butter were requested to sell it at a price based on actual cost, not on replacement cost, the actual cost including purchase price, transportation charges, storage and insurance charges, interest during storage period and cost of printing. Costs were not to include allowances for shrinkage in weight, commissions or other expenses not listed above.

Maximum margins which dealers were allowed to add to cost price were on:

Carloads	1 cent per pound
Lots between 7,000 pounds and a car load	1¼ cents per pound
700 to 7,000 pounds	1¾ cents per pound
Less than 700 pounds	2¼ cents per pound

These margins for sales of amounts less than 7,000 pounds were changed on July 19 to 2 cents per pound for 3,500 to 7,000 pounds, 2½ cents per pound for 700 to 3,500 pounds, 3 cents per pound for less than 700 pounds, but amounting to 100 pounds or more, and 3¾ cents per pound on sales of less than 100 pounds.[1] Commissions were limited to three quarters of a cent per pound. Attention of the licensees was called to the provision that "the licensee in selling food commodities shall keep such commodities moving to the consumer in as direct a line as practicable and without unreasonable delay." Resales within the same trade without reasonable justification, especially if tending to result in a higher market price to the retailer or consumer, were dealt with as an unfair practice.

Cheese

Governmental control of cheese prices did not begin until June, 1918, when the Food Administration issued regulations governing manufacturers, dealers, brokers and commission merchants making or handling cheese. These regulations were the result of conferences between the representatives of the cheese trade and the officials of the Food Administration. No limitation was placed on the price to be received by the farmer. Commissions on the sales of American or Cheddar

[1] *Monthly Labor Review*, September, 1918, p. 599.

cheese were limited to ½ cent per pound, and the following margins of advance were established for intermediate merchants between the manufacturers and the retailers:

On car lot sales	¾ cents per pound
Less than car lot, but not less than 7,000 pounds	1¼ cents per pound
500 to 7,000 pounds	1¾ cents per pound
Less than 500 pounds	3 cents per pound

On cheese stored more than 30 days a maximum of ¼ cent per pound could be added each month, total not to exceed 1 cent.[1]

In July the margins were modified on lots smaller than 7,000 pounds, being "made wide enough to provide for exceptional cases where the cost of doing business was high."[2] The margins were: 1¾ cents on 4,000 to 7,000 pound sales; 2½ cents on sales of 1,000 to 4,000 pounds; 3 cents on sales between 100 and 1,000 pounds; and 3½ cents on sales less than 100 pounds. These were maximum margins and a dealer was not allowed to charge the limits if by doing so he made an excessive profit.

New regulations, this time covering all important kinds of cheese, including such foreign types as Swiss, brick, limburger and Munster were issued in August; they supplanted all the former rules. The selling price of cheese had to be based on actual cost plus reasonable profit without regard to market or replacement value.[3] Cost for the purpose of this rule included (1) purchase price, (2) transportation charges, if any, (3) storage charges actually incurred, (4) insurance charges, (5) interest on money invested at the current rate, (6) actual cost of paraffining, if any, not to exceed one-fourth cent per pound.

Under the above ruling, the Retail Section of the Distribution of Perishables of the United States Food Administration investigated the cost of handling cheese at retail and determined that in selling American or Cheddar cheese any advance in excess of 6 or 7 cents per pound over cost was unreasonable.[4]

Kinds of cheese not mentioned in the rules came under general rules in respect to excess profits.

[1] *Commercial and Financial Chronicle*, June 22, 1918, p. 2611.
[2] *Monthly Labor Review*, September, 1918, p. 124.
[3] *Commercial and Financial Chronicle*, August 10, 1918, p. 559.
[4] Official Statement of the U. S. Food Administration, October 1, 1918, p. 17.

CHAPTER VII

Fuel

Coal

During the first two years of the war the coal situation in the United States was not materially different from what it had been before the outbreak of hostilities in Europe. Keeping pace with a growing demand, production rose from 513,522,477 tons in 1914, to 531,619,487 tons in 1915 and to 590,098,175 tons in 1916. Due to war activities and to traffic congestion, a local shortage of coal occurred in some parts of the country during the autumn and winter months of 1916–17. This shortage caused hardships to many householders and difficulties in industrial plants. A panic developed with its concomitant rush on the part of consumers to purchase coal at any price.[1] Bituminous coal was selling in the year ending December 31, 1916, at from $1.25 to $1.50 per ton at the mines. Prices began to advance during the latter part of that year. They rose sharply in the early months of 1917, reaching in the summer the unprecedented height of $7 and $8 per ton. Public dissatisfaction, which had been aroused long before this by price increases made by anthracite operators in the beginning of 1916,[2] became most pronounced and widespread. The government felt that something had to be done in order to bring prices under control.

In pursuance of the Hitchcock resolution introduced in the Senate on June 22, 1916, an investigation into the production, distribution and cost of anthracite coal had been carried on by the Federal Trade Commission during the fall and winter of 1916–17.[3] The commission in the course of this

[1] Methods of Fixing Prices of Bituminous Coal Adopted by U. S. Fuel Administration, Publication No. 29, September 20, 1918, p. 1411.
[2] W. Notz: "The World's Coal Situation during the War," *Journal of Political Economy*, July, 1918, p. 674.
[3] *Ibid.*

inquiry soon discovered that an independent investigation of the anthracite coal situation was not feasible, as a close connection exists between the use of anthracite and of bituminous coal, one kind of coal being substituted for another with increased demand and rising prices.

The report of the Federal Trade Commission was submitted to Congress on June 20, 1917. According to this report, the large railroad companies had only slightly increased their basic prices at the mines; a much greater advantage of the market situation was taken by a number of independent operators who raised their prices from $1.00 to $5.00 a ton. Blame was also placed upon the jobbers, the majority of whom averaged double or treble their normal gross profits. Conditions in the retail coal market were found to differ materially in various parts of the country. Thus while the coal dealers in Minneapolis, St. Paul, Milwaukee and Buffalo had not taken undue advantage of the crisis, those in Chicago and in Boston had increased their gross margins by as much as $1.50 or $1.75 per net ton.[1]

The commission came to the conclusion that those coal-operating companies whose books had been audited were not justified in their increase of prices by the increase in cost.

An investigation into the conditions of the bituminous coal industry was conducted by the Federal Trade Commission simultaneously with its investigation of the anthracite coal situation. On June 19, 1917, the commission reported to the House of Representatives[2] that in its opinion the coal industry was suffering from inadequacy of transportation facilities, which curtailed output and thus produced a shortage of coal. The commission recommended in a majority report (1) that the production of coal and coke be conducted through a pool in the hands of a government agency; that the producers of various grades of fuel be paid their full cost of production plus a uniform profit per ton (with due allowance for quality of

[1] W. Notz: *op. cit.*, p. 675.

[2] Report of the Federal Trade Commission on Anthracite and Bituminous Coal, June 20, 1917, p. 18.

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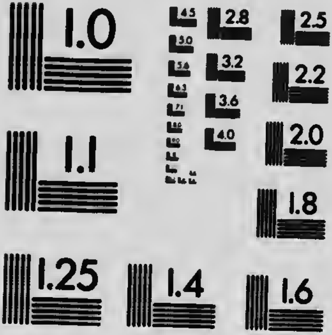

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product and efficiency of service), (2) that the transportation agencies of the United States, both rail and water, be similarly pooled and operated on government account under the direction of the President, and that all such means of transportation be operated as a unit, the owning corporations being paid a just and fair compensation which would cover normal net profit, upkeep and betterments.

In the summer of 1917 the handling of the coal situation was entrusted to a Committee for National Defense, headed by Mr. Peabody, a well known coal operator. This committee soon after its establishment reached an agreement with the operators, by which the flat price for bituminous coal was set at $3.00 per ton at the mines.[1] This price was immediately repudiated by Secretaries Baker and Daniels as being too high.[2] Their stand found an almost unanimous support in the popular press, which took the occasion to discredit at the same time all other activities of the coal experts.

The summer months of 1917 went by without any definite settlement of the price question. Because of the uncertainty of these months, operators withheld from maximum production, thus paving the way for the subsequent shortage of coal. The realization of the fact that the coal situation was growing in acuteness led to the insertion into the Food Control Bill, while it was being discussed in the Senate, of a section giving the President sweeping powers concerning coal.

The act provided that "the President of the United States shall be empowered, whenever and wherever in his judgment necessary for the efficient prosecution of the war, to fix the price of coal and coke, wherever and whenever sold, either by producer or dealer, to establish rules for the regulation of and to regulate the method of production, sale, shipment, distribution, apportionment or storage thereof among dealers and consumers."

[1] Report of the Federal Trade Commission on Anthracite and Bituminous Coal, June 20, 1917, pp. 20, 21.

[2] *Commercial and Financial Chronicle*, July 7, 1917, p. 20. Mr. Daniels announced that the Navy would continue to buy at $2.33 a ton, leaving the price to be determined after the Federal Trade Commission had ascertained production costs.

The President was empowered, in case any producer or dealer failed or neglected to conform to the President's prices or regulations, to requisition the plant, business and all appurtenances thereof belonging to such producer or dealer. He was authorized to operate such plants through an agency selected by him, paying the owner a just compensation.[1] He was also authorized if he deemed it necessary to require coal producers to sell their products only to the United States through an agency designated by him, "such agency to regulate the resale of coal and coke, the prices thereof as well as the methods of production, shipment, distribution, apportionment and storage."

The prices to be paid were to be based upon a fair and just profit over and above the cost of production, including proper maintenance and depreciation charges. The reasonableness of such profits and cost of production was to be determined by the Federal Trade Commission.

Acting under the authority of this act, the President fixed on August 21, 1917, a schedule of provisional bituminous coal prices, for the sale of coal not under contract; on August 23 he fixed in a similar way prices for anthracite coal. On the same date Mr. Harry A. Garfield was appointed United States Fuel Administrator.

The President's prices for bituminous coal were specified for run-of-mine, prepared sizes and slack or screening; they were fixed by States and in a few instances by districts and by seams. These prices were based on average figures on about 100,000,000 tons production, prepared by the Federal Trade Commission "from the very meager data in its possession, generally from the larger and lower cost operators of each district."[2]

According to the President's proclamation, the provisionally fixed prices were based upon the actual cost of production and were deemed to be not only fair and just but liberal as well. They were as follows:[3]

[1] *Public Act*, No. 41, 65th Congress (H. R. 4961), pp. 9–10.
[2] *U. S. Fuel Administration Publication No. 29*, September 20, 1918, p. 1412.
[3] *Official Bulletin*, vol. i, No. 88, August 22, 1917, p. 1.

	Run of Mine	Prepared Sizes	Slack or Screenings
Pennsylvania	$2.00	$2.25	$1.75
Maryland	2.00	2.25	1.75
West Virginia	2.00	2.25	1.75
West Virginia (New River)	2.15	2.40	1.90
Virginia	2.00	2.25	1.75
Ohio (thick vein)	2.00	2.25	1.75
Ohio (thin vein)	2.35	2.60	2.[illegible]0
Kentucky	1.95	2.20	1.70
Kentucky (Jellico)	2.40	2.65	2.15
Alabama (big seam)	1.90	2.15	1.65
Alabama (Pratt, Jaeger, and Corona)	2.15	2.40	1.90
Alabama (Cahaba and Black Creek)	2.40	2.65	2.15
Tennessee (eastern)	2.30	2.55	2.05
Tennessee (Jellico)	2.40	2.65	2.15
Indiana	1.95	2.20	1.70
Illinois	1.95	2.20	1.70
Illinois (third vein)	2.40	2.65	2.15
Arkansas	2.65	2.90	2.40
Iowa	2.70	2.95	2.45
Kansas	2.55	2.80	2.30
Missouri	2.70	2.95	2.45
Oklahoma	3.05	3.30	2.80
Texas	2.65	2.90	2.40
Colorado	2.45	2.70	2.20
Montana	2.70	2.95	2.45
New Mexico	2.40	2.65	2.15
Wyoming	2.50	2.75	2.25
Utah	2.60	2.85	2.35
Washington	3.25	3.50	3.00

NOTE.—Prices are on f. o. b. mine basis for ton of 2,000 pounds.

The order fixing anthracite coal prices enumerated sixteen most important producers (the railroad companies' mines) to whom the measure applied; others (the so-called independent operators' mines) were permitted to charge higher prices provided they did not exceed the scheduled prices by more than 75 cents per ton. The prices were maximum prices per ton of 2,240 pounds free on board cars at the mines and they varied in accordance with the grades and sizes of coal as follows:

	White Ash	Red Ash	Lykens Valley
Broken	$4.55	$4.75	$5.00
Egg	4.45	4.65	4.90
Stove	4.70	4.90	5.30
Chestnut	4.80	4.90	5.30
Pea	4.00		

The price of White Ash pea coal was reduced by the Fuel Administrator on October 1, 1917, to $3.40; a price of $3.50

for Red Ash pea coal and of $3.75 for Lykens Valley pea coal was established at the same time.

The President's prices were subsequently added to and revised at different times by the Fuel Administrator; special prices were fixed for individual mines, for special coal fields or districts, as well as for different States. Most of these revisions raised prices ostensibly because of wage increases to mine workers, but also in order to assure greater profit to mine operators. The most important of these increases was one provided by an order of October 27, 1917, which raised the price of bituminous coal by 45 cents per ton above the President's prices, and another which increased the price of anthracite coal by 35 cents a ton on December 1, 1917.[1]

The plan adopted by the Fuel Administrator was to fix prices so that each operator should receive a limited profit. Hence the price was fixed relatively low for coal from thick seams, easily and cheaply mined and high for the thin and poor seams, the cost of mining from which is much greater. In the fixing of prices, very inefficient small mines, remote from transportation facilities, were not considered. While differences in prices existed for coal of equal grade, the larger part of the variations in the prices announced for bituminous coals were due to difference in quality of coal and to freight differentials.[2]

On December 15, 1917, export and foreign bunker coal prices were fixed at $1.35 per ton above the domestic scale; this order applied to all countries except Mexico and Canada.[3] The seller of the coal or such other agency as performed the actual work of bunkering or loading was allowed to add the customary or proper charges for storage, towing, elevation, trimming, special unloading and other port charges. An amendment to the order issued on February 25, 1918, provided that no coal could be invoiced at the excess price except by the operator or dealer who actually loaded it into foreign

[1] *Commercial and Financial Chronicle*, December 8, 1917, p. 2228.
[2] C. R. Van Hise: *Conservation and Regulation*, p. 152.
[3] U. S. Fuel Administration, Publication No. 15 (Revised).

vessels and only after the coal had been so loaded. The amendment stipulated also that in settling the price of coal for foreign bunkering or export purposes, no jobber's margin or other commission in addition to the $1.35 per ton should be added to the price of the coal.

A cut of 10 cents per ton in the price of bituminous coal was made on May 25, 1918. The reason assigned for the reduction was that certain advantages were accorded coal operators through the installation of a new system of "even car supply" by the Railroad Administration;[1] the railroads agreed to pay fixed prices for coal and to abandon the practice of giving preferential car service to mines furnishing railroad fuel;[2] this was expected to effect substantial economies in the mining and shipping of coal.

Jobbers' Margins

The President's order of August 23, 1917, which fixed the provisional anthracite coal prices, established also jobbers' margins. According to this order,[3] for the buying and selling of bituminous coal a jobber was permitted to add to his purchase price a gross margin not in excess of 15 cents per ton of 2,000 pounds; for buying and selling of anthracite coal a jobber could not add to his purchase price in excess of 20 cents per ton of 2,240 pounds when delivery of this coal was to be effected at or east of Buffalo; a gross margin not to exceed 30 cents per ton was allowed for the delivery of anthracite coal west of Buffalo. A jobber's gross margin could be increased by 5 cents per ton of 2,240 pounds when the jobber incurred the expense of rescreening it at Atlantic or lake ports for transshipment by water.

The President's order was supplemented by the rulings of the Fuel Administrator issued on October 6.[4] These rulings referred to contracts which had been concluded by jobbers

[1] *The Iron Age*, May 30, 1918, p. 1425.
[2] *Commercial and Financial Chronicle*, June 1, 1918, p. 2292.
[3] U. S. Fuel Administration, Publication No. 3, August 23, 1917.
[4] *Ibid.*, No. 9.

previous to the establishment of the maximum price and margins. They were as follows:

Free coal shipped from the mines subsequent to the promulgation of the President's order fixing the price for such coal shall reach the dealer at not more than the price fixed by the President's order plus only the prescribed jobber's commission (if the coal has been purchased through a jobber) and transportation charges.

A jobber who had already contracted to buy coal at the time of the President's order fixing the price of such coal, and who was at that time already under contract to sell the same, may fill his contract to sell at the price named therein.

A jobber who, at the time of the President's order fixing the price of the coal in question at the mine, had contracted to buy coal at or below the President's price, and at that time had no contract to sell such coal, shall not sell the same at a price higher than the purchase price plus the proper jobber's commission as determined by the President's regulation of August 23, 1917.

A jobber who, at the time of the President's order fixing the price of the coal in question, was under contract to deliver such coal at a price higher than a price represented by the price fixed by the President or the Fuel Administrator for such coal plus a proper jobber's commission as determined by the President's regulation of August 23, 1917, shall not fill such contract with coal purchased after the President's order became effective and not contracted for prior thereto at a price in excess of the President's price plus the proper jobber's commission.

A jobber who, at the date of the President's order fixing the price of the coal in question, held a contract for the purchase of coal without having already sold or contracted to sell such coal, shall not sell such coal at more than the price fixed by the President or the Fuel Administrator for the sale of such coal after the date of such order, plus the jobber's commission as fixed by the President's regulation of August 23, 1917.

According to an announcement made on November 8, 1917, contract coal which a jobber had purchased at a price higher than the maximum could be sold by him at a sufficient advance so that his profits would be the same as if he had obtained coal at the price fixed. In order to take advantage of this order, the jobbers had to show that the coal was contracted for in bona fide agreement prior to the President's proclamation. The coal had to be sold to the purchasers designated by the State Fuel Administration.[1]

Retail Prices

Retail prices of coal, according to an announcement made by the Fuel Administrator on September 30, 1917, were established in the following manner: Coal dealers had to

[1] C. R. Van Hise: *op. cit.*, p. 157.

ascertain their retail margins in 1915; to this they were permitted to add an amount not exceeding 30 per cent of that margin, including their profits at that time.[1] Retail dealers who had not been in business before January 1, 1916, were allowed to continue to sell at the gross margin which they had received during the period in which they had been in business, provided that this margin did not exceed that which was received during July, 1917.[2]

The regulation of the retail sale of coal was placed in the hands of local fuel committees of citizens where there were complaints that excessive profits were made by retailers. These committees, after ascertaining the retailer's cost of conducting business, reported to the State Fuel Administrator what they considered to be the proper maximum retail gross margin for the community.[3] The price to the consumer consisted of this margin plus the cost of coal at the mine, the transportation charges and the jobber's commission (when sold through a jobber).[4]

Bona fide contracts enforceable by law, made before October 1, were not affected by the order. However, only minimum amounts were to be delivered under such contracts as long as reasonable requirements of other consumers had not been met.

Retail dealers were under an obligation to ascertain on the first and sixteenth days of each calendar month the average cost to them of coal or coke. Monthly reports were required by the United States Fuel Administrator and the Federal Trade Commissi[illegible] these reports showed the cost of coal or coke received b[illegible]rs, their sales prices and their gross margins.

By a decisio[illegible]Fuel Administration passed during the latter part of [illegible]uary, retail dealers after April 1, 1918, could purchase coal at the same price, whether they bought it directly from mines or through jobbers. It was stated that

[1] *Monthly Review of the U. S. Bureau of Labor Statistics*, November, 1917, p. 89.

[2] "Maximum Gross Margins of Retail Coal Dealers," U. S. Fuel Administration, Publication No. 7.

[3] "Fuel Facts," Published by the U. S. Fuel Administration, October, 1918, p. 10.

[4] U. S. Fuel Administration, Publication No. 6.

the purpose of the order was to wipe out systematized forms of profiteering.[1] To continue in business, the jobbers had to revert to the old practice of looking to mine operators for compensation. A slight increase in mine price was to provide for operators' added expense.

The Fuel Administration in its handling of the coal situation during the first half of 1917 committed the mistake of considering the problem largely from one angle only, that of price. The sharp advance in price was attributed almost solely to exorbitant profits made by coal mine owners and coal dealers; the remedy was sought in price fixing and in the establishment of margins. Not until shipments to Europe of food and munitions came to a standstill, because of lack of coal at the seaboard terminals, and not until the whole industrial war program of the country seemed to be on the point of collapse, did the question of production and distribution of coal assume the importance it should have had from the very beginning. No adequate provisions were made during the summer and fall of 1917 to stimulate maximum output and early wide distribution. Consumers were holding off in the expectation of a fall in price and they were encouraged in their attitude by the statements issued by the Fuel Administrator.

Things went from bad to worse during that part of the year when reserves should have been accumulated by the users of coal. In the week of August 13 production reached its lowest point in the year.

An unexpected climax came on January 16, 1918, when the Fuel Administrator issued one of the most drastic government regulations brought about by the war. The order directed that all factories east of the Mississippi river be shut down for five days beginning January 18, 1918. The order involved over 85 per cent of the country's steam plants used for manufacturing. There was no advance notice of such an order and no opportunity to make preparation.[2] In addition to the shutting down of factories, a request was made that for

[1] *Commercial and Financial Chronicle*, February 23, 1918, p. 769.
[2] *The Nation's Business*, March, 1918, p. 8.

ten weeks on Monday, offices, factories and stores, except drug and food stores, use only such fuel as was necessary to prevent damage.

The New York *World*, which on most occasions supported the government, described this order as a confession of incompetency, as a damning indictment of the Fuel Administration. It pointed out that "even Italy, which depends for fuel upon the scanty supply of coal doled out by Great Britain and the United States, has never undertaken to close down its industries in order to save coal. Nor has France, where the fuel problem has been acute from the beginning of the war."[1]

The coal trade's main criticism of the handling of the fuel situation was directed at the administration's unwillingness to use coal experts—men familiar with the methods of getting results with the least disturbance of the established procedure.

In a memorandum dated November 12, 1918, Mr. Garfield gave the following review of the conditions which prompted the order and of the results achieved.[2]

Notwithstanding large production of coal, the "stocking up" for the winter of 1917–18 was so unsatisfactory that it was evident in September, 1917, that should the country have a severe winter and should the government speed up war preparation faster than originally intended, an acute shortage of coal was imminent. Both contingencies occurred. The conditions in Europe upset more than one of the carefully coordinated plans of the government leading to an abnormal demand for fuel. A winter of greater severity than the country had known for fifty years d ed the domestic consumption of coal. The railroads were blocked for days at a time, and while consumers were near the end of their supplies mines stood idle because of lack of cars. A marked slowing up in the work of the most essential war industries took place. Pig iron production was cut in two. Mills working on ship plates dropped to 30 per cent capacity. Meanwhile, in the harbors of the country hundreds of vessels loaded with supplies for

[1] *The Literary Digest*, January 26, 1918, p. 6.
[2] U.S. Department of Labor, *Monthly Labor Review*, December, 1918, pp. 164–167.

the Allies and the American soldiers were awaiting bunker coal and all efforts to provide a supply proved futile. To relieve the situation the order was issued. The results of it were immediate. Conditions improved so much and so quickly that a subsequent order removed the restriction after the establishments affected had been closed only three of the nine Mondays specified in the original order. Dr. Garfield stated that neither the severity of the remedy nor its suddenness could have been avoided. As, according to his own statement, the condition existed for several weeks previous to the issuance of the order, one wonders why nothing had been done to relieve the situation before the issue of the "drastic" and "unprecedented" decree.

Since the coal shortage in the winter of 1916–17, efforts have been made to further stimulate the production of coal. Due to these efforts the output increased from 590,098,175 tons in 1916 to 651,402,374 tons in 1917. However, much of the coal shipped to the market during the latter year contained slate, shale and dirt. To prevent as much as possible the shipment of such coal, the Fuel Administration by an order effective June 1, 1918, prohibited the sale, shipment or distribution of coal which on account of its content of impurities would not have been considered merchantable prior to January 1, 1916. In case of violation of this rule, 50 cents per ton could be deducted from the government price if the coal had been already loaded into cars or bins.[1]

The difficulties encountered in connection with price fixing of bituminous coal lay in the decentralization of the industry as well as in the fact that normally part of the supply of bituminous coal comes from many small mines run in a very inefficient manner. Some of these could not be profitably operated after prices were first fixed; they shut down. Subsequent price increases improved the situation, but "the period of demoralization which followed the original price fixing left its impress upon the coal industry. Many unskilled laborers

[1] W. Notz: "The World's Coal Situation during the War," *Journal of Political Economy*, July, 1918, p. 681.

left the coal fields; banks in some cases hesitated to finance coal shipments until the clearing up of the question of margin and resale of coal purchased at high prices.'[1]

While concentration characterizes the anthracite coal industry, the problem of price fixing in this industry was greatly complicated by the varying percentages of sizes produced by different mines in the same region and the still more widely varying percentage of sizes produced by the different regions.[2] In order to arrive at some definite conclusions as to what should be the height of bituminous and anthracite coal prices, the Engineers' Committee was constituted in January, 1918, for the purpose of making a general review of costs and of submitting to the United States Fuel Administration the results of careful studies of the costs of producing coal throughout the country.

The committee's first work was a study of price fixing methods applicable to coal producing conditions. It attempted to evolve a method which would fill as nearly as practicable the following requirements:

1. Result in a price fair to the public.
2. Prevent excessive prices or profiteering.
3. Prevent a multiplicity of prices in any district.
4. Encourage legitimate production.
5. Discourage production from inefficient and unduly costly operations.
6. Insure to the producer "the cost of production, including the expense of operation, maintenance, depreciation, and depletion with a just and reasonable profit," as required by the Lever Act.

The system of price fixing, as recommended by the committee, was based upon a study of the costs obtained from the individual sheets filed by each operator with the Federal Trade Commission. These figures, with the percentages of each cost in the total production of each district,

[1] B. M. Anderson: "Value and Price Theory in Relation to Price Fixing and War Finance," *American Economical Review Supplement*, March, 1918, p. 252.
[2] U. S. Fuel Administration, Publication No. 29, September 20, 1918.

were plotted on diagrams, showing graphically the range and the extent of variation in each district. On these diagrams a "bulk line" was drawn indicating the sources of indispensable tonnage. This line was considered a base to which the Fuel Administrator personally added a margin in his judgment necessary for each district.

This method was adopted by the Fuel Administrator. With regard to the labor situation there was a lack of coordination between the Fuel Administration and the War Department. The number of laborers working in anthracite mines decreased from 177,000 in 1916 to 153,534 in 1917. Mr. Garfield had been permitting the depletion of unreplaceable miners, both skilled and unskilled, without raising his voice against it.[1] Thousands of men left the coal fields also for more lucrative employment. In the bituminous mines the trouble has been largely due not to the shortage of labor but to the lack of locomotives and cars for the haulage of coal away from the mines.[2] This inadequacy of transportation facilities checked production. It never rose sufficiently to meet the needs of the nation at war.

Just before the conclusion of the armistice the Fuel Administration admitted that it was certain that the enormous demands for fuel could not be fully met by production.[3]

On February 1, 1919, the Fuel Administration discontinued all price control and much of the supervision over distribution of coal, coke, oil and natural gas. With the passing of control over fuel, most of the activities of the Fuel Administration ceased. The administration, however, under the Lever Act can not disband until peace has been declared.

COKE

On November 9, 1917, maximum base prices for Beehive coke manufactured east of the Mississippi river were fixed as follows:

[1] A. J. Nock: "The Alarming Coal Situation," *The Nation*, August 3, 1918, p. 116.
[2] *The Literary Digest*, February 21, 1918, p. 9.
[3] "Fuel Facts," p. 6.

48-hour blast furnace	$6.00 per ton of 2,000 lbs., f. o. b. at the place of manufacture
72-hour selected foundry	$7.00 per ton of 2,000 lbs., f. o. b. at the place of manufacture
Crushed, over 1 inch in size	$7.30 per ton of 2,000 lbs., f. o. b. at the place of manufacture

Subsequent orders established prices for coke from various plants in Alabama, Colorado, Georgia, New Mexico, Oklahoma, Pennsylvania, Tennessee, Virginia, Washington and West Virginia. These prices varied considerably in each State; thus, while the price of blast furnace coke made from coal mined in the Big Seam district of Alabama was fixed at $6.75, the Empire Coal Company's blast furnace coke in the same State was fixed at $10.50.[1]

Additional compensation was allowed for deliveries or other services. Producers of coke at other points than at or adjacent to the mine could demand a fair differential to compensate them for the freight charges.[2]

Maximum prices for by-product coke and gas coke were established on November 17. For by-product coke they were as follows:

Run of oven	$6.00 per ton of 2,000 lbs. f. o. b. cars at the plant
Selected foundry	7.00 per ton of 2,000 lbs. f. o. b. cars at the plant
Crushed, over 1 inchage	6.50 per ton of 2,000 lbs. f. o. b. cars at the plant

The maximum price of gas coke for industrial or metallurgical use was fixed to be the same as the price for the corresponding grade of coke produced in by-product ovens.[3] Gas coke sold for household purposes was to be sold at the government price for anthracite coal in the same locality.

On July 8, 1918, an order was issued which established a more definite control of gas coke prices. It gave base prices for gas coke at plants in those districts where anthracite coal was not obtainable and in those where it was obtainable. The new schedule of prices for the first districts was:

1. Run of retorts	$5.50
2. Run of retorts screened above ¾ inches in size	6.00
3. Run of retorts screened and sized about ¾ inches in size	6.50
4. Run of retorts screened and sized between ½ and ¾ inches	4.50

[1] Price Fixing Bulletin No. 11, "Fuels," pp. 28–31.
[2] C. R. Van Hise: *Conservation and Regulation*, p. 151.
[3] U. S. Fuel Administration, Publication No. 13, p. 3.

In those districts where anthracite was obtainable the price of gas coke varied in accordance with its use. In case of sales to dealers for distribution in less than car lots or delivered direct to consumers for household purposes the price was for coke screened and sized above ¾ inches, the same as for stove anthracite in the same locality. A 25 cents reduction was accorded for size about ¾ inches and a 75 cents reduction for nonscreened coke. Prices for coke sold for purposes other than just mentioned were the same as for gas coke in localities where anthracite was not obtainable. This order, which was superseded by one amending it, as from August 1, 1918, fixed also prices for breeze (to be half the price established for run-of-retorts coke, unscreened) and for coke made in beehive ovens.

The order which became effective on August 1, 1918, contained among its various regulations a statement that commissions to selling agencies or jobbers' margins were to be paid by vendors and were not to be added to established prices.

Charcoal

The price of charcoal was fixed on July 9, 1918, per bushel of twenty pounds, f. o. b. cars at point of shipment, for lump in bulk, at 30 cents, for lump in bags, at 32 cents, and for screenings in bags at 20 cents.[1]

Petroleum Products

Maximum prices for petroleum products which were effective from May 20, 1918, to July 19, 1918, applied only to the purchases by the Allied governments. The price for fuel oil was 5.25 cents per gallon, f. o. b. gulf ports and 7.50 cents a gallon, f. o. b. Norfolk, Baltimore, Philadelphia and New York. Other prices were for standard white refined kerosene, 7.50 and 8.25 cents respectively; for gasoline, 21 and 23.50 cents, and for aviation naphtha, 30 and 32 cents.

[1] Price Fixing Bulletin, No. 11, p. 34.

CHAPTER VIII

Iron and Steel

The first authoritative statement regarding price fixing of iron and steel products was issued by the Secretary of War on July 12, 1917. After referring to the assurance of the steel men that their entire product would be available for the purpose of carrying on the war and that they were doing everything possible to stimulate an increased production and speed deliveries, the Secretary stated that "the price to be paid for the iron and steel products furnished was left to be determined after the inquiry by the Federal Trade Commission is completed, with the understanding that the price, when fixed, would insure reasonable profits and be made with reference to the expanding needs of this vital and fundamental industry."[1]

There was no upward trend in iron and steel quotations until nearly a year after the outbreak of the war; in fact, from July, 1914, to the middle of 1915, prices continued at the low level to which they were carried by the depression of 1914. Taking the relative price from July, 1913, to June, 1914, as equal 100, the yearly average price of pig iron fell from 110 in 1913 to 97 in 1914 and to 103 in 1915; during the same period the price of iron ore declined from 103 to 92 and 85, and the price of coke from 118 to 88 and 87.[2] The relative price of best refined iron bars was 107 in 1913, 89 in 1914 and 97 in 1917; the price of bessemer steel billets 117 in 1913, 92 in 1914 and 106 in 1915, the price of steel bars 110 in 1913, 91 in 1914 and 104 in 1915.[3] Since the second half of 1915, under the stimulus of war orders, prices began to rise at an

[1] "Maximum Prices on Iron and Steel Products," *American Iron and Steel Institute*, November 15, 1918, p. 7.
[2] Price Fixing Bulletin, "Market Prices of Commodities under Control," War Industries Board, November, 1918, p. 3.
[3] *Ibid.*, pp. 28, 30, 33.

accelerating rate, reaching their highest point in July, 1917. Of the materials used in the production of pig iron, coke has had the most extreme price fluctuations. Its price advanced from \$1.75 per ton in July, 1915, to \$12.25 in July, 1917, or 494 per cent above its prewar base.

The most marked rise in the price of iron ore occurred in December, 1916; up to that time the price of this material fluctuated within a comparatively narrow range; it rose from \$4.20 in November, 1916, to \$5.70 in December of the same year, a rise of 53 per cent above its prewar rate; the price remained at this level through the subsequent months and was continued when iron ore came under control.

Prices of iron ore and of coke are significant because of their bearing on the price of pig iron. About two tons of ore and one ton of coke are required for the production of a ton of pig iron; thus ordinarily the cost of ore is a larger factor of expense than the cost of coke. With the rapid rise in the price of coke during 1916 and 1917, the cost of coke began to bear more heavily on the price of pig iron. However, this was not as determining a factor as may have been expected, as probably only small quantities of coke were purchased at the high market prices.[1] The price of pig iron advanced from \$13.00 in July, 1914, to its record price of \$52.50 for the same month in 1917.

The prices of finished rolled steel products rose at a more rapid rate and covered a wider range than either the prices of pig iron or of iron products. This independent advance may be attributed to the limited capacity for making steel as well as for making certain types of finished products. Steel plates, in response to a heavy war demand, led the advance; their relative price rose from 97 in July, 1915, to 357 in April, 1917, and to 714 in July, 1917; steel billets, sheet bars, structural shapes, steel plates and skelp rose also relatively higher in 1917 than did pig iron. The rise of these products was as follows, like in all previous cases, the average

[1] Price Fixing Bulletin. "Market Prices of Commodities under Control," War Industries Board, November, 1918, p. 1.

of market prices from July 1, 1913, to June 30, 1914, being taken as 100:

	July, 1915	April, 1917	July, 1917
Steel billets, open hearth	103	344	436
Sheet bars, open hearth	101	331	464
Structural shapes	98	260	424
Steel plates, rank	97	357	714
Skelp, steel, grooved	94	278	476

While the prices were soaring, two investigations of the steel industry were being conducted in order to determine the iron and steel making costs and by this means to arrive at a basis for the establishment of a fair price to be paid by the government to the manufacturers. One investigation was carried on by the Federal Trade Commission, the other by the Senate Committee on Interstate Commerce, in conjunction with the latter's inquiry into coal, oil, copper and other costs.

Not much good was expected from the work of these agencies by the iron and steel interests, one of whose apparent spokesmen, *The Iron Age*, charged that the investigators were not equipped to make the investigation and were not competent to say what amount should be added for profit, in view of all interests to be conserved in such critical time as the one through which the country was passing.[1] This periodical hinted that governmental price regulation might lead to the unsettling of business at the very time when business should be kept prosperous, and it suggested as an alternative to price control a regulation of industry which would facilitate the flow of material, thus permitting the fulfilment of existing obligations. According to *The Iron Age*, confusion arose from inability to carry out contracts entered into between producers and consumers; this situation could not be remedied by price fixing which would naturally apply to future business transactions. While the periodical admitted that some form of regulation was necessary, it favored action by producers under governmental sanction to direct action by government authorities, the first having fewer possibilities of harm.[2] It

[1] *The Iron Age*, June 28, 1917, p. 1563.
[2] *Ibid.*, July 12, 1917, p. 88.

advocated "that the government provide sufficient transportation facilities, that it extend aid to the erection of additional blast furnaces and that it adopt a more vigorous policy in dealing with labor."

Although it had been advanced that the increase in iron and steel prices was largely due to the increase in the cost of production, there was in reality very little relation between the two. The United States Government, private consumers and representatives of the Allies were bidding against each other and driving prices upwards irrespective of any costs. Some of the larger manufacturers tried to stabilize prices by withdrawing from the market except for contracts of great importance, but this resulted merely in the centering of the bids on the minor producers, thus occasioning a still sharper price advance.

On September 24, 1917, the President approved the first maximum prices agreed upon by the War Industries Board and the representatives of the iron ore, pig iron and steel interests. The prices became effective immediately, subject to revision on January 1, 1918. The prices agreed upon were as follows:[1]

Commodity	Basis	Prices Agreed Upon
Iron ore	Lower Lake ports	5.05 per G. T.
Coke	Connellsville	6.00 per N. T.
Pig iron		33.00 per G. T.
Steel bars	Pittsburgh-Chicago	[illegible].90 per 100 lbs.
Shapes	Pittsburgh-Chicago	3.00 per 100 lbs.
Plates	Pittsburgh-Chicago	3.25 per 100 lbs.

It was stipulated that there should be no reduction in the rate of wages and that the prices should apply to the purchases not only by the government, but also by the Allies and by the general public. The steel men pledged themselves to exert every effort necessary to keep up the production to the maximum of the past as long as the war should last.

The War Industries Board took upon itself the placing of orders and the supervision "of the output of the steel mills in such manner as to facilitate and expedite the requirements

[1] *Official Bulletin*, September 25, 1917.

of the government and its Allies for war purposes and to supply the needs of the public according to their public importance and in the best interest of all, as far as practicable."[1]

With the establishment of these basic prices the iron and steel industry was saved from the intolerable situation into which it had drifted. Whether the steel manufacturers were merely responsibile for allowing buyers to bid up the market, without taking some definite measures to prevent the movements, or whether they themselves took an active part in advancing the prices, is a debatable question.[2] The mistake was made, and the result of this mistake was a market at the beginning of July, 1917, which was vastly different from that which the industry had always had hitherto. It was a market for early deliveries. For late deliveries, even for the early part of 1918, the mills were not quoting and the buyers were not inquiring.[3] Only those whose necessities were compelling them to pay any price were buying. The industry was seemingly unable to let down prices easily and smoothly to a regular trading basis and the things were drifting along with no alternative in sight.

There was some discussion as to whether price regulation should be made to apply to existing contracts. A large amount of material had been contracted for at high prices for future delivery. It was pointed out by the Federal Trade Commission[4] that unless contracts for high priced basic materials were suspended, the purpose of price regulation would be largely defeated and that a great deal of inequity would result because of the differentials in price between the government price on the one hand and the contract price on the other. In a scarce market the producers might also be disposed to fill only high priced contracts, leaving no material for the open market at the fixed prices, or they might in making new sales at the prices just fixed find difficulty in per-

[1] "Maximum Prices on Iron and Steel Products," *American Iron and Steel Institute*, p. 8.

[2] *The New York Evening Post*, December 31, 1917, p. 21.

[3] *Ibid.*, p. 21.

[4] Commissioner Davies' testimony before the Senate Committee on Interstate Commerce.

suading a competitor that he should continue to pay $10 or $20 higher as stipulated by contract. The steel producers, however, were opposed to contract abrogation, though they did advocate voluntary revision on the part of the sellers in cases when peculiar hardship was worked by the contracts.[1] It was also maintained that consumers would gain nothing and possibly lose out by canceling contracts; the products had already been sold on the basis of prices made in these contracts; so that the lower contract prices on the one end would mean a readjustment of selling prices at the other. It was finally agreed that the price regulation should not affect the bona fide contracts made either with individuals or with the government.

The agreement reduced the prevailing prices, according to the Committee on Public Information, in the case of[2]

Coke, from $16.00 to $6.00 or 62.5 per cent
Pig iron from $58.00 to $33.00 or 43.1 per cent
Steel bars from $5.50 to $2.90 or 47.3 per cent
Shapes from $6.00 to $3.00 or 50 per cent
Plates from $11.00 to $3.25 or 70.5 per cent

Fixed prices, while presenting a considerable reduction over current quotations, were on an average 83 per cent higher than prices which prevailed at the beginning of 1916, when Judge Gary advised caution and expressed the fear that there was "inflation."[3] The Federal Trade Commission's opinion of the iron and steel prices was that while they prevented the steel market from running away, they strengthened the position of the low cost producers and enriched them by profits which were without precedent.[4]

In finding cost in the steel industry, the commission divided the steel makers into four groups: (1) the fully integrated mills, (2) the mills which start with the manufacture of pig iron, (3) the mills that start with steel furnaces and (4) the mills that make rolled products from purchased semi-finished steel. The United States Steel Corporation belongs to class

[1] *The Iron Age*, October 11, 1917.
[2] *Commercial and Financial Chronicle*, June 29, 1918, p. 2693.
[3] *The New York Evening Post*, December 31, 1918, p. 17.
[4] "Profiteering," 65th Cong. 2d Sess. Sen. Doc. No. 248, p. 6.

one. Its profits expressed in terms of the total amount invested in the business showed net earnings as follows:

1912	4.7 per cent	1915	5.2 per cent
1913	5.7 per cent	1916	15.6 per cent
1914	2.8 per cent	1917	24.9 per cent

The net income of the Steel Corporation, before deducting federal income and excess profits tax in 1917, was:

1912	$77,075,217	1915	$97,967,962
1913	105,320,691	1916	294,026,564
1914	46,520,407	1917	478,204,343

The federal income and excess profits taxes of the Steel Corporation for 1917 were $233,465,435, which left for net income $244,738,908.[1]

Mills in classes 2, 3 and 4 also made heavy profits in 1917. The commission gives figures for ten mills in class 3, which showed the profits in 1917, fluctuating from 30.24 per cent on investment for Eastern Steel Co., to 159.01 for West Penn Steel Co. and 319.67 per cent for Nayle Steel Co.

The set prices were no lower, on the whole, than the invoice prices which obtained upon shipment made by the large companies during the second quarter of the year, and upon which they made their record earnings.[2] Price fixing scaled down the quoted market and also the prices realized by the smaller steel producers, those who do not customarily book orders far ahead.

Large producers, like Judge Gary, E. A. S. Clarke, president of the Lackawanna Steel Co., W. S. Horner, president of the National Association of Sheet and Tin Plate Manufacturers, and others, whose opinions were canvassed by *The Iron Age*, expressed themselves as pleased with the set prices,[3] with a few exceptions, characterizing them as fair and reasonable. On the other hand there was a great deal of public dissatisfaction; it was advanced that the elaborate investigations of the Federal Trade Commission concerning costs had gone for naught and that the agreed prices should have been much

[1] "Profiteering," 65th Cong. 2d Sess. Sen. Doc. No. 248, p. 6.
[2] *The New York Evening Post*, December 31, 1917, p. 22.
[3] *The Iron Age*, September 25, 1917, p. 757.

lower.[1] The comparatively high prices were justified on the ground that they had to be fixed at a level which would keep in full operation every mill and blast furnace which contributed appreciably to the country's supply. They were based on the cost of production to the high cost producers.

The following table gives the prices which prevailed during the four years previous to the war as compared with government prices:

IRON AND STEEL PRICES IN DOLLARS PER GROSS TON[2]

	1911	1912	1913	1914	Aver. for 4 Yrs.	Govt. Price (Sept. 24)
Mesaba ore, non-Bessemer	$3.50	$2.85	$3.40	$2.85	$3.15	$5.05
No. 2 foundry pig iron, Philadelphia	15.21	16.03	16.54	14.73	15.63	33+
No. 2 foundry pig iron at Chicago furnace	14.83	15.32	15.85	13.60	14.90	33
No. 2 foundry pig iron, Cincinnati	13.67	14.93	14.90	13.41	14.23	....
Bessemer pig iron, Pittsburgh	15.71	15.94	17.12	14.89	15.92	36+
Basic pig iron, valley furnace	13.07	13.92	14.71	12.87	13.64	33

On October 11 maximum prices were fixed for blooms, billets, slabs, sheet bars, wire rods, shell bars and skelp, and on November 5 for sheets, pipe, cold rolled steel, scrap, wire and tin plate. All prices were subject to revision January 1, 1918. On the recommendation of the War Industries Board they were continued unchanged until March 31, 1918. The following prices were agreed upon.[3]

	Basis	Price (Per G. T.)
Blooms and billets, 4 x 4 in. and larger	Pittsburgh-Youngstown	$47.50
Billets, under 4 x 4 in.	Pittsburgh-Youngstown	51.00
Slabs	Pittsburgh-Youngstown	50.00
Sheet bars	Pittsburgh-Youngstown	51 00
Wire rods	Pittsburgh	57.00
		(Per 100 lbs.)
Shell bars, 3 to 5 in.	Pittsburgh	3.25
Over 5 to 8 in.	Pittsburgh	3.50
Over 8 to 10 in.	Pittsburgh	4.00
Over 10 in.	Pittsburgh	4.00
Skelp, grooved	Pittsburgh	2.90
Skelp, universal	Pittsburgh	3.15
Skelp, sheared	Pittsburgh	3.25

[1] Berglund: "Price Fixing in Iron and Steel Industry," *Quarterly Journal of Economics*, p. 612.
[2] *The Iron Age*, October 4, 1917, p. 833.
[3] "Maximum Prices on Iron and Steel Products," *American Iron and Steel Institute*, November 15, 1918, pp. 8–10.

SHEETS

	(Per 100 lbs.)
No. 28 black sheets, f. o. b. Pittsburgh	$5.00
No. 10 blue annealed sheets, f. o. b. Pittsburgh	4.25
No. 28 galvanized sheets, f. o. b. Pittsburgh	6.25

The above prices to apply to both Bessemer and open-hearth grades.

PIPE

On ¾ in. to 3 in. black steel pipe—discount 52 and 5 and 2½ per cent, f. o. b. Pittsburgh.

COLD ROLLED STEEL

17 per cent discount from March 15, 1915, list f. o. b. Pittsburgh.

SCRAP

	F. O. B. Consuming Point (Per G. T.)
No. 1 heavy melting	$30.00
Cast iron borings and machine shop turnings	20.00
No. 1 railroad wrought	35.00

WIRE

Plain wire, f. o. b. Pittsburgh ... $3.25 per 100 lbs.

TIN PLATE

Coke base, Bessemer and open hearth, f. o. b. Pittsburgh ... $7.75 per 100 lb. box

Schedules of differentials to be applied to steel products in more advanced stages of manufacture were gradually evolved by the General Committee on Steel and Steel Products of the American Iron and Steel Institute. Recommendations for the adoption of such schedules were made on November 13, November 20 and December 22, 1917, and January 7, 1918. It was attempted to cover in these schedules all currently quoted standard articles. Modifications in differentials were made from time to time by the chairman of the Committee on Steel and Steel Products.

In the latter part of March, 1918, the President approved the recommendation of the Price Fixing Committee of the War Industries Board that the maximum prices heretofore fixed upon iron ore, coke, steel and steel products should be continued until July 1, 1918, with the exception of basic pig iron, which was reduced from $33 to $32 a gross ton, and of scrap steel, which was changed from $30 to $29 per gross ton. In connection with this order, it has been requested that new contracts calling for delivery on or after July 1 should not specify a price unless coupled with a clause making the price subject to revision by any authorized government agency. This clause was inserted so that all deliveries after July 1 should not exceed the maximum prices then in force, whatever the date of the conclusion of the contract may have been.[1]

On June 21, 1918, the Committee on Steel and Steel Products of the American Iron and Steel Institute met in conference with the Price Fixing Committee of the War Industries Board. The conference was called at the instance of Chairman Baruch and the Director of Steel Supply Replogle for the purpose of obtaining views of steel men as to whether changes in prices were desired and, if so, what should be the character and the extent of the changes.[2] The principal topics considered at this conference were (1) the add[illegible] age on the fund of producers by 24 per cent advance [illegible] commodity rates, which was to take effect in the la[illegible] of Jun[illegible] (2) recent wage advances.[3]

A schedule of iron and steel prices to remain in e[illegible] September 30 was agreed upon. One of the main dif[illegible] between the old and the new schedule was an increase [illegible] iron ore prices from $5.05 per gross ton for lower lake ports to $5.50, which change became effective July 1. This advance of 45 cents per ton was made to cover the increase in freight rates from mines to upper docks (33.6 cents) and such charges as spotting cars, switching, etc., which were not levied when railroads were operated by private individuals. The new agreement provided that in the event of any increase or decrease in either rail or lake rates the base prices for iron ore were to be increased or decreased accordingly on [illegible] deliv[illegible] made during the continuance of such increased or decreased freight rates.

Another exception to the schedule previously in force w[illegible] the discontinuance of Chicago as a basing point, for steel bars, shapes and plates.[4] This was due partly to the fact that Chicago mills were loaded to their full capacity.

[1] *Official Bulletin*, March 27, 1918.
[2] *Iron Age*, June 20, 1918, p. 1612.
[3] *Commercial and Financial Chronicle*, June 22, 1918, p. 2615.
[4] "Maximum Prices on Iron and Steel Products," *American Iron and Steel Institute*, November 15, 1918, p. 14.

Producers, especially merchant furnace operators, who buy a large part of their ore in the open market, were dissatisfied because the price of pig iron was not raised. Some of them claimed that the costs of making pig iron have mounted so high as to leave them no profit.[1]

The conference spent some time in discussing Willard's plan, under which it was proposed that the government should take over the output of various producers at cost plus reasonable profit, pool the entire production and, after commandeering the government's supply, sell the remainder to private parties at a flat rate. The argument advanced in favor of this plan was that it would have enabled the government to give small producers a fair profit, thus stimulating maximum production without adopting at the same time a price that would yield exorbitant gains for big corporations. No action was taken on this plan.

No advance had been granted in the price of finished steel. The *Iron Age*, in discussing the results of the conference, charged that, though approaching the conference with what was said to be open mind, the War Industries Board had practically determined in advance that there was to be no increase on steel.[2] Mr. Baruch contended that in all price fixing arrangements, the War Industries Board was in a position of trustee to the public, that since the government was not the only user of steel, the board had no right to approve unnecessarily high prices, counting on drastic excess profits taxes to reimburse the government for its purchases.

On July 3 there was held in Washington the first meeting of representative manufacturers with a special committee appointed by the War Industries Board to consider prices to be fixed for steel rails, wire rope and high speed tool steel. The manufacturers emphasized at this meeting increased labor and material costs and recent freight advance. Sharp disagreements developed between them and the governmental price fixing committee. Thus while a price of $57 for open

[1] *Iron Age*, June 27, 1918, p. 1688.
[2] *Ibid.*, p. 1687.

hearth rails was asked by large producers and $60 by other interests, the government proposed a figure much lower than either of these two. In the case of high speed tool steel the steel makers declared that they could not accept the cost figures of the Federal Trade Commission.[1]

[1] *Iron Age*, July 11, 1918, pp. 81, 100.

CHAPTER IX

Nonferrous Metals

Aluminum

On March 5, 1918, the maximum price of aluminum was fixed by agreement between the producers and the War Industries Board at 32 cents per pound, f. o. b. United States producing plant, for 50 tons and over, of ingot of 98 to 99 per cent.[1] The prewar price of aluminum was 19.71 cents per pound at New York. The price dropped to 17.59 cents in July, 1914, and it continued below the prewar level throughout 1914 and during the first part of 1915.[2] War demands and interference with imports led to a steady rise in the price after May, 1915, a maximum of 64.8 cents per pound having been reached in November, 1916; this represented an increase of 222 per cent over the prewar level. Since that date the price of aluminum has been in the main, declining. The price of 32 cents fixed in March, 1918, was increased to 33 cents in June. The increase was made after investigations into the cost of production by the Price Fixing Committee of the War Industries Board in conjunction with the Federal Trade Commission. The new maximum base price became effective June 1, 1918, to remain in force until September 1, 1918. Differentials for quantity and grade as well as differentials for alloys were left unchanged, while those for sheet, rod and wire were increased by approximately 12½ per cent.

The producers of aluminum agreed first, not to reduce the wages; second, to sell aluminum to the United States Government, to the Allied governments and to the public in the United States at the same price; third, to take the necessary measures, under the direction of the War Industries Board,

[1] Price Fixing Bulletin, No. 1, August, 1918, "Price Regulations by Government Agencies."
[2] *Ibid.*, "Market Prices of Commodities under Control."

for the distribution of aluminum to prevent it from falling into the hands of speculators, and fourth, to keep up the production of aluminum so as to insure an adequate supply for the duration of the war. Similar agreements were concluded with producers of copper and other nonferrous metals.

Copper

The average price of copper in the New York market for the year just preceding the war was 15 cents per pound. Due to business depression in the early part of 1914 and to shipping difficulties after the declaration of hostilities, the price dropped to 11.25 cents per pound in November, 1914. Under the stimulus of enormous war orders prices soon recovered and began advancing. The upward movement received three temporary setbacks, one in the latter part of 1915, during the negotiation in this country of the Anglo-French loan, and two others in the middle and towards the end of 1916, due largely to peace rumors. In March, 1917, a price of 36.25 cents per pound was reached, a rise of 142 per cent above the prewar rate.[1] The advance was checked through somewhat increased production, submarine warfare and anticipation of government regulation.

By the middle of March it was certain that the United States was going to declare war on Germany, and preparations were started. On March 23, Mr. Baruch, chairman of the Committee on Raw Materials, Minerals and Metals of the Council of National Defense, announced that the copper producers agreed to furnish the government with 45,000,000 pounds of copper at $16\frac{2}{3}$ cents a pound, for delivery extending over twelve months from April first. This united action of the copper producers (only one of the large companies having refused to accept a share in this sale) was intended as a patriotic demonstration and the price was not justified on any economic principle, since too large a proportion of the nation's output could not be produced for this sum.[2]

[1] Price Fixing Bulletin, No. 1, August, 1918.
[2] L. K. Morse, "The Price Fixing of Copper," *The Quarterly Journal of Economics*, November, 1918, p. 88.

The price of 16⅔ cents was the average of the Anaconda sales for the previous ten years, but it in no way reflected the cost of production of copper at the beginning of 1917. The first consequence of the price was public criticism that the copper producers had been making exorbitant profits. It was argued that since the producers agreed to supply the government at 16⅔ cents, they should be compelled to sell at the same price to the Allies and also to domestic consumers.[1] The buyers decided to abstain from purchasing. The price of copper began to decline, reaching by the end of April 27 cents.

Negotiations between the government officials and the producers were progressing slowly. In April the General Munitions Board of the Council of National Defense was appointed, which arranged in June for the purchase of 60,000,000 pounds of copper at 25 cents, but this transaction was not approved by either the Secretary of War or the Secretary of the Navy. They wanted the price of copper for government requirements to be based on the average cost of production, allowing a fair profit to the producers, both costs and profits to be determined by the Federal Trade Commission. On June 30, 1917, the General Munitions Board was succeeded by the War Industries Board, whose function it was to control the production and distribution of all commodities essential to the conduct of war. One of the duties of the War Industries Board was to fix prices. On March 4, 1918, this power was delegated to a Price Fixing Committee. The board waited for the report of the Federal Trade Commission, which was examining the producers' books, in order to determine the cost of production. In the meantime uncertainty prevailed. The producers refused Secretary Daniel's offer of 18¾ cents and a subsequent offer of 22½ cents. They were supplying all government requirements without billing for them. Early in September, the War Industries Board, in behalf of the Allies entered into a contract for about 77,000,000 pounds of copper at 25 cents. The market price of copper was at that time about 26 cents. On September 21 the War Industries

[1] *The New York Evening Post*, December 31, 1917, p. 15.

Board announced that by agreement with the producers the price of copper for the next four months had been fixed at 23½ cents per pound, f. o. b. New York, this price to apply to everybody, and any violation of the agreement to be followed by governmental seizure.

This "agreement" ignored contractual arrangements and all the other factors in the elaborate machinery of the market. It became necessary to immediately create an agency for the control of distribution of copper. Such an agency was organized by the producers under the name of the Copper Producers' Committee. This committee was sanctioned by the War Industries Board, which entrusted to it the management of the business.

In January, 1918, conferences with producers resulted in the continuance of the agreed price until June 1, 1918. In the latter part of May there was a further extension to August 15, to which the producers did not agree.[1] They contended that increased cost of production made a higher price necessary. On July 2, at a meeting held between them and the Price Fixing Committee, the price was advanced to 26 cents, effective immediately, to remain in force until November 1.

Due to far-reaching concentration of the agencies of production and distribution of copper, the price fixing problems in this industry were essentially different from those of most other important industries brought under control. There were in 1916 in the United States 348 mines producing copper.[2] Of this number the output of 31 mines was more than 85 per cent of the total, or, 1,711,395,262 pounds, while less than 295,000,000 pounds were obtained from the remainder. Smelting and refining show still greater concentration; as to the distribution of copper, four selling agencies handled in 1916 almost 80 per cent of all the refined copper sold in this country for domestic and foreign consumption.[3] The fixing of the price of copper has been simplified also by the fact that the

[1] L. K. Morse: "The Price Fixing of Copper," *The Quarterly Journal of Economics*, November, 1918, p. 94.
[2] *Ibid.*, p. 76.
[3] *Ibid.*, p. 78.

quality of refined copper is practically the same the country over. The only price fixed in the copper industry was that for refined produce, f. o. b. New York, leaving uncontrolled the prices for all stages of production and distribution.

Mercury

The prewar price of mercury, jobbing lots, at New York, was 55 cents per pound. An irregular advance which had begun in the summer of 1914 brought the price up to $1.85 in January, 1916; it rose then abruptly to $4.00, at which level it stayed through February and March, 1916. This extraordinary increase of 627 per cent over the price prevailing before the war was due to large war demands and also to the fear that London would cut down Spanish exports to this country. However, enough quicksilver was shipped to the United States to break the market. A sharp decline brought the price down to $2.55 in April and $1.75 in May; the decline continued to the end of the year, the price reaching a level of $1.05 per pound in December, 1916. Growing demand for quicksilver for export led to a rise in the early part of 1917; the average price during the last three quarters of that year, as well as during the first half of 1918, was about $1.71 cents per pound.[1]

The price on mercury for government purchases only was set on April 18, 1918, at $105 per flask of 75 pounds, for deliveries at San Francisco for the output of mines in California, Oregon and Nevada. Texas producers were to be paid the same price for deliveries at Marathon, Texas; 75 cents additional per flask was allowed for deliveries at New York.

Nickel

The prewar price of nickel ingot at New York was 42.5 cents per pound. This price continued through 1914 and until August, 1915, when the rate rose to 47.5 cents per pound. A second rise, this time to 50 cents per pound, occurred in March,

[1] Price Fixing Bulletin, No. 1, August, 1918, "Market Prices of Commodities under Control."

1917. Nickel continued to be sold at this latter price until it was reduced by government regulations in April, 1918.[1] The comparative steadiness of the price of nickel has been due to the fact that nickel is not dealt with as are other metals in an open market, but is sold on long term contracts. On April 2, 1918, the International Nickel Company agreed with the War Industries Board to supply the government requirements for nickel at the following rates: electrolytic, 40 cents per pound, shot, 38 cents and ingot, 35 cents.[2] The Allies and the United States public were not considered in the agreement.

Zinc

The prewar price of zinc, pig (spelter) Western, for early delivery at the New York market was 5.35 cents per pound. The price did not begin to rise until 1915, reaching a maximum of 22.5 cents per pound in June of that year, an increase of 321 per cent above the prewar level.[3] This advance was due to foreign buying and to a shortage of zinc early in 1915. The consumers soon found that they had overbought and the price receded to 15 cents in November. Then a recovery started. Large domestic buying and a temporary shortage in New York raised the price to 21 cents in March, 1916. In April it began to drop again. The price fell to about 9 cents in September, 1916, at which level with comparatively slight fluctuations it remained through the war. In April, 1917, a Zinc Committee was formed; it held some conferences with Mr. Baruch regarding government supply and fixing of price, but the situation in the zinc industry was such that there was no reason for governmental regulation. Purchases of common spelter were being made as heretofore on competitive bids and the results were satisfactory.[4] A maximum price for high grade zinc was fixed by agreement between the zinc producers and the War Industries Board on February 13,

[1] Price Fixing Bulletin, No. 1, August, 1918, "Market Prices of Commodities under Control."
[2] *Ibid.*, "Price Regulations by Government Agencies."
[3] *Ibid.*
[4] *The New York Evening Post*, December 31, 1917, p. 15.

1918; at the same time prices were also fixed for plate and sheet. The prices were:

Grade A (f. o. b. East St. Louis)	12 cents per pound
Plate (f. o. b. East St. Louis)	14 cents per pound
Sheet (f. o. b. East St. Louis)	15 cents per pound

The fixed price of 12 cents became the market price, but upon a liberalization of the specifications new competition developed, that of high grade zinc refined by redistribution;[1] the price fell below 12 cents and never reached that figure again.

Of the nonferrous metals, lead, tin and antimony have not come under price contro'

Platinum Metals

The first statement regarding platinum metals was issued by the Council of National Defense on February 23, 1918. The government took over the control of production, refining, distribution and use of crude and refined platinum for the period of the war. The control was entrusted to the Chemical Division of the War Industries Board, which immediately upon taking over this work sent out to the industry requests for inventories of the existing stock of crude and refined platinum and platinum iridium alloys. The government declared that it had no intention of taking over and handling directly the stock of platinum, but that it was in favor of permitting shipment by the producers and dealers subject to certain conditions.[2]

On May 1, a requisitioning order was issued through the Platinum Section of the War Industries Board, commandeering parts of the supply of platinum, iridium and palladium. The prices which the government agreed to pay for these metals up to June 30, 1918, were:

Platinum	$105 per Troy ounce
Iridium	175 per Troy ounce
Palladium	135 per Troy ounce

A number of other requisitioning orders were promulgated after May 1. The orders differed from one another in the

[1] *The New York Evening Post*, December 31, 1918, p. 18.
[2] Price Fixing Bulletin, No. 7, October, 1918, War Industries Board.

extent of their application. The first order applied to only a few of the holders of the metal, while the later orders embraced the holdings of a larger number of individuals. The requisitioning order of June 21 covered all platinum, iridium or palladium in the control of or produced by certain firms, excepting when such metals were contained in articles of jewelry on which the value of the labor exceeded 20 per cent of the value of the metal. The order became effective on June 30, 1918, to continue until December 31, 1918. It did not change the prices established on May 1.

On July 12, 1918, a request was sent out to dealers to submit inventories covering stocks in their possession on the date of the receipt of the requisition of June 21; subsequent inventories were to be provided on the second day of each month up to and including January, 1919; the inventories covered stock acquired during the preceding month.[1]

[1] Price Fixing Bulletin, No. 7, October, 1918, War Industries Board.

CHAPTER X

Fibers and Textiles

Cotton

Upland middling cotton was selling around 13 cents a pound at the outbreak of the European war.[1] Due to a very large crop and to a temporary discontinuance of exports the price dropped to 7.6 cents in November, 1914. The cotton crop (without linters) was 16,134,930 bales in 1914 as compared with 14,156,486 bales in 1913 and 13,703,421 bales in 1912. The total world production of cotton in 1914 was 24,764,000 and the world consumption, 17,046,000 bales.[2] The output in 1915 was for the United States 11,191,820 bales (a decline of about 5,000,000 bales from the previous year) and for the world 18,559,000 bales; the consumption of cotton increased in 1915 to 19,761,000 bales, an increase of 2,715,000 bales. Cotton in 1915 recovered sufficiently to bring the price in this country up to about 10 cents a pound, at which level it stood until October, 1915, when it rose to 12.5 cents. The fluctuations in the price during the latter part of 1915 and the first half of 1916 were insignificant. The small crop of 1915 was repeated in 1916, the output for the United States having amounted to 11,449,930 bales and for the world 18,365,000 bales. World consumption rose at the same time from 19,761,000 in 1915 to 21,011,000 in 1916. The price of cotton began to climb rapidly upwards, reaching by November, 1916, 20 cents a pound. During the early months of 1917 cotton was selling at 17.5 cents a pound, but it went up to 20½ cents immediately upon our entry into the war. The production in 1917 was again only 11,302,000 bales for the United States and 17,410,000 bales for the world, with a consumption

[1] War Industries Board, Bulletin of Monthly Prices during the War, November, 1918, p. 66.
[2] *The New York Evening Post*, December 31, 1918, p. 17.

equaling 20,180,000 bales. Most of the reserves of cotton from previous years have been absorbed and cotton went up to 26.12 cents in July, 1917, and to 30.6 cents in December, 1917, the highest selling price since 1869. In view of the government's enormous requirements for cotton, it was thought that it would fix the price of this essential commodity as it did in the case of iron and steel, copper and coal. After our entry into the war, however, neither raw cotton nor its manufactures were included in the list of necessities in the government's price fixing and licensing regulations and no restrictions were placed upon trading in either spot cotton or in futures on the cotton exchanges.

Cotton which in 1914 was the object of a government proclamation to the people of the country urging every citizen who could do so to buy a bale of it at 10 cents per pound was quoted at 32.36 cents a pound in January, 1916. On September 3 cotton sold on the New York market as high as 38¼ cents per pound. This price was reached the day after the worst crop condition report on record had been issued by the Agricultural Bureau. The forecast, notwithstanding increased acreage under cotton, which rose from 34,925,000 in 1917 to 37,073,000 in 1918, was for another comparatively short crop of some 11,000,000 bales. A wave of speculative buying swept over the New Orleans and New York cotton exchanges. The War Industries Board intervened and placed a maximum price of 30 cents a pound on its future war orders. This, together with restrictions placed upon exports to neutrals and with the centralization of further buying by the Allies, checked the price advance. Cotton fell to 32½ cents in October, 1918. Planters and country merchants as well as factories demanded that the government establish a minimum price of 35 cents per pound of cotton; planters also demanded the closing of the cotton exchanges. The War Industries Board appointed a Committee on Distribution of Cotton and on November 13 ruled that short selling be prohibited on the New York and the New Orleans exchanges. Hedge selling against actual cotton was permitted, but the hedger had to sign an affidavit proving ownership of the spot cotton hedged with sales of futures. In December, 1918, trading became once more unrestricted.

The domestic consumption and the exports of cotton from 1913–14 to 1917–18 were as follows:

	Consumption	Exports
1913–14	5,626,078	9,150,801
1914–15	5,597,362	8,544,563
1915–16	6,397,613	6,191,110
1916–17	6,788,505	5,739,009
1917–18	6,591,3[illegible]	4,476,124

Wool

The number of sheep in the United States has been steadily declining; the decrease from 1900 to 1910 was from 61,503,713 to 52,447,861 or 14.7 per cent.[1] However, this decline has been partially due to the change in the date of enumeration from June 1 to April 15; many lambs are born during the interval, and on many ranches in the West the lambs are not definitely counted so early in the year as April 15. The census considers that should the enumeration have been made on June 1 the number of spring lambs would have been about 19,000,000 or 20,000,000 instead of 12,804,000, as reported on April 15. On the other hand the number of older sheep would have been less because of slaughter and death from other causes, by between one and two million. In view of these considerations, it is probable that if the enumeration of 1910 had been made as of June 1 there would have been between 56,000,000 and 58,000,000 sheep and lambs as compared with 61,503,713 in 1900. The number of sheep declined to 49,719,000 in 1914 and to 48,900,000 in 1918.[2] There has been an evidence of decrease not only in such States as Vermont, Ohio, Texas and California, but even in the northwestern section of the country, in Idaho, Montana and Wyoming, where many grazing regions have been overstocked and where the homesteader and the farmer have been encroaching more and more upon the ranches.

[1] Abstract of the Thirteenth Census of the United States, p. 329.
[2] *Reference Handbook of Food Statistics in Relation to the War*, pp. 58–59.

For many years previous to the war the supply of home grown wool was entirely inadequate to meet the demand; the United States has been importing about one-half of the wool needed in the production of textiles.[1] The importation reached its highest level in 1916, when it rose to 534,828,000 pounds as compared with 308,083,000 in 1915 and 247,649,000 in 1914; the domestic production during these years was around 290,000,000 pounds. Imports declined in 1917 to 372,372,000 pounds.

The price of wool advanced from 1914 to 1918 from 17.6 cents to 47.2 cents per pound; at the end of 1917 it was 58.2 cents per pound. Price advances of scoured wool (Ohio, fine fleece) in the Boston market were[2] from 57 cents in July, 1914, to 65 cents in July, 1915, and 76 cents in July, 1916; the average prices for 1915 and 1916 were 66½ cents and 77½ cents respectively. A rapid advance in the price began during the latter part of 1916 and particularly after the United States entered the war, rising to $1.69½ cents in December, 1917.

When the price became stabilized in May, 1918, scoured wool was selling in Boston at $1.81 cents. The price of wool was established by the Price Fixing Committee of the War Industries Board after a number of conferences with growers and dealers. The scoured value in Boston on July 30, 1917, was taken as a price basis. Prices based upon this value ranged from $1.07 a pound for choice common and braid to $1.75 for choice fine and fine medium staples. Growers had agreed to deliver the clip to dealers who in turn had undertaken to distribute it upon a definite compensation according to priorities established by the Priorities Board. The government provided that it was to have first call upon any portion of wool it required and could allot the balance to mills manufacturing for civilian needs. Dealers were permitted to make a charge of 3 per cent of the selling price if the wool was not graded, and 3½ per cent if graded. This commission covered

[1] *Yearbook of the Department of Agriculture*, 1916, p. 30.

[2] War Industries Board, Bulletin of Monthly Prices during the War, November, 1918, p. 72.

all storage, cartage and insurance, and was to be added to the price of the wool as it left the dealer's hands. Dealers in wool were to be approved by the War Industries Board and no one not approved was allowed to buy.

Wool growers, wool dealers and woolen manufacturers were represented on a government committee which took charge of the details of operation of the order.

The government took over the entire domestic supply of wool and also bought a considerable quantity of imported wool which it was able to secure from the British Government at lower prices than those at which it bought the domestic material. Much the larger proportion of the supply bought by the government was apportioned among its clothing contractors, the remainder, especially such grades as were not suitable for government needs, being sold to those who were manufacturing for civilian use. At the unexpectedly early close of hostilities, the government found itself in possession of a large supply of wool for which it had no further use.[1]

Textiles

The price of cotton yarns dropped from an average of 22 cents a pound from July 1, 1913, to June 30, 1914, to a little over 16 cents during the last quarter of 1914.[2] The lowest level was reached in March, 1915, when cotton yarn was selling at 14.5 cents a pound. The average for 1915 was 17¼ cents. A reaction against low prices set in during the latter part of that year and the price rose from 17 cents in September, 1915, to 21 cents in December. There was an almost uninterrupted advance through 1916, which brought the price up to 38½ cents a pound in December, 1916. After a slight fall at the beginning of 1917 prices started once more to advance, cotton yarn being quoted at 63 cents a pound during the second and third quarters of 1918.

[1] F. W. Taussig: "Price Fixing as Seen by a Price Fixer," *Quarterly Journal of Economics*, February, 1918, p. 213.

[2] War Industries Board, "Monthly Fluctuations of Prices under Control," November, 1918, p. 67.

The fluctuations in the price of print cloths followed those of cotton yarns. The price rose from its low level of 2.44 cents a yard in December, 1914, to 3.2 cents in December, 1915, and to 5.4 cents in December, 1916. The feverish buying of 1917 advanced the price to 8½ cents by December of that year. The highest level was reached in April, 1918, when print cloths sold at 13.06 cents a yard.

The control of prices of cotton goods began on June 8, 1918, when the War Industries Board upon consultation with the cotton manufacturers established the following net maximum prices on mill on basic cotton products:

36″	48 x 48	3.00 yd.	sheeting	60 c. per lb.
36″	56 x 60	4.00 yd.	sheeting	70 c. per lb.
38½″	64 x 60	5.35 yd.	print cloth	83 c. per lb.
38½″	80 x 80	4.00 yd.	print cloth	84 c. per lb.

Standard wide and sail duck, 37½ per cent and 5 per cent from list.
Standard army duck, 33 per cent from list.

These prices took effect on July 1, 1918, and were to remain in force until October 1, the terminal date later being changed to November 16. They represented a reduction from quoted market prices of about 20 per cent to 30 per cent and applied to all primary civilian purchases as well as to the purchases of our government and of the governments of those countries which were associated with us in the war.[1]

In accordance with the agreement between the representatives of the cotton manufacturing industry and the War Industries Board, various differentials were fixed at different dates for a full line of cotton fabrics. They were based on rather inadequate information and the Federal Trade Commission was entrusted with the task of collecting and analyzing the cost of production data, for the purpose of permitting the government to know the situation better before entering into subsequent agreements. Besides cotton fabrics and wool, the following fibers and textiles were brought under control: binder twine, manila fiber and rags.

[1] Price Fixing Bulletin, No. 8, Division of Planning and Statistics, War Industries Board.

CHAPTER XI

Miscellaneous Products

Chemicals

Wood Alcohol

Wood alcohol was selling at 25 cents a gallon between July, 1913, and October, 1915. By November, 1915, it began to be used for direct war purposes and its price rose to about 30 cents a gallon. Because of large export requirements, the price continued to advance all through 1916, reaching 50 cents a gallon in November and 60 cents in December of that year. In 1917, the demand was greatly increased by our own military requirements and the price advanced still further. It reached 70 cents in March, at which figure it stood until a new rise brought it up to 90 cents in November and December, 1917.[1]

In the latter month the price of wood alcohol was fixed by an order of the War Industries Board. This order, issued on December 24, 1917, commandeered all wood chemicals for a period of six months.[2] It was renewed in July for another six months. The price of wood alcohol was fixed at 50 cents a gallon, f. o. b. shipping point. Some of the other wood chemicals which were commandeered in December, 1917, were: acetate of lime, acetic acid, refined alcohol, pure methyl alcohol and formaldehyde.

Acetate of Lime

Acetate of lime commenced to rise in price somewhat earlier than wood alcohol. After October, 1914, the usual demands were enormously increased by orders from Europe and the price advanced sharply, rising from $1.52 per 100

[1] War Industries Board, "Market Prices of Commodities under Control—Chemicals."

[2] War Industries Board, "Price Regulation by Government Agencies—Chemicals and Explosives."

pounds in October, 1914, to \$4.03 in October of the following year, and to \$7.03 in February, 1916, which was the highest level it reached during the war. In October, 1917, a reaction set in, largely due to heavy overbuying in the previous year, the price dropping to \$3.53 per 100 pounds. An upward movement set in again after our own entry into the war, the price rising to \$6.03 in October, 1917. In December the industry passed under the control of the government, which commandeered this chemical at 4 cents a pound.

Ammonia

Until May, 1916, the supply of ammonia was sufficient to meet all demands and the price remained at its prewar level of 3.38 cents a pound. The price gradually advanced to 4.5 cents by June, 1916, but did not begin to rise rapidly until our own entry into the war. The increased use of ammonium nitrate as an explosive added greatly to the demand for ammonia and led to an accelerated upward course, ammonia selling at 13.25 cents a pound in November, 1917, when the Food Administration fixed a maximum price of 8¼ cents per pound, carload lots. Ammonia was the only chemical whose price was fixed by the Food Administration. The Administration undertook also to allocate the output.

Nitric Acid

The price of nitric acid remained stationary until July, 1915. By that time the large contracts for explosives from the Allied governments created a demand for nitric acid far in excess of the available supply. Prices rose to 8.9 cents in September, 1916, and remained at this level until June, 1916, when a decline set in which brought the price down to 6.3 cents in January, 1917. Heavily increased production, which developed under the stimulus of high prices and large profits, accounts for the decline. It was, however, only temporary. Our own war needs led to a new advance, the price having risen in 1917 and in 1918 to even higher levels than in 1916. In October, 1917, nitric acid was quoted at 9.45 cents a pound and in June, 1918, at 9.63 cents. It was during the latter month that the War Industries Board fixed the maximum price at 8½ cents per pound to government and public.

Nitrate of Soda

Practically all the world's supply of nitrate of soda comes from Chile. During the early months of the war, because of the shutting off of the German market, which normally had consumed about one-third of the Chilean output, and because of the swamping of other countries by extra cargoes diverted to their ports, prices fell from a comparatively low average of $2.52 for 1913 to $1.90 cents in November, 1914. More than half of the nitrate plants in Chile were forced to shut down. The depression continued until April, 1915, when the demand for nitrate in the manufacture of explosives began to be felt. The price rose to $2.90 in December, 1915, and to $3.60 in March, 1916. High prices stimulated production and led to an enormously increased output. The price fell gradually, reaching $2.90 by October, 1916. An increased demand both for explosives and fertilizer, combined with the shortage of ocean tonnage, started the price once more on its upward movement. It went up to $4.73 in October, 1917, when, in order to curtail speculation, a government central purchasing board was appointed. Since January, 1918, the determination of the uniform price, as well as the control of the distribution of nitrate of soda, was placed in the hands of the Nitrate Committee. The price to importers in the United States was based on the average monthly cost in Chile and to this average price was added a fixed charge of 2.5 per cent of landed costs in this country as a brokerage charge. This meant a price of $4.23 per hundredweight of 95 per cent nitrate up to the month of June, when it was reduced to $4.05. In July it was raised to $4.10 and in August to $4.30½.

Sulphuric Acid

There was a steady increase in the supply of sulphuric acid during 1913 and 1914, and the demand, which under normal conditions comes chiefly from the fertilizer industry, was not sufficient to absorb the large output; the situation became so acute by January, 1915, that many plants reduced their operations and some shut down entirely. Sulphuric acid was selling at one cent a pound, with few opportunities to sell even at that price. Then came a demand for sulphuric acid in the manufacture of munitions and by the summer of 1915 this demand became so insistent that a feverish productive activity developed. The supply, however, was not sufficient to meet the requirements and the price soared. Sulphuric acid which for two years and a half went begging at 1 cent a pound rose to 1.75 cents in September, 1915, to 2 cents in January, 1916, and to 2.5 cents in February of the same year. By August, 1916, the price fell to 1.5 cents, around which figure it fluctuated through the latter part of 1916 and the early part of 1917. Because of expansion of war requirements, an upward movement began in July, 1917, the price rising to $2\frac{1}{4}$ cents by March, 1918. In June, 1918, the War Industries Board fixed a maximum price on sulphuric acid effective for a period of three months. It was $28 per ton of 2,000 pounds, f. o. b. works in sellers' tank cars.

Hides and Leather

The price of packers' heavy hides (native steers) rose from 19.4 cents per pound in July, 1914, to 25.8 cents in July, 1915.[1] The increase during the following year was not very pronounced, the price having advanced only 1.2 cents by July, 1916. Prices began to climb upwards more rapidly during the latter part of 1916 and in January, 1917, hides were selling at 33.5 cents a pound. At the time of the entry of the United States into war the price was 30.5 cents, rising again to the January rate during the subsequent months. New high levels were reached in November and December, 1917, when hides were selling around 35 cents a pound. The price dropped to about 32.8 cents in January and to 26.25 cents in March, 1918. Hides were being quoted

[1] *Monthly Review of the U. S. Bureau of Labor Statistics*, February, 1918, p. 103.

at 32.4 cents when the government in agreement with the hide interests stabilized the price on July 19 (to become effective August 1) at 30 cents a pound.[1]

Differential prices were fixed for different grades of hides and all hides were to be bought and sold on a selected basis, according to rules issued by the Hide and Skin and Tanning Material Section of the War Industries Board.

The prices of sole leather (oak) did not follow the fluctuations in the price of hides. While the latter advanced from July, 1914, to July, 1915, 6.5 cents, the leather went up only 2 cents (from 47.5 cents to 49.5 cents a pound). The advance from July, 1915, to July, 1916, was entirely out of proportion to the increase in the price of hides, the latter rising only 1.2 cents, while leather advanced 14 cents (from 49.5 cents to 63.5 cents a pound), selling in July, 1917, at 81.5 cents a pound and in July, 1918, at 83 cents.[2] Imported sole leather (hemlock—Buenos Ayres and Montevideo) was quoted during 1914 and 1915 at between 29.5 cents (August, 1914) and 32.5 cents (January, 1915).[3] The rise during the first half of 1916 brought the price up to 37 cents, at which figure it stood from May to September, a rapid advance occurring after this date, which brought the price up to 57 cents in December, 1916. The highest figure was reached in March, 1917, when imported leather was selling at 59.5 cents, the average for the year being 53.54 cents. At the beginning of 1918 the price was 49 cents a pound, and it was this price that ruled through 1918, with the exception of the months of March and April, when leather was quoted at 45.5 cents.

Following its action in fixing maximum prices on hides and skins, the War Industries Board, in agreement with the sole leather group of the Tanners' Council, established a schedule of maximum prices for sole and belting leather to become effective on August 9, 1918. In conformity with the usual prac-

[1] *Monthly Labor Review*, December, 1918, p. 111; War Industries Board, Bulletin of Monthly Prices during the War, November, 1918, p. 65.
[2] *Monthly Labor Review*, May, 1919, p. 145.
[3] War Industries Board, Bulletin of Monthly Prices during the War, November, 1918, p. 68.

tice, the prices were to hold for three months. They varied from 34 cents for Buffalo dry hide overweight to 96 cents for best grade heavy packer oak belting butts. It was especially stated that maximum prices did not mean fixed prices and that it was anticipated that within the maximum prices the laws of supply and demand would have their influence.

On August 14 the War Industries Board informed the tanners of upper leather that it would insist on its ruling that the only permissible colors for the tanners to make and shoe manufacturers to cut after October 1 were black, medium dark shade of brown and tan.

Rubber

Rubber is one of a very few commodities whose price has not been to any considerable degree affected by the war. Enormous growth of the rubber plantation industry during the last few years, the falling off of rubber imports into Germany and the character of the War Trade Board rubber allocations were some of the factors responsible for this phenomenon.[1] The low level of Brazilian (wild) and Ceylon (plantation) rubber prices running throughout the period of the war has been broken by violent rises only three times. The first important advance was that of plantation rubber in the latter part of 1914, which was due to Great Britain's declaring rubber as contraband of war in October of that year and to the establishment in November of an embargo on rubber shipments from any English ports. The price of Ceylon rubber rose from 56.5 cents per pound in August to 74.5 cents in December, 1914, and to 81 cents in January, 1915. When the embargo was lifted for the United States in January, 1915, the price fell back to about 63 cents a pound. The next advance, both for Para and Ceylon variety, occurred in the latter part of 1915 and the early part of 1916, the highest level being reached in January, when the price was $1.05 a pound for Ceylon and $1.00 for Para. This rise as well as the

[1] War Industries Board, Price Fixing Bulletin, No. 2, August, 1918.

one at the beginning of 1917 was due largely to the activities of German submarines.

The first fixed prices of rubber became effective on May 1, 1918. They included only three grades of rubber, one Para and two plantation grades, the price for the first, upriver, fine, being fixed at 68 cents per pound and the prices for the latter at 63 and 62 cents.[1] This short schedule was followed on May 14, 1918, by a much longer one, embracing various plantation qualities, Mexican guayule, Para grades, Central American and African grades, Balata, Gutta Percha and many others. The lowest fixed price was 14 cents per pound for Sarawak grade of Gutta Joolatang (Pontianac), the highest for Red Macassan Gutta Percha—$3.00 per pound. Supplementary lists of prices were issued on May 29, June 13, July 2 and July 6, 1918. All prices were on the basis of c. i. f. New York.

The fixing of rubber prices, as well as the promulgation of certain rules and regulations to govern the rubber industry, was made necessary by the inclusion of crude rubber in the list of commodities whose importation into the United States was limited from April 30, 1918, until further notice. This limitation of imports was resorted to in order to release every possible ship for transatlantic uses. The War Trade Board feared that it would invite hoarding, speculative dealing and profiteering, hence the fixing of prices and the option granted to the United States Government to purchase all or any part of the crude rubber at optional prices. The rubber importers were not to sell, transfer or deliver rubber at prices greater than those set forth in the government option, except such rubber as they may have been under an obligation to deliver under a contract executed and in force prior to May 1, 1918.[2]

The War Trade Board restrictions permitted the licensing of rubber importations at the rate of 100,000 long tons per year, the amount imported in 1917 being 181,088 long tons. The cut in the rubber imports into the United States led to

[1] War Industries Board, Price Fixing Bulletin, No. 2, August, 1918.
[2] *Ibid.*

the fall of prices in the primary markets where the production was considerably in excess of the amounts allocated for shipments to this country. The maximum prices fixed for rubber represented one of the few examples of fixed prices which were well above the market quotations.

Laggings below the maximum prices occurred also in zinc and lumber.

Lumber

Not only were there no important advances in the price of lumber during 1914 and 1915, but in the case of some varieties, such as hemlock, gum, yellow pine, the price declined slightly from what it had been just before the declaration of war. The advance in price commenced in the latter part of 1916, especially for varieties demanded for war purposes, Douglas fir rising from $7.50 per one thousand feet in August to $9.50 in December.[1] The average price of Douglas fir for 1917 was $10.38; it began to rise more rapidly after the United States entered the war, the quotation reaching $18.50 in June, 1917. The price of yellow pine rose from an average of $10.00 per one thousand board feet in the first quarter of 1914 to $30.00 in the second quarter and $35.00 in the third quarter of 1917.[2] Beginning with December, 1917, f. o. b. mills price was established for Douglas fir. It was a fixed price to the government only. On June 15, 1918, maximum prices were fixed to apply to the government, to the Allied governments and to the public.[3] Only sales by manufacturers were regulated. The United States Government had the option on all contracts and the War Industries Board could allocate the lumber either to the government or to other essential users. The balance was released for sale to commercial buyers.

According to regulations, wages and labor conditions in force were to remain unchanged and contracts entered into in good faith previous to the promulgation of the order were

[1] War Industries Board, Bulletin of Monthly Prices during the War, November, 1918, p. 104.
[2] *Ibid.*, p. 109.
[3] War Industries Board, "Price Regulations by Government Agencies—Lumber and Building Materials."

to be performed in accordance with their terms, subject to government priority orders. Maximum prices on Douglas fir ranged from $12 per thousand for No. 3 to $20 per thousand for No. 1.

On January 28, 1918, maximum prices to the United States and the Allied governments were fixed on southern or yellow pine and somewhat later, in April, 1918, North Carolina pine and New England spruce also came under regulation. In June, 1918, the prices on these varieties of lumber were raised, the increase in the case of yellow pine lumber being about $4.80 per thousand over the former government list prices. The new prices were approximately the same as those ruling on the market at the time of their establishment. The maximum price of Pennsylvania hemlock was fixed in April, 1918. The price fixing agencies for lumber besides the War Industries Board were the North Carolina Emergency Bureau for North Carolina pine, the Southern Pine Emergency Bureau and Alabama and Mississippi Emergency Bureau for southern or yellow pine and the New England Spruce Emergency Bureau for New England spruce. When spruce for aeroplanes became one of the most necessary things, the United States Spruce Production Corporation was formed, particularly for the purpose of getting out spruce from the Pacific northwest.

There was a demand on the part of producers for an advance of the maximum prices beyond those established by the government. This demand was not heeded even though the producers were able to show a rise in their costs of production. The maintenance of the unchanged maximum was announced to rest on the ground that the output heretofore maintained was no longer needed and that the industry should be confined to military and essential.[1]

Building Materials (Other than Lumber)

It is a difficult matter to standardize building materials by kinds and to show by representative quotations the state

[1] F. W. Taussig: "Price Fixing as Seen by a Price Fixer," *Quarterly Journal of Economics*, February, 1918, p. 229.

of trade in these materials as a whole. There are too many variations in quality and the character of the products makes their prices more subject to local conditions than are the prices of most other commodities. This is due particularly to the cost of transporting building materials to central markets.[1] In order to make possible a comparison of the general rise of building materials (other than lumber) with other groups of commodities, an index has been constructed by the Price Section of the War Industries Board showing the movement of the prices of brick, cement, glass, gravel, lime, paint materials, putty, rosin, sandstone and tar for the period January, 1913, to date. The price of "Building Materials," as shown by this index number, has lagged behind the prices of "Food," "Metals and Metal Products" and "All Commodities." Thus while in the last quarter of 1916 "Food" increased 44 per cent, "Metals and Metal Products" 77 per cent, and "All Commodities" 41 per cent, the "Building Materials," index number showed an increase over the prewar base of only 21 per cent. The general rise in the price of "Food" and that in "All Commodities" was about twice, the rise in the "Metals and Metal Products" group four times as great as that in the "Building Materials" group. This same relation continued in 1917. In the last quarter of 1917, "Food" was 83 per cent above its prewar base, "Metals and Metal Products," 88 per cent, "All Commodities" 81 per cent, while "Building Materials" were only about 40 per cent. The rise after January, 1918, was relatively greater for "Building Materials" than for other groups, so that by October, 1918, it represented an 89 per cent increase above the prewar level, as compared with 91 per cent for "Foods," 96 per cent for "Metals and Metal Products" and 103 for "All Commodities."

The rise in the prices of building materials (other than lumber) may be attributed mainly to an advance in costs and not to an increase in demand. Building operations in 1915 were 10 per cent above the prewar average, in 1916,

[1] Price Fixing Bulletin, No. 6, November, 1918, p. 1.

they were 35 per cent above this average and in 1917, 38 per cent below.[1]

By September, 1918, prices were fixed on Portland cement, building tile, sand and gravel.[2] At the time of the fixing of the price of cement, in May, 1918, it was selling at $2.56 a barrel, New York market, or 62 per cent above the prewar figure of $1.58. Fixed prices, to remain in force until August 31, 1918, applied to the purchases by the United States Government only, and ranged from $1.60, f. o. b. plant location for Buffington, Indiana, cement to $2.00 for the Oswego, Oregon, product. In the open market prices continued to rise, reaching $2.90 a barrel in September, 1918. A slightly modified schedule was adopted by the Price Fixing Committee of the War Industries Board on August 23, 1918, after its consultation with the War Service Committee of the industry. The revised schedule, which reduced prices by three cents a barrel, went into effect in September, to remain in force for four months.

Prices for building tile were fixed on July 25, 1918, on the basis of prices charged prior to July 1 of that year. As in the case of cement they applied to government purchases only. No definite date was set during which they were to remain in effect.

Prices on sand, gravel and crushed stone were fixed, to the government only, on July 10, 1918, to be effective for the period ending October 31, 1918.

Sand	$0.75 per ton
Gravel	1.60 per ton
Crushed stone	1.85 per ton

These prices were for full scowload lots delivered f. o. b. scow, within the lighterage limits of the port of New York. For deliveries made outside of these limits the extra cost of towage could be added to the price. On August 28, the Price Fixing Committee established prices for the States of New Jersey, Delaware and Pennsylvania east of and including Harrisburg.

[1] Price Fixing Bulletin, No. 6, November, 1918, p. 1.
[2] *Ibid.*, No. 5, September, 1918.

These prices were, for deliveries in full scowload lots, f. o. b. scow:

Sand	$0 60 per ton
Gravel	1.00 per ton
Crushed gravel	1.25 per ton

The government fixed the price of sand because in certain localities it was engaged, directly or through contractors, in dock and harbor operations and was therefore the purchaser of all the available sand and gravel in the vicinity.

Newsprint Paper

The rise in the price of newsprint paper since the outbreak of the war has been so great that on April 24, 1916, a resolution was passed in the United States Senate requesting the Federal Trade Commission to investigate the newsprint paper industry of the country. The commission in a letter dated June 13, 1917, to the President of the Senate, recommended governmental control of the production of print and book paper. It found that for the second half of 1916 the prices for print and book paper were from 65 to 84 per cent higher than in 1915 and that the average profits of 41 of the book making paper mills for 1916 were 100 per cent more than for the previous year.[1] The increase in the price from 1916 to 1917 was about 50 per cent. In consequence of the report of the Federal Trade Commission suit was brought by the Attorney General against the News Print Manufacturers Association, the so-called paper trust. Many members of this association were indicted for combination and contracts in restraint of trade.

On August 30, 1917, the President, under his authority to control the price of commodities purchased by the government, fixed the price of print paper for the Official Bulletin at 2½ cents a pound. Previous to this, in February, 1917, certain manufacturers requested the Federal Trade Commission to fix "a fair and reasonable price for the sale of newsprint paper for use in the United States." Such a price

[1] C. R. Van Hise: *Conservation and Regulation*, p. 37.

was fixed by the commission on March 3, but soon afterwards four of the signatories to the agreement were indicated for violations of the Sherman Anti-Trust Law.[1] On November 26 a new agreement was made between the Attorney General and certain print paper manufacturers, according to which the price of newsprint paper, on all new contracts to January 1, 1918, and on all contracts in existence on January 1, 1918, or made thereafter, was not to exceed the following amounts:

Roll news in car lots................	\$3.00 per 100 pounds, f. o. b. at the mill
Roll news in less than car lots.........	3.25 per 100 pounds, f. o. b. at the mill
Sheet news in car lots...............	3.50 per 100 pounds, f. o. b. at the mill
Sheet news in less than car lots.......	3.75 per 100 pounds, f. o. b. at the mill

This agreement provided that after April 1, 1918, maximum prices and terms of sale were to be determined and fixed by the Federal Trade Commission. All interested parties were invited to lay before the commission any pertinent data regarding the production and distribution of print paper. The commission held extensive hearings and examined cost figures, vouchers and accounts of several manufacturers. The new schedule of prices left the price of sheet news in car lots unchanged; the price of roll news in car lots was increased by 10 cents, while the price of roll news in less than car lots was reduced by 2½ cents and that of sheet news in less than car lots was reduced by 12½ cents.

The following maximum commissions for jobbers or other middlemen were provided:

15 cents per 100 pounds on carload lots
40 cents per 100 pounds on less than car lots
60 cents per 100 pounds on less than ton lots

These were added to the actual cost of paper at the mill or at the warehouse.

It was set originally that the Federal Trade Commission's award which was made on April 1, 1918, should last for the duration of the war and three months thereafter, but the findings and the award of the commission were appealed for review to the United States Circuit Court, which on Septem-

[1] War Industries Board, Price Fixing Bulletin, No. 9, Paper, October, 1918.

ber 25, 1918, rendered a decision raising the prices of paper as follows:

Roll news in car lots	\$3.50 per cwt.
Roll news in less than car lots	3.62½ per cwt.
Sheet news in car lots	3.90 per cwt.
Sheet news in less than car lots	4.02½ per cwt.

These revised prices, however, did not last very long. Because of increases in wood cost, rates of wages and freight rates, prices were raised by the Federal Trade Commission twice, the last raise made July 1, 1918, having brought up the prices to:

Roll news in car lots	\$3.75½ per cwt.
Roll news in less than car lots	3.87½ per cwt.
Sheet news in car lots	4.15½ per cwt.
Sheet news in less than car lots	4.27½ per cwt.

CHAPTER XII

Conclusions

Government price fixing during the war was guided little by economic principles. It was not uniform either in its objects or in its methods, feeling its way from case to case. It might be termed opportunist.[1]

The fixing of prices, according to Mr. Hoover, has not been evolved out of any desire to interfere with the operation of natural trade laws; it was "simply the result of the government being forced into the issue of becoming the dominant purchaser and thereby, willingly or unwillingly, the price determiner in particular commodities." Mr. Hoover was in favor of price fixing, because, according to him, an abnormal demand coupled with a shortage of supply produced a condition which tended to oppress the poor, and government control was necessary to curb speculation and profiteering which were putting the necessaries of life beyond the reach of the average man. The necessity for control was dictated not only by humanitarian considerations, but because there was danger in unrestrained competition, danger to the security of the established institutions of law and order, danger from strikes by dissatisfied laborers and from riotings by angry mobs.[2]

The solving of the question of how low or how high should be the price fixed by governmental decrees is of paramount importance. According to President Wilson's statement of July 12, 1917, the fixed price should be sufficient to "sustain the industries concerned in a high state of efficiency, provide a living for those who conduct them, enable them to pay good wages and make possible expansions of their enterprises."

[1] F. W. Taussig: "Price Fixing as Seen by a Price Fixer," *Quarterly Journal of Economics*, February, 1919, p. 238.

[2] Mr. Hoover's letter to the President, March 26, 1918; Mr. Hoover's speech before the Pittsburgh Press Club, April 18, 1918, and his other public utterances.

It has been continually advanced that a "fair price" must take cognizance of the cost of production, but the cost varies depending upon the location of the producer, the character of his plant and his equipment, efficiency of management, etc. The fixed price, irrespective of any fairness or justice in the case, must be high enough to induce continued production of the highest costing portion of the required amount of goods.[1] The greater and the more insistent the demand, the greater the dependence upon every possible source of supply.

The fixing of a "reasonable" price, when the supply of a commodity is not sufficient to meet the usual demand, can not prevent hardships and dissatisfaction. Price fixing alone does not solve the problem of keeping the poor provided with commodities; in fact, "reasonable" prices may aggravate the situation by giving people of means an incentive and an opportunity to acquire ahead of their actual needs, thus leaving the less fortunate ones without any supply. Unless some system of priority of distribution and of rationing is introduced in connection with price fixing, the latter is doomed to failure.

The fixing of the whole chain of prices from the producer of the raw material to the retailer involves the fixing of margins for manufacturers and middlemen. The desire on the one hand to stimulate production and on the other to satisfy public demand for lower prices led the government in many instances to cut the margin of the wholesaler and retailer too low. This was true for flour, sugar, bituminous coal and a few other commodities. The harm done in the case of the first two articles was not very great, as grocers could afford to sell some things without profit as long as their other prices were left free. With regard to bituminous coal the situation was different; here the dealer's whole business is involved. Too narrow a margin lessened the interest of coal distributers in their work. It has been advanced

[1] "Economic Difficulties in the Way of Successful Governmental Price Fixing," *Economic World*, July 21, 1917, p. 79.

that "if the jobbers in bituminous coal had been more sure of their ground, had had freer hands and larger margins to work on, no small part of the railway congestion from which the country had suffered so much in the winter of 1918 might have been avoided."[1]

The experience with price regulation during the war has shown that prices can be controlled without giving rise to a great deal of evasion and without too much running counter to the competitive spirit which animates our industrial society when a great emergency, like the recent war, fires public imagination and inclines public opinion to favor any measures which are likely to advance the national cause. The best methods of control, however, are those which enlist the cooperation of the people, whose interests are to be affected by price regulating measures.

[1] B. M. Anderson: "The Price Fixing Policy," typewritten manuscript, p. 4. (Report of the Committee of the American Economic Association.)

APPENDIX TO PART II

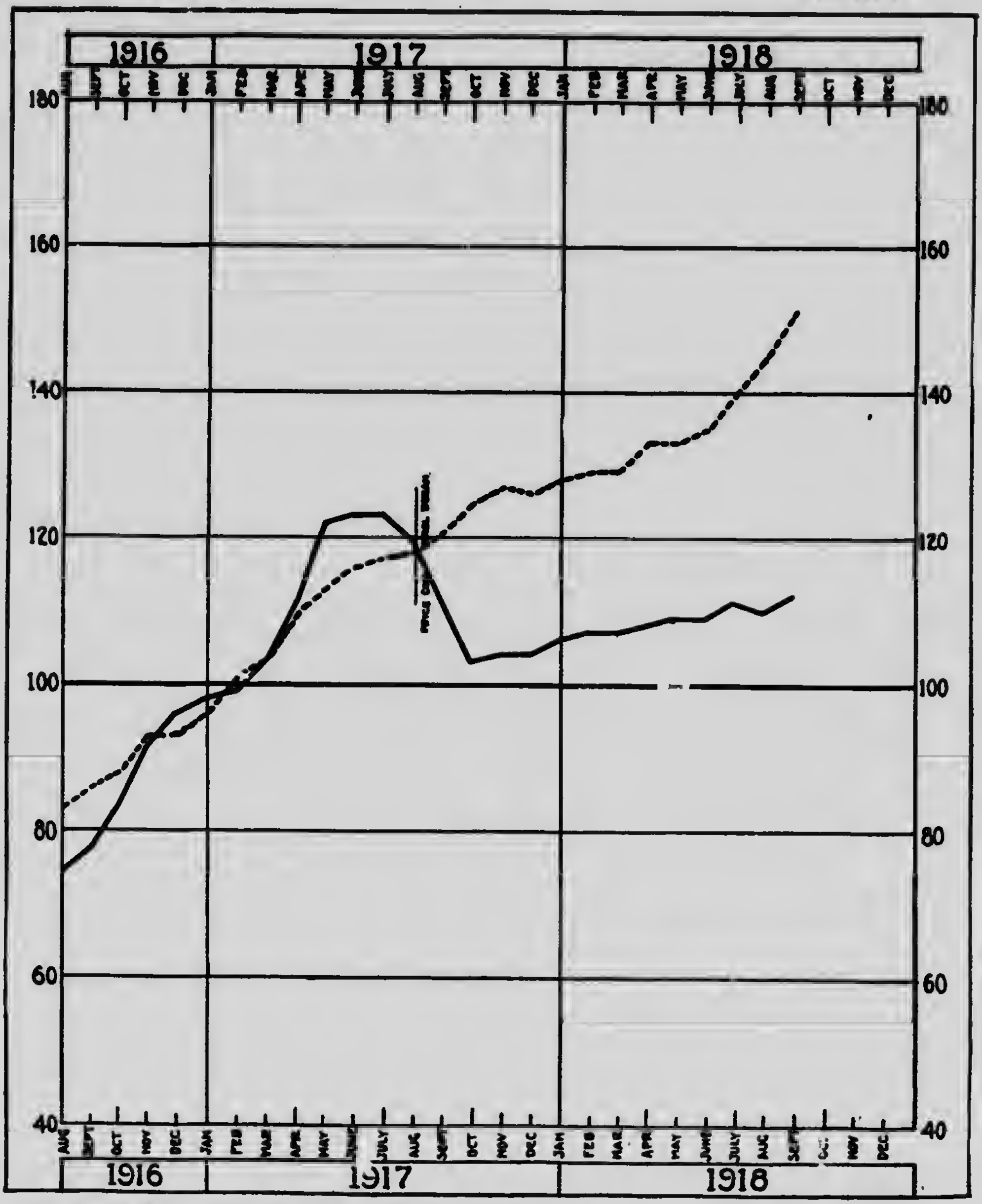
A List of Commodities the Price of Which Was Brought under Government Control[1]

1917	
August	Coal, bituminous and semi-bituminous
September	Coal, anthracite; coke; copper and copper wire; iron ore; pig iron; steel plates; wheat
October	Steel billets and blooms; sheet bars; wire rods; skelp; sugar; sardines
November	Bar iron; cast iron pipe; steel rails; wire; tin plate; ammonia
December	Douglas fir; ammonium sulphate
1918	
January	Wood alcohol; yellow pine; acetic acid; nitrate of soda
February	Zinc sheet; binder twine; castor beans; castor oil
March	Aluminum; blackstrap molasses (imported) manila fiber
April	Hemlock; white pine; eastern pine; news-print paper; manganese ore; munition linters; quebracho
May	Portland cement (domestic); hides; rubber; wool
June	Harness leather; prunes; raisins; sulphuric acid; nitric acid
July	Cotton goods, such as denims, ginghams, sheetings, tickings; cotton yarns and linters; wheat flour; rice; building tile; charcoal; hemp; sand and gravel
August	Sole leather; glycerine; dynamite
September	Cottonseed meal and oil; wool grease
October	Burlap

[1] "Fluctuations of Controlled and Uncontrolled Prices," Price Fixing Bulletin, No. 10, December, 1918, pp. 5-7, 54.

Index Numbers of Controlled and Uncontrolled Prices of all Commodities by Months, August, 1916, to September, 1918. Average Prices for the Year August, 1916, to July, 1917 = 100[1]

——Controlled ------Uncontrolled



[1] War Industries Board. "Fluctuations of Controlled and Uncontrolled Prices."

Official U. S. Food Bulletin

Harry A. Wheeler, *State Food Administrator for Illinois.*

Chicago, Dec. 6.—Prices being paid by retailers for the staples named and the retail prices which they should not exceed are as follows:

	Retailer Pays	Consumer Should Pay
POULTRY		
Turkeys—		
Dry picked—	Per lb.	Per lb.
Fresh	31c to 33c	32c to 38c
Cold storage	23c to 26c	24c to 31c
Chickens—		
Hens and chickens—		
2 to 4 lb., fresh	23c to 24c	24c to 29c
2½ to 4 lb., cold storage	18c to 20c	19c to 25c
4½ to 5 lb., fresh	23c to 25c	24c to 30c
4½ to 5 lb., cold storage	18c to 20c	19c to 25c
Roosters, fresh	18c to 20c	20c to 25c
Ducks	25c to 27c	27c to 32c
Geese	20c to 22c	22c to 27c
EGGS		
Strictly Fresh—		
Candled—	Per doz.	Per doz.
Extras, approx. 24 oz., per doz.	52c to 54c	53c to 59c
Cold Storage—		
Candled—		
Extras, approx. 23 oz., per doz.	36½c to 39½c	37½c to 44½c
No. 1, approx. 22 oz., per doz.	35c to 37c	38c to 42c
Note—Eggs in cartons 1c per dozen above prices.		
HAMS		
Whole—	Per lb.	Per lb.
10 lbs. to 12 lbs. average	31c to 32c	33c to 37c
14 lbs. to 16 lbs. average	29½c to 30½c	31½c to 35½c
BACON		
Whole pieces—	Per lb.	Per lb.
Best grades	42c to 44c	45c to 50c
Medium	37c to 38c	40c to 44c
LARD		
	Per lb.	Per lb.
Best kettle rendered—		
In cartons	27c to 28½c	31c to 36½c
In bulk	27c to 28c	30c to 35c
Standard pure—		
In bulk	26½c to 27½c	29c to 34½c
Substitutes—		
In bulk	22c to 25c	24½c to 31c
COOKING OILS		
In cans—	Per can	Per can
Corn oil, pints	27c to 30c	30c to 37½c
Corn oil, quarts	50½c to 56½c	56½c to 70c
Cottonseed, small	28c to 32c	31½c to 40c
Cottonseed, med.	56c to 63½c	63c to 70c
RICE		
	Per 100 lbs.	Per lb.
Fancy head	$8.75 to $10.00	10½c to 14c
Blue Rose	8.00 to 9.00	10c to 13c
POTATOES		
	Per 100 lbs.	Per pk., 15 lbs.
No. 1 Wisconsin, Minnesota and Dakota	$1.85 to $2.10	33c to 39c

	Retailer Pays	Consumer Should Pay
SUGAR		
	Per 100 lbs.	Per lb.
Granulated in bulk	$7.64 to $7.77	7¾c to 8½c
FLOUR		
(Well known advertised mill brands in cotton bags.)		
	Per bag	Per bag
½ brl.	$2.65 to $2.70	$2.80 to $2.95
¼ brl.	1.34 to 1.36	1.42 to 1.49
5 lbs.	.30 to .32	.33 to .37
Graham—Pure—		
In 5 lb. bags	.27½ to .30	.30 to .35
RYE FLOUR		
(In cotton bags)		
	Per bag	Per bag
Bohemian sty., mixed, ¼ brl.	$1.27 to $1.33	$1.35 to $1.45
Dark, pure, ¼ brl.	1.12½ to 1.22	1.20 to 1.35
Bohemian sty., mixed, 5 lbs.	.29 to .30	.32 to .30
Dark, pure, 5 lbs.	.26½ to .29½	.29 to .34
CORN MEAL		
	Per 100 lbs.	Per lb.
White, bulk	$5.45 to $5.75	6c to 6½c
Yellow, bulk	5.80 to 6.00	6c to 7c
MILK		
Evaporated—		
	Per can	Per can
(unsweetened)	11½c to 12½c	13c to 15c
Condensed—		
(sweetened)—		
Highest grades	15½c to 17½c	16c to 22c
Medium grades	14½c to 15½c	16½c to 18½c
BUTTER		
Creamery—	Per lb.	Per lb.
Extras, fresh, tubs	47½c to 48½c	48½c to 53½c
Firsts, fresh, tubs	43½c to 45c	44½c to 50c
Cold storage	41c to 43c	42c to 48c
Note—1c higher in cartons than tubs.		
OLEOMARGARIN		
Standard Grades—	Per lb.	Per lb.
In cartons	29c to 30c	32c to 35c
In rolls	28c to 29c	31c to 34c
Medium Grades—		
In rolls and bulk	26c to 28c	29c to 33c
BEANS		
	Per 100 lbs.	Per lb.
Navy, hand-picked	$15.50 to $16.50	17½c to 20½c
Lima	15.00 to 16.00	17c to 20c
PRUNES		
California—		
Santa Clara—	P[illegible] lb.	Per lb.
50 to 60 prunes, per lb.	11½c to 13c	13c to 17c
60 to 70 prunes, per lb.	10½c to 11½c	13c to 16c
9[illegible] to 100 prunes, per lb.	9½c to 10c	11c to 14c
HOMINY		
	Per 100 lbs.	Per lb.
In bulk	$5.50 to $6.00	6c to 7c

Official U. S. Food Bulletin—*Continued*

CHEESE

American, full cream, whole	28c to 32c	34c to 40c
American, full cream, cut to order	28c to 32c	35c to 40c
American, full cream, brick, whole	29c to 31c	33c to 39c
American, full cream, brick, cut to order	29c to 31c	36c to 43c

SALMON

Canned Salmon— 1-lb., tall cans—	Per doz.	Per can
Pink	$1.95 to $2.10	19c to 23c
Red Alaska	2.75 to 2.95	27c to 33c

SYRUP

	Per doz. cans	Per can
Corn, 90% and cane 10% mixture	$1.42½ to $1.52½	13c to 17c

FISH—There are heavy runs of blue back herring and cisco. The herring are costing retailers 8 to 10 cents per pound and cisco 12 to 14 cents per pound. These are good fish, and the cisco especially are very palatable. Try these fish for Friday.

Delivery service is expensive. Carry your goods home if you can and do not exact more than one delivery daily.

If you carry goods home you are entitled to less than the highest prices.

Many grocers have inaugurated a system of charging 5c per delivery. This is a just charge if prices are reduced.

All quotations are for high grade goods unless otherwise stated. If you pay highest prices you are entitled to high quality.

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