



MINISTRY OF AGRICULTURE  
AND FISHERIES.

Report  
of the Committee on Stabilisation of  
Agricultural Prices.

LONDON:

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The Minister of Agriculture has received the attached Report of a Committee appointed by the late Minister, the Right Hon. Noel Buxton, M.P.

The Report is issued as providing a basis for the consideration of a controversial subject which is of general public interest. It will be understood that the authors of the Report are alone responsible for the opinions expressed by them.

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26th January, 1925.

SIR,

WE WERE asked by the late Minister of Agriculture and Fisheries, the Right Hon. Noel Buxton, M.P.—

“ To consider and report upon (1) the facts concerning the effect of changes in currency levels on prices of farm products in Great Britain and (2) the causes of seasonal fluctuations of prices of such products; and to consider and report upon possible steps which might be taken by producers or by the State to stabilise such prices.”

In submitting this report, we desire to say that we have confined ourselves to a broad summary of the subject, endeavouring to bring out the principles which underlie the problem of stabilisation and the bearing upon it of the general tendencies which may be observed in agricultural organisation abroad. We have heard no evidence and have not attempted to develop in detail proposals for the organised distribution and marketing of specific agricultural commodities. To do so would involve the examination of expert evidence and may more fitly be left to a later stage.

We are, Sir,

Your obedient Servants.

A. W. ASHBY.

R. R. ENFIELD.

E. M. H. LLOYD.

The Right Hon. E. F. L. WOOD, M.P.,  
Minister of Agriculture and Fisheries.



## THE STABILISATION OF AGRICULTURAL PRICES.

### I.

#### INTRODUCTION.

1. In this Report we propose to summarise briefly the main facts in regard to the fluctuations of agricultural prices, directing special attention to their economic causes, their harmful consequences, and the general principles upon which remedies might be applied.

2. At the outset we wish to emphasise that the problem divides itself into two distinct branches, involving in each case widely different economic considerations. Stated briefly, the distinction is as follows. Agricultural prices may rise or fall in consequence (1) of those causes which bring about a rise or fall in the general level of the prices of all commodities (including agricultural products) taken together; and (2) of those causes which bring about fluctuation in the prices of individual agricultural products, taken separately. It is a fundamental distinction, and will be preserved throughout our enquiry.

3. As is well known, index figures showing the fluctuations in the general level of prices, have been calculated in this country at various times covering more than a century, and they form a permanent record of the general price movement over this period.\* The Ministry of Agriculture has within recent years calculated an index figure for agricultural produce as a whole, and for many years a similar index figure for wholesale food prices has (amongst others) been prepared by Sauerbeck, and is now published month by month in the *Statist*. If the movements of these index figures are compared with each other, it is easy to see that the fluctuations in agricultural prices as a whole have been in fairly close harmony with those of the general price level; in other words, the causes which have operated to bring about a rise or fall in the general price level have also operated to bring about similar changes in agricultural prices. This, therefore, is the starting point of any examination of the causes of the price fluctuations which come under the first of the two groups referred to above, and on this basis we shall begin our enquiry.

4. Historically, it is the fluctuations in agricultural prices *as a whole* which have been of the greatest importance and have had the most far reaching consequences, for price changes of individual commodities, which are not part of a general change, tend to neutralise one another and are, therefore, less injurious

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\* The index compiled by Jevons covers the period 1785 to 1865; that compiled by Sauerbeck and continued by the *Statist* dates from 1847. Others have been prepared by the Board of Trade and by the *Economist*.

to the farmer.\* The usual cause of a rise in price of a single agricultural product is a decrease in supply, and of a fall in price, an increase in supply. Changes may also be due to a falling off or increase in the demand, but since the consumption of food products per head of the population is relatively steady, changes in demand are probably less important. Variations in the volume of production will therefore go a long way towards explaining fluctuations in the price of single commodities, but they will not explain variations in the general price level, for it is hardly to be expected that *all* commodities will simultaneously become scarce or abundant. The explanation of such general variations in prices is properly attributed to monetary causes, that is to say, to changes in the relation of the total available means of payment in a community to the total quantity of goods and services to be marketed.

5. That this has been recognised as the cause of general price changes by economists for a large number of years may be illustrated by the following quotations† :—

(1) *John Locke* : “The lessening of the quantity of money makes an equal quantity of it exchange for a greater of any other thing.”

(2) *Hume* : “It is the proportion between the circulating money and the commodities in the market which determines prices.”

(3) *Ricardo* : “That commodities rise or fall in price in proportion to the increase or diminution of money, I assume as a fact that is incontrovertible.”

(4) *John Stuart Mill* : “That an increase of the quantity of money raises prices, and a diminution lowers them, is the most elementary proposition in the theory of currency, and without it we should have no key to any of the others.”

This principle has been further elaborated by modern economists and is now known as the “Quantity Theory” of money. According to Mr. J. M. Keynes :—“This theory is fundamental. Its correspondence with the facts is not open to question.”‡

6. Agricultural prices may, therefore, be said to fluctuate in consequence of two groups of causes : (1) General monetary causes ; (2) Variations in the volume of production and the conditions of marketing of particular commodities.

7. These constitute the problem we are asked to examine.

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\* It is true that in a period when the general level of prices has been falling, all agricultural commodities have not fallen to the same amount. Where farming is specialised a change in price of one commodity may have serious effect on the financial position of individuals.

† See R. L. Everitt—memorandum submitted to the Royal Commission on Agriculture and published in 1897. (C. 8540/1897.)

‡ “A Tract on Monetary Reform.”





**DIAGRAM I. PRICES OF WHEAT, BARLEY & OATS AND AN AGRICULTURAL INDEX FIGURE**  
 for the Triennial Periods 1820-23 to 1890-93 shewn as a percentage of  
 the year 1900, compared with an index of the price of Wholesale Commodities.

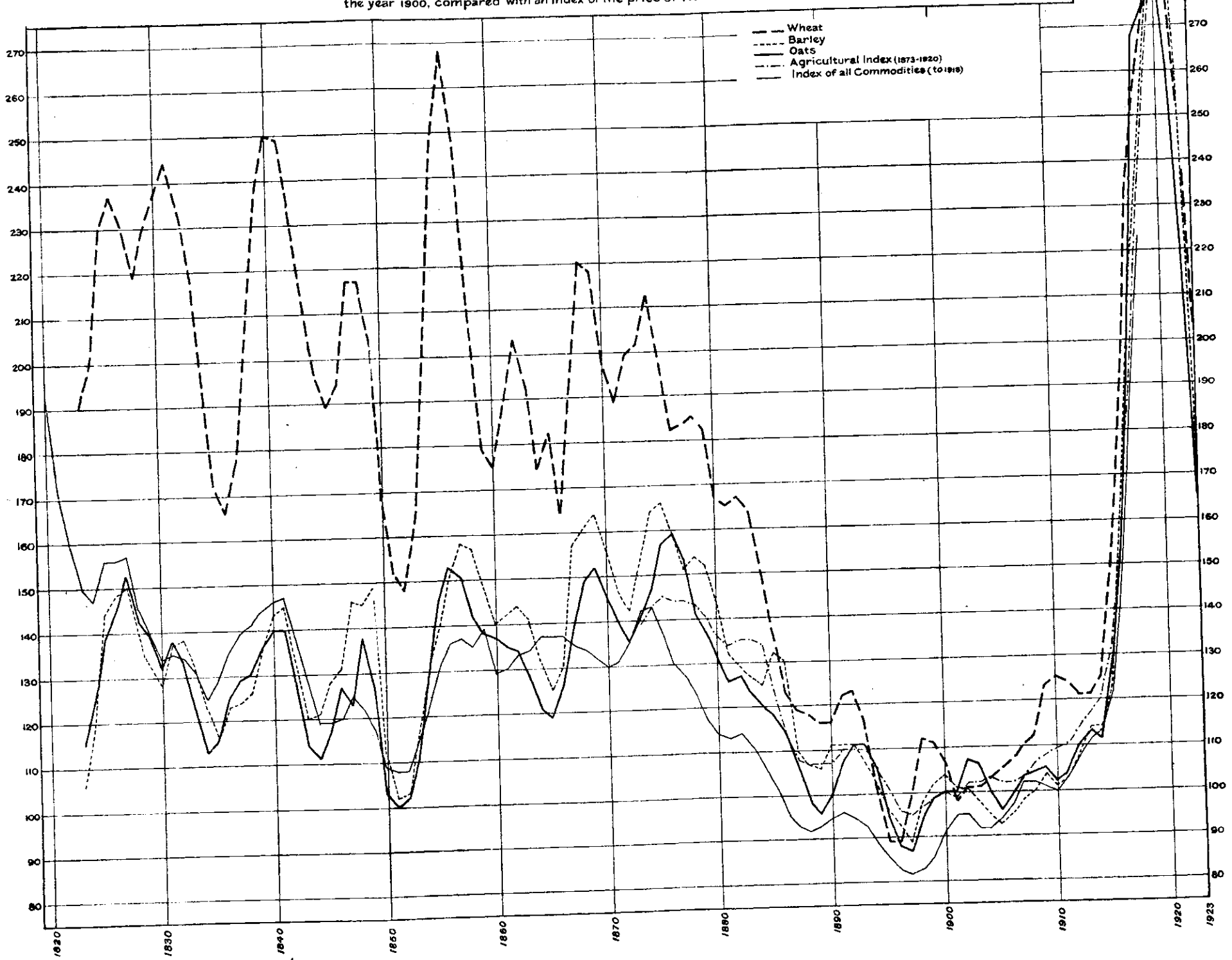
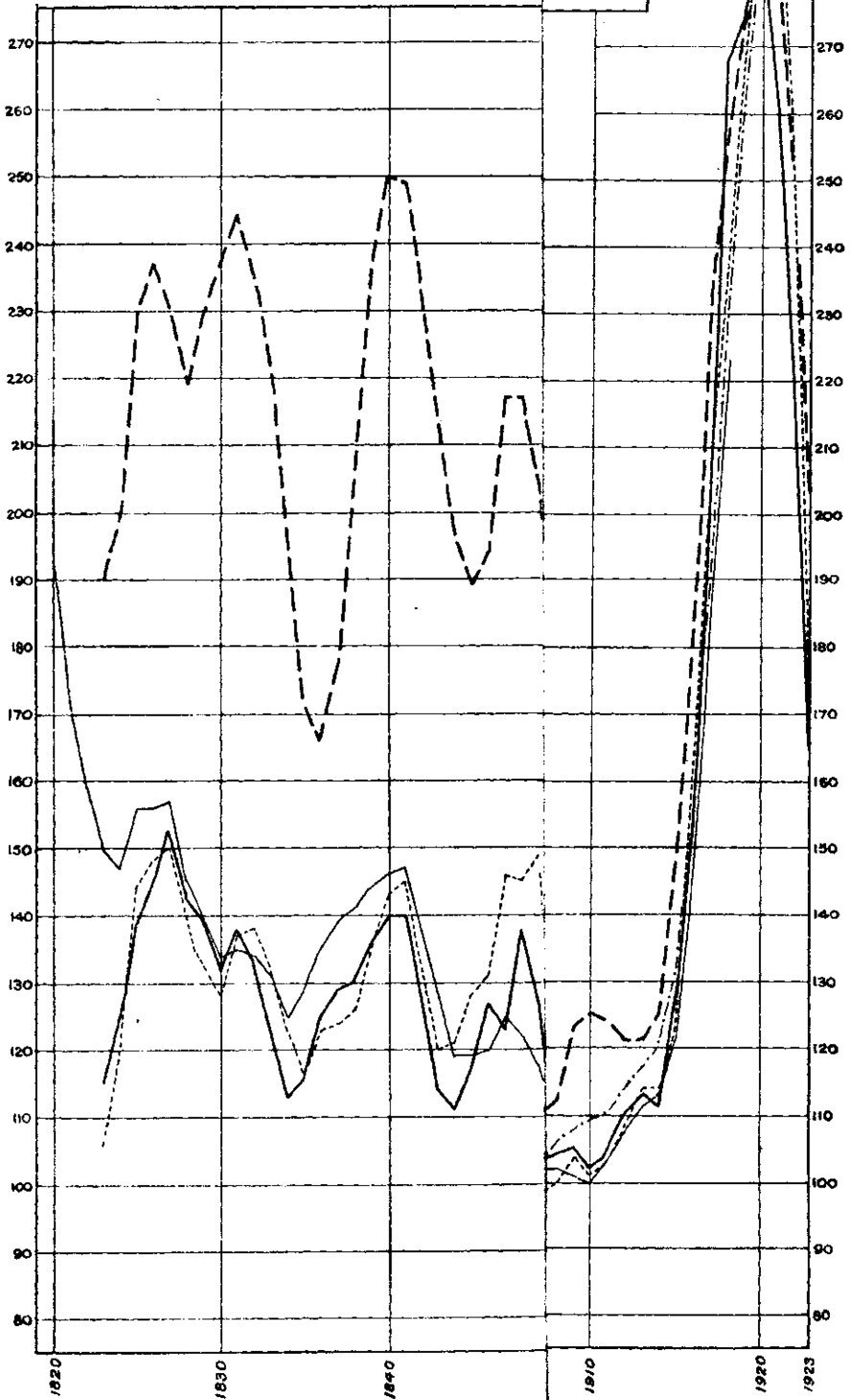


DIAGRAM I. PRICES  
for  
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## II.

## (1) CHANGES IN THE GENERAL LEVEL OF AGRICULTURAL PRICES OWING TO MONETARY CAUSES.

8. The history of agriculture since the Napoleonic wars, disregarding minor booms and depressions, may roughly be divided into five periods of alternating depression and prosperity, namely, 1820-1850, 1850-1874, 1874-1896, 1896-1920, and 1920-1924. A study of these periods can leave little doubt as to the disastrous consequences to agriculture of the variation in the purchasing power of money. Diagram I shows the general course of prices in the case of wheat, barley and oats, compared with that of an index figure representing agricultural produce as a whole,\* and an index figure representing the prices of general wholesale commodities based upon Sauerbeck's figures. The "general commodity" curve may be taken, for the reasons which have been given above, as an indication of the variation in the purchasing power of money. It is only necessary to glance at this diagram to see how close is the similarity between the two sets of curves. This fact alone is sufficient to illustrate the monetary origin of these fluctuations in agricultural prices. Other influences of course contributed, particularly in the earlier part of the 19th century, when good and bad harvests had enormous effect on the prices of cereals. But throughout the century it is clear that the *character* of the respective price curves is the same, and that the upward and downward movements in each, generally speaking, have coincided.

9. It is true that in each period of agricultural depression there have been a few persons who realised that the depression was due more to an alteration in the purchasing power of money than to an alteration in the relation of supply to demand in respect of agricultural commodities. For example, Cobbett, in his "Rural Rides," makes frequent reference to the monetary causes of the depression which followed the Napoleonic wars, and Lord John Russell and others also called attention to the same point. Even amongst farmers, this view was not unknown. Before the House of Lords Committee of 1837 a large farmer and miller, Mr. John Lewin, said † :—

"We have always had better prices when the currency has been expanded, and when it is contracted they are lower . . . I have watched for 20 years the bank circulation; the issue of the country's notes expands and contracts with it. When the Bank of England has increased its issues, our prices have gone up; when they have contracted, our prices have gone down."

\* The Agricultural Index is the weighted mean of Groups IIIA and IIIB (Animal and Vegetable Foods) of the Index Numbers of Wholesale Prices contained in the Abstract of Labour Statistics published by the Board of Trade.

† Quoted from memorandum by R. L. Everett—See C. 8540/1897.

In the depression which followed 1874, the monetary causes at the root of the falling prices were referred to by Lord Beaconsfield in a speech in the House of Lords in 1879 and by Mr. Goschen in the House of Commons in 1883. Nevertheless it is true to say that throughout the 19th century, not only agriculturists as a whole but the majority of those who have concerned themselves with the development of agricultural policy have ignored the monetary explanation of these price movements. Falling prices have almost always been attributed to foreign competition, and have led to a demand for protection. Even as far back as 1820, when England was a highly protected country, some people appear to have ascribed the depression to cheap foreign imports. For more than a century fear of the foreigner has been the farmer's obsession, and protection has been his panacea, a circumstance which has done more to obscure the real causes of bad or good times than possibly any other. Even to-day there is little doubt that many farmers attribute the depression of 1920 to 1923 to the competition of free foreign imports.

10. In the past hundred years the three severe and protracted depressions—the first following the Napoleonic Wars, the second after 1873, and the third following the European War have in each case been due to falling prices. We do not propose to give a detailed analysis of these periods of agricultural history. It is sufficient to mention that in each there was a profound disturbance of monetary conditions; in 1819 an Act of Parliament restoring the gold standard, brought about a drastic restriction of the monetary circulation, as a result of which the prices of all commodities, including the products of agriculture, declined very rapidly. In 1874 the adoption of a gold currency by many countries of the world caused a shortage of gold, with the result that prices fell in all the gold standard countries. In 1920 the policy of securing a gradual return from a paper to a gold currency was put into force with a similar result on prices. We need not describe in detail how these events worked out in the particular case of agriculture; the depression of 1920–23 has been dealt with elsewhere,\* and we attach to this report a memorandum setting out more fully the connexion between monetary events and the condition of agriculture between 1874 and 1896. All we wish to do here is to call attention to the fact that in each of these three periods, the depression of agriculture was brought about by a general fall in prices, and that these price movements had their origin primarily in monetary causes.

11. In the crisis which followed the Napoleonic wars, and in that after 1874, agriculture was reduced in many districts to a pitiable condition. In both cases much agricultural land was abandoned or greatly deteriorated, and the hardship caused to

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\* "The Agricultural Crisis, 1920-23," by R. R. Enfield.

the rural population could hardly be exaggerated. If in the case of the depression of 1920-23 the losses and suffering were less severe in spite of the very rapid fall in prices, it is because the crisis was preceded by a period of very rapidly rising prices during which large profits were made by farmers. The majority were thus enabled to survive the severe slump which succeeded it.

12. It is, however, only necessary to study the history of agriculture during the 19th century to see that the demoralisation and other ill-effects of a depression did not cease with the end of the period of falling prices. The alterations in the character of farming, the deterioration of large tracts of land, and the demoralisation of the working population, have left their marks on the industry long after the causes which brought them about have ceased to operate. In short, the history of the 19th century seems to show in a manner which is beyond dispute, that variations in the purchasing power of money have been responsible for greater misfortune to agriculture than has arisen from *any other single cause*.

## (2) CONSEQUENCES OF MONETARY INSTABILITY.

13. Agriculture labours under certain disabilities with which it is permanently associated and which make adjustment to rapidly changing conditions more difficult than is the case with many other industries. The chief of these are—the fact that the costs of production are mainly incurred by the farmer a year or more before he sells his produce, and that he is unable to adjust production to demand as easily as in many other industries. Furthermore, when prices are falling over comparatively long periods, as in 1920, '21 and '22, or between 1874 and 1896, the fall in costs of production tends to lag behind the fall in produce prices. The result of this is to increase the farmer's difficulties in a period of falling prices by disturbing to the farmer's disadvantage the normal relation between produce prices and costs, and thus diminishing or entirely absorbing his margin of profit.

14. These consequences are of most importance in connection with a fall in prices arising out of monetary causes. The effect may be summarised broadly as follows:—

The farmer lays out his money from the beginning of the season onwards, in such farm requisites as he may require, seeds, fertilisers, feeding stuffs, labour and machinery, and in the costs of ploughing and sowing, &c. When he comes to sell his produce at the end of the season, he finds that prices all round have fallen, with the consequence that he makes greatly diminished profits or no profits at all. In the first year of falling prices, the farmer probably accepts these events mainly as the results of a "bad season," and endeavours to make the best of it. In the following year he probably

finds that the prices of such requisites as feeding stuffs, fertilisers, seeds and machinery have fallen, while rent and wages have remained fairly stationary. But the cheaper cost of the former avail him little, if at the end of the second year he is confronted with a further drop in produce prices. Gradually, as the process continues, the cost of production *relative to the price of the produce* increases, until conditions are reached which become intolerable; the farmer must then reduce wages, or obtain a reduction of rent or become bankrupt. A fall in wages has normally followed a fall in prices; by repeated readjustments wages have been brought down to a point corresponding with the level of prices ruling at the moment when the adjustment is made, but such readjustments have generally *followed* and not preceded the fall in produce prices, so that in a prolonged period of falling prices the average cost of labour in relation to produce prices has remained relatively high.\* It is here, therefore, that the farmer has felt the consequences of falling prices most acutely. When economic pressure arising in the manner described above has reduced him to a point of extreme difficulty, he has justly sought a reduction of rents, and in this matter he has been dependent very largely on the goodwill and common sense of the landlord.

15. In times of acute depression, as between 1874 and 1896, the struggle has in the end largely turned on the question of rent. Some landlords have resisted the reduction of rents and have forced their tenants into bankruptcy; others have reduced rents only to find that a further fall in prices leads to repeated demands for lower rents. We have attached to this report a diagram No. II, which indicates the movement in agricultural rents between 1846 and 1920. The diagram is based on one prepared by Mr. R. J. Thompson and published in the *Journal of the Royal Statistical Society*, 31st December, 1907. It shows the variation in (1) rental value of agricultural land as shown by the tables of Schedule A assessments published by the Board of Inland Revenue; (2) rent of 120,000 acres, 1846-72; (3) rent of 400,000 acres, 1873-1900. The latter two curves are based on information derived from certain estates, and give a rough indication of how far the curve for income tax assessment can be relied on to indicate the changes in agricultural rents.† For our purpose the income-tax assessment curve is sufficiently accurate up to the outbreak of the Great War. During the war there was no general re-assessment, and consequently the curve in the diagram shows no change. There was, however, undoubtedly a certain increase in rents, and we have indicated the change approximately by the dotted line which we have based upon the estimated increase in rents contained in the report of the Committee on the "Financial Results of the Occu-

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\* When prices are rising the opposite case is usually found.

† The whole of this subject is fully discussed in the paper by Mr. Thompson, referred to above.

pation of Agricultural Land and the Cost of Living of Rural Workers" published in 1919.\*

16. It will be seen that the curves fell substantially between 1878 and 1896. It is a point worthy of notice, however, that the dotted curve for 1914 to 1920 shows relatively little upward movement in comparison with the rise in prices, a fact which was undoubtedly important in diminishing the severity of the crisis which followed the European War; while on the other hand the depression between 1874 and 1896 had been preceded by a long period of slowly rising prices, during which rents had had time to adjust themselves to the higher price level, and in 1874, at the peak of the price movement, rents bore much the same relation to agricultural prices as they had done 20 years earlier. For this reason the question of the adjustment of rents (as the evidence before the Royal Commission confirmed) played a much more important part in the depression following 1874 than in that of 1920-23. (The same may be said in regard to the agricultural depression between 1820 and 1845.) During the sudden rise in prices after 1914 rents for some time remained fairly steady, and the subsequent rise which took place was far from being commensurate with the rise in the price level. The farmer, consequently, reaped the full advantage of the relatively diminished cost of production on this account. In the period of falling prices which followed the year 1920 it was therefore (roughly speaking) mostly those farmers who bought their holdings during the period of high prices who suffered severely under this head.

17. A further consequence of a falling price level is the laying down of arable land to grass. The relationship between the price level and the arable area under cultivation is, however, far from being a simple subject, and it is not our intention to analyse this matter in detail. It is sufficient to record as a matter of historical fact that in the two periods from 1873 to 1896, and after 1920, falling prices have been accompanied by a reduction in the arable area, and consequently by an increase of unemployment.† Between 1870 and 1896 the arable area in England and Wales fell from 14,849,000 acres to 12,335,000 acres.

18. There remains to be mentioned the effect of monetary changes on long-period indebtedness. When prices are falling, long-period contracts of the type of mortgages redeemable over a period of several years tend to become an increasing burden to the mortgagor as the purchasing power of money rises. For it is obvious that contracts involving payments in money are entered into on the assumption that the purchasing power of money will remain the same as at the time when the engagements to pay were contracted. If this does not happen, but the purchasing power of money continually rises, an entirely unexpected

\* Cmd. 76.

† In this connection see Sir Daniel Hall's memorandum in "Is Unemployment Inevitable?"



and undeserved burden is imposed on the debtor to the advantage of the creditor.\*

19. This consequence of a falling price level played an important part in the agricultural crisis in America which developed during the period of monetary deflation following the spring of 1920. In the United Kingdom, farmers who bought their farms in 1919 and 1920, raising the purchase money by way of mortgages on the then value of their holdings, undoubtedly suffered in the same manner. As the price level continuously fell after 1920, the farmer found that while the price of things he bought and sold declined from their 1920 level, the payments in respect of the mortgage remained fixed at the former level, thereby involving an increasingly heavy charge on his undertaking to meet this item of his general costs.

20. Such, in briefest outline, are the economic consequences to the farmer of a falling price level. We do not suggest that in every period of falling prices the conditions of agriculture exactly conform to the above description; but, broadly speaking, the farmer during such periods is subject in a greater or less degree to economic pressure arising in this manner. It does not seriously matter whether the fall in the price level is rapid as in 1920 to 1923, or slow as in 1874 to 1896. The important point is that falling prices are bound to disturb the relation between cost of production and produce prices; to set up conditions of economic "friction" which cause serious hardship and losses to those engaged in the industry; and if the process is protracted over a long period, as it was after 1820 and after 1874, ultimately to reduce the condition of agriculture to a state of stagnation.

21. There seems to be little doubt that farmers have largely met period of depression out of capital saved in times of prosperity. Unaware of the causes which are bringing about a fall in prices, they have sought to tide over a period of bad times by spending their savings to make good their trading losses. In other words, one of the effects of a depression is to exhaust the capital previously saved, and even to leave the industry for many years in a state of serious under-capitalisation. Moreover, a depression not only leaves a farmer poorer, but it has a serious psychological effect. Falling prices undermine confidence. In the absence of confidence, farming deteriorates, and the farmer is slow to recognise the signs of improvement when prices once more show an upward tendency. Speaking of the period after the decline of 1874-1896, Sir Daniel Hall says:—

“To a large extent also the farmer felt little confidence in the permanent improvement of the agricultural position; the remembrance of the disasters of the great depression

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\* It is, of course, equally true that in a period of rising prices the burden on the long-term debtor is reduced, to the disadvantage of his creditor:

were still strongly with him: he had been bred up to a cautious farming policy, and so preferred to invest his recent profits otherwise than in extending his business. The leaders and advisers of the agricultural community—landlords, agents, solicitors and valuers—continued to take a pessimistic view of the prospects of agriculture long after it had been justified by the actual course of business; with them bad times have grown into a fixed tradition . . .”\*

22. The cumulative effect of all these factors tends to prolong the harmful consequences of a depression long after the causes which brought it about have ceased to operate. To quote Sir William Ashley:—

“It is realised that the industrial wastage, the deterioration of human character, which is likely to accompany any period of extreme depression, is not repaired by subsequent periods of prosperity; that depression, in fact, is never completely recovered from, but always leaves behind it a long trail of social and economic evil. That being so, stability on a satisfactory level is rightly becoming part of the social ideal towards which the public will and conscience are moving . . .”†

23. To the agricultural labourers as a class, falling prices have always spelt disaster on account of the unemployment which they have brought about, and the consequent suffering amongst the rural population has, in periods of depression, been of great severity. The numbers of males of 10 years of age and upwards employed in agriculture in Great Britain declined from 1,543,900 in 1871 to 1,417,800 in 1891 and to 1,351,700 in 1901. Under the stimulus of rising prices in the following decade, the number employed once more rose to 1,429,500.

24. In regard to wages, however, though cash wages have invariably declined in a period of falling prices, it has not always meant a decline in real wages, since the cost of living has sometimes fallen more rapidly than wages.‡

25. From 1914 to the autumn of 1920 it is known that the cost of living rose more rapidly than the cash wages of agricultural labourers, and during the fall in prices from the autumn of 1920 till the beginning of 1922 the decline in the cost of living was greater than that of cash wages. The wage earner therefore not only gained no advantage during the period of agricultural prosperity, but suffered a diminution of real wages, during the greater part of the period in which the farmer was making exceptionally high profits. With the fall in prices, after the

\* “Agriculture after the War,” p. 26.

† Final Report of the Agricultural Tribunal of Investigation, p. 238.

‡ For a detailed examination of this subject see “Prices of Farm Produce and Wages of Farm Workers,” by A. W. Ashby, *Journal of the Royal Agricultural Society of England*, 1919.

autumn of 1920, the labourer gained some advantage, but by the autumn of 1922 the average cash wages had fallen lower than the cost of living and the economic conditions of the agricultural labourer were in many districts below that of pre-war years.

26. In regard to previous periods, sufficient information is not available relating specifically to agricultural wages, to enable us to give an exact statement of the case, but from comparisons which have been made between the general movement of cash wages as a whole and retail prices, it is possible to gain some light on the effect of price changes on wages. Between 1850 and 1858 when prices were rising the average of real wages fell; thereafter real wages continued to rise with certain minor interruptions throughout the long period of falling prices (1874-1896) until 1900 when they reached a peak. Between 1900 and 1913 when prices were once more rising the rate of real wages declined. In other words, speaking very roughly, it may be said that real wages tend to move in the opposite direction to prices; when prices are rising real wages tend to decline; when prices are falling real wages tend to rise.

27. But this brief statement does not disclose the full measure of suffering which these price changes bring to a class of the population which is least able to sustain them. The agricultural labourer, unlike the farmer, has little to gain and everything to lose as a result of fluctuation in the price level; rising prices usually bring a fall in real wages, falling prices an increase in unemployment. The normal wages of the labourer allow too narrow a margin to enable him and his family to survive these events without extreme hardship, and in certain periods of agricultural history, numbers of agricultural labourers have in consequence been compelled to accept starvation wages or have been reduced to the condition of paupers.

### (3) MONETARY REMEDIES.

28. We refer in our historical memorandum (p. 81) to the recommendation of the signatories of the supplementary report of the Royal Commission on Agriculture published in 1897. After showing that the decline of British arable farming and the general agricultural depression between 1873 and 1896 was very largely traceable to monetary causes, they recommended that the Government of the day *should co-operate with foreign powers for the purpose of bringing about an international conference with the object of regulating the relative values of gold and silver* and thus of checking the fall in prices due to the demonetisation of silver and the increased demand for gold.\* In other words, international bimetallism was advocated in the report as the only practical method of combating agricultural depression due to a general fall in prices.

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\* See below, p. 85.

29. The position to-day as far as this country is concerned is strikingly similar to what it was in the nineties. Once more the nation has been suffering from the effects of appreciating money and a consequent fall in prices, and once more agriculture has experienced a severe depression. But in the 27 years that have elapsed, our knowledge of monetary economics has made considerable progress. International bimetallism is no longer advocated as a practicable or effective remedy for monetary instability, but the idea of international co-operation and the related idea of regulating the value of gold (not in terms of silver but in terms of commodities in general) has now been accepted by high authorities in a large number of countries as the essential condition of progress towards greater stability. Not only is this the case, but in April, 1922, an International Conference to discuss the subject was held in Genoa and an agreed policy was there laid down and endorsed by all the Governments represented. The report of the Financial Commission of this Conference\* recommends in the first place the restoration of the gold standard in countries which have departed from it. This is to be done, where necessary, by altering the legal value of the monetary unit so as to correspond with the existing depreciated value of the former unit. In the second place the report recommends the summoning of a conference of central banks for the purpose of arriving at common action designed to check fluctuations in the purchasing power of gold.†

30. It is not necessary for us to go into the technical methods by which it is claimed that the central banks would be able to stabilise prices through a scientific control of credit. It is sufficient to say that the responsibility and power of the central banks to regulate credit is not denied even by those who merely desire to see the gold standard functioning as nearly as possible

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\* Cmd. 1667.

† The necessity for international regulation as a condition of smooth functioning of a restored gold standard is explained by the danger of a sharp rise in the value of gold owing to "the simultaneous and competitive efforts of countries to secure metallic reserves" (Resolution 9). "This is not a visionary or theoretical danger. Several examples are to be found in history of the derangement of monetary conditions through an ill-regulated competition for the precious metals. The most notorious is the chronic state of depression which prevailed during the spread of the gold standard in the period 1873-1896" (Hawtrey, "Monetary Reconstruction," p. 135). If the efforts of Germany and other countries to accumulate gold reserves after 1873 were the principal causes of the agricultural depression lasting till 1896, it is clear that this danger is one which closely affects agriculture. On the other hand, there is the opposite danger that European countries might decide to economise gold by adopting the gold exchange standard (under which foreign bank balances, bills and other approved assets in foreign currencies would take the place of actual gold reserves). This might mean a general rise of prices which, though it would stimulate agriculture for the time being, would sooner or later, in the absence of stabilising measures, lead to a corresponding reaction. In the true interests of agriculture as of other industries, it is as important to avoid a recurrence of price inflation as to escape from the danger of further deflation.

on pre-war lines. The essential point in all proposals to stabilise prices through control of credit is that the central banks would merely be using the instrument which they have always used for the protection of their reserves, but would use it in a different manner. This instrument is primarily the rate of discount (*i.e.*, the "Bank Rate"); by raising the rate of discount borrowing is discouraged, the volume of credit (and therefore the volume of purchasing power) tends to contract, and the level of domestic prices to fall. By lowering the discount rate, borrowing is encouraged, the volume of credit tends to expand and prices tend to rise.

31. In this country the bank rate has in the past been used, more or less automatically, to maintain a safe ratio between the gold reserve of the Bank of England and the bank's deposit liabilities.\* But whereas under the old system, credit was regulated by reference to a fixed and more or less arbitrary ratio of gold to liabilities, under the new system it would be regulated no longer by reference to an arbitrary standard but rather to the general level of prices, the state of employment and general business conditions.†

32. Such a system implies a somewhat freer exercise of discretion on the part of the central banks, and this depends for its successful working on the wisdom with which their powers of control are used. Only experience can show to what extent the central banks can successfully exercise these powers in a manner which will make such a policy effective. Nevertheless, if monetary stabilisation is of such importance to agriculture as we have suggested, it will be folly for agriculturists to remain indifferent to the possibility of achieving this end, and therefore to the policy which is pursued by the central banks, particularly in regard to the raising or lowering of the bank rate, and other steps taken with the object of contracting or expanding credit.

33. In this connection we may refer—as a sign of the times—to the active interest which is being taken by the Federation of British Industries in the question of monetary policy. The time appears to have passed by when it would be left to the discretion of the Bank of England to raise or lower the bank rate without comment or protest from representatives of the great British industries. The two letters addressed last year by the Federation of British Industries to the Bank of England are significant of this change. It appears desirable, therefore, that the national associations of agriculturists, whether landowners or farmers, as guardians of agricultural interests in this country, should turn

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\* The ratio may be adversely affected either by an unfavourable balance of trade with foreign countries, when gold tends to be exported, or by an undue expansion of credit at home. We give in Appendix II an extract from the "First Interim Report of the Committee on Currency and Foreign Exchanges after the War" (Chairman, Lord Cunliffe), published in 1918, describing more fully the mechanism of this process.

† For a recent exposition of this policy see "Monetary Reconstruction," by R. G. Hawtrey, and for a discussion of it upon a somewhat different basis, "A Tract on Monetary Reform," by J. M. Keynes.

their attention to the study of these matters, so that they may be in a position, like the Federation of British Industries, to express on behalf of agriculture, considered opinions on matters of monetary policy whenever the need may arise.

34. We do not feel called upon to forecast the probable course of sterling prices and exchange rates in the near future. The official policy of the country is to raise the exchange value of the £ to its pre-war parity with the dollar. Unless this comes about by a rise of prices in America (as at the moment seems likely) it can only be achieved through a further deflation, with a further fall in prices in this country.\*

35. We understand that the proposed conference of central banks referred to above has not been called because the exchange value of sterling has not yet reached its pre-war parity with the dollar. When this happens a unique opportunity will arise for laying the foundation of a stable monetary system in all countries which decide to restore the gold standard.

36. Thus in 1924 we find ourselves in very much the same position as that of the signatories of the Supplementary Report of the Royal Commission in 1897, referred to above. We recognise that in the last four years agriculture has been involved in a price movement affecting all industries and many countries just as had been the case in 1897. We are of the same opinion as these signatories in attributing this price movement primarily to monetary events, and we are compelled to accept the same conclusion as they were with regard to the international character of the remedy.

We accordingly propose as our first recommendation that as soon as circumstances permit, every effort should be made to bring about the international conference of central banks proposed by the Genoa Conference, with the object of restoring the gold standard and developing internationally a policy under which "credit will be regulated, not only with a view to maintaining the currencies at par with one another, but also with a view to preventing undue fluctuations in the purchasing power of gold." (Genoa Conference, Resolution 11 (7)).

37. In making this recommendation we are fully aware that the problem of monetary stabilisation goes far beyond the limits of an exclusively agricultural policy. Clearly it affects all

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\* The course of events in the United States during the last nine months is very significant. Faced with a wave of depression and declining prices, the Federal Reserve Board embarked on what appears to have been a deliberate policy of stimulating trade by an extending and cheapening credit. The re-discount rate of the New York Federal Reserve Bank was reduced from  $4\frac{1}{2}$  per cent. to 4 per cent. on April 30th, 1924; from 4 per cent. to  $3\frac{1}{2}$  per cent. on June 12th; and from  $3\frac{1}{2}$  per cent. to 3 per cent. on August 7th. Similar reductions were made by other Federal Reserve Banks. These successive reductions in money rates have been accompanied by increased business activity, rising commodity prices, and improvement in the sterling dollar exchange. (Since this was written, the rate was again raised to  $3\frac{1}{2}$  per cent. on February 26th, 1925.)

industries and all persons who buy and sell things. Every industry suffers the harmful consequences of a shifting price level. To every person, therefore, who engages in trade or who enters into contracts in the course of business, stability in the purchasing power of money is important; to all alike it is desirable that debts created under such contracts should be paid when due in currency of the same purchasing power as it had when the contracts were made. But the fact of its far-reaching implications and its bearing on the interests of other industries is not, in our opinion, any reason for refraining from making this recommendation in a report which is only concerned with agriculture. Agriculturists and persons interested in the business of farming, no less than those concerned with other branches of trade, should contribute their share to the solution of this problem.

38. With this recommendation we shall leave the monetary part of the problem, and our subsequent investigations will be exclusively concerned with what we may call the purely agricultural causes and remedies of price fluctuations.

### III.

#### (1) CHANGES IN AGRICULTURAL PRICES OWING TO VARIATIONS IN THE VOLUME OF SUPPLIES.

39. If, in a free market, the demand for a commodity is relatively inelastic, while the supply is subject to wide variations the economic consequence must inevitably be extreme fluctuations in prices. Agriculture by its very nature, is exposed in a peculiar degree to fluctuations arising in this manner. Though people are to some extent liable to alter their habits in regard to the food they consume, and may sometimes be induced by low prices to consume more of certain articles of diet at the expense of others, it is nevertheless true to say that the demand from month to month for the main articles of food and for food as a whole, is relatively inelastic. Production on the other hand is very variable, depending as it does on seasonal and other influences over which the producer has no control. Hence the continual instability of agricultural prices.

40. These conditions attend agriculture in practically all its branches, so much so that they sharply distinguish the economic basis of agriculture from that of almost any other industry. Many of these are able to adjust supply to demand with a considerable degree of nicety (in many cases they merely produce to order), so that in normal times manufacturers can look forward with confidence to reasonably stable prices. This adjustment in agriculture is very much more difficult. On this account farmers have tended to treat these price fluctuations as inevitable, to regard each crop as in the nature of a speculation,

and to ignore the possibility of organising the distribution and sale of farm produce, in a manner which would minimise their harmful results.

41. As an illustration of the effect of these economic conditions we may refer to the curious anomalies in the marketing of agricultural produce which sometimes arise. Not only may an unusually abundant crop bring about a heavy fall in price, but the effect on prices may be so great as to cause the gross value of a large crop to be *less* than that of a small crop. It has been calculated that American growers of cotton receive more for a crop of nine million bales than for one of thirteen million bales, while American producers of wheat receive more for a crop of 700 million bushels than for one of 1,000 million bushels. According to the Dominion Bureau of Statistics, Canada, the value of the 1923 wheat crop, which amounted to 474,199,000 bushels, was 316,934,700 dollars, while that of the much smaller crop of 1924, amounting to 262,097,000 bushels, was recently estimated to amount to 320,362,000 dollars, thus exceeding the value of the former by 3,437,300 dollars. Similar cases are to be found in British agriculture, but perhaps the most remarkable example is furnished by the prices of hops. In 1913 a crop of 256,000 cwt. sold for £2,342,000 or £9 3s. 0d. per cwt. The following year a crop of 507,000 cwt. realised only £2,003,000 or £3 19s. 0d. per cwt. In 1908 a crop of 471,000 cwt. sold for £1,295,000, while the value of the much smaller crop of 1909, namely, 214,000 cwt. rose to £1,648,000, the approx. prices per cwt. being £2 15s. 0d. and £7 14s. 1d. respectively. Many similar instances can be found in earlier years.

42. In spite of its difficulties, however, we are far from regarding the problem of adjusting more accurately supply to demand in agriculture as insuperable. It seems to us to be hardly over-stating the matter, to say that this is the most important problem of agricultural organisation. It is certainly one which farmers in this country cannot afford to continue to neglect.

43. The volume of supplies available for marketing may vary for different reasons which for convenience may be distinguished as follows :—

(1) Variations due to the deliberate alteration of areas under cultivation, or otherwise to the deliberate increase or decrease of production by growers.

(2) Variation in total yield due to seasonal and weather conditions.

(3) Variations due to supplies being more abundant in certain months of the year.

(4) Variations arising directly out of conditions of marketing.

These influences operate either independently, or (more usually) in conjunction, to bring about fluctuations in prices.



44. To take first of all an example of the first group. High prices stimulate production; production is increased until it exceeds demand and prices fall. The losses or diminished profit thus brought about lead farmers to contract production and prices once more rise. Thus a cycle of rising prices and expanding production followed by falling prices and contracting production is set up, carrying in its train many costly miscalculations and avoidable losses. As an example of this we give below figures relating to the production of pigs in the United Kingdom from 1867 to 1914, in comparison with the prices of pork.

TABLE 1.

*Pigs.*

Year.	No. in England and Wales.	Index 1900 =100.	No. in United Kingdom.	Index 1900 =100.	Price of Pork (Sauerbeck).		
					Pence per 8 lbs.	Index.	
						1867-77 =100.	1900 =100.
1867	2,778,672	123	4,200,872	115	45	87	102
1868	2,168,925	96	3,170,982	87	45	87	102
1869	1,801,225	80	3,010,245	82	55	106	125
1870	2,012,448	89	3,630,470	99	56	108	127
1871	2,303,960	102	4,116,356	113	51	98	115
1872	2,585,829	115	4,157,135	114	50	96	113
1873	2,352,591	105	3,544,477	97	54	104	123
1874	2,272,535	101	3,519,326	96	54	104	123
1875	2,078,705	92	3,479,153	95	57	110	130
1876	2,139,521	95	3,717,763	102	59	113	133
1877	2,345,471	104	3,966,727	109	51	98	115
1878	2,343,059	104	3,752,588	103	50	96	114
1879	1,963,838	87	3,163,549	87	43	92	109
1880	1,879,917	84	2,849,888	78	55	106	125
1881	1,925,072	86	3,136,131	86	54	104	123
1882	2,356,319	105	3,940,332	108	51	98	115
1883	2,461,159	110	3,969,747	109	49	94	111
1884	2,424,831	108	3,890,586	107	48	92	109
1885	2,252,396	100	3,672,502	101	45	87	102
1886	2,087,585	93	3,484,608	95	45	87	102
1887	2,163,677	96	3,707,808	102	43	83	98
1888	2,249,785	100	3,802,144	104	40	77	91
1889	2,359,126	105	3,891,351	107	43	83	98
1890	2,613,935	116	4,343,888	119	42	81	95
1891	2,731,267	121	4,256,549	117	39	75	89
1892	2,025,844	90	3,253,747	89	48	92	109
1893	1,994,132	89	3,265,895	89	50	96	114
1894	2,241,491	100	3,779,336	103	44	85	100
1895	2,731,111	121	4,222,885	116	37	71	84
1896	2,734,186	122	4,284,309	117	35	67	80
1897	2,206,981	98	3,669,528	101	44	85	100
1898	2,317,479	103	3,705,277	102	45	87	102
1899	2,483,574	110	3,987,123	109	40	77	91
1900	2,249,519	100	3,650,453	100	44	85	100

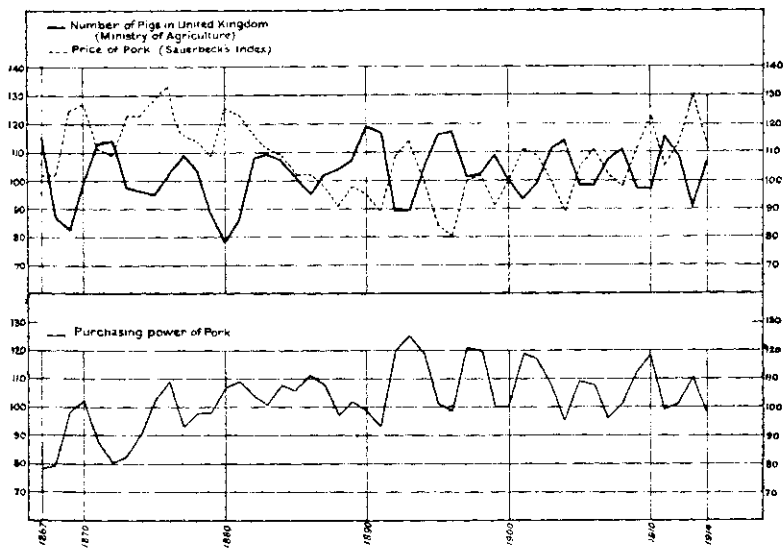
TABLE I—continued.

Year.	No. in England and Wales.	Index 1900 =100.	No. in United Kingdom.	Index 1900 =100.	Price of Pork (Sauerbeck).		
					Pence per 8 lbs.	Index.	
						1867-77 =100.	1900 =100.
1901	2,055,104	91	3,399,060	93	49	94	111
1902	2,171,441	97	3,627,177	99	48	92	109
1903	2,549,790	113	4,070,077	111	44	85	100
1904	2,717,459	121	4,176,770	114	39	75	89
1905	2,294,705	102	3,589,235	98	46	88	104
1906	2,193,262	97	3,567,654	98	49	94	111
1907	2,490,132	111	3,953,834	108	45	87	102
1908	2,679,698	119	4,041,322	111	43	83	98
1909	2,251,068	101	3,530,066	97	49	94	111
1910	2,216,599	99	3,549,951	97	54	104	123
1911	2,651,039	118	4,237,273	116	46	88	104
1912	2,496,670	111	3,979,754	109	50	96	114
1913	2,102,102	93	3,294,215	90	55	105	125
1914	2,481,481	110	3,939,887	108	49	94	111

These figures are illustrated graphically in diagram III.\* In this diagram we have compared the annual variation in the total number of pigs with the index of prices of pork based on

DIAGRAM III.

Numbers of Pigs in the United Kingdom compared with Prices of Fresh Pork, 1867-1914, together with Purchasing Power of Pork—expressed as Percentages of 1900.



\* The prices of fresh pork are partly influenced by imports, which form about one-third of the total.

Sauerbeck's figures. The diagram reveals in a remarkable manner the repeated cycle of rising production and falling prices, followed by falling production and rising prices.

45. What happens more often is that the influences which have been grouped under (1) and (2) above, act not separately but together; moreover they may to some extent react on each other. A short crop causing prices to rise may lead growers to expand the area planted, which may sometimes be followed by a severe fall in prices resulting not only from the increased acreage but also from a high yield per acre. It was this combination of circumstances which led to the disastrous slump in potato prices in 1922. The acreage under potatoes had been high since 1920, but in 1920 and 1921 the yields had been only moderate. In 1922 the yield was exceptionally heavy, and the total crop was more than the market could absorb at a normal price.

46. The following tables compare the acreage, production, and prices of potatoes.

TABLE 2.

*Potatoes.*

Year.	United Kingdom.	Index 1900 =100.	Production.	Index 1900 =100.
	Acreage.		Tons.	
1867	1,493,762	123	—	—
1868	1,576,396	130	—	—
1869	1,627,048	134	—	—
1870	1,631,449	134	—	—
1871	1,685,978	139	—	—
1872	1,555,890	128	—	—
1873	1,417,964	117	—	—
1874	1,412,851	116	—	—
1875	1,422,930	117	—	—
1876	1,383,412	114	—	—
1877	1,383,993	114	—	—
1878	1,355,416	111	—	—
1879	1,383,965	114	—	—
1880	1,371,760	113	—	—
1881	1,433,628	118	—	—
1882	1,378,983	113	—	—
1883	1,350,119	111	—	—
1884	1,363,990	112	—	—
1885	1,345,834	111	6,374,342	139
1886	1,353,819	111	5,835,487	127
1887	1,356,415	111	7,134,296	156
1888	1,394,668	115	5,582,331	122
1889	1,366,374	112	6,435,387	141
1890	1,310,462	108	4,622,214	101
1891	1,285,854	106	6,090,047	133
1892	1,265,303	104	5,633,954	123
1893	1,251,357	103	6,540,593	143
1894	1,221,574	101	4,662,147	102
1895	1,251,606	103	7,064,634	154
1896	1,269,393	104	6,263,235	137

TABLE 2—continued.

Year.	United Kingdom.	Index 1900 = 100.	Production.	Index 1900 = 100.
	Acreage.		Tons.	
1897	1,182,679	97	4,106,609	90
1898	1,189,503	98	6,224,780	136
1899	1,210,596	100	5,837,008	128
1900	1,215,440	100	4,576,812	100
1901	1,212,581	100	7,043,464	154
1902	1,203,184	99	5,919,919	129
1903	1,184,673	97	5,276,949	115
1904	1,188,749	97	6,230,272	136
1905	1,225,228	101	7,185,745	157
1906	1,182,028	97	6,089,292	133
1907	1,130,918	94	5,223,973	114
1908	1,149,249	95	7,117,296	156
1909	1,155,260	95	6,877,272	150
1910	1,132,669	93	6,347,966	139
1911	1,163,060	96	7,520,168	164
1912	1,207,855	99	5,726,342	125
1913	1,173,418	96	7,604,804	166
1914	1,197,008	98	7,476,458	163

TABLE 3.  
*Potatoes (Prices).*

Year.	Shillings. per Ton.	Index.	
		1867-77 = 100.	1900 = 100.
1846	125	107	160
1847	160	137	205
1848	120	103	154
1849	95	81	122
1850	85	73	109
1851	70	60	90
1852	90	77	115
1853	135	115	173
1854	120	103	154
1855	95	81	122
1856	85	73	109
1857	115	99	147
1858	100	85	128
1859	90	77	115
1860	110	94	141
1861	115	99	147
1862	120	103	154
1863	90	77	115
1864	75	64	96
1865	85	73	109
1866	85	73	109
1867	130	111	167

TABLE 3—continued.

Year.	Shillings per Ton.	Index.	
		1867-77 = 100.	1900 = 100.
1868	125	107	160
1869	85	73	109
1870	90	77	115
1871	80	68	103
1872	140	120	180
1873	160	137	205
1874	105	90	135
1875	105	90	135
1876	135	115	173
1877	130	111	167
1878	155	132	199
1879	130	111	167
1880	130	111	167
1881	85	73	109
1882	95	81	122
1883	105	90	135
1884	75	64	96
1885	75	64	96
1886	80	69	103
1887	85	73	109
1888	80	69	103
1889	80	69	103
1890	70	60	90
1891	92	79	118
1892	70	60	90
1893	65	56	83
1894	70	60	90
1895	80	68	103
1896	55	47	71
1897	70	61	90
1898	82	70	105
1899	70	60	90
1900	78	67	100
1901	78	67	100
1902	69	59	88
1903	84	72	107
1904	90	77	115
1905	65	56	83
1906	67	57	86
1907	88	75	113
1908	81	69	104
1909	66	56	85
1910	72	62	92
1911	87	74	112
1912	86	74	110
1913	78	67	100
1914	71½	61	92

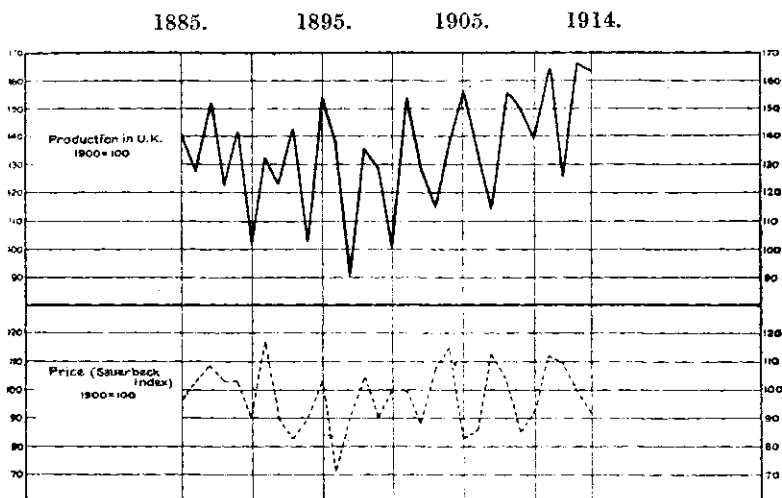
47. The movement of potato prices compared with production is given in diagram IV. These curves compare the total production with the average price for each *calendar year*. For most purposes this is not a strictly correct basis of comparison,

since the crop to which the production figures for a given calendar year apply, is sold partly during that year and partly during the subsequent year, but the comparison is sufficient to indicate the cyclical character of the fluctuations in potato prices and yields.

48. Another example is the recent rise in wheat prices. As this has been the subject of some misconception it is, perhaps, desirable to refer to it in somewhat greater detail. Under the stimulus of high prices during the war, which was accentuated by the failure of Russia and diminished production in other European countries, large new areas under wheat were

DIAGRAM IV.

Production and Price of Potatoes, 1885-1914, shown as Percentages of 1900.



developed in America, Canada, Australia, the Argentine and India. Thus, in 1918-1919 these five countries had increased their combined wheat area by nearly 33 million acres as compared with the average of 1909-1913. Following upon the general fall in prices beginning in 1920 there was a certain contraction in this area, which in 1923 amounted to 28 million acres in excess of the average of 1909-1913. In the meantime Europe was recovering and the European wheat area in 1923 had expanded considerably from the low point reached during the war, but even in this year the new wheat acreage in the above five countries was enough to compensate for the cessation of the whole of the exports from Russia and the Danube. In addition to this, the world harvest for 1923-24 was exceptionally good (the average yield being 10.6 quintals per hectare as compared with 9.7 for each of the years 1922-3, and 1921-2 according to the figures prepared by the International Institute of Agriculture). The operation of these two factors produced an abnormal depression of wheat prices, that is to say the index number for wheat prices fell substantially below the index

representing the general level of wholesale prices. In 1924 the area under wheat was 97.8 per cent. of the 1923 area, and 99.2 per cent. of the average area for 1918-1922.\* The yield was 88.3 per cent. of the 1923 crop, and 101.3 per cent. of the average of 1918-1922. In other words the crop of 1924 may fairly be described as a normal crop, and the result has been merely to raise wheat prices to what may be called a "normal" level, that is to say to bring them up to the general level of wholesale prices from the abnormally low level ruling in 1923. (The index figure for wheat prices in September 1923 was 119, as compared with 156 for agricultural prices generally, while the corresponding figures for 1924 are 161 and 160 respectively). The abnormality in these price movements is, therefore, not the rise in wheat prices in 1924 as has sometimes been thought, but the fall in wheat prices in 1923.

49. Table 7 in Appendix I shows the annual average price of wheat, barley, and oats for the whole period 1821 to 1923. In this table the prices are, of course, influenced by monetary events in the manner which has already been described, but the year-to-year fluctuations in price are clearly due to changes in supply. It is noteworthy, particularly in the case of wheat, that as this country has become progressively more dependent on imports from abroad, drawing its requirements from various parts of the world, the violence of these fluctuations has diminished. Nevertheless world's prices still continue to show wide oscillations. These changes are illustrated in diagram I facing p. 9.

50. The annual variation in prices of beef and mutton from 1846 to 1914 are given in the following tables.

TABLE 4.

*Beef.*

Year.	Prime.			Middling.			Average.		
	Pence per 8 lbs.	Index.		Pence per 8 lbs.	Index.		Pence per 8 lbs.	Index.	
		67-77 = 100.	1900 = 100.		67-77 = 100.	1900 = 100.		67-77 = 100.	1900 = 100.
1846	40	68	78	34	68	81	37	68	80
1847	45	76	88	40	80	95	42½	78	91
1848	41	69	80	37	74	88	39	72	84

\* These and the following figures are quoted from the International Crop Report for November, 1924, issued by the International Institute of Agriculture, and relate to the following countries exclusively: Germany, Austria, Belgium, Bulgaria, Spain, Esthonia, Serb-Croat-Slovene State, Finland, France, England and Wales, Hungary, Italy, Latvia, Lithuania, Luxembourg, Norway, Netherlands, Poland, Sweden, Switzerland, Czechoslovakia, Canada, United States, Gr. Lebanon, India, Japan, Algeria, Egypt, Tunis, French Morocco, Argentine.

TABLE 4—continued.

Year.	Prime.			Middling.			Average.		
	Pence per 8 lbs.	Index.		Pence per 8 lbs.	Index.		Pence per 8 lbs.	Index.	
		'66-77 = 100.	1900 = 100.		'67-77 = 100.	1900 = 100.		'67-77 = 100.	1900 = 100.
1849	38	64	74	32	64	76	35	64	75
1850	36	61	71	30	60	71	33	61	71
1851	37	63	72	30	60	71	33½	62	72
1852	37	63	72	31	62	74	34	63	73
1853	45	76	88	39	78	93	42	77	90
1854	50	85	98	43	86	102	46½	86	100
1855	50	85	98	44	88	105	47	87	101
1856	48	81	94	41	82	98	44½	82	96
1857	48	81	94	42	84	100	45	83	97
1858	47	80	92	41	82	98	44	81	95
1859	48	81	94	41	82	98	44½	82	96
1860	50	85	98	42	84	100	46	85	99
1861	49	83	96	42	84	100	45½	84	98
1862	46	78	90	39	78	93	42½	78	91
1863	47	80	92	41	82	98	44	81	95
1864	50	85	98	44	88	105	47	87	101
1865	53	90	104	46	92	109	49½	91	106
1866	53	90	104	47	94	112	50	92	107
1867	52	88	102	45	90	107	48½	89	104
1868	50	85	98	43	86	102	46½	86	100
1869	55	93	108	46	92	109	50½	93	109
1870	55	93	108	48	96	114	51½	96	111
1871	60	102	118	53	106	126	56½	104	121
1872	59	100	116	52	104	124	55½	102	119
1873	65	110	127	56	112	133	60½	111	130
1874	62	105	121	51	102	121	56½	104	121
1875	64	109	125	55	110	131	59½	110	128
1876	62	105	121	52	104	124	57	105	122
1877	61	104	120	49	98	117	55	101	118
1878	61	104	120	49	98	117	55	101	118
1879	55	93	108	45	90	107	50	92	107
1880	58	98	114	49	98	117	53½	98	115
1881	56	95	110	48	96	114	52	96	112
1882	60	102	118	51	102	121	55½	102	119
1883	61	104	120	51	102	121	56	103	120
1884	58	98	114	49	98	117	53½	98	115
1885	52	88	102	44	88	105	48	88	103
1886	49	83	96	40	80	95	44½	82	96
1887	43	73	84	36	72	86	39½	73	85
1888	48	81	94	39	78	93	43½	80	94
1889	47	80	92	39	78	93	43	79	92
1890	47	80	92	38	76	91	42½	78	91
1891	47	80	92	40	80	95	43½	80	94
1892	47	80	92	38	76	91	42½	78	91
1893	48	81	94	39	78	93	43½	80	94
1894	47	80	92	37	74	88	42	77	90
1895	47	80	92	37	74	88	42	77	90
1896	45	76	88	34	68	81	39½	72	85
1897	47	80	92	36	72	86	41½	75	89
1898	46	78	90	36	72	86	41	75	88



TABLE 4—continued.

Year.	Prime.			Middling.			Average.		
	Pence per 8 lbs.	Index.		Pence per 8 lbs.	Index.		Pence per 8 lbs.	Index.	
		'67-77 = 100.	1900 = 100.		'67-77 = 100.	1900 = 100.		'67-77 = 100.	1900 = 100.
1899	49	83	96	40	80	95	44½	82	96
1900	51	86	100	42	84	100	46½	85	100
1901	49	83	96	42	84	100	45½	84	98
1902	54	92	106	47	94	112	50½	93	109
1903	48	81	94	42	84	100	45	83	97
1904	48	81	94	42	84	100	45	83	97
1905	47	80	92	40	80	95	43½	80	94
1906	47	80	92	40	80	95	43½	80	94
1907	49	83	96	42	84	100	45½	84	98
1908	52	88	102	45	90	107	48½	89	104
1909	52	88	102	45	90	107	48½	89	104
1910	54	92	106	48	96	114	51	94	110
1911	51	87	100	45	90	107	48	89	103
1912	56	95	110	49	98	117	52½	97	113
1913	54	92	106	49	98	117	51½	95	111
1914	56½	96	111	52½	105	125	54½	101	117

TABLE 5.

*Mutton.*

1846	53	84	90	48	87	107	50½	86	97
1847	55	87	93	50	91	111	52½	89	101
1848	53	84	90	47	85	104	50	85	96
1849	44	70	75	38	69	84	41	70	79
1850	43	68	73	37	67	82	40	68	77
1851	44	70	75	38	69	84	41	70	79
1852	44	70	75	38	69	84	41	70	79
1853	54	86	91	47	85	104	50½	86	97
1854	54	86	91	47	85	104	50½	86	97
1855	53	84	90	46	84	102	49½	84	95
1856	53	84	90	46	84	102	49½	84	95
1857	54	86	91	46	84	102	50	85	96
1858	51	81	86	44	80	98	47½	81	91
1859	53	84	90	47	85	104	50	85	96
1860	56	89	95	50	91	111	53	90	102
1861	55	87	93	50	91	111	52½	89	101
1862	53	84	90	48	87	107	50½	86	97
1863	54	86	91	48	87	107	51	87	98
1864	55	87	93	51	93	113	53	90	102
1865	64	102	108	58	105	129	61	104	117
1866	61	97	103	55	100	122	58	99	111
1867	55	87	93	50	91	111	52½	89	101
1868	51	81	86	47	85	104	49	83	94
1869	58	92	98	51	93	113	54½	93	105

TABLE 5—continued.

Year.	Prime.			Middling.			Average.		
	Pence per 8 lbs.	Index.		Pence per 8 lbs.	Index.		Pence per 8 lbs.	Index.	
		'66-77 = 100.	1900 = 100.		'67-77 = 100.	1900 = 100.		'67-77 = 100.	1900 = 100.
1870	58	92	98	52	95	115	55	94	106
1871	63	100	107	59	107	131	61	104	117
1872	67	106	114	61	111	136	64	109	123
1873	71	113	120	63	114	140	67	114	129
1874	62	98	105	53	96	118	57½	97	111
1875	71	113	120	59	107	131	65	110	125
1876	72	114	122	58	105	129	65	110	125
1877	69	109	117	54	98	120	61½	104	118
1878	68	108	115	55	100	122	61½	104	118
1879	64	102	108	52	95	115	58	99	111
1880	66	105	112	54	98	120	60	102	115
1881	69	109	117	57	104	127	63	107	121
1882	72	114	122	60	109	133	66	112	127
1883	73	116	124	61	111	136	67	114	129
1884	64	102	108	53	96	118	58½	99	113
1885	56	89	95	47	85	104	51½	87	99
1886	62	98	105	50	91	111	56	95	108
1887	52	83	88	42	76	93	47	80	90
1888	58	92	98	47	85	104	52½	89	101
1889	63	100	107	50	91	111	56½	96	109
1890	59	94	100	45	82	100	52	88	100
1891	53	84	90	42	76	93	47½	80	91
1892	53	84	90	42	76	93	47½	80	91
1893	53	84	90	42	76	93	47½	80	91
1894	55	87	93	42	76	93	48½	81	93
1895	58	92	98	44	80	98	51	86	98
1896	53	84	90	39	71	87	46	78	88
1897	55	87	93	41	75	91	48	81	92
1898	52	84	88	37	67	82	44½	76	86
1899	54	86	91	41	75	91	47½	80	91
1900	59	94	100	45	82	100	52	88	100
1901	54	86	91	44	80	98	49	83	94
1902	55	87	93	44	80	98	49½	84	95
1903	58	92	98	47	85	104	52½	89	101
1904	59	94	100	50	91	111	54½	93	105
1905	59	94	100	51	93	113	55	94	106
1906	60	95	102	53	96	118	56½	96	109
1907	60	95	102	54	98	120	57	97	110
1908	58	92	98	52	95	115	55	94	106
1909	52	83	88	46	84	102	49	84	94
1910	58	92	98	52	95	115	55	94	106
1911	55	87	93	49	89	109	52	88	100
1912	59	94	100	54	98	120	56½	96	109
1913	62	99	105	56	102	124	59	101	114
1914	64	102	108	57½	105	128	60¾	104	117

51. The prices of beef and mutton here shown, like those of cereals have, of course, changed in consequence of monetary

events. Beef prices have moved in close harmony with the prices of general commodities; mutton prices less closely; and the prices of pig meat still less closely. The other influences which might affect the price are changes in the volume of imports and production at home, and changes in demand.

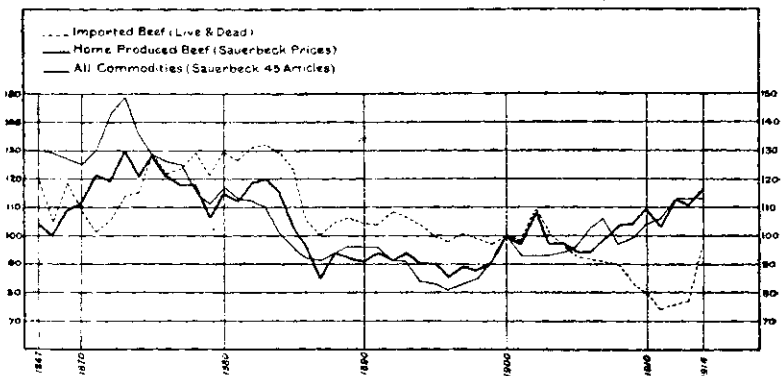
52. Tables 7 and 8 show the variation in the volume of imports of beef and mutton and in an index number (based on 1900 = 100) representing the per capita imports for each year from 1867 to 1914 compared with the variations in value of imports. A comparison of the total imports of beef in Table 7 with the prices given in Table 4, shows that the rise and fall in prices cannot be attributed to a decrease or increase in imports. The following statement illustrates this point:—

Period.	Imports.	Prices.
1868-72 - - - -	Rising - - - -	Rising.
1875-79 - - - -	Rising - - - -	Falling.
1879-83 - - - -	Rising - - - -	Rising.
1883-87 - - - -	Falling - - - -	Falling sharply.
1876-1901 - - - -	Rising - - - -	Rising.
1901-1903 - - - -	Falling - - - -	Falling.
1907-13 - - - -	Rising - - - -	Rising.

The explanation of this appears to be that the demand for beef usually falls off in a time when the general level of all prices is declining, and *vice versa*. But if a comparison is made between the movement of the index figure representing the value of imported beef, and that representing the price of British beef, a very close parallel is shown. This comparison is made in Diagram V, from which it will be seen that the price variations

DIAGRAM V.

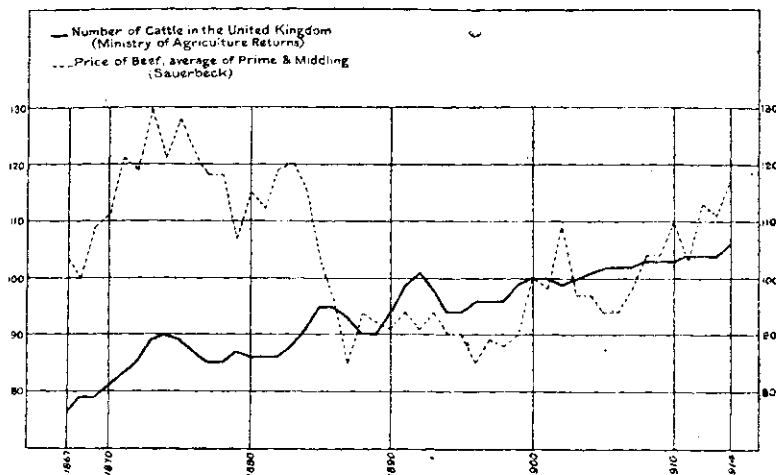
Prices of Imported Beef (Agricultural Returns) and Home Produced Beef (Sauerbeck) and of Wholesale Commodities, 1867-1914, shown as Percentages of 1900.



of home-produced and imported beef are very similar.\* Tables 4 and 6 and Diagram VI. compare the movement in prices of

DIAGRAM VI.

Cattle Population and Prices of Beef 1867-1914, shown as Percentages of 1900.



home-produced beef with the cattle population in this country. The same comparisons in the case of mutton are made in Tables 5, 6 and 8, and Diagrams VII. and VIII. Prior to the development of the trade in refrigerated mutton from New Zealand and Australia (from the year 1880) the imports of mutton were on a relatively small scale, and the price had little connection with that of the home-grown product. In the latter part of the nineteenth century, however, the connection was closer.

53. A comparison of the index figures for *per capita* imports of mutton with those representing the prices of British mutton, suggest that mutton prices have been more influenced by the volume of imports than is the case with beef. In both cases, however, it is apparent that variations in the annual average prices of home-produced and imported meat are closely connected.

\* The heavy fall in the curve for prices of imported beef after 1908 is due to the growth of imports of frozen beef from Australia which usually commands a lower price.

DIAGRAM VII.

Prices of Imported Mutton (Agricultural Returns) and Home Produced Mutton (Sauerbeck), and of Wholesale Commodities, 1867-1914, shown as Percentages of 1900.

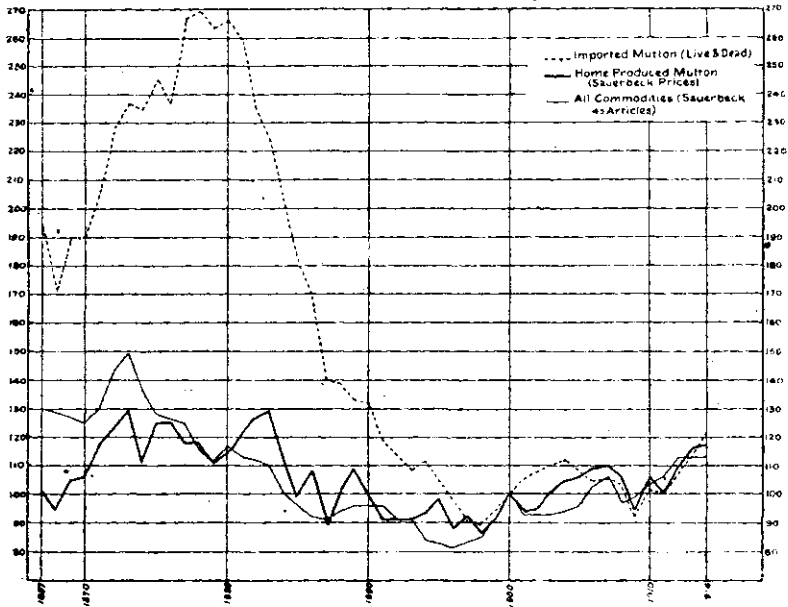


DIAGRAM VIII.

Sheep Population and Prices of Mutton, 1867-1914, shown as Percentages of 1900.

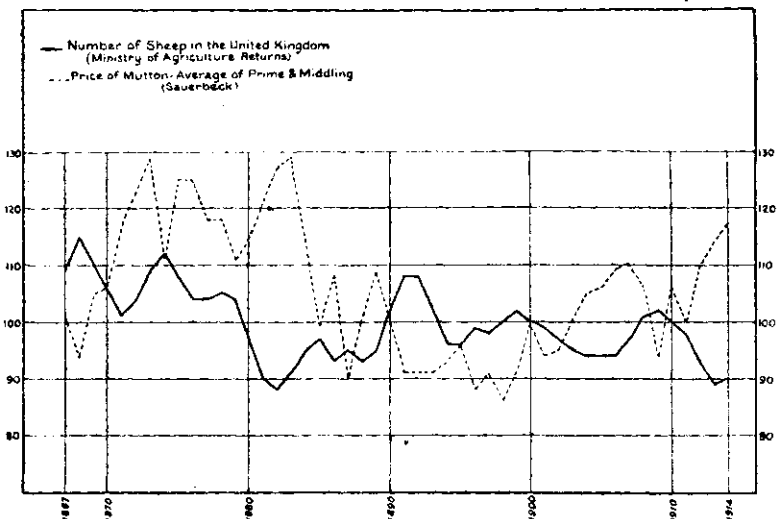


TABLE 6.

*Animal Population of United Kingdom.*

Year.	Sheep.		Cattle.		Pigs	
	No.	Index. 1900= 100.	No.	Index. 1900= 100.	No.	Index. 1900= 100.
1867	33,745,116	109	8,695,412	76	4,200,872	115
1868	35,533,840	115	9,044,333	79	3,170,982	87
1869	34,186,299	110	9,041,267	79	3,010,245	82
1870	32,731,573	106	9,199,697	81	3,630,470	99
1871	31,348,290	101	9,310,861	83	4,116,356	113
1872	32,183,624	104	9,682,147	85	4,157,135	114
1873	33,914,088	109	10,116,110	89	3,544,477	97
1874	34,751,554	112	10,243,604	90	3,519,326	96
1875	33,415,596	108	10,124,814	89	3,479,153	95
1876	32,190,469	104	9,957,834	87	3,717,763	102
1877	32,150,342	104	9,693,960	85	3,966,727	109
1878	32,500,436	105	9,722,879	85	3,752,588	103
1879	32,174,969	104	9,923,450	87	3,163,549	87
1880	30,180,411	97	9,833,072	86	2,849,888	78
1881	27,839,636	90	9,866,121	86	3,136,131	86
1882	27,391,261	88	9,794,338	86	3,940,332	108
1883	28,287,369	91	10,058,800	88	3,969,747	109
1884	29,311,926	95	10,381,408	91	3,890,586	107
1885	30,012,475	97	10,826,715	95	3,672,502	101
1886	28,888,440	93	10,830,710	95	3,484,608	100
1887	29,337,185	95	10,598,677	93	3,707,808	102
1888	28,883,929	93	10,228,616	90	3,802,144	104
1889	29,421,649	95	10,233,499	90	3,891,351	107
1890	31,596,264	102	10,749,385	94	4,343,888	119
1891	33,454,949	108	11,301,298	99	4,256,549	117
1892	33,562,406	108	11,475,808	101	3,253,747	89
1893	31,701,927	102	11,164,702	98	3,265,895	89
1894	29,966,750	96	10,739,307	94	3,779,336	104
1895	29,707,050	96	10,712,377	94	4,222,885	116
1896	30,786,023	99	10,901,323	96	4,284,309	117
1897	30,498,021	98	10,964,432	96	3,669,528	101
1898	31,030,468	100	11,108,606	96	3,705,277	102
1899	31,603,261	102	11,303,177	99	3,987,123	109
1900	30,979,102	100	11,413,720	100	3,650,453	100
1901	30,755,950	99	11,437,217	100	3,399,060	93
1902	29,981,571	97	11,338,197	99	3,627,177	99
1903	29,584,401	95	11,368,730	100	4,070,077	111
1904	29,035,097	94	11,535,070	101	4,176,770	114
1905	29,006,548	94	11,632,235	102	3,589,235	98
1906	29,185,192	94	11,649,780	102	3,567,654	98
1907	29,932,064	97	11,588,560	102	3,953,834	108
1908	31,245,836	101	11,697,592	103	4,041,322	111
1909	31,751,777	102	11,720,546	103	3,530,066	97
1910	31,082,461	100	11,726,215	103	3,549,951	97
1911	30,402,428	98	11,825,984	104	4,237,273	116
1912	28,886,561	93	11,874,594	104	3,979,754	109
1913	27,552,136	89	11,896,470	104	3,294,215	104
1914	27,886,095	90	12,144,563	106	3,939,887	108

TABLE 7.  
Imports of Beef.

Year.	Live Cattle.		Total.	Imports per Capita.		Total Value.				Value per Cwt.		Year.	
	No.	Equivalent Weight.		Actual.	Index 1900=100.	Dead Meat.	Live Cattle.	Dead Meat.	Total.	Index 1900=100.	£		Index 1900=100.
1867	177,948	978,714	1,225,481	0.040300	21.9	3,054,310	623,392	3,677,702	19.5	3,00103	120.2	1867	
1868	136,688	751,784	996,904	0.032483	17.7	2,067,822	550,663	2,618,485	13.9	2,62662	105.2	1868	
1869	220,190	1,211,940	1,440,263	0.046493	25.3	3,833,850	420,338	4,254,188	22.5	2,95376	118.8	1869	
1870	202,172	1,111,946	1,327,794	0.042481	23.2	3,147,061	461,721	3,608,782	19.1	2,71788	108.9	1870	
1871	248,611	1,367,360	1,669,439	0.052905	28.8	3,582,501	634,353	4,216,854	22.3	2,52591	101.2	1871	
1872	172,993	951,462	1,180,374	0.037632	20.1	2,676,379	420,258	3,096,637	16.4	2,62344	105.1	1872	
1873	200,802	1,104,411	1,364,905	0.042420	23.1	3,354,043	519,815	3,873,858	20.5	2,83806	113.7	1873	
1874	193,862	1,066,241	1,327,962	0.040858	22.2	3,296,460	523,326	3,819,786	20.2	2,87643	115.2	1874	
1875	263,684	1,450,262	1,665,843	0.050713	27.6	4,885,462	454,337	5,339,799	28.3	3,20546	128.4	1875	
1876	271,576	1,493,668	1,784,066	0.057440	31.2	4,860,440	943,580	5,804,020	30.7	3,04392	121.9	1876	
1877	201,193	1,106,361	1,307,554	0.052135	28.9	3,817,499	1,686,392	5,503,891	29.1	3,08503	123.6	1877	
1878	253,462	1,394,040	1,647,502	0.062549	34.0	5,080,702	1,766,362	6,847,064	36.2	3,22494	129.2	1878	
1879	247,768	1,362,724	1,610,492	0.063405	34.5	4,639,431	1,937,428	6,576,859	34.8	3,02390	121.1	1879	
1880	389,724	2,143,482	2,533,264	0.091311	49.7	7,793,960	2,424,943	10,218,903	54.1	3,23236	129.5	1880	
1881	319,374	1,756,557	2,075,931	0.080829	44.0	6,251,577	2,663,526	8,915,103	47.2	3,15561	126.4	1881	
1882	343,699	1,896,345	2,239,044	0.073171	39.8	6,655,590	1,785,162	8,440,752	44.7	3,26815	130.9	1882	
1883	474,750	2,611,125	3,085,875	0.104042	56.6	9,332,242	2,894,397	12,226,639	64.7	3,29992	132.2	1883	
1884	425,507	2,340,289	2,765,796	0.095408	51.9	8,271,020	2,798,475	11,069,495	58.6	3,22629	129.2	1884	
1885	373,078	2,051,929	2,424,007	0.087908	47.8	7,046,477	2,798,050	9,844,527	52.1	3,08239	123.5	1885	
1886	319,622	1,757,921	2,077,543	0.075881	41.3	5,068,846	2,178,677	7,247,523	38.4	2,63055	105.4	1886	
1887	295,961	1,627,786	1,923,747	0.068365	37.2	4,438,785	1,811,237	6,250,022	33.1	2,49798	100.0	1887	

1888	377,088	2,073,984	1,063,602*	3,137,286	0-082064	46-3	5,912,361	2,268,930	8,181,301	43-3	2-60776	104-4	1888
1889	555,222	3,053,721	1,648,220*	4,701,941	0-120468	68-8	9,069,327	3,395,932	12,465,259	66-0	2-65109	106-2	1889
1890	642,596	3,534,278	2,680,417	6,214,695	0-163793	90-2	10,505,525	5,729,168	16,234,693	85-9	2-61247	104-6	1890
1891	507,407	2,790,738	2,722,505	5,513,243	0-141736	77-1	8,581,574	5,688,607	14,270,181	75-5	2-58835	103-7	1891
1892	502,237	2,762,303	2,923,022	5,685,325	0-149198	81-2	9,224,011	6,140,830	15,364,841	81-3	2-70254	108-2	1892
1893	340,045	1,870,248	2,394,292	4,264,540	0-136985	74-5	6,262,761	5,071,324	11,334,065	60-0	2-65775	106-4	1893
1894	475,440	2,614,920	2,637,471	5,252,391	0-135454	73-7	8,285,044	5,370,200	13,655,244	72-3	2-59981	104-1	1894
1895	415,565	2,285,608	2,881,732	5,167,340	0-132035	71-8	7,183,040	5,726,550	12,909,590	68-3	2-49830	100-1	1895
1896	562,553	3,094,041	3,309,197	6,403,238	0-162305	88-3	9,305,055	6,386,482	15,691,537	83-1	2-45056	98-1	1896
1897	618,321	3,400,766	3,558,010	6,958,776	0-174726	95-1	10,460,996	6,999,748	17,470,744	92-5	2-51061	100-6	1897
1898	569,066	3,129,863	3,591,110	6,720,973	0-167234	91-0	9,399,793	7,206,189	16,605,982	87-9	2-47077	99-0	1898
1899	503,504	2,769,272	4,347,425	7,116,697	0-174539	95-0	8,572,114	8,639,843	17,211,957	91-1	2-41853	96-9	1899
1900	495,635	2,725,993	5,177,869	7,903,862	0-183822	100-0	9,012,194	9,876,588	18,888,782	100-0	2-49081	100-0	1900
1901	419,488	2,307,184	4,439,387	6,746,571	0-161045	87-6	7,814,753	9,859,449	17,674,202	102-2	2-44243	97-8	1901
1902	522,546	2,874,003	4,805,913	7,679,916	0-181789	98-9	9,209,122	10,123,592	19,332,714	102-4	2-51731	100-8	1902
1903	549,532	3,022,426	5,051,253	8,073,679	0-189438	103-1	9,736,436	9,857,322	19,593,758	103-7	2-42687	97-2	1903
1904	565,139	3,108,265	5,778,357	8,886,622	0-206761	112-5	9,665,806	10,923,299	20,589,105	109-0	2-31687	92-8	1904
1905	561,215	3,086,683	5,981,473	9,068,156	0-208654	113-5	9,732,186	11,107,249	20,839,435	110-3	2-29809	92-0	1905
1906	472,015	2,596,082	6,033,736	8,629,818	0-197312	107-3	8,105,109	11,492,792	19,597,901	103-8	2-27095	91-0	1906
1907	383,129	2,107,210	5,997,964	8,105,174	0-183696	99-9	6,549,285	11,646,540	18,195,825	96-3	2-24496	89-9	1907
1908	321,340	1,763,370	6,583,559	8,346,929	0-187494	100-9	5,566,105	11,841,338	17,407,443	92-2	2-08549	83-5	1908
1909	219,561	1,207,585	7,557,075	8,762,660	0-186840	101-1	4,027,918	13,405,125	17,433,043	92-3	1-98947	79-7	1909
1910	200,398	1,102,189	8,089,107	9,191,296	0-202911	110-4	3,776,404	13,211,228	16,987,532	89-9	1-84823	74-0	1910
1911	48,912	269,016	8,645,106	8,914,122	0-195217	106-2	982,958	15,806,508	16,789,466	88-9	1-88347	75-4	1911
1912	14,743	81,086	9,901,082	9,982,168	0-216836	118-0	304,312	18,874,346	19,178,658	101-5	1-92129	76-9	1912
1913	2,234	12,398	9,677,810	9,690,208	0-208432	113-4	46,295	23,365,203	23,411,498	123-9	2-41600	-96-8	1913
1914													1914

\* Prior to 1890 Preserved Beef (not salted) was included with "Meat Unenumerated," and cannot be identified for statistical purposes.



TABLE 8.

*Imports of Mutton.*

Year.	Live Sheep.		Dead Meat.	Total.	Imports per Capita.		Value.				Value per Cwt.		Year		
	No.	Equiv- alent Weight.			Cwt.	Cwt.	Actual.	Index 1900 = 100.	£	Dead Meat.	Total.	Index 1900 = 100.		£	Index 1900 = 100.
1867	539,716	269,858	—*†	269,858	0.008742	9.9	945,661	—*†	—*†	14.3	3.50429	193.7	1867		
1868	341,155	170,578	—*†	170,578	0.005558	6.3	527,164	—*†	527,164	8.0	3.09046	170.8	1868		
1869	709,843	354,922	—*†	354,922	0.011457	12.9	1,219,014	—*†	1,219,014	18.5	3.43460	189.8	1869		
1870	669,965	334,953	—*†	334,953	0.011036	12.4	1,151,373	—*†	1,151,373	17.4	3.43742	190.0	1870		
1871	917,076	458,538	—*†	458,538	0.014531	16.4	1,789,826	—*†	1,789,826	27.1	3.90333	215.7	1871		
1872	809,822	404,911	—*†	404,911	0.012703	14.3	1,666,874	—*†	1,666,874	25.2	4.11664	227.5	1872		
1873	851,116	425,558	—*†	425,558	0.013225	14.9	1,822,531	—*†	1,822,531	33.1	4.28269	236.7	1873		
1874	758,915	379,458	—*†	379,458	0.011675	13.2	1,610,355	—*†	1,610,355	24.4	4.24383	234.5	1874		
1875	985,652	492,826	—*†	492,826	0.015007	16.9	2,185,750	—*†	2,185,750	33.1	4.43514	245.1	1875		
1876	1,041,329	520,665	—*†	520,665	0.015683	17.7	2,226,952	—*†	2,226,952	33.7	4.27713	236.4	1876		
1877	874,055	437,028	—*†	437,028	0.013016	14.7	2,107,466	—*†	2,107,466	31.9	4.82227	266.5	1877		
1878	892,125	446,063	—*†	446,063	0.013139	14.8	2,171,904	—*†	2,171,904	32.9	4.86974	269.1	1878		
1879	944,888	472,444	—*†	472,444	0.013773	15.5	2,252,824	—*†	2,252,824	34.1	4.76845	263.5	1879		
1880	941,121	470,561	—*†	470,561	0.013591	15.3	2,266,436	—*†	2,266,436	34.3	4.81635	266.2	1880		
1881	935,144	467,572	—*†	467,572	0.013384	15.1	2,191,762	—*†	2,191,762	33.2	4.68754	259.0	1881		

1882	1,124,391	562,196	189,847†	752,043	0-021301	24-1	2,558,827	637,346†	3,196,173	48-4	4-24999	234-9	1882
1883	1,116,115	558,058	236,496†	794,554	0-022414	25-3	2,518,382	696,616†	3,214,998	48-7	4-04629	223-6	1883
1884	945,042	472,521	503,194†	975,715	0-027312	30-8	2,149,704	1,411,051†	3,558,755	53-9	3-64733	201-6	1884
1885	750,886	375,443	572,868†	948,314	0-026330	29-7	1,625,029	1,406,317†	3,111,346	47-1	3-28092	181-3	1885
1886	1,038,965	519,483	653,447†	1,172,930	0-032301	36-4	2,010,194	1,405,383†	3,415,577	51-7	2-91200	160-9	1886
1887	971,404	485,702	783,114†	1,268,816	0-034573	39-0	1,645,839	1,572,729†	3,218,568	48-7	2-53477	140-1	1887
1888	956,210	478,105	988,010†	1,466,115	0-039634	44-7	1,740,549	1,939,475†	3,680,024	55-7	2-51005	138-7	1888
1889	677,958	338,979	1,225,058†	1,564,037	0-042068	47-4	1,195,132	2,575,396†	3,770,528	55-1	2-41077	133-2	1889
1890	358,458	179,229	1,734,828	1,914,057	0-051062	57-6	696,312	3,629,258	4,325,570	65-5	2-38447	131-8	1890
1891	344,504	172,252	1,728,067	1,900,319	0-050277	56-7	663,015	3,418,935	4,081,950	61-8	2-14803	118-7	1891
1892	79,048	39,524	1,768,378	1,807,902	0-047443	53-5	1,259,659	3,586,304	3,711,963	56-2	2-05318	113-5	1892
1893	62,682	31,341	2,035,382	2,086,723	0-047042	54-3	88,530	4,028,681	4,107,211	62-2	1-90625	108-8	1893
1894	484,597	242,289	2,407,994	2,650,283	0-068348	77-1	804,823	4,536,393	5,341,216	80-9	2-01534	111-4	1894
1895	1,065,470	532,735	2,811,906	3,344,641	0-085462	96-4	1,782,544	4,930,285	6,712,829	101-7	2-00704	104-9	1895
1896	769,592	384,796	3,017,709	3,402,505	0-086244	97-3	1,133,634	4,920,358	6,054,422	91-7	1-77928	98-3	1896
1897	611,504	305,752	3,292,298	3,837,195	0-094108	106-1	942,891	4,989,346	5,908,442	89-5	1-64212	90-7	1897
1898	663,747	331,874	3,432,315	3,764,189	0-093662	105-6	984,863	5,097,428	6,082,291	92-1	1-61583	89-3	1898
1899	607,755	303,878	3,533,317	3,897,910	0-093045	104-9	586,139	6,766,223	7,552,362	111-4	1-70390	94-2	1899
1900	382,833	191,417	3,457,312	3,648,729	0-088659	100-0	610,125	5,992,539	6,602,664	100-0	1-80958	100-0	1900
1901	383,594	191,797	3,673,113	3,864,910	0-092900	104-8	454,422	7,121,473	7,575,895	114-7	1-94663	107-6	1901
1902	293,203	146,602	3,745,095	3,891,797	0-093045	104-9	586,139	6,766,223	7,552,362	111-4	1-90234	105-1	1901
1903	354,241	177,121	4,065,776	4,242,897	0-100432	113-3	546,063	7,932,390	8,478,453	128-4	1-99851	110-4	1903
1904	382,240	191,120	3,530,559	3,721,779	0-087343	98-5	591,984	6,946,989	7,538,973	114-2	2-02364	111-9	1904
1905	183,084	91,542	3,841,180	3,932,722	0-091501	103-2	278,753	7,413,662	7,692,355	116-5	1-95648	108-1	1905
1906	103,359	51,680	4,131,199	4,182,879	0-096468	108-8	156,947	7,771,889	7,928,836	120-1	1-89586	104-8	1906
1907	105,601	52,801	4,617,743	4,670,544	0-106787	120-4	168,531	8,772,955	8,941,486	135-4	1-91244	105-7	1907
1908	78,900	39,450	4,450,877	4,490,327	0-101769	114-8	122,825	8,295,448	8,417,973	127-5	1-87469	103-6	1908
1909	8,131	4,066	4,886,867	4,890,933	0-109804	123-9	129,923	8,140,713	8,153,636	123-5	1-66709	92-1	1909
1910	427	214	5,556,215	5,556,429	0-123711	139-5	754	10,162,560	10,163,314	153-9	1-82911	101-1	1910
1911	46,673	23,337	5,474,614	5,497,651	0-121400	136-9	74,174	9,915,860	9,990,034	151-3	1-81705	100-4	1911
1912	15,430	7,715	5,144,318	5,152,033	0-112828	127-3	23,793	9,965,191	9,988,984	151-3	1-93884	107-1	1912
1913	501	251	5,416,513	5,416,764	0-117667	132-7	751	11,112,026	11,112,777	168-3	2-05128	113-4	1913
1914	1,707	854	5,261,005	5,261,859	0-113325	127-8	3,000	11,593,680	11,596,680	175-6	2-20391	121-8	1914

\* Prior to 1882 Fresh (i.e., Frozen and Chilled) Mutton was included with "Meat Unenumerated," and cannot be identified for statistical purposes.

† Prior to 1890 Preserved Mutton was included with "Meat Unenumerated," and cannot be identified for statistical purposes.

54. The case of hops, though a minor crop, provides a remarkable illustration of this kind of price fluctuation, because it is an industry supplying a single market in which demand is peculiarly inelastic. The demand for hops depends upon the requirements of the breweries. The practice of most breweries is to keep fairly closely to a fixed ratio between home produced and imported hops, and since the total amount of beer brewed remains, in normal times, fairly steady, there is little inducement to buy more in a year when prices are low. Hence the hop industry has suffered to a peculiar degree from violent fluctuations in prices. Many instances have occurred where a "good" year causing a high yield per acre has involved losses or even disaster to the growers. The following tables\* give statistics of hops in this country from 1861 onwards:—

TABLE 9A.

Year.	English Acreage.	English Crop.	Estimated Average Market Price per cwt. English Hops.
1861 - - -	47,941	Cwt. 213,857 Borough Estimate	s. 165
1862 - - -	No returns	320,000	155
1863 - - -	--	300,000	115
1864 - - -	--	300,000	130
1865 - - -	--	600,000	115
1866 - - -	56,562	300,000	190
1867 - - -	64,273	240,000	185
1868 - - -	64,455	470,000	80
1869 - - -	61,785	270,000	120
1870 - - -	60,580	700,000	70
1871 - - -	60,022	500,000	200
1872 - - -	61,926	640,000	90
1873 - - -	63,276	540,000	130
1874 - - -	65,799	300,000	175
1875 - - -	69,171	700,000	100
1876 - - -	69,999	440,000	150
1877 - - -	71,239	460,000	95
1878 - - -	71,789	700,000	80
1879 - - -	67,671	160,000	190
1880 - - -	66,703	440,000	85
1881 - - -	64,943	455,000	125
1882 - - -	65,619	120,000	370
1883 - - -	68,016	560,000	135
1884 - - -	69,258	420,000	135

\* Tables 9A and 9B are taken from the Report of the Select Committee on the Hop Industry, 1908. Table 9C is based on the Agricultural Statistics compiled by the Ministry of Agriculture and Fisheries.

TABLE 9B.

Year.	English Acreage.	English Crop.	Estimated Average Market Prices per cwt., Sept.-Dec.		
			Mid. & East.	Weald.	Sussex.
		Cwts.	s.	s.	s.
1885	71,327	509,170	105	80	60
1886	70,127	776,144	80	55	40
1887	63,706	457,515	100	80	55
1888	58,494	281,291	205	160	130
1889	57,724	497,811	85	65	50
1890	53,961	283,629	260	200	170
1891	56,142	436,716	150	125	105
1892	56,259	413,259	160	135	130
1893	57,564	414,929	150	135	120
1894	59,535	636,846	90	55	45
1895	58,940	553,396	90	55	40
1896	54,217	453,188	95	60	45
1897	50,863	411,036	105	70	55
1898	49,735	356,598	155	140	130
1899	51,843	661,426	80	65	55
1900	51,308	347,894	140	120	105
1901	51,127	649,387	70	55	50
1902	48,031	311,041	155	140	130
1903	47,938	421,068	130	110	110
1904	47,799	282,330	175	165	160
1905	48,967	695,943	50	40	40
1906	46,722	245,688	115	100	95
1907	44,938	374,129	80	65	60

TABLE 9C.

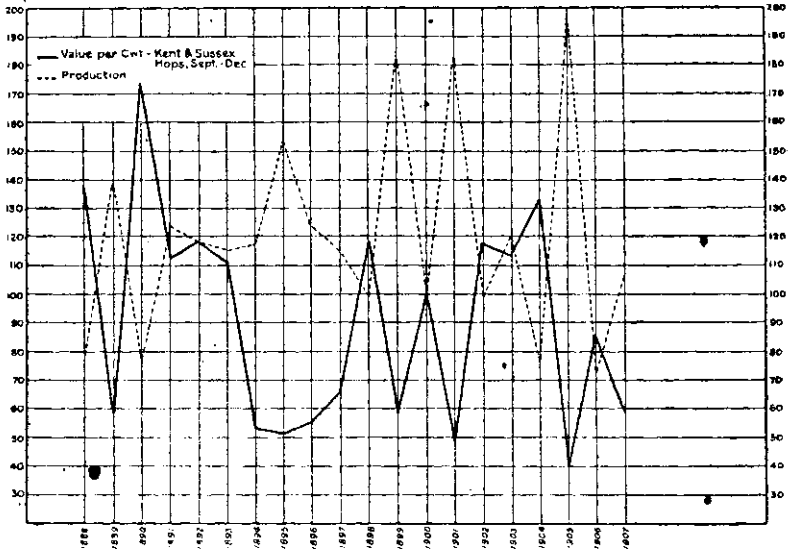
Year.	Acreage.	Average Yield per Acre.	Total Production.	Average Price of English Hops for Season.
	Acres.	Cwts.	Cwts.	Per cwt.
1908	38,921	12.1	471,000	55
1909	32,539	6.6	214,000	154
1910	32,886	9.2	303,000	105
1911	33,056	9.9	328,000	209
1912	34,829	10.7	373,000	121
1913	35,676	7.2	256,000	183
1914	36,661	13.8	507,000	79
1915	34,744	7.3	255,000	116
1916	31,352	9.8	308,000	138
1917	16,946	13.0	221,000	155*
1918	15,666	8.3	130,000	330*
1919	16,745	11.3	189,000	365*
1920	21,002	13.4	281,000	350*
1921	25,133	8.9	224,000	360*

\* From 1917 onwards prices are control prices.

Diagram IX. compares the production and prices of hops 1888-1907.

DIAGRAM IX.

Production and Price of Hops, 1889-1907, shown as Percentages of 1900.



55. Examples of the third group are of frequent occurrence. A rise in price in certain months of the year and a fall in others is common to many agricultural commodities, for the comparative abundance at certain seasons of the year tends to create a lower market. As an example, however, of a commodity which suffers a seasonal depression of prices with remarkable regularity, we may quote the case of eggs. Table 10 gives the price per dozen for each month of the years 1911 to 1913 and 1921 to 1923.

TABLE 10.

*England and Wales.*

Month.	1911.	1912.	1913.	1921.	1922.	1923.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
January -	1 4 $\frac{3}{4}$	1 5 $\frac{3}{4}$	1 4	4 1 $\frac{1}{2}$	2 11 $\frac{1}{2}$	2 6 $\frac{1}{4}$
February -	1 2 $\frac{1}{2}$	1 4 $\frac{1}{2}$	1 3	3 4 $\frac{1}{2}$	3 3	1 10 $\frac{1}{4}$
March -	0 10 $\frac{3}{4}$	0 11	0 11 $\frac{1}{4}$	2 2	1 9 $\frac{1}{2}$	1 5 $\frac{1}{4}$
April -	0 10	0 9 $\frac{1}{2}$	0 10 $\frac{1}{2}$	1 11 $\frac{1}{4}$	1 6 $\frac{3}{4}$	1 1 $\frac{1}{2}$
May -	0 10	0 10 $\frac{1}{4}$	0 10 $\frac{3}{4}$	1 9	1 4 $\frac{1}{2}$	1 2 $\frac{3}{4}$
June -	0 11	0 11 $\frac{1}{4}$	0 11 $\frac{1}{2}$	2 4 $\frac{1}{4}$	1 6 $\frac{1}{2}$	1 3 $\frac{3}{4}$
July -	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 1 $\frac{1}{4}$	2 6	1 10 $\frac{1}{4}$	1 4 $\frac{3}{4}$
August -	1 1 $\frac{1}{2}$	1 2	1 2 $\frac{1}{2}$	2 11 $\frac{3}{4}$	1 10 $\frac{3}{4}$	1 11 $\frac{3}{4}$
September -	1 2 $\frac{3}{4}$	1 3 $\frac{1}{2}$	1 3 $\frac{3}{4}$	2 11 $\frac{1}{4}$	2 5	2 2
October -	1 6 $\frac{1}{4}$	1 6	1 6	3 7 $\frac{1}{2}$	2 11 $\frac{1}{4}$	2 9 $\frac{1}{4}$
November -	1 11 $\frac{1}{2}$	1 9 $\frac{1}{4}$	1 11 $\frac{3}{4}$	3 6 $\frac{1}{2}$	3 7 $\frac{3}{4}$	3 5 $\frac{1}{2}$
December -	1 11	1 9	1 11	4 2 $\frac{1}{2}$	2 11	3 3

56. In regard to the last group, namely, fluctuations produced directly by the conditions of marketing, it is seldom possible to distinguish in the recorded price movements, between these and other influences. What we have in mind, is the fact that prices are frequently depressed as the direct consequence of producers marketing their produce too hastily, causing a temporary, but entirely avoidable congestion of the market. The point was mentioned, in connection with wheat, by the Linlithgow Committee,\* and is referred to later in this report. References are also to be found to it in the Report of the (unofficial) Land Enquiry Committee published in 1913.

57. We give below a table showing the variation week by week in the price of British wheat and in the price expressed as the percentage of the year's average, for one pre-war year (1913) and one post-war year (1923). These are illustrated in Diagram X. The diagram is sufficient to show the wide variation in prices which may occur even in a fairly normal year, and we have little doubt that the sudden drop in price at harvest time is, at least, partly due to the excessive quantity of British wheat placed on the market at this period of the year, whether in consequence of the farmer's need for cash or for other reasons. It must not be overlooked, however, that the value of British wheat to the miller partly depends on its moisture contents, which varies from time to time during the year. There can be little doubt that this is another contributory cause of the fall in price at harvest time, such as is shown in Diagram X. Which of these two causes predominates, it would be difficult to say. The subject requires further investigation, and we recommend that this should be made.

TABLE 11.

*Weekly Fluctuations in Wheat Prices—1913 and 1923.*

Week ending	Price.	Percentage of year's average.	Week ending	Price.	Percentage of year's average.
1913.	<i>s. d.</i>		1923.	<i>s. d.</i>	
Jan. 4	7 1	95·5	Jan. 6	9 8	98·2
11	7 1	95·5	13	9 8	98·2
18	7 1	95·5	20	9 10	100·0
25	7 3	97·7	27	9 10	100·0
Feb. 1	7 3	97·7	Feb. 3	9 8	98·2
8	7 3	97·7	10	9 6	96·6
15	7 2	96·6	17	9 5	95·7
22	7 3	97·7	24	9 4	94·9

\* Interim Report on Cereals, Flour and Bread, p. 33.

TABLE 11—continued.

Week ending	Price.	Percentage of year's average.	Week ending	Price.	Percentage of year's average.
	<i>s. d.</i>			<i>s. d.</i>	
Mar. 1	7 3	97.7	Mar. 3	9 5	95.7
8	7 4	98.9	10	9 4	94.9
15	7 3	97.7	17	9 5	95.7
22	7 3	97.7	24	9 5	95.7
29	7 4	98.9	31	9 7	97.4
Apr. 5	7 4	98.9	Apr. 7	9 8	98.2
12	7 4	98.9	14	9 9	99.2
19	7 4	98.9	21	9 11	100.8
26	7 4	98.9	28	10 3	103.4
May 3	7 6	101.1	May 5	10 8	108.5
10	7 7	102.2	12	10 10	110.2
17	7 8	103.4	19	10 11	111.0
24	7 8	103.4	26	11 0	111.9
31	7 7	102.2	June 2	11 0	111.9
June 7	7 8	103.4	9	11 0	111.9
14	7 8	103.4	16	10 11	111.0
21	7 8	103.4	23	10 11	111.0
28	7 8	103.4	30	10 11	111.0
July 5	7 9	104.5	July 7	11 0	111.9
12	7 10	105.6	14	11 2	113.6
19	7 10	105.6	21	11 4	115.3
26	7 11	106.8	28	11 6	116.9
Aug. 2	8 0	107.8	Aug. 4	11 5	116.1
9	8 0	107.8	11	11 2	113.6
16	8 0	107.8	18	9 8	98.2
23	7 10	105.6	25	9 2	93.2
30	7 8	103.4	Sept. 1	9 1	92.4
Sept. 6	7 5	100.0	8	9 1	92.4
13	7 5	100.0	15	8 0	91.5
20	7 4	98.9	22	8 10	89.8
27	7 4	98.9	29	8 9	89.0
Oct. 4	7 4	98.9	Oct. 6	8 9	89.0
11	7 3	97.7	13	9 11	90.7
18	7 3	97.7	20	9 0	91.5
25	7 2	96.6	27	9 1	92.4
Nov. 1	7 0	94.4	Nov. 3	9 1	92.4
8	7 0	94.4	10	9 1	92.4
15	7 0	94.4	17	9 3	94.1
22	7 1	95.5	24	9 5	95.8
29	7 2	96.6	Dec. 1	9 8	98.2
Dec. 8	7 3	97.7	8	9 10	100.0
13	7 3	97.7	15	9 10	100.0
20	7 3	97.7	22	9 9	99.2
27	7 2	96.6	29	9 8	98.2
Year -	7 5		Year -	9 10½	

We also give below Table 12 showing the weekly variation in price of wheat and quantities sold at King's Lynn Market during 1923. These variations are illustrated in Diagram XI.

DIAGRAM X.

Weekly Fluctuation in Wheat Prices in 1913 and in 1923, shown as Percentages of the average Price for the whole year.

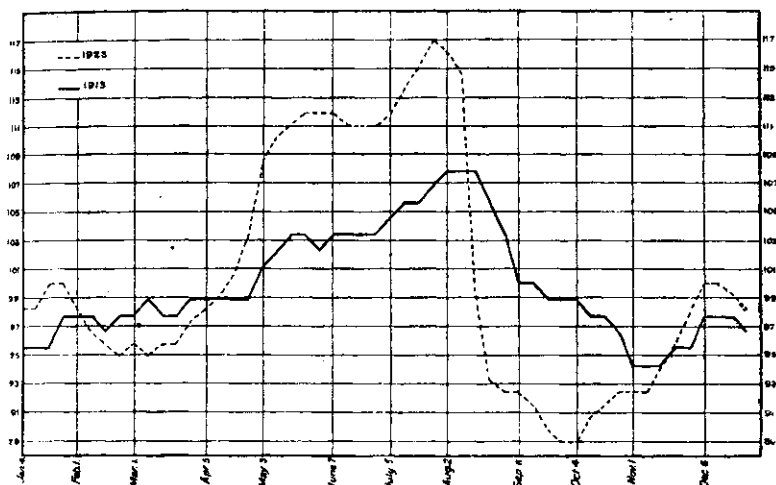


TABLE 12.

Weekly Quantities of Wheat sold, and Prices, at King's Lynn Market, January to December, 1923.

1923.	Quantity sold (to nearest $\frac{1}{2}$ cwt.).	Percentage of Weekly Average Sales.	Price per cwt.	Percentage of Annual Average.	
				Gazette Prices.	King's Lynn Prices.
Jan. 6	—	—	<i>s. d.</i>	—	—
13	4,198	168.7	9 6	96.6	99.2
20	3,854	154.9	9 6	96.6	99.2
27	3,141 $\frac{1}{2}$	126.2	9 5	95.8	98.3
Feb. 3	3,202 $\frac{1}{2}$	128.6	9 5	95.8	98.3
10	1,502	60.4	9 2	93.2	95.7
17	3,233	129.9	9 2	93.2	95.7
24	2,694	108.2	9 2	93.2	95.7
Mar. 3	5,458 $\frac{1}{2}$	219.3	9 0	91.5	93.9
10	1,508 $\frac{1}{2}$	60.6	9 4	94.9	97.4
17	3,370 $\frac{1}{2}$	135.4	9 1	92.4	94.8
24	5,454	219.1	9 2	93.2	95.7
31	3,763 $\frac{1}{2}$	151.2	9 4	94.9	97.4
April 7	945	37.8	9 3	94.0	96.5
14	595 $\frac{1}{2}$	23.9	9 2	93.2	95.7
21	2,234	89.8	9 8	98.3	100.9
28	999	40.0	9 10	100.0	102.7
May 5	562 $\frac{1}{2}$	22.6	10 1	102.4	105.2
12	4,137 $\frac{1}{4}$	166.3	10 6	106.8	109.6
19	1,488 $\frac{1}{2}$	59.8	10 7	107.6	110.5
26	3,353	134.7	10 8	108.5	111.4



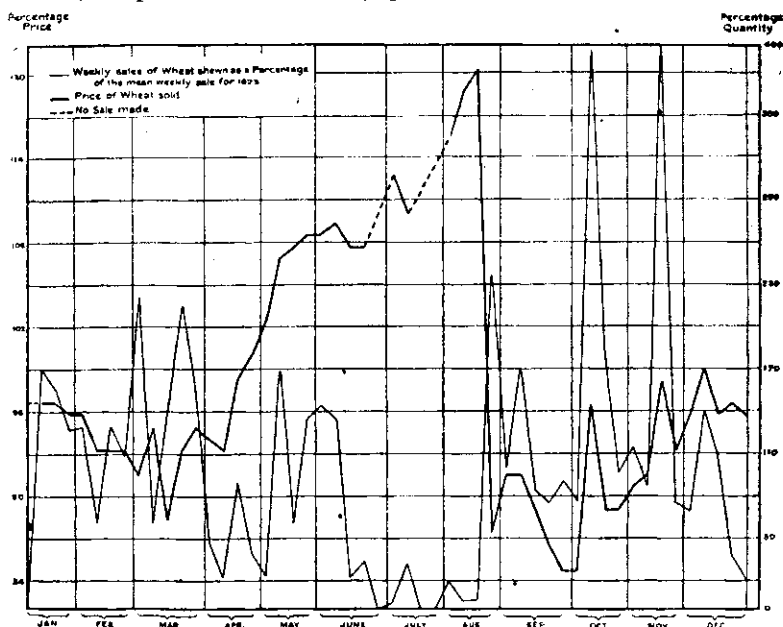
TABLE 12—continued.

1923.	Quantity sold (to nearest $\frac{1}{4}$ cwt.).	Percentage of weekly average Sales.	Price per cwt.	Percentage of Annual Average.	
				Gazette Prices.	King's Lynn Prices.
			<i>s. d.</i>		
June 2	3,590	144.2	10 8	108.5	111.4
9	3,338 $\frac{1}{2}$	134.1	10 9	109.3	112.2
16	539 $\frac{3}{4}$	21.7	10 7	107.6	110.5
23	851 $\frac{1}{2}$	34.2	10 7	107.6	110.5
30	—	0.0	—	—	—
July 7	112 $\frac{1}{2}$	4.5	11 1	112.7	115.6
14	818 $\frac{1}{2}$	32.9	10 10	110.2	113.1
21	—	0.0	—	—	—
28	—	0.0	—	—	—
Aug. 4	495	19.9	11 4	115.3	118.2
11	157 $\frac{1}{2}$	6.3	11 8	118.7	121.8
18	175 $\frac{1}{2}$	7.1	11 10	120.3	123.5
25	5,843	234.7	8 7	87.3	89.6
Sept. 1	2,475	99.5	9 0	91.5	94.0
8	4,250 $\frac{3}{4}$	170.8	9 0	91.5	94.0
15	2,092 $\frac{1}{2}$	84.0	8 9	89.0	91.3
22	1,862 $\frac{3}{4}$	74.8	8 6	86.4	88.7
29	2,247	90.3	8 4	84.7	86.9
Oct. 6	1,918	77.1	8 4	84.7	86.9
13	9,900 $\frac{1}{2}$	397.7	9 6	96.6	99.2
20	4,550 $\frac{1}{4}$	182.8	8 9	89.0	91.3
27	2,405	96.6	8 9	89.0	91.3
Nov. 3	2,868 $\frac{3}{4}$	115.3	8 11	90.7	93.1
10	2,190	88.0	9 0	91.5	94.0
17	9,660	388.2	9 8	98.3	100.9
24	1,882 $\frac{1}{2}$	75.6	9 2	93.2	95.7
Dec. 1	1,755	70.5	9 5	95.8	98.3
8	3,529 $\frac{1}{4}$	141.8	9 9	99.2	101.7
15	2,685 $\frac{1}{2}$	107.8	9 5	95.8	98.3
22	963 $\frac{1}{2}$	38.7	9 6	96.6	99.2
29	553 $\frac{1}{2}$	22.2	9 5	95.8	98.3
	129,406	—	—	—	—
Average King's Lynn } Gazette	2,488 $\frac{1}{2}$	—	9 7	102.7	—
	—	—	9 10	—	97.4

58. Such, in outline, are the types of fluctuations due to variations in the volume of supplies, to which the prices of agricultural commodities are liable. Our suggestion is not that their causes can be entirely removed, but that an organised distributive system, designed with a full cognizance of these facts could do much to overcome their harmful consequences. To this we refer below.

DIAGRAM XI.

Weekly Prices of Wheat per Hundredweight at King's Lynn Market in 1923, shown as Percentages of the average Gazette Price of Wheat for 1923, compared with the weekly quantities sold.



## (2) CONSEQUENCES OF VARIATION IN THE VOLUME OF SUPPLIES.

59. As an illustration of the consequences to farmers of variation in production, we would call attention to the following consideration. No one would deny that a favourable season in which there had been plenty of rain and sun and freedom from physical disturbances, producing a rich and healthy crop, should be an advantage to the producer, and therefore a thing that he desires. Nevertheless, in the existing conditions of organisation of the agricultural industry, it is frequently a disadvantage to the producer and a thing that he fears. In other words, it is true to say that there is no adequate machinery for the economical distribution and marketing of an exceptionally abundant crop. On this account it frequently happens that a favourable season yielding a heavy crop leads to temporary congestion of the market and a fall in prices so great as often to rob the producer of his profits or even to cause the entire crop to be sold at a loss. In the United Kingdom these conditions may apply not only to home-produced crops such as fruit and vegetables, but also, though in a less degree, to those crops produced in competition with imports from abroad, such as cereals. For the British farmer cannot escape the consequences of abundant yields in foreign countries and their effect on world's prices.

60. In our opinion these facts present a practical problem in agricultural organisation, the magnitude and importance of which it would be hard to exaggerate. The farming industry is exposed to risks, many of which are beyond human control; but the risks of extreme fluctuations in prices arising out of such causes as these are, we think, amenable, at least, to some degree of control through appropriate organisations for distribution and marketing.

61. To take first the example of wheat. The wide fluctuations in prices to which wheat and other cereals are subject from year to year are readily seen from table VII in Appendix I. The consequences of these fluctuations to the British farmer are far-reaching, for not only does he have to face uncertainty as to the actual value of each crop he may raise or even to risk severe losses, but he is also confronted with uncertainty as to the area of corn to be sown. In the United Kingdom the area under wheat which can be profitably cultivated depends on prices, but the cost of wheat growing varies from district to district and from farm to farm, according to the suitability of the soil, the skill of the farmer, and other conditions. If it were possible to examine these costs in every farm in the country, the results would show a gradually descending scale of costs of production per bushel, from the least to the most favoured farms. Consequently, it may be said that at a certain price for wheat a certain area is profitable, and that the higher the price the larger is the area which is profitable, and *vice versa*. Hence there must always be a certain number of farms, or a certain area, which is near the margin of profitable cultivation. Under conditions, therefore, in which wheat prices are liable to fluctuate widely from season to season, farmers in this marginal area are left in perpetual uncertainty; some may make a profit, others a loss; some may make a profit one year and a loss the next. But in the long run these conditions tend to make farmers adopt the safer course of converting the land into permanent pasture. In other words, it is, broadly speaking, true to say that instability of wheat prices and prices of other cereals not only cause wide fluctuations in profits, but tends to reduce the arable area below that which would be kept under the plough if farmers had a reasonable expectation that prices would remain at a stable level.

62. The case of fruit and vegetables was referred to in the Interim Report of the Linlithgow Committee in the following passage :—

“ We have already pointed out that the total production of fruit and vegetables in this country is subject to considerable fluctuations from season to season, to some extent owing to variations in the area of cultivation, but chiefly owing to natural causes. . . . The public demand for perishable goods is not usually adaptable to wide variations in supply. A prolific year, for example, may

yield crops far in excess of the demand, and the constant pressure of surplus produce on a sensitive and already satiated market may cause prices to slump to a lower level than is sufficient to reimburse the grower for his costs of production and marketing."

63. The history of potato prices in this country provides many illustrations of this. The heavy crop of 1922, as has been shown above, caused prices to fall far below their pre-war equivalent, and involved many growers in considerable losses; much of the crop was wasted, and ploughed in to avoid the losses entailed in lifting it. Other similar examples may be drawn from fruit crops and from green vegetables. Moreover, in the case of vegetables, these conditions, as with cereals, have a secondary consequence, namely, the influence on the areas which are planted. Low prices have caused growers to contract the area under cultivation, with the result that the crop in the succeeding year has sometimes been insufficient to meet the demand, causing prices to advance. The high prices thus brought about have once more induced growers to plant a larger area, and again prices have fallen.

64. The following quotations from the Interim Report of the Linlithgow Committee give further examples:—

"The market is not alone affected by seasonal variation. Weather conditions may cause considerable fluctuations from day to day. For example, we have been informed that a few hours' sunshine in April will increase the quantity of Cornish broccoli ready to cut by as much as 25 per cent. Similarly, a hot summer's day will treble the supplies of home-grown lettuces and marrows at Covent Garden. When it is realised that a difference of 10 per cent. in the daily supplies of perishables at a wholesale market may turn a relative scarcity into a glut, it will be appreciated how sudden and drastic may be the effect on prices of daily variations in supply throughout an otherwise normal season.

"A position thus arises that under present conditions a season of comparative scarcity or of steady and even supplies is more satisfactory to the grower than are periods of abundance, when much of the produce, especially that which can least bear the costs of marketing, is allowed to rot on the ground, or is fed to stock, or ploughed in, to save the heavy losses that marketing would entail.

"Growers and distributors alike are, therefore, confronted with the difficulty of disposing of widely fluctuating supplies in a market which is in itself variable, but only moderately adaptable to varying conditions. The situation would, no doubt, be considerably eased, even in the most prolific seasons, could the consumer obtain direct access to supplies, and were the costs of transport and handling reduced to a minimum.

" A comparison of the two most recent seasons is particularly illuminating. In both 1921 and 1922, the yield of strawberries, raspberries and currants was below the average in England and Wales, and prices in the two seasons showed little difference. On the other hand, a scarcity of pears in 1921 was succeeded by a good crop in 1922, with the result that prices fell by 60 per cent. while the phenomenal fall in the price of plums was due to an abundant yield in 1922 following an extreme shortage in the previous year. Similarly as regards vegetables, supplies of which in 1921 were generally poor, the prices obtained last season were extremely low, due almost entirely to much heavier yields. It is possible that a not inconsiderable part of the fall in prices of both fruit and vegetables is attributable to the reduced purchasing power of the public.

" It is evident that a solution of the problems of securing a remunerative return to the producer in times of plenty must be sought in one, or both, of two ways. One is the reorganisation of the system of distribution to render it more fluid, efficient and economical, thereby not only increasing the growers' immediate returns, but also facilitating a general increase in consumption; the other is the development of alternative outlets for surplus produce, thus leaving a less variable quantity to be marketed through the existing channels."

65. Lastly, there is the case of fluctuations in prices caused not by any alteration in the volume of production, but arising directly from the intermittent and haphazard way in which the present competitive marketing system works. The consequences of disorderly marketing need little elucidation. The Linlithgow Committee, in their "Interim Report on Cereals, Flour and Bread," called attention to the seasonal fall in wheat prices occurring at harvest time:—

" We have been impressed," the report states, " by the losses which farmers frequently sustain by selling their grain immediately after harvest in order to raise cash for various essential transactions, such as the purchase of stock for winter feeding. This causes a glut on the market in the autumn, and farmers who press the sale of their produce at that time have as a result to take what has been described as a 'terrible discount'."

What is true of wheat is true of many other products of agriculture. Stated shortly, the harmful results of disorderly marketing may briefly be grouped under two heads:—

(1) They tend to create conditions of glut with a consequent depression of prices, even when (having regard to the annual consumptive needs of the country) there is no real excess of supply over demand, and

(2) they tend to encourage the speculative dealer to whom price fluctuations may even be an advantage, but whose activities are largely parasitic on the farming industry.

66. In the above paragraphs we have discussed the direct economic consequences of unstable prices. But, indirectly, the industry suffers in ways which are not capable of precise statistical measurement. Sir Daniel Hall has said that a "great proportion of indifferent farming to-day is due to lack of confidence"; and in agriculture, no less than in other industries, lack of confidence means primarily, lack of confidence *in prices*. The state of mind of the individual farmer and his expectations as to the prices he will receive for his produce are vital factors in determining the character of farming. Unstable prices, as history confirms, are bound to make farmers seek an essentially safe system of agriculture rather than one aiming at high productivity. These conditions are apparent to-day hardly less definitely than in 1896 to 1900. In that period the slowness of the recovery after the prolonged depression of the preceding twenty years was largely attributable to the uncertainty with which the farmer regarded his future prospects (*see* quotation on p. 14). A heavy fall in prices undermines confidence and renders farmers slow to believe in any improvement which may follow; consequently, he abandons high farming for safe farming and the level of productivity throughout the country is impaired. As with the general level of agricultural prices, so with the prices of individual products, instability, by destroying confidence, diminishes productivity, and involves in the long run not only losses to the producer, but economic wastage to the whole community.

### (3) REMEDIES FOR VARIATION IN THE VOLUME OF SUPPLIES.

67. In regard to remedies for the fluctuations in price arising from increases or decreases in the volume of produce supplied to agricultural markets, we do not propose to enter into detail in this Report. In the following paragraphs, we have confined ourselves to the discussion and illustration of the general principles of economic organisation, which we think might be applicable to this country.

68. It is clear that no one remedy will serve to diminish or eliminate extreme changes in the prices of such widely different agricultural commodities, as for example, wheat, pigs, potatoes, eggs or hops; each must be dealt with according to its special requirements. Nevertheless, we think that the remedies in the main fall under the general heading of "Collective" or "Centralised" trading. Centralised organisations might do what the existing machinery cannot do, namely, regulate the flow of agricultural produce to market so as to minimise the possibility of markets becoming congested. We illustrate this point more fully below.

69. The organisation of agriculture on this basis does not involve any new conception. Indeed, a glance at what is happening in other countries is sufficient to show that such proposals are in close harmony with the general economic trend through almost all the agricultural countries of the world. In the United States of America the movement towards what is called "orderly marketing," which is primarily aimed at overcoming these difficulties, has largely taken the form of developing centralised co-operative marketing associations, and the immense increase of the quantity of agricultural produce marketed through these associations, reveals the degree of success which the movement has already achieved. (The most recent figures for the gross annual value of produce marketed in this way are 2,200 million dollars.) The wheat pools of Canada and Australia are further examples of the general trend of economic development towards centralised distribution and marketing. The New Zealand Meat Producers Board is another example; while the growth of co-operation in the Argentine, India, Russia and the countries of central and eastern Europe is no less significant. In other words there is a movement, world-wide in its scope, away from what may be called a "Laissez-faire" system of trading between individuals, towards one resting upon large centralised trading organisations. The cause of the change is, we believe, the recognition by farmers and others that the new system will in the long run provide greater economic stability than the old. In this movement British agriculture, like that of other countries, will ultimately be compelled by the pressure of economic circumstances to take its part.

70. In Great Britain, however, as a country largely dependent upon food imported from abroad, the problems of agricultural marketing are of a fundamentally different character from that of countries which have a large margin of their food production available for export. When, therefore, we come to consider the distribution and marketing of agricultural produce in this country, it is at once evident that the problem falls roughly under two heads, according to whether we are dealing with commodities mainly produced at home or commodities mainly imported from abroad.

*Commodities mainly produced at Home.*

71. Co-operative marketing organisations are able, as the experience of other countries has amply proved, to fulfil a number of useful and profitable functions, and for this reason the movement has gained adherents in almost every agricultural country. Co-operation has not, however, always been pursued with the same object in view, nor has it followed the same general lines of development in different countries. It would be very far from the facts to say that co-operative marketing abroad has been wholly or even mainly concerned with the steadying of agricultural prices. The movement has been shaped by

experience. In it the advantages of having a farmer-owned selling agency, of standardising produce, of mass grading and packing, and of establishing a high reputation for certain brands, have often been thought to outweigh the indirect advantages which the co-operative machinery can yield, through its influence on the volume of produce delivered to market. It is, therefore, desirable that we should make it clear as to how we think such organisations could achieve the purpose with which we are here immediately concerned.

72. Stated shortly, the object of co-operative marketing should be to *supply agricultural markets according to their needs, instead of (as at present) according to the amount of produce which the farmers have, at the moment, available for sale.* This, in our opinion, is the root of the whole matter. It involves a fundamental change in our methods of marketing, but if this were made the harmful fluctuation in prices would be largely eliminated.

73. If the object of an agricultural marketing policy is to supply markets according to what they can absorb, the problem of organisation turns on the practical means which can be found to deal with "surpluses" whether of corn, fruit, vegetables or dairy produce, for it is the existence of a surplus beyond what the market can immediately absorb which causes the price to fall. In the absence of an alternative outlet or other means of dealing with this surplus, the farmer has no course open to him but to force it on to an already satiated market with the inevitable consequences that prices are depressed. This, in turn, involves two important factors in the establishment of an orderly marketing system: (1) the provision of the means of temporarily storing surplus non-perishable crops, so as to "smooth out" the rate at which crops are delivered to market; and (2) the provision of credit to finance these operations. Credit, we believe, plays a profoundly important part in this connection.\* We further think that the creation of "surpluses" might itself, to a large extent be eliminated, if the planting and lifting of crops (such for example as potatoes and other vegetables) were made a part of a centralised marketing system.

74. All these suggestions require further investigation. We do no more in this Report than indicate in broad outline the kind of machinery which seems to be required. The great advantage of co-operative or centralised marketing, in our

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\* We refrain from a discussion of the question of credit, only because to deal with it adequately would carry us too far afield. We think the whole question of agricultural credit requires further examination. The part of this question which relates directly to the problem of orderly marketing is not the least important branch of it. In the United States credit to finance the holding of stocks forms an essential part of the marketing system; the emergency loans made by the War Finance Corporation to Agricultural Co-operative Marketing Association in 1921 and 1922 at a time when the markets were seriously demoralised, unquestionably had a great influence in stabilising these markets and saving the growers from considerable loss.



opinion, is that it can be made to fulfil at least two important functions. It can, by regulating the flow of produce to market, provide the means of securing greater stability of prices in agricultural markets; it can also enable farmers to carry out grading, packing, and standardising farm produce, efficiently and economically, and so enable them to market produce of recognised and uniform quality. Because it gives facilities for doing these two things, we believe that it is the best economic instrument for the improvement of agriculture which falls directly under the control of producers themselves.

75. It has sometimes been said that co-operative marketing has been found by experience to be unsuitable to the conditions of this country. Nothing in our opinion is further from the truth. The plain fact is that co-operative marketing, aiming at the results which we are here discussing, has hardly ever been attempted in this country. The history of British agricultural co-operation furnishes abundant proof of this. We would go further, and say that co-operative marketing on lines which alone could achieve the economic advantages of "orderly marketing" has seldom been clearly advocated or put before the farmer, even by the convinced believers in agricultural co-operation. It is useless, in our opinion, for co-operation to be proposed merely as a vague ideal. Advocated in this form, it will never prove acceptable to the ordinary British farmers. It is only when farmers realise the economic evils of unorganised marketing, which co-operation—properly designed—is capable at least of mitigating, that they are likely to recognise its real importance.

76. We may illustrate our meaning by contrasting what has taken place in this and other countries:—

The total number of agricultural co-operative Societies in Great Britain in 1922 was approximately 835 (including allotment holders' societies) of which nearly 150 were engaged in the sale of farm produce. These latter organisations are for the most part small trading associations registered under the Industrial and Provident Societies Acts and carrying on the business of collecting agricultural commodities from local farmers and selling them in the nearest wholesale market or to dealers. Most of them are, to all intents and purposes, trading companies working for profit. They are isolated and unco-ordinated bodies, pursuing no common marketing policy and operating in competition not only with private traders but often with each other. Usually they buy produce from members and non-members alike, who are free to sell through the society or not as they wish, receiving from the society the market price ruling at the time. In short, these societies do little more than to displace the middleman and provide a farmer-owned means of reaching the wholesale market. It is easy to see that such organisations are as much at the mercy of the vagaries of the market as were the private middlemen whom they have displaced. Nothing has been done or could have been done by them, to change

the haphazard and disorderly system of marketing of agricultural produce as a whole, to prevent gluts or scarcities, or to regulate the flow of produce to market. They have merely taken their place in that system, but have left it unaltered.

77. In contrast with this we would refer, as an illustration, to the co-operative system at work in California for the distribution and marketing of citrus fruits. At the end of 1922 that organisation was constituted roughly as follows : Its membership consisted of approximately 10,700 growers, who supplied to the local co-operative association *under contract*, the whole of their fruit produced for market. The number of these associations was 206. In each citrus district there was a district exchange co-ordinating the activities of the local associations in its district, and over the whole organisation the central body known as the California Fruit Growers' Exchange acted as the co-ordinating authority for all the constituent societies. This substantially is the structure of co-operative system in Southern California to-day. This organisation, combined with the long period contracts under which the members bind themselves to supply their produce to their local association, has given to the central marketing authority control over a very large volume of the fruit marketed each year. It has been sufficient, in practice, to enable the California Fruit Growers' Exchange to regulate the flow of the goods to the various markets, to pursue an enlightened and far-sighted marketing policy for the benefit of the whole of its federated societies, and to avoid or greatly minimise the congestion of markets and consequent depression of prices, which exceptionally abundant crops might otherwise have caused.

78. The American co-operative movement has, as we pointed out above, reached enormous proportions. It has been developed with varying degrees of success in other branches of agriculture, of which, perhaps, the more remarkable are the large organisations for marketing cotton. What has emerged from the American experience is the recognition of certain essential principles in the organisation of co-operative marketing societies, the observance of which is necessary, if any permanent progress is to be made towards the orderly marketing of farm produce. These may be summarised as follows :—

(1) The organisation must be on a "commodity basis," that is to say, a single co-operative organisation must deal with only one commodity or with commodities closely allied to each other.

(2) The local co-operative associations must be federated to a central association in order to concentrate in a central authority the control of a sufficiently large volume of produce.

(3) Members must bind themselves under contract to supply the whole, or a definite proportion, of their produce prepared for market to the society of which they are members.

79. American co-operative marketing has not always been developed upon the above pattern, but generally speaking it is the case that the aim has been to centralise in the hands of single authorities the control of the marketing of a *large* volume of produce, for it is only when control is exercised on a sufficiently large scale that the co-operative organisation has been able to exert an effective influence upon the amount of produce delivered to the wholesale markets from day to day, from week to week, or from year to year.

80. In this development America has confirmed the experience of Denmark, the pioneer country in the matter of agricultural co-operation. The following quotation from a report on Agricultural Co-operation in Denmark, issued by the United States Department of Agriculture (Bulletin 1266) illustrates the similarity between the systems adopted in the two countries :—

\* \* \* \* \*

“ In the whole field of Danish agricultural co-operation the trend of development has been to apply the principle of specialisation. The common practice in both the selling of agricultural products and the buying of farm supplies, such as fertilisers, feeding stuffs, cement, and coal, is to form special associations for special purposes. In other words, the farmers organise and operate along commodity lines.

\* \* \* \* \*

“ The structure of these co-operative associations is characterised by a strong local development, with a democratic membership control. The larger co-operative associations have been built from the bottom up around local undertakings. The need for co-operating with other similar associations, which was soon felt by leaders and local officers in the early days, prompted the local associations to federate into district, and eventually into provincial and national associations, along commodity lines. But the large associations operating to-day in every case have started from comparatively small beginnings.

“ Whether the central association, which is organised to handle one commodity, embraces the whole nation or only one province or district, its membership consists of local associations; the contract agreement is made through the local association. However, if a local association organised for a definite purpose desires to become a member of the central association which handles its commodity, its individual members must agree to the terms and conditions of the contract agreements as required by the central association.

\* \* \* \* \*

“ Within both the local and central co-operative associations contracts exist between the members and the association, binding the members to deliver their total production

of that particular commodity, except what is needed for home use, to the marketing association for a definite period; and, in case of purchasing associations, to buy their necessary supplies of that commodity from the association for a definite period."

81. We need not enter into a description of the methods by which American or Danish co-operative societies seek to regulate the flow of produce to market. It is sufficient to say that in the case of crops which are susceptible to this treatment, intermediate storage in warehouses and other stores under the control of the co-operative societies form an essential part of their procedure. Storage of non-perishable crops has been the practice for many years, and in recent times a considerable advance has been made in regard to the application of cold storage to certain perishable crops, notably dairy produce and hard fruit. Thus the co-operative organisation retains control of the "surplus" which otherwise might be forced on the market, creating a glut and depressing prices.

82. A full account of the various American co-operative marketing organisations would show a great variety in detail, since each has to meet the requirements of the particular branch of agriculture with which it is concerned. The California fruit trade, for example, is a localised industry, producing fruit mainly for "export" to distant markets. The cotton organisations on the other hand cover a much wider producing area.

83. The point we wish to emphasise, however, is that whether the co-operative organisation is concerned with a localised or widely-extended branch of agriculture, the unmistakeable tendency of these organisations is towards centralisation. Moreover, this tendency is by no means confined to the American and Danish co-operative movement. In Russia, Czecho-Slovakia and other countries of Eastern Europe, in Australia, New Zealand and the Argentine the same trend is hardly less manifest.

84. In the following section we give, by way of illustration, a few typical examples of centralised marketing within the Empire.

#### *Centralised Marketing in the Empire.*

85. *Australia and New Zealand.*—It would take too long to give, even in outline, an account of the widespread development of co-operative marketing in Australasia. It provides one of the most illuminating examples of the gradual spread of the idea of centralised marketing which can be drawn from any country in the world.

86. We take first, one example from the many which might be quoted of co-operative organisation. In the State of New South Wales agricultural co-operation has reached its greatest development in the dairying industry. More than 90 per cent. of the butter produced in New South Wales is produced in factories controlled upon co-operative principles by dairy farmers

in 97 organisations. The total output from co-operative butter factories in 1921-22 was nearly 90,000,000 lb., of which approximately 60,000,000 lb. were marketed by co-operative agency. At present there are three co-operative societies for marketing butter and other farm produce whose constituents are mainly co-operative dairy factories. That the tendency is towards still more complete centralisation is shown by the following significant quotation from the Horace Plunkett Foundation's "Survey"\*:—

“Beyond them (*i.e.*, the three marketing associations) no effective federation of agricultural co-operative societies is yet in existence, but a movement aiming at the ‘stabilisation’ of the dairying industry desires to unite all butter manufacturers for the purpose of more effective marketing.”

87. In the other states of Australia co-operative dairying has made great advances not only in the co-operative ownership of factories but in the gradual linking up with centralised marketing associations, and these in turn with a centralised overseas selling agency. The dairy marketing organisation is thus developing on lines analogous to the wheat organisation which we refer to in the following paragraphs.

88. *The Australian Wheat Pools.*—The wheat pools of Australia have brought about a fundamental change in the system of marketing wheat in that country. They are, however, an example of a somewhat different character from those referred to above since they were originated by direct State action in order to meet abnormal conditions of the trade during the war.

89. The original scheme was compulsory. It was entered into by the Governments of the Commonwealth, the States of New South Wales, Victoria, South Australia and Western Australia for the purpose of realising to the best advantage the wheat harvests of the respective States, and for making advances to farmers pending the realisation. The scheme was first applied to the 1915-16 crop, and it was subsequently decided to deal with the succeeding crops on the same principle. This actually took place in respect of each crop up to that of 1920-21.

90. The duty of realising the crop was placed in the hands of the Australian Wheat Board, consisting of ministerial representatives of the Governments of the Commonwealth and the respective States, and one representative of the growers from each State. The Board was assisted by an Advisory Board, consisting of well-known wheat shippers, and the distribution of freights amongst the respective States was undertaken by the Wheat Board. As the United Kingdom was the chief export market for Australian wheat, and London the chief port, a London Wheat Committee, consisting of the High Commissioner, and the Agents-General of the States concerned, acting with the advice of the

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\* A Survey of Agricultural Co-operation in the Empire. Edited by K. Walter.

London representatives of the wheat shippers, arranged the overseas sales.

91. In each State a local board or Commission controlled the operations of the scheme within its area, and the local board effected all local sales, including sales to millers. Agents of the State Governments were appointed to receive wheat on behalf of their respective boards, and these agents were usually merchants, millers, or other authorised persons, having facilities for receiving, storing and shipping wheat, and were required to furnish adequate bond. On receipt of the wheat, the Government agent issued a storage certificate showing the quality and quantity of wheat delivered. On shipment of the wheat, the agent handed the shipping documents to the Minister, for transmission to the London Board or other overseas agents. Under arrangements with the Australian banks made by the Commonwealth and State Governments, advances were made to farmers upon delivery of their wheat at railway stations to the appointed representatives. The proceeds of the wheat sales were applied, as realised, in reduction of the bank overdrafts which had been used for the payment of advances and expenses.

92. The original scheme, which underwent certain modification in respect of harvests subsequent to 1916-17, came to an end with that of 1920-21. In 1922 the compulsory pooling of wheat was abandoned, but the principle of pooling the exportable surplus was continued on a voluntary basis under the respective State Governments. Under this scheme, as in the case of the compulsory scheme, each State ultimately receives, in respect of the grain actually shipped, the average net profit from the overseas realisations, which, after paying expenses, is distributed pro rata amongst the growers.

93. Under the latter scheme the organisation for marketing the exportable wheat is roughly as follows :—

There are three wheat pools : (a) Victoria, (b) South Australia and New South Wales in conjunction, (c) Western Australia. Growers are free to dispose of their produce to the State pool of their own Government, or to that of another State Government or not, as they choose. In respect of each pool there is established a Wheat Board, analogous to the Australian Wheat Board referred to above, which is responsible for the purchase, collection, storage, financing, shipping and marketing of the grain. Under the Wheat Board an agent is appointed to purchase wheat from the growers, making, on behalf of the Board, an advance for the wheat received of about 3s. per bushel. The agent receives the grain from the grower, usually in bags at the local railway station, and ships it to the port. These agents, who are mainly drawn from the principal firms engaged in the grain trade prior to the starting of the pooling system, are under State control, and are allocated certain districts from which they are authorised to collect wheat under the scheme.

94. This system of pooling still remains in operation, and the grain exported to the United Kingdom is distributed in this country through the "Australian Wheat Pools Agency," consisting of two firms, which receive and market the whole of the wheat exported by the respective Wheat Pools (with the exception of Victoria, which sells independently) operating upon the British corn exchanges, mostly in London.

95. *New Zealand Meat Producers Board.* An experiment of a somewhat analogous kind is now being tried in the New Zealand meat trade which has many points of interest. In the autumn of 1921, when the price of New Zealand lamb reached the low point of 7d. per lb. ex store in London, a statutory Board was set up to control the export of meat from New Zealand. The Board, which consists of five persons elected by the meat producers, two appointed by the Government, and one appointed to represent the stock and station agents, is given full powers to carry on the export trade and take over the freezing works. In practice it has not used its full powers, and has been content to supervise and regulate the marketing of meat in the interests of the producers. Its most important activities have been :—

(1) The control and inspection of the system of grading and marking, and

(2) The regulation of shipments with the dual object of reducing costs and ensuring an even flow of supplies to the London market.

The following quotation from the Board's second annual report (p. 3) gives in a nutshell the aims of the organisation and the means of attaining them.

"One of the most important duties undertaken by the Board since its inception has been the regulation of shipments, and it is one of the functions to which is given the most attention, as the Board fully recognises that the regulation of supplies to the British market is one of the most important factors in stabilising prices for our meat.

"The Board is aware of the difficult job it has undertaken in the feeding of the Home Market, but it also fully recognises that it was about time that some controlling body with sufficient powers should take this duty in hand, for it is well known that in the past our meat was shipped in a very haphazard manner, and the market often glutted, with the consequent result of big fluctuations. Fluctuations are of no value to farmers. What they want is a steady stabilised market.

"The regulation of shipments, besides being in the direction of stabilising prices, also tends to prevent big accumulations of meat getting into the hands of large holders. A glutted market with a limited demand enables speculators to operate and to take full advantage of the position.

“ Compared with last season, the Board, in regulating shipments this year, has not allowed more meat to go forward in any one month than the position warranted, and in arranging freights with the shipping companies, the greatest care has also been exercised to ensure that sufficient supplies are going forward to meet the demand.

“ The regulation of shipments, besides being an advantage to the Home trade, and a great gain to the Dominion, is also of immense value to the shipping companies, who are advised by the Board at regular intervals ahead as to the amount of tonnage required for each month. This places the shipping companies in the position to work their vessels to the most economical advantage.”

96. Examples of the movement towards centralised marketing in Australia might be multiplied many times, notably in the case of dried fruit, poultry products, pigs and bacon, and other produce great progress has been made. Sometimes these have been developed with State assistance, sometimes without; usually they have involved intermediate storage in warehouses or cold stores and, as in America, arrangements with the banks to finance these operations. But any examination of its recent development leaves little room for doubt that the movement in Australia has behind it a clear grasp of the economic object it is desired to attain. A prominent member of one of the Central Marketing Organisations was asked by us as to what he considered to be the real motive behind these developments in Australia. He replied: “ Undoubtedly the object is to stabilise prices.”

97. *Canada*.—An illustration of a similar type may be quoted from Canada. The Saskatchewan Co-operative Elevator Company handles about one-fifth of the grain produced in the province, amounting in 1922-23 to over 40 million bushels. The company originated in the widespread discontent which was felt by farmers at the growing monopolistic powers of the elevator companies. The co-operative organisation now owns 425 country elevators. that is to say, there are “ 425 local organisations of farmers, each of them grouped around the particular facility for handling their grain.”\* Each local organisation elects one member to represent it at the annual meetings of the company. As development took place, it was found necessary for the institution to own terminal elevators, to own “ appliances capable of treating damaged grain, hospital elevators, and they have at the present time over 4½ million bushels of capacity in terminal and hospital storage.”

98. A point of considerable importance in the rapid and successful development of this organisation is the measure of State assistance it has received. On the basis of farmers at the local points paying in cash 15 per cent. of the share capital, the province undertook to advance the remaining 85 per cent., at

\* Speech by the Hon. Charles Dunning at Conference on Agricultural Co-operation, July 29th, 1924.



the same time becoming a first mortgagee on the property of the company and the uncalled share capital of the individual members. The repayment to the State "was arranged on an amortised basis over 20 years with the understanding that the State would loan the money to the institution at a rate of interest not to exceed the cost of the money itself to the State."†

99. We need not go into details of the working of this organisation. The scheme has proved a success, and in the words of the "Survey of Agricultural Co-operation in the Empire," "Undoubtedly the fact that the company has been in the grain business has had the effect of stabilising the price of wheat in Saskatchewan." In the other wheat growing provinces of Canada a similar movement has taken place. Alberta followed the lead of Saskatchewan and set up the Alberta Co-operative Elevator Company in 1913, which received an advance from the Government of \$1,153,585. Four years later, this company was amalgamated with the Grain Growers Grain Company of Winnipeg to form the United Grain Growers (Ltd.)

100. In the last year or two the movement towards centralised marketing has undergone further important developments. For the purpose of selling, an organisation known as the Saskatchewan Co-operative Wheat Producers Ltd. has been formed with headquarters at Regina. Members of the company, who already form a substantial proportion of the wheat growers in the province enter into a five years' contract to sell the wheat through the company. Very similar arrangements have been made in Manitoba and Alberta, the respective organisations being the Manitoba Co-operative Wheat Producers Ltd., with headquarters at Winnipeg, and the Alberta Co-operative Wheat Producers Ltd., with headquarters at Calgary.

101. To complete the system of centralisation only one step remained, namely, to unite the three Provincial pools into one organisation. This step has now been taken. The Canadian Co-operative Wheat Producers Ltd., with headquarters at Winnipeg has been formed as the central selling agency for the above three producers' pools and will operate for the first time in respect of the 1924-25 crop. Eight of the chartered Canadian banks have agreed to provide \$25,000,000 for the purpose of financing the inter-provincial wheat pool.

102. In most provinces of Canada and in the States of Australia and New Zealand and South Africa (and the United States of America) special legislation has been enacted to enable co-operative associations to function on the general lines which have been indicated above. In other words, the general principle of centralised control of marketing in these countries has been recognised by law.

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† Dunning, speech to Conference on Agricultural Co-operation, July 29th, 1924.

103. We believe it to be the case that in each of the Dominions, State action has been taken with the object of promoting co-operative or other forms of centralised trading. This action has been either legislative or financial or both, and has been already applied to organisations concerned with a large variety of agricultural commodities. The most significant examples are afforded by the Commonwealth of Australia and its constituent States, and we may refer in this connexion to the Dairy Produce Exports Control Act, 1924, under which the control of exported butter and cheese will be placed in the hands of a single Board.

104. The case of Queensland provides what is perhaps the most remarkable example of the degree to which legislative support of centralised marketing has been carried. Queensland not only permits, but in certain circumstances compels, producers to market through a central association. Under the Primary Products Pools Act, 1922, provision is made for the constitution of a compulsory pool for any agricultural commodity at the request of a specified number of growers of such commodity, with provision also for a poll to be taken on the question if such is demanded. Under this Act the following pools have been constituted :—

Egg Pool,  
Cheese Pool,  
Maize Pool,  
Pig Pool;

while a compulsory wheat pool under the Wheat Pool Act, 1920, has also been in operation. The "Survey of Agricultural Co-operation in the Empire," prepared by the Horace Plunkett Foundation from information supplied by the respective countries, contains the following remarkable statement :—

" Voluntary co-operation is in Queensland deemed to be an anachronism and quite out of date. It has time and again been demonstrated that a minority holding aloof from co-operative activity frustrates the endeavour of an organised majority. The value of loyalty under voluntary co-operation is not deemed to be in any way comparable to the security afforded by the compulsory system."

105. We have given the above examples in order to illustrate the almost revolutionary character of the movement which is so rapidly changing the system of marketing agricultural produce in the great producing countries overseas, and also because we think that British agriculturalists have failed to perceive the significance of this movement in its bearing on agriculture in this country. We believe that the time has come when it is a matter of almost vital concern to British farmers to recognise the importance of these overseas developments, both as an example of up-to-date methods of agricultural marketing, and

in their effect on the competitive power of imported produce in British markets.

106. How far the system of co-operative marketing on the lines illustrated in the preceding sections would be applicable to this country must depend largely on experience. The special conditions governing the production and distribution of the home grown crops at present must be considered in any proposals to develop a co-operative marketing organisation. No one would deny that the sale and distribution of farm produce in Great Britain is carried out in conditions widely different from those of such countries as the United States, Canada, or Australia. But this is not to say that there is nothing to be learnt from the developments which have taken place in these countries. We may accordingly sum up our views of the matter as follows :—

107. We believe that the experience of the countries we have referred to, has gone far enough to establish the general principles upon which agricultural co-operation may be used to promote the orderly movement of produce to markets. We see no economic reasons to prevent the gradual application of these principles to crops produced in this country, notwithstanding the fact that these crops are consumed at home, and not (as in America, Denmark and elsewhere) largely exported. We think it is desirable to see local marketing societies organised upon commodity lines, federated together through a central organisation and resting upon binding contracts between members and their societies. The central organisation should be managed by highly skilled and adequately paid officials, for the failure to realise the importance of skilled management has been responsible for a very large number of failures amongst co-operative societies in this country. The provision of storage accommodation to enable co-operative organisations (such as dairy, bacon, wool, egg and poultry societies) to hold their produce when it is so desired, would form a necessary part of the system, but we believe that where practicable storage by contract with storage companies rather than in warehouses owned and operated by co-operative undertakings, might prove to be the best method.\*

108. Credit to enable the co-operative societies and individual farmers to hold produce in store, and to make advances to members on their produce so held, is a factor of vital importance in the system we are suggesting. We have no reason to doubt that generally speaking the joint stock banks would be able to provide the necessary accommodation. The difficulty (judging by the experience of other countries) is mainly one of security, but if storage is effected by contract between a co-operative

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\* In some cases storage on the farm would seem to be the best arrangement. This subject requires investigation.

society and a second corporation, we think this difficulty could be overcome. We attach considerable importance to this branch of the marketing problem and we consider that further investigation is required. We desire to say at this point, however, that should it be found impracticable for the joint stock banks to furnish adequate marketing credits to co-operative societies, we think the State should be prepared to give some measure of assistance.

109. The growth of such organisations must necessarily be gradual, but if they are developed always with a clear grasp that their ultimate object is *to ensure an even flow of farm produce to market*, we do not doubt that co-operation might prove to be as great an advantage to British Agriculture as it has been to that of foreign countries, and might eventually lead to the prevention of speculation, to the elimination of much unnecessary waste in the present distributive system, and thus to the economic betterment of the whole agricultural industry.

110. We have spoken above of the two functions which collective marketing can fulfil—steady prices on the one hand and economical grading and packing on the other. It would be hardly within our reference to discuss the latter aspect of the question in detail. We may, however, say that we believe the adoption where practicable of the practice of efficient grading and standardisation would contribute to greater stability. There cannot be any doubt as to the substantial benefits which systematic grading has conferred upon Danish agriculture, and the adoption of statutory grading and testing in respect of exported produce in Canada, Australia and New Zealand has come about, we believe, because it has been recognised to benefit the producer. We therefore think that in considering any steps which might be taken by the State to foster co-operative marketing in this country, attention should be paid to the question of promoting grading, either by legislation or otherwise.

111. It is hardly necessary to point out how much the system of orderly marketing must depend on the use of adequate statistics in regard to production and prices of agricultural commodities. Clearly, the policy of any central co-operative marketing association must be guided by such statistical information, and the capacity to understand and to judge it must be one of the chief conditions of efficient management. We suggest that a direction in which the State might give assistance would be in the provision, at a low cost or free of charge, of information of this kind, with a view to enabling co-operative associations to judge not only of the present conditions of the market, but of the tendencies at work, both at home and abroad, which might affect the market in the future.

112. There is one objection of principle to the system of co-operative marketing which we have suggested above to which we feel bound to refer. It is the danger that the system might lead to the development of a few monopolistic organisations having control over a very large proportion of the food grown in this country, which would use their powers to force up prices, and consequently would become a social menace. There are, we believe, two reasons why this will not happen:— (1) A co-operative marketing association does not control production. In the United States an attempt by a highly developed co-operative organisation to force up the price of raisins led to an immediate increase in production, so that prices very soon slumped and the co-operative organisation suffered severely in consequence. We believe that this must be the inevitable consequence of such a step, so long as individual producers are free to grow what they wish. (2) The competition of food from overseas will always tend to maintain prices at a competitive level, so long as this is imported in adequate quantities.

*Commodities mainly imported from Abroad.*

113. In turning to the question of imported commodities, we recognise not only that it is a subject upon which less guidance can be drawn from past experience, but that it is also one upon which there is likely to be a wide difference of opinion. It may be thought, on political grounds, that the results of an attempt to modify, through some control of supplies, fluctuations in the prices at which imported food-stuffs are sold in this country, would be dangerous, whether it were done in co-operation with exporting countries or otherwise. It may even be held that, apart from political considerations, to aim at stabilising the prices of such commodities is intrinsically undesirable. We propose, however, on the assumption that it is desirable, to refer briefly in the following paragraphs to the kind of organisation which we think could be used to attain these objects. In so doing, we propose to confine ourselves to the two most important commodities, namely, meat and wheat.

114. It should be stated at once that we do not feel any doubt that British agriculture has suffered more from the fluctuations in world's prices of wheat than it has done in the case of meat, and that in this sense the latter is of less importance. The degree to which prices of imported meat have influenced the home produced product has already been referred to and illustrated in diagrams 5 and 7. But the problem of meat cannot be dissociated from other considerations affecting the interests of British consumers and Dominion producers which have from time to time brought the subject into prominence. To quote the words of the Interim Report of the Linlithgow Committee on meat, poultry and eggs (p. 99): "No enquiries into any aspects of the British meat industry can proceed far without realising how largely its welfare depends upon external con-

ditions beyond its control. These external conditions govern the character and extent of the competition which the British home producer has to meet from sources overseas both within and without the Empire, and they are continually changing." Moreover, the question of the control of meat imports has, in recent times, been referred to in more than one quarter as a possible means of improving the conditions of British and Dominion agriculture and benefiting the British consumer.\* For these reasons we have included meat, together with a discussion of the more important case of wheat.

115. The present position may briefly be summarised as follows. This country is faced not only with a continuation of the fluctuations in world's prices with the consequences to British farming to which we have referred earlier in this report, but also with the growth of combinations in exporting countries which are gaining an ever increasing control over the marketing of their exportable surpluses, and (in the case of meat) an increasing influence in the markets of this country. We have already discussed the chief form of these organisations in the wheat trade. As regards meat, we need not dwell on the organisation of what is sometimes called the "Meat Trust," the general character of which is well known. We refer to this in a later section. The problem before this country is how long it can afford to ignore these conditions which in their reaction on British markets may exert so profound an influence.

116. At the outset we would state our view that to promote an orderly flow of these commodities to British markets, in so far as this would bring greater stability to the internal organisation of British agriculture, is at least as desirable as in the case of commodities mainly produced at home. It is manifest, however, that the type of organisation we have hitherto discussed is inapplicable to imports, and in this sense the problem of imports is of a widely different character. Nevertheless, we think that if these ends are to be accomplished, it can only be done by the application of the same principle—namely, that of centralisation—to the importing machinery. A centralised authority entrusted with the purchase and re-sale of the country's requirements of wheat (or meat) from overseas, could do what the present system cannot do. It could not only pursue throughout the year a uniform buying policy, but it could sell in this country at uniform prices based on the average of its total costs spread over a year or longer period. We therefore suggest that if a solution of this problem is to be sought, it lies in the centralisation of the *whole* of the machinery concerned with the importation of wheat and meat respectively.

117. In our opinion, however, it would be impossible to devise a system of orderly marketing of imports on these lines

\* See quotation from the speech by the Rt. Hon. S. M. Bruce, page 68.

which would at once protect British agriculture from the consequences of fluctuations in world's prices and British markets from domination by foreign organisations, except through participation, or at least supervision, by the State. We do not see any escape from this conclusion. Private trading organisations, even if they were otherwise capable of undertaking so gigantic a task, could not with safety be entrusted with the high degree of control over the nation's imported food supplies which would be necessary in order to secure the objects in view. Furthermore, the system we are suggesting must involve some interference with the flow of imported supplies and the price at which they are offered in the home market. To this extent the proposal is as opposed to the policy of "laissez faire" as is the system of protective tariffs.

118. We would not attempt to minimise the many difficulties—technical, administrative and political—which must be met in any attempt to accomplish a reform so far-reaching. The expediency of any measures of reform must rest upon the value we attach to the advantages they might confer, and the importance we attach to the disadvantage which the present system offers. In like manner, the practicability of any remedy must stand the test of close scrutiny from the technical as well as the economical point of view. Moreover, if any attempt were made to modify the existing system of importing wheat and meat, it would clearly be a matter in which the Dominions would be interested and in which they would have to be consulted. For these reasons we shall not attempt in this report to bring the matter to a final conclusion. We propose rather to confine ourselves to putting forward certain suggestions for further discussion and enquiry as indicating the general lines which practical reform might follow—proceeding on the assumption that the general aims of such a policy are desirable.

119. That opinion on this matter has recently been moving in this direction is indicated by the following quotations. In his speech before the Imperial Economic Conference on October 9th, 1923, the Rt. Hon. S. M. Bruce, Prime Minister of the Commonwealth of Australia, said:—

“The last method that I desire to bring to the notice of the Conference is what has been called a ‘stabilisation policy.’ But, before outlining this method, I think it desirable to refer very briefly to the proposals that have been put forward from time to time for the establishment, for strategical purposes, of national reserves of such essential foodstuffs as, for instance, wheat.

“When we remember the enormous difficulties that Great Britain had to encounter in maintaining her food supplies during the war, and when we remember that it has been stated that during the height of the submarine campaign in 1917 Great Britain was within three weeks of actual starvation, adequate national reserves appear to

have the utmost strategic value. This stabilisation policy to which I am about to refer appears to require for its proper functioning some form of national reserves also. The idea of a stabilisation policy is that a system of Protection and Preference could be brought into effect, without any tariff, to give the maximum advantage to Empire agriculture, and at the same time to safeguard and benefit the British consumer. This is a suggestion for a deliberate policy of the stabilisation of prices of such essential commodities as meat and wheat.

“The sources of supply of foodstuffs can be classified under three heads, *i.e.*, British, Dominions and Foreign. It is proposed, under this system, that the British product should be left entirely free and uncontrolled. In other words, the British farmer would be free to continue to market his produce precisely as he is doing it at the present time.

“The Dominion produce would also be freely marketed so long as the quantity required from foreign sources was sufficiently large to allow the control of the entire foreign imports to effectively stabilise the price of the commodity in question in Britain.

“The foreign supplies would be controlled by a National Purchase Corporation for either meat or wheat, the corporation to buy from foreign countries the shortage between what the British and the Dominion producer could supply and the total requirements of the country.

“If these proposals are taken in conjunction with the idea of national reserves of foodstuffs, and if the control of the national reserves were vested in the National Purchase Corporation, it will be seen that in the case of, say, wheat, the controlling authority would be able to regulate the flow of foreign imports on to the London market in two ways: Firstly, by the amount actually allowed to enter Great Britain; and, secondly, by the rate at which foreign wheat was allowed into the market from the national wheat granaries. In the event of any shortage of British and Dominion supplies, and a tendency to increase all prices in the market, the National Purchase Corporation would release additional foreign wheat so as to prevent prices from rising. If prices were falling below the figure at which it had been decided to stabilise, the supplies of foreign wheat would be curtailed or temporarily shut off so as to keep the price stable.

“The advantages of the scheme seem to be: First, it would involve the very minimum of control; British agriculture would be left entirely free; and control would only apply to a certain phase of wholesale business—the actual importation of foreign goods into Britain. The second advantage would be the elimination of fluctuation. In the interests of both the producer and the consumer, fluctuation of price



is generally detrimental. Fluctuations only benefit the speculative middleman. When prices soar, the producer rarely receives the full value of the increase, but the consumer invariably has to pay it. A severe fall in wholesale prices is very rarely fully reflected in the retail price to the consumer, but is always completely felt by the producer. It would therefore seem that stable prices would benefit both the producer and the consumer. It seems possible that a system of this sort, if found workable, might enable us to realise fully all our three objectives.”\*

119. Proposals on somewhat similar lines have recently been suggested by the Independent Labour Party.†

120. On June 18th, 1924, speaking on the question of Imperial Preference, the present Prime Minister said :—

“ If, for the moment, the country will not take certain courses of action, we must try to find others. Is it not possible to enter into some arrangement with the Dominions by which the enormous amount of foodstuffs we require to-day may be obtained solely from them by bringing them into this country at cost price, and distributing them with the least possible margin ?” The then Chancellor of the Exchequer, Mr. Snowden, stated in reply that he understood the proposal was “ that the Government of Australia and the Government of this country shall come into an arrangement by which the whole of the food products of the great Australian Commonwealth shall be sent to this country under the control of a Government organisation and shall be distributed to the people of this country at a price only just sufficient to cover the working costs.” He stated that the Government would examine the proposal and had already proposed to the Dominions that a permanent Economic Committee should be set up “ for the purpose of considering the possibility of improving the methods of preparing for market and of marketing within the United Kingdom the food products of the overseas parts of the Empire, with a view to increasing the consumption of such products in the United Kingdom, and promoting the interests of both producers and consumers.”‡

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\* Imperial Economic Conference : Record of Proceedings, Cmd. 2009, pp. 80 and 81. Mr. Bruce's proposals were considered by the Food and Materials Committee of the Conference, but they rejected the plan of State purchase on the ground that it would involve price regulation at all stages and other difficulties associated with war-time control. Mr. Bruce pointed out, however, at a later stage of the Conference that the experience of war-time control was no criterion since the control then exercised was designed to limit consumption and to check inflation of prices by rationing consumers. The position was now quite different, since there was no shortage of supplies.

† See “ A Socialist Policy for Agriculture,” 1924.

‡ Parliamentary Debates, House of Commons, Vol. 174, 1924, cols. 2168 and 2260.

*Application of Centralised Marketing to  
Imported Wheat and Flour.*

121. In considering the possibility of introducing any system of centralised purchase of imported wheat and flour, it is important to bear in mind the experience of the Wheat Commission during the war, and to examine in what respects the problem of stabilisation in time of peace differs from that of controlling supplies in time of war. The Royal Commission on Wheat Supplies was appointed by Royal Warrant, dated October 10th, 1916, "to enquire into the supply of wheat and flour in the United Kingdom; to purchase, sell and control the delivery of wheat and flour on behalf of His Majesty's Government, and generally to take such steps as may seem desirable for maintaining the supply." On October 27th, 1916, and April 25, 1917, the terms of reference were extended first to "other grains" and then to "all other cereals," pulses and the products thereof. By the spring of 1917, the Commission had become the sole importer of "wheat, maize, rice, barley, rye, oats, peas, beans and other pulse, flour, and every kind of product of a cereal character and all substitutes therefor."\* It continued to function until August, 1921, and thus exercised control during two years of war and two and a half years of peace. Its total purchases on behalf of the United Kingdom during the four-and-a-half years of its operations amounted to £1,400,000,000, in addition to which purchases to the value of £250,000,000 f.o.b. were made on behalf of Allied and other European powers. The total cereal imports of the United Kingdom during this period were about 10,000,000 tons a year, and in addition to purchasing abroad the Commission was responsible for organising the distribution of this quantity in the form of flour and other products through all its intermediate stages to meet the demands of 40,000 bakers and 100,000 retailers of bread and flour at home. The administrative expenses incurred in connection with the business transacted by the Commission averaged about 1s. 2d. per £100 or one-seventeenth of one per cent. The personnel and staff of the Commission was recruited almost entirely from persons engaged in commercial and technical pursuits, only four per cent. being established Civil Servants.

122. One point worth emphasising in connection with our present enquiry is that the Commission did not so much eliminate the existing machinery of private trade as utilise it for public ends. Both in the United Kingdom and in overseas markets British firms were employed as agents of the Commission on a fixed basis of remuneration. Instead of buying on their own account, they bought and sold under the instructions of and for the account of the Commission. The best brains in the grain trade were at the service of the Commission, and the skill, knowledge and judgment of private firms were placed in a common pool.

\* First Report of the Royal Commission on Wheat Supplies, Cmd. 1544, p. 1, par. 3.

It is clear that in any scheme of State purchase which may be considered in the future the co-operation of private traders must, at any rate in the earlier stages, remain an essential condition of technical efficiency and success.

123. There are, of course, other considerations into which further enquiry is necessary before the practicability of any scheme of centralised purchase could be determined. There is first the attitude of traders themselves. Considerable opposition is to be expected to any revival of State control in times of peace; nevertheless, it would be interesting to obtain the true opinion of representatives of important British grain importers as to the comparative advantages to themselves of conducting a safe business as agents for a public body on a fixed remuneration, and carrying on a more or less speculative trade on their own account under conditions of constantly fluctuating prices. No doubt the latter is the more interesting and congenial and holds out the chance of big prizes; but in the long run would it be more or less profitable to private firms than the former?

124. A further point on which more light is needed is the technical difficulty of buying and selling on such a large scale, and the degree of risk involved by errors of judgment on the part of the controlling authorities. No evidence, so far as we are aware, has been published showing the extent to which the Wheat Commission made miscalculations as to supplies, demands, or the probable course of prices, and the financial consequences of their mistakes. It is reasonable to suppose that the difficulties of making true calculations were greater in time of war and in the two and a half years after the Armistice when monetary disturbances and exchange fluctuations were at their maximum.\* But the Commission's Report suggests that these difficulties, great as they were, were overcome with a surprising measure of success, and that the experience of the Commission as a whole provides no adequate ground for rejecting the plan of centralised purchase in normal times as impracticable or economically unsound.

125. At the same time we are fully aware of the weighty political objections to any scheme involving State purchase. With this aspect of the question we are not directly concerned in this report; we confine ourselves to pointing out that the Royal Commission on Wheat Supplies were singularly free from political interference and even Parliamentary criticism, and that they themselves attribute part of their success to this fact. In their own words, "The accepted system of public and concurrent scrutiny of the normal financial work of Government Departments is not readily reconciled with the attitude of reserve which is advisable in the case of commercial operations."†

126. It is probable that the machinery of a Royal Commission appointed by Royal Warrant and acting on behalf of the Crown

\* The task of the Commission was to some extent simplified by the centralisation of exports in most of the exporting countries.

† Cmd. 1544, p. 15, para. 70.

would not be the most convenient method to adopt as a permanent arrangement. In order to ensure that combination of public control and commercial elasticity which we believe to be necessary, it might be preferable to create a corporate statutory body with a capital of its own provided or guaranteed by the State. The State would then occupy the position of sole shareholder or stockholder, and would of course appoint the Board of Directors; but the Corporation would be an independent legal entity separate from the Crown and free from the direct financial and administrative control of Ministers and Parliament. This might tend to diminish the influence of political and diplomatic considerations such as are likely to affect the operations of a Government department.

127. The object of the Board would be to make neither a profit nor a loss on its transactions as a whole, but to sell imported wheat and flour at steady prices which would as nearly as possible correspond with the average cost. Its buying policy might also be designed with the object of steadying prices in the world market, and, since the British demand constitutes a considerable fraction of the total demand of importing countries, it might possibly prove that the British Board as the largest single buyer in the market would exercise a determining influence on world prices. As a further means of steadying prices, the Board might seek to enter into contracts with Dominion Governments and producers' pools for the bulk purchase of their crops for a year ahead. Provision might even be made in such contracts whereby any difference between the contract price and the average world price over a period should be apportioned between the two parties.

128. After the Board had been operating for a few months and had had time to make a rough estimate of the probable course of prices and supplies, it might be prepared to announce the basis of prices at which it would sell imported wheat in the home market for a definite period ahead. Only experience can determine for what periods it could safely keep the price steady; it is fair to assume, however, that the Board would be able to avoid constant changes of price and succeed in smoothing out the monthly and seasonal fluctuations that now take place. To put the case at its lowest, changes in wheat prices should not be more frequent than, say, changes in petrol prices under the organised marketing system of the large oil companies. Even a modest approach to greater stability in the price of wheat would confer a substantial benefit on British farmers.

129. It has sometimes been argued that the effect of concentrating in the hands of a single buying agency the total demand for imported wheat might be to accentuate fluctuations in world prices rather than to steady them. If the Board held off the market when prices were falling, it might aggravate the fall; and *vice versa* if it bought large quantities on a rising market (which it might naturally be tempted to do), the effect would be to exaggerate the rise. This view implies that the Board would

endeavour to "beat the market" by choosing its own time to buy. But any scheme for centralised purchase on the lines we are here considering, pre-supposes that the Board's buying policy would be actuated by the same general desire for stability, which now actuates the selling policy of (for example) the central overseas selling agency for the Australian Co-operative Organisations. It would aim at buying steadily.

130. In this connection we would call attention to the following consideration. We understand that about 50 per cent. of this season's Canadian wheat crop is being handled by the Canadian Co-operative Wheat Producers, Ltd. on behalf of the three provinces—Manitoba, Saskatchewan, and Alberta. Already the bulk of the exportable surplus of Australia is handled through a centralised co-operative agency. When Russia resumes export there is every reason to expect that she will also do so through a central authority, and it would not be surprising if similar developments were to take place in the United States (where schemes of the kind have frequently been proposed) and in the Argentine.

131. In such circumstances the position of a centralised British wheat importing authority, such as that suggested by the Australian Premier or that which we have outlined above, would be very different from one in which the whole of the British requirements were purchased in the speculative wheat markets of the world. It would now be possible for a large proportion of the British needs to be bought by direct contract between the British importing authority and the producers organisations, leaving only a small proportion to be purchased in the speculative market. This seems to us the logical outcome of the world movement which we have already described.

132. Such a system would, we believe, at once have a stabilising influence on prices in this country and might even enable imported wheat to be sold throughout the year at unvarying prices based on an average of the costs of importation, with relatively small changes from year to year. If the British Wheat Board, in contracting with the exporting organisation, were met with a like desire for stability on the part of the former bodies, it would be a factor which might have far-reaching effects not only upon British but upon the world's markets.

133. An objection to this system which is bound to carry some weight is based on the experience of Government trading during the war. It is said that any attempt by a centralised wheat authority in this country to contract with producers abroad for delivery over a long period would lead to political and diplomatic complications between the Governments of the respective countries; when world's prices temporarily moved above the contract price, it might even be difficult to enforce the contracts. We cannot estimate how much force there may be in this objection, but we hold strongly that any system of long term contracts must rest on a common desire for stability amongst those nations which are chiefly concerned.

If the system were not understood and its objects not desired by producers abroad, we think that it would be impossible both commercially and politically. On the other hand we think there is evidence that a desire for stability is rapidly gaining ground in the exporting countries. With the gradual spread of this desire the political objections to these proposals should be greatly diminished.

134. We think it not unreasonable to imagine that as regards the British Empire, developments upon these lines might lead to a systematic interchange of information amongst the countries of the Empire in regard to requirements, stocks, purchases, sales, etc., with the object of pursuing a common Imperial policy and thus of achieving what we understand to be the fundamental idea in Mr. Bruce's proposal, namely an orderly marketing system for Empire grain.

*Application of centralised marketing to imported meat supplies.*

135. We have referred in an earlier section to the action taken by the New Zealand Government as a result of which the export trade in frozen meat from New Zealand is controlled by a centralised authority—the Meat Producers Board. An Australian Meat Council has recently been created with less extensive powers, but a similar object. In the Argentine, which is the principal source of supply for chilled beef, the export trade is in the hands of a few large packing companies, mostly British and American. The American firms, according to the evidence given before various Commissions both here and in the United States, are accustomed to work together and are generally referred to as the "Meat Trust." In the South American trade, there are about 8 or 9 firms who pool tonnage and allocate freight space between them. The Report of the Inter-departmental Committee on Meat Supplies published in 1919, says (p. 10) ". . . such pooling is one of the best known forms of 'Kartell,' entailing important economic consequences. Rivalry in purchase of cattle ceases to be necessary, and, as each of the companies in the 'conference' has full knowledge of what meat is coming forward and what the others are doing, there need be no rivalry in selling." Further, since the war there has been a rapid growth in the consolidation of British Companies operating in the Dominions and the Argentine. According to the Linlithgow Committee\* "one importing organisation with a capital of nearly nine millions sterling recently announced its control of about 2,400 retail shops, depôts and market-stalls throughout the country." A large proportion of the cold storage in London and the provinces is also owned by this firm.

136. There is thus in the imported meat trade a large degree of combination already in existence. Centralised control of

\* Interim Report on Meat, Poultry and Eggs, p. 100.

marketing, though not collective marketing in the sense in which we have used the term, is in operation covering more than half the supplies of frozen meat sold in this country. This fact, which has been held on other grounds to be undesirable and a menace to the interests of producers and consumers, does at any rate make it easier to establish some system of central control of imported supplies. The experience of the war showed that State purchase of foreign meat and its resale in this country through the usual channels was a far simpler proposition than any control over the marketing of home produced meat.

137. Public control over the marketing of imported meat might be exercised in two distinct ways. Doubtless there are many possible schemes varying in detail, but the main division between them will be the same. Control may be exercised either (1) by centralised purchase and resale at steady prices; or (2) by regulating shipments to this country, and thereby controlling the flow of supplies to the market and only indirectly the level of prices.

138. The most thorough-going plan based on the principle of State purchase is that referred to by the Linlithgow Committee in their Report on Meat, Poultry and Eggs (p. 101).

“ The suggestion has been made to us that in order to stabilise prices over a long period and to prevent exaggerated fluctuations, an Imperial Meat Corporation should be established in co-operation with the Dominion Governments to control the importation and marketing of frozen meat supplies from Imperial sources. Such a Corporation would guarantee prices for a number of years to overseas producers; it would control the cold storage in this country and the refrigerating works in the Dominions; and it would buy from non-Empire countries at world prices from time to time only such supplies as were needed to make up deficiencies in British requirements. The home producer, it is claimed, would benefit by a steady market, the home consumer by the elimination of price fluctuations which, in the long run, are always detrimental to his interests.”

139. Such a Corporation would presumably function as a statutory company with the British and Dominion Governments as the principal or sole shareholders, and like the Wheat Board, would aim at making neither profits nor losses. Existing shareholders in British companies which were taken over might become guaranteed stock holders or debenture holders, and provision might be made for Dominion producers' representatives to participate in the management. One advantage of this plan is that the proposed monopoly would be run on commercial lines and would not be too closely identified with any administrative Department of the Government. The expert management required would be drawn from the ranks of existing Directors and Managers of British and Dominion meat companies, some

of whom have already had a somewhat similar experience of public service in the Ministry of Food during the war.

140. An alternative, which would involve less drastic re-organisation of the trade, would be to create a Meat Import Control Board with power either to purchase and sell on its own account or to regulate and restrict imports on private account. Under this plan imports from the Dominions would be left free to be marketed through the existing channels and the Board would confine its operations to the purchase of foreign imported meat from the Argentine and elsewhere. An understanding would, however, be necessary between the Board and the Dominion producers with regard to their proposed programme of shipments during each ensuing season, and constant interchange of views and information would have to take place in order to ensure the orderly marketing of supplies from all sources. The New Zealand Meat Producers Board and the Australian Meat Council would thus continue to regulate Dominion shipments and would have the benefit of exact information from the British Board as to the shipments from the Argentine. They would also know the amount of frozen meat held in the cold stores, which would necessarily fall under the general control of the Board. Needless to say, this scheme would involve no control of retail prices or limitation of consumption on the lines of war-time control and is not, therefore, open to the objections contained in the report of the Food and Materials Committee of the Imperial Economic Conference referred to above.

*The Dependence of any such System upon a Common Desire for Stability.*

141. In the above pages we have been concerned with the general principles which appear to us to be applicable to the problems referred to us. If greater stability is desirable, we believe that it may be attained by applying these principles. As regards the home crops, these matters are primarily the concern of our own farmers and persons engaged in the distribution of farm produce, but in the case of commodities which are mainly imported, they are the concern, not only of home producers and consumers, but of producers in exporting countries. This necessarily makes the problem much more complex. As we have already indicated, any organisation aiming at stabilising the prices at which food is imported into this country must, in our opinion, rest on a fairly general wish for stability amongst those it concerns. In the absence of such a desire, the political and diplomatic difficulties would be very great. By merely buying in the speculative market and selling at an average price for a year or so, an Import Board might succeed in stabilising internal prices of wheat (and meat) and thus conferring a considerable



benefit upon growers in this country. But if a wider stability is to be sought—such as we have outlined above—the problem must be approached internationally; the co-operation of producers abroad is necessary, and the desire to create a more stable system must be shared by them. In our opinion the evidence points not only to the existence of a desire for stability in exporting countries, but to a growth of this idea which is considerably in advance of our own. Nevertheless, as this lies at the root of the whole problem, we think that an expression of opinion by these countries should be sought. From the point of view of Great Britain the most important countries concerned, in the case of wheat and meat, are Canada, Australia, New Zealand, the Argentine and the United States of America. As regards Canada, Australia and other Dominions, an exchange of views will, no doubt, take place in the near future through the Imperial Economic Committee. The point of view of the Argentine and United States producers might be ascertained through diplomatic or other channels. Lastly we suggest that the question might well be referred for further investigation and research to the International Institute of Agriculture in Rome, and to the Economic Section of the League of Nations.

142. Should evidence be forthcoming of a readiness on the part of these countries to co-operate in developing a system on the general lines we have suggested, with the object of reducing the fluctuations in prices of food imported into this country, then we think the time would have arrived for a more detailed examination of such proposals as have been put forward for the public control of imports of food, including the suggestions made by the Rt. Hon. S. M. Bruce at the Imperial Conference in 1923. The investigation should be conducted with the objects of elucidating the benefits which might reasonably be expected to accrue to British producers and to British consumers, and the technical and administrative problems which might be involved in putting any such proposals into operation. The investigation should also be conducted with the full recognition of the significance of the world-wide movement towards centralised trading upon which we have endeavoured to lay emphasis in this report.

#### *Present Position of Agriculture.*

143. In conclusion, we wish to make the following observations :—

After suffering a disturbance more violent than any for which there are statistical records, agricultural prices and the prices of commodities which the farmer has to buy, have now settled down to a fairly steady level. The level of agricultural prices as indicated by the index number prepared by the Ministry of Agriculture and Fisheries, compares favourably with that for general wholesale prices as shown by the *Saisi's* index number (in both cases calculated upon the average of 1911–1913).

TABLE 13.

Index Number.	Average of 1923.	Average of August, September and October, 1924.
Agricultural prices - - -	157	161*
Wholesale commodities - -	153·6	170·3
Wholesale commodities other than food.	147·7	161·7

British farmers have, therefore, escaped the special economic disabilities under which farmers in the United States, Canada and elsewhere have laboured for the last three years, in consequence of the level of agricultural prices having fallen below that of general wholesale commodity prices—a factor which has proved to be a severe handicap to agriculture in these countries since the general fall in prices in 1920.†

144. Again, the present level of agricultural prices compares favourably with that of the principal costs of production. Taking the average of the index numbers for the year, 1923, and for August, September and October, 1924, the following table shows the relation of agricultural prices to the chief costs of production (average of 1911–13 = 100).

TABLE 14.

	1923.	Average of August–October, 1924.
Agricultural prices - - - -	157	161*
Wages - - - -	156	156
Fertilisers - - - -	123	116*
Feeding stuffs - - - -	136	161*
Rent (say) - - - -	115	115
Railway transport (approx.) - -	152	152

145. We may, therefore, sum up the present position as follows:—

It is reasonable to conclude from the above data that the economic conditions which ordinarily determine the prosperity of agriculture, are not only no worse than before the war, but have slightly changed to the farmers' advantage. In these conditions there is nothing to prevent the business of farming being pursued

\* Based on the average of the corresponding months of 1911–1913.

† In the United States the prices of farm produce fell in 1920 substantially below that of general commodities and have remained so ever since. In August, 1923, the index figure for farm produce was 135, as compared with 151 for all commodities, and in July, 1924, was 141, compared with 147 for all commodities.

at least as successfully as in 1913. On the other hand there are two factors which we think may prove prejudicial to a revival of agricultural prosperity. Firstly, there can be little doubt that many farmers lost a large amount of their war savings during the fall in prices in 1920, 1921 and 1922, that they are in need of capital, and, in many cases, may be more indebted to the banks and others than before the war. Secondly, the farmer—particularly the arable farmer—has lost confidence. It is the latter which we think is the more important factor. That confidence is undermined by a severe trade depression is the common experience of all industries, and farming is no exception to the rule. On this account we should not be surprised to see a further decline in the arable acreage, notwithstanding that it might not be justified by the course of prices; for so long as the farmer is in a state of uncertainty, he is bound to be guided primarily by considerations of prudence and safety.

146. In other words, while there is every sign that its general economic environment is favourable to a revival of British agriculture, the difficulty at the moment is that the farmer does not believe it. In our opinion the immediate need of agriculture is, therefore, the restoration of confidence in the reasonable stability of the economic conditions upon which alone agricultural enterprise can prosper.

147. Looking further ahead, to a time when the effects of the economic upheaval of the last decade have ceased to be so prominently in the minds of agriculturists, we think it is necessary that farmers and others should pay more attention than has hitherto been the case, to the causes which, in ordinary conditions, determine agricultural prices. The financial success of agriculture in the end rests upon the relation of prices to costs. The knowledge of the economic conditions upon which prices are based should, therefore, be at the foundation of any constructive policy. If these matters were more carefully studied we believe that it would lead to greater attention being paid to the marketing side of the agricultural problem than has been the case in the past, since the conditions of distribution and marketing—as we have endeavoured to show—exercise a profound influence upon the prices at which agricultural produce is sold. We suggest that in the more scientific organisation of marketing lies the best hope of the permanent improvement of British agriculture.

## MEMORANDUM ON THE DECLINE OF BRITISH AGRICULTURE BETWEEN 1874 AND 1896.

1. About the year 1872 British agriculture reached a condition of prosperity which has never been surpassed. It was the end of a long period of improvement beginning somewhere about 1853. During these 20 years, prices had steadily risen, holdings were improved, drainage operations were widely carried out, artificial fertilizers came increasingly into use, and there was a great improvement in farm implements. Crops, during this period, reached limits which have never been exceeded.

2. But approximately in the year 1874 agriculture suddenly began to decline; the prosperity came to an end, prices fell, and agriculture fell back into a condition of depression which lasted till about 1896. In this great decline, agriculture suffered a set back from which in many respects it has never recovered. Throughout this period the prices of agricultural products steadily fell, and the movement was accompanied, year by year, by a steady reduction in the arable area.

3. The depression reacted with greatest severity upon arable farmers. To a large extent the nature of the soil was a measure of the acuteness with which it was felt, and it was this factor which also largely determined the permanent effect the depression had on rural life in many parts of the Kingdom. The very heavy clays which were hardest and most costly to work, and the lightest lands which were artificially brought into a state of high cultivation under the stimulus of high prices for corn, suffered the most. This happened in Essex, Suffolk, Norfolk, Wiltshire, Hants., Berks., Beds., Northants, and other counties. Where on the other hand, the soil was rich and fertile and easy to work, the losses and general deterioration of agriculture were less severe. In Essex, whole tracts of land which previously had yielded heavy crops and paid high rents passed out of cultivation, while "hundreds of the men who spent their lives in earning those rents were ruined and obliged to give up farming." To quote Mr. Shaw-Lefevre, Chairman of the Royal Commission on Agriculture which published its first report in 1894, "no one can well conceive, who has not seen it, the condition to which a large part of the land, which has been allowed to tumble down to grass, has been reduced. A real calamity has fallen upon a wide district. The farmers and labourers have gone. The farms, where let, have been taken rather as ranches for cattle than for serious cultivation. The farmers who have survived have lost heart."

4. During this period the general level of prices fell by approximately 40 per cent., and the actual operation of falling prices was clearly indicated in the evidence before the Royal Commission. Essex farmers, for example, began to break as soon as wheat went below 50s. per quarter, *i.e.*, from 1875 onwards.

Many were ruined. Between 1880 and 1889 an enormous number of changes of tenancy took place and "everywhere farms have been falling from old rents of 40s. to 25s. down to a shilling or two, or the Tithe, or absolutely nothing."\*

5. Again, the same disastrous course was recorded in Suffolk and Norfolk "because with rare exceptions, the Suffolk soil is not suited for producing, at any rate, the best quality of pasture. It is difficult to grow anything else but cereals on a considerable proportion of it." Consequently, when prices fell below a profitable limit the land was largely abandoned. "On many estates there is practically no return at all, on most it would be impossible for owners to keep up buildings and repairs unless they have other sources than rents, while amongst tenant farmers there is widespread despair."†

6. It was stated by a Mr. Read before the Royal Commission, that farmers in Norfolk were verging on "absolute ruin or wholesale bankruptcy." "Almost all the land that has been improved during my life-time has now gone back to its original condition." In Hampshire, Berkshire, Oxfordshire—to take other examples—the same story was told. On the line of the downs of the latter two counties large tracts of land which had in the past years grown fair wheat and barley, excellent turnip crops, and had produced "some of the finest sheep in the country," went out of cultivation and became practically worthless.

7. It would be easy to multiply the examples of the state of British agriculture during this period. Many vivid accounts of the desperate plights of farmers, the collapse of rents, the abandonment of previously fertile land, and of repeated and widespread bankruptcies were given in evidence before the Royal Commission.

8. From many points of view the depression between 1874 and 1896 was the worst in the history of modern British agriculture, for in the long drawn out period of falling prices it not only caused enormous losses to farmers and landowners, but it also inflicted injury on the rural life of the country from which it has never wholly recovered.

9. What were the causes of this historic decline? A contributory cause was certainly the series of exceptionally bad seasons which occurred during this period. A succession of cold and wet seasons culminated in the disastrous year of 1879. Subsequently there was improvement, but the cold summers of 1891 and 1892 followed by the great drought of 1893 added to the general impoverishment. Whatever the effect of these unfavourable seasons may have been, however, no one seriously contends that they were the principal, or even an important cause of the great fall in price between 1874 and 1896 which affected not only corn but all agricultural produce.

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\* Channing: "Agricultural Depression," page 5.

† *Ibid*, page 7.

10. The Royal Commission, whose final report was issued in 1897, collected an immense amount of evidence in regard to the general decline of agriculture; they analysed the consequences of the depression, district by district, throughout the country, and its effects in regard to arable crops, pasture and dairy farming respectively. They examined in detail the consequences of foreign competition, the incidence of rent and tithe, and other factors. Their conclusion in the words of the final report was: "We have no hesitation in expressing our entire concurrence in the opinion that the present crisis in agriculture is due primarily to the fall in prices."

11. The fall in prices was in turn attributed to foreign competition consequent upon the development of the new countries and the cheapening of the means of transport.\* This has in fact, become the almost universally accepted interpretation of the great decline in British agriculture between 1874 and 1896. The progress of invention, the ever increasing area under corn in the new countries, the rapid development of rail and ocean transport all contributed to increasing the foreigner's competitive advantage in the markets of Great Britain, and to this was attributed the great fall in corn prices and consequent decline in the arable area. Such being the general belief it is not unnatural to find that the remedy loudly demanded in many quarters, and almost invariably advocated by witnesses before the Royal Commission, was a return to a system of protective tariffs.

12. One point of outstanding importance is the fact that agriculture passed from a period of great prosperity to depression with comparative suddenness during or about the year 1874. But the progress of invention, the development of the new countries, the cheapening of means of transport, etc., had gone on steadily for 20 years before 1874 and continued comparatively steadily throughout the period of depression. There was no sudden change in these conditions which coincided with the change in fortune of British agriculture in 1874. To this point attention was called by Sir Robert Giffen in his memorandum submitted to the Royal Commission in 1896. "The phenomenon to be explained," he says, "is why the causes referred to, produced no fall in prices before 1873, but were even found consistent with a rise, and why they produced a fall after 1873."

13. What is the explanation? The plain fact is that at this time, just as in the crisis of 1920 to 1923, agriculture was struggling against an economic environment of which agriculturalists were almost entirely ignorant. Influences were at work which had brought about a depression far more widespread than the British farmer was aware of; even in the great new countries, whose competition was so bitterly complained of, a severe fall in prices was also being experienced.

\* The great decline in transport rates on wheat is illustrated in Table VIII. in Appendix I.

14. A supplementary Report attached to the Final Report of the Royal Commission published in 1897 and signed by about half the members of the Commission pursued the enquiry a stage further. It examined the conditions of agriculture in other countries during the period of the British depression, particularly in the great protected countries, Germany France, The United States, Australia, and New Zealand.

15. From all these countries the story which was told was much the same, the same symptoms of economic distress were manifest. In some places conditions were serious, even critical, and everywhere diminished profits or widespread losses amongst arable farmers were reported. In France the prices of wheat, in spite of drastic increase in the duty on imported wheat, declined by 43 per cent. between 1867 and 1894. In Germany the prices of wheat and rye fell to a point "admittedly below the cost of production" and the losses upon these crops in the years 1893 and 1894, after allowing for the cost of production, were estimated at no less than £13,000,000. In Russia, the United States, Denmark, the Netherlands, Australia and New Zealand, much the same conditions prevailed. "All these countries" the report stated, "complained in a greater or less degree of agricultural depression, which in each case is attributed to precisely the same cause, viz., the fall in price of agricultural produce." In no case had Protection prevented a depression in agriculture.

16. But to this general and widespread depression there were two important exceptions, namely, India and the Argentine. From India it was reported that agriculture was flourishing, the land under cultivation had extended, the number of stock increased, exports had risen, the rental and revenue from the land had grown, and prices of agricultural produce had been maintained. Similar reports were received from the Argentine. What was the reason? Why were these two countries an exception to the apparently almost universal rule? Were there any circumstances in common amongst the countries which had suffered an agricultural depression which were not shared by the other two? The answer to these questions was a very simple one. The common factor shared by these countries was that their currencies were on a gold basis. India had a silver, and the Argentine a paper currency.

17. Now the monetary events which had taken place during the period under examination had an extremely important bearing on the question. Not only did the depressed countries have in common a gold basis for their currency, but they were affected by monetary conditions in an even more striking manner. Prior to 1873 the mints of the United States, France, Switzerland, Italy, Belgium and Greece were open to the free coinage of silver as well as gold. In other words these countries had bi-metallic currencies; Germany had a silver currency. About that time the position was entirely changed, however, by the

passing of measures hostile to silver in European countries. Germany changed from a silver to a gold currency, following upon which all the above countries closed their mints to the free coinage of silver. Italy, the United States of America, Austria-Hungary, Russia and Japan, were establishing a gold standard and buying gold. The result was a greatly increased demand for gold; the supply became inadequate, and the shortage was accentuated by a falling off in production at the mines. Consequently, the prices of commodities in terms of gold continuously fell in all the gold countries. India, on the other hand, remained on a silver basis, and Indian prices remained steady. It was a monetary revolution of almost world-wide character, and it was an event which *precisely* coincided with the sudden change from prosperity to depression in agriculture, both in Great Britain and abroad. The supply of purchasing power within these countries had been seriously contracted.

18. During the succeeding years, the gradual expansion of industry throughout the gold countries increased the demand for currency, which the practically stationary production of gold was unable to supply. Consequently, gold appreciated and the prices of commodities in terms of gold fell.

19. The connection between the monetary events of the period, and the depression of agriculture was perfectly clearly stated in evidence before the Royal Commission by Sir Robert Giffen, Professor Foxwell and Mr. Everett, but the Commission appear to have regarded it with some degree of scepticism, in consequence, perhaps, of the vehement opinions expressed by Lord Farrer, who stated categorically that it was "nonsense to talk about a general appreciation of gold." The signatories of the Supplementary Report, however, treated the matter more seriously. They recognised the disastrous consequence to agriculture of monetary instability, and recommended what was then thought to be the only possible remedy—namely, a return (partial or complete) to bi-metallism. They recognised the international implication of this proposal, and accordingly advised the Government to co-operate with foreign Powers to bring about an international conference for the purpose. To quote the words of the report\* :—

"With the object, therefore, of promoting such a conference, we think that your Majesty's Government should heartily co-operate with foreign Powers, and thereby give effect to the unanimous resolution of the House of Commons on the 26th February, 1895, which we desire to endorse.

"We think that if an international arrangement for the purposes which we have specified was arrived at, the long-continued fall in prices, which is the admitted source of agricultural trouble, would be checked, and that if there should be any future movement in the course of prices, they would tend to rise rather than to fall.



“ We make this recommendation, after a prolonged and careful consideration of the grave question which has been referred to us, because we are unable to perceive the signs of any spontaneous and permanent change in this direction, and we see no other prospect of arresting that constant and progressive fall in prices which by universal admission has been the cause which lies at the root of agricultural depression.”

20. The monetary interpretation of the events of this period almost immediately received confirmation by another reversal in the general trend of prices. Sir Robert Giffen, both in evidence before the Royal Commission in 1894 and in his memorandum published with the final report, with remarkable discernment prophesied that the long period of falling prices would shortly be followed by a period of rising prices, basing his opinion on the increasing output of gold in the South African mines. In actual fact this general rise in price began in 1897, almost before the report of the Royal Commission had been published, and with it the conditions of acute agricultural depression began to pass away. The year 1897 was a turning-point in agricultural history, just as 1874 had been, and once more it coincided with a change in monetary conditions, and *not* with any change in the competitive strength of foreign countries.

21. Two further points remain, which are important in attempting to appraise the relative effects of foreign competition and monetary event in the depression of 1874–1896.

(1) The average fall in wholesale prices (all commodities) between 1871–1875 and 1894–1898, according to Sauerbeck's Index, was 40 per cent. The corresponding fall of certain agricultural products is given below :—

Wheat	-	-	-	-	51 per cent.
Barley	-	-	-	-	39    "
Oats	-	-	-	-	38    "
Potatoes	-	-	-	-	39    "
Pork	-	-	-	-	33    "
Beef	-	-	-	-	29    "
Bacon	-	-	-	-	26    "
Mutton	-	-	-	-	25    "
Butter	-	-	-	-	25    "

Thus, *only in the case of wheat* did foreign competition have the effect of reducing the price more than the reduction in the general level of wholesale prices.

(2) If monetary causes rather than the development of new countries are primarily responsible for the decline of the arable acreage between 1874–1896, how is it—it might be asked—that the arable area continued to decline between 1897–1913, when prices were once more rising ?

22. Now, an analysis of the figures for the decline in the arable area after 1896 (*see* Appendix I, Tables IX and X) shows that

the area of wheat (in respect of which competition was admittedly most severe) and of oats showed no general decline, but a tendency once more to expand. The contraction of the arable area was almost wholly accounted for by barley, rotation grasses and clover, and by roots. Moreover, the fall in the barley area nearly corresponds with the fall in the amount of barley used for brewing, and between 1896 and 1913 imports of barley, though fluctuating, showed no general increase. The fall in the barley area seems, therefore, to be more dependent on conditions in the brewing industry than on foreign competition, and that of rotation clover and grasses—partly consequential upon the decline of a barley area and area under roots—certainly cannot be attributed to foreign competition.

23. The question of the competition of imported agricultural produce, particularly wheat, during this period requires, however, some further analysis. The Royal Commission, to some extent, seem to have been misled by examining statistics relating almost exclusively to the period of declining prices (1873 to 1896). They were able to show from these figures a rapid increase in imports of wheat and other cereals during this period, which was accompanied by a fall in prices and a decline in the production of these crops at home. From these facts they appear to have formed the conclusion that the one was the cause of the other. Had they examined more carefully the figures relating to the preceding period, they might have had reason to modify their conclusions.

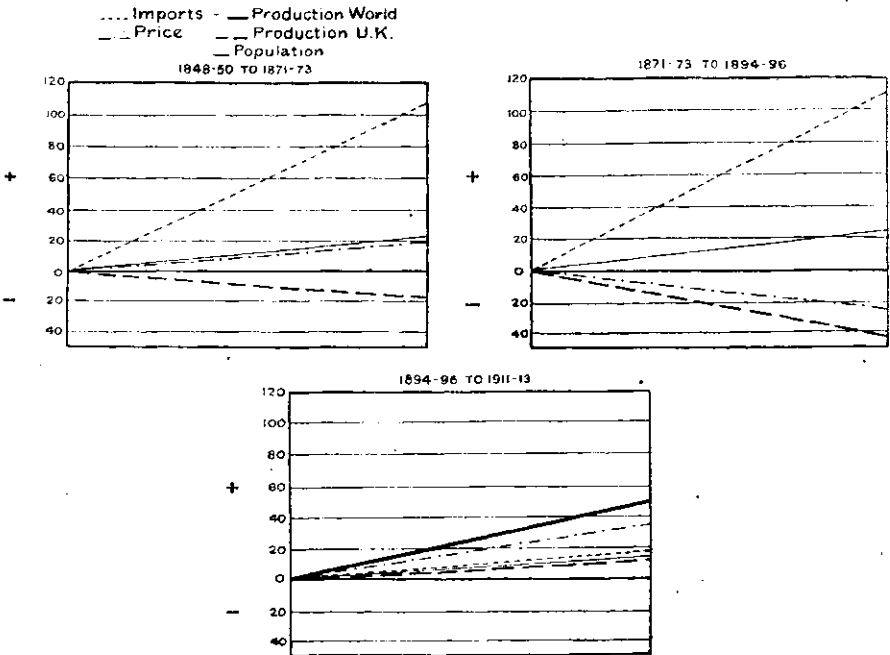
24. In Appendix I are given statistical tables showing the change in foreign imports and home production of cereals from 1852 to 1913, that is to say, including the three periods:— (1) when prices were rising (1852 to 1873); (2) when they were falling (1874 to 1896); and (3) when they were again rising (1897 to 1913). Table I is in the same form as that prepared by the Royal Commission, but includes the whole of these periods. Table II shows the gross imports of wheat, barley and oats, 1852 to 1913. Tables III, IV, V, and VI distinguish the countries of origin. Table VII shows the change in prices of wheat, barley and oats over the same periods. From these it will be seen that the growth of imports was a comparatively steady process from 1852 onwards, though it was less rapid after 1896, and that the rate of increase of imports shows little connection with the course of prices.

25. In the case of wheat, these relationships are somewhat remarkable, and are illustrated in diagram XII. From this it will be seen that the percentage increase in imports of wheat are almost identical in the two periods 1846–50 to 1871–73, and 1871–73 to 1894–96, though slightly greater in the former. Prices were rising in the former and falling in the latter, while the rate of growth of the population was practically the same in both. In other words, it appears that the growth of wheat imports, whatever its competitive consequences to

this country were, was not in itself sufficient to account for the fall in prices.

DIAGRAM XII.

Percentage Rise or Fall in Imports, Prices, and Home Production of Wheat, and percentage Rise or Fall in the Population of the United Kingdom (world production is only given for the period 1894-96 to 1911-13).



26. A truer measure of the effect of competition is not the rise or fall of wheat prices or the prices of other single commodities, but the rise or fall of these prices in relation to the general price level. Thus taking the period 1846-50 to 1871-75, the average rise in price of wholesale commodities was 25 per cent. The corresponding rise of certain agricultural produce is given below :—

Wheat	-	-	-	-	-	6 per cent.
Barley	-	-	-	-	-	25 "
Oats	-	-	-	-	-	24 "
Mutton	-	-	-	-	-	34 "
Beef	-	-	-	-	-	55 "
Pork	-	-	-	-	-	10 "
Bacon	-	-	-	-	-	25 "
Butter	-	-	-	-	-	40 "

27. Taking these figures in conjunction with those given on p. 86 above, we may conclude therefore, that foreign competition during the last half of the nineteenth century was a factor, firstly, in preventing wheat prices from sharing fully in the general upward trend of prices prior to 1873 and secondly, of causing them to fall faster than the general downward trend

of prices after 1873, a circumstance which undoubtedly added to the severity of the depression of arable farming in the latter period.\* But in regard to the other principal products of agriculture, foreign competition did not even have this effect.

28. In the light of these facts, it is impossible to escape the conclusion—that the almost universally accepted argument to the effect that the great decline of British farming between 1874 and 1896 was due to the development of new countries and the cheapening of transport, cannot be sustained. We must revise our estimate of this important period of British agricultural history. While foreign competition—especially in the case of wheat—certainly did play an important part, the evidence all points to the conclusion that monetary events were the primary cause of the agricultural depression.

29. If to the above analysis there is added the evidence in regard to the great agricultural depressions beginning about 1820 and 1920 respectively, the monetary interpretation of these events is very strongly reinforced. The depression during the reign of George IV and William IV, when England was a highly protected country, was unquestionably due to monetary causes. In spite of the Corn Laws of 1815, which were intended to maintain the price of wheat at about 80s. per quarter, the price had fallen in 1822 to 44s. a quarter, and in 1835 to 39s. 4d. a quarter. Protection was useless in preventing a slump in prices and a general depression of agriculture, just as it was in the protected countries between 1874 and 1896. Nothing is more interesting or instructive than the variety of opinions which were expressed at the time as to the causes of the agricultural decline, but the facts are beyond dispute. In 1797 and up to 1819 the Bank of England was authorised to discontinue cash payments, and to issue an inconvertible paper currency. The Act of 1819 restoring cash payments, was therefore an act of drastic deflation, rendering the Corn Laws useless as measures intended to maintain the price of corn, and agriculture and industry alike suffered from the contraction of money thus deliberately brought about. The parallel between this situation and the position a century later, when the provisions of the Agriculture Act of 1920 relating to minimum prices for corn were in a similar manner rendered practically unworkable by an act of monetary deflation, could hardly be more striking.

30. Thus each great period of agricultural depression has coincided with a period of monetary contraction, and it is only necessary to complete the picture by filling in the gaps, to find that the intervening periods of agricultural prosperity were each accompanied by *monetary expansion*. A system of protective tariffs, whatever its effect in improving the power of British agriculture to compete with that of foreign countries,

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\* Wheat also suffered from the growing competition of meat during this period.

cannot prevent depression arising from monetary causes. Such is the experience of a century and a quarter of agricultural history.

31. To sum up. While it would be foolish to overlook the influence of seasonal and other minor causes which affect agriculture from year to year, and while the development of foreign countries has undoubtedly profoundly affected the course of British Agriculture during the past century, nevertheless the sudden changes from prosperity to depression and from depression to prosperity, the "long period" ups and downs, which have been so marked a feature of British agricultural history, are capable of an almost exclusively monetary interpretation; for these it seems hardly necessary to seek any other cause.

32. Thus the history of agriculture in the 19th century provides striking support to the doctrine of monetary stabilisation which, though approached from a different angle, has in recent times been put forward as a remedy for unemployment and general industrial depression.

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APPENDIX I.

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APPENDIX I.

TABLE I.

*Average Annual Acreage, Home Supply, Imported Supply, and Total Supply of Wheat and Wheat Flour (a) 1852-1913, and (b) the consecutive triennial periods, 1852-54 to 1911-13.*

Year (1852 - 1853- 54.)	For the Year.					For the Triennial Period.					Tri- ennial Period end- ing.
	Annual Acreage. (Indices = Gilbert 53.)	Supply from Home Production (including Seed).	Imports, less Exports of Wheat and Wheat Flour in Grain.	Total Supply.	Proportion per cent. of Net Imports to Total Supply.	Supply per Head of the Popula- tion (in- cluding Seed).	Triennial Period.	Average Annual Acreage.	Qrs. Qrs. Qrs.	Average Annual Imports, less Exports of Wheat and Wheat Flour in Grain.	
1852	4,028,731	11,574,982	4,153,694	15,728,676*	26.40*	1/10 Bushels. *49.64*	—	—	—	—	1/10 Bushels.
1853	4,013,963	10,466,473	6,134,500	16,600,973	36.96	51.11†	—	—	—	—	—
1854	4,036,969	17,563,140	4,379,232	21,942,392	19.96	65.85†	1852-54	4,036,554	13,201,532	4,889,149	55.68†
1855	4,076,447	13,922,801	3,056,845	16,979,646	18.90	49.71	1853-55	4,042,460	13,984,138	4,523,532	55.56†
1856	4,213,651	14,192,543	5,006,382	19,198,925	26.98	54.89	1854-56	4,109,022	15,226,161	4,144,160	56.70†
1857	4,185,974	17,321,221	3,874,013	21,195,234	18.28	60.17	1855-57	4,158,691	15,451,232	3,979,080	54.94
1858	4,131,822	16,309,949	5,390,141	21,700,090	24.84	61.13	1856-58	4,177,149	15,941,238	3,756,845	55.93
1859	4,019,725	13,135,124	4,953,783	18,088,907	27.39	50.62	1857-59	4,112,507	15,588,765	3,739,312	54.47
1860	3,992,657	11,078,948	7,410,197	18,489,145	40.97	51.40	1858-60	4,048,068	13,597,674	5,918,040	54.35
1861	3,898,177	12,271,546	8,077,814	20,349,360	39.69	56.06	1859-61	3,966,853	12,161,873	6,813,931	52.75
1862	3,823,947	13,957,554	11,640,565	25,598,119	45.47	70.13	1860-62	3,094,927	12,436,016	9,042,859	55.99
1863	3,698,629	17,922,048	7,130,640	25,052,688	28.46	68.16	1861-63	3,806,918	14,717,049	8,449,673	64.88
1864	3,685,493	16,216,328	6,689,594	22,905,922	26.65	61.97	1862-64	3,736,023	16,031,977	8,483,600	66.76
1865	3,646,691	13,975,936	5,996,403	19,972,339	30.01	53.68	1863-65	3,676,904	16,038,104	6,605,546	61.24
1866	3,649,584	11,485,091	6,779,533	18,264,624	37.13	48.78	1864-66	3,660,589	13,892,452	6,488,511	54.78
1867	3,628,910	9,566,522	8,782,322	18,348,884	47.86	48.67	1865-67	3,641,728	11,675,850	7,186,099	50.36
1868	3,937,275	16,733,419	8,390,985	25,130,374	33.42	66.18	1866-68	3,738,590	12,595,011	7,986,283	54.59
1869	3,976,147	13,419,496	10,334,927	23,753,523	43.50	62.09	1867-69	3,847,444	13,239,812	9,171,115	58.99
1870	3,761,457	14,105,464	7,994,591	22,100,055	36.16	56.65	1868-70	3,891,629	14,752,793	8,908,524	61.60
1871	3,878,848	11,456,544	9,141,160	20,597,704	44.36	52.26	1869-71	3,852,151	12,993,835	9,156,593	56.97
1872	3,897,116	11,181,138	10,823,751	22,004,889	48.56	56.03	1870-72	3,803,181	12,341,815	9,319,845	51.96

1873	3,658,815	16,200,417	11,492,106	24,822,523	52,766	54-25	1871-73	3,768,266	11,076,153	19,385,673	21,561,806	48-65	54-08	1873
1874	3,821,655	13,972,926	11,229,208	25,202,131	44-55	62-18	1872-74	3,769,205	11,919,927	11,181,689	23,101,616	48-39	57-51	1874
1875	3,503,709	10,018,418	13,841,332	23,539,760	58-01	58-29	1873-75	3,594,726	11,247,254	12,187,552	23,614,806	51-62	58-25	1875
1876	3,174,555	9,732,984	11,798,704	21,531,688	54-81	52-04	1874-76	3,483,306	11,241,443	12,289,751	23,531,194	52-25	57-48	1876
1877	3,311,859	10,970,533	14,535,235	25,505,768	56-99	59-61	1875-77	3,310,041	10,240,645	13,391,760	23,632,405	56-66	57-12	1877
1878	3,372,509	12,647,213	13,536,832	26,184,045	51-71	61-98	1876-78	3,266,335	11,116,907	13,290,257	24,407,164	54-45	58-46	1878
1879	3,047,752	9,005,520	16,715,758	22,620,778	73-96	52-98	1877-79	3,244,067	9,840,922	14,929,275	24,770,197	60-29	58-79	1879
1880	3,057,784	9,364,464	15,531,621	24,896,085	62-37	57-79	1878-80	3,159,376	9,305,566	13,251,404	24,566,970	62-10	57-57	1880
1881	2,960,666	8,880,198	16,306,137	25,186,335	64-57	57-69	1879-81	3,021,867	8,049,894	16,184,509	24,234,339	66-77	56-13	1881
1882	3,157,924	10,115,225	18,409,888	28,925,123	64-55	64-82	1880-82	3,058,591	9,456,629	18,749,219	26,205,848	63-89	60-13	1882
1883	2,707,949	9,477,822	19,513,634	29,991,476	65-01	67-83	1881-83	2,941,980	9,491,082	18,076,563	27,567,645	63-58	62-66	1883
1884	2,744,928	10,039,032	15,082,902	25,161,934	59-92	62-99*	1882-84	2,870,267	9,890,693	17,968,818	27,559,511	64-12	62-13	1884
1885	2,359,032	9,679,673	18,719,295	28,358,968*	66-01*	62-99*	1883-85	2,667,404	9,732,176	17,771,950	27,504,126	64-63	61-56	1885
1886	2,388,477	9,928,117	18,461,655	27,989,772	65-95	61-16	1884-86	2,551,093	9,212,397	16,365,761	25,578,158	63-97	56-82	1886
1887	2,667,813	9,481,642	18,549,260	27,860,902	66-61	60-43	1885-87	2,433,581	9,133,691	18,158,679	27,292,370	66-55	60-13	1887
1888	2,543,163	9,315,163	18,031,868	27,517,319	65-54	59-20	1886-88	2,471,741	8,919,415	17,435,534	26,354,749	66-15	57-59	1888
1889	2,482,728	9,499,235	19,001,621	28,500,856	66-68	60-82	1887-89	2,533,151	9,441,737	18,347,594	27,789,331	66-04	60-27	1889
1890	2,291,721	9,342,837	20,484,392	29,827,229	68-69	63-13	1888-90	2,564,568	9,432,113	18,927,583	27,959,696	66-28	60-17	1890
1891	2,398,671	9,596,906	22,017,953	29,614,859	74-54	62-19	1889-91	2,472,537	9,442,508	19,172,627	28,615,135	66-97	61-08	1891
1892	1,955,923	6,364,106	21,636,648	28,000,754	77-29	58-29	1890-92	2,391,040	8,812,993	20,501,322	29,314,315	69-95	62-05	1892
1893	1,980,224	7,588,048	22,336,008	29,924,756	74-66	61-73	1891-93	2,215,205	7,767,946	21,379,664	29,147,610	73-35	61-29	1893
1894	1,456,045	4,785,638	24,802,539	29,588,177	84-01	60-52	1892-94	2,078,039	7,183,020	21,997,070	28,180,090	78-07	58-64	1894
1895	1,734,218	7,280,876	22,974,143	30,255,019	75-91	61-10	1893-95	1,797,164	6,245,931	23,925,265	29,171,196	78-11	61-12	1895
1896	1,939,311	7,036,972	20,446,527	27,483,499	74-40	54-98	1894-96	1,723,496	6,551,321	23,371,097	29,922,618	78-12	58-84	1896
1897	2,055,230	8,407,571	22,499,903	30,907,474	72-80	60-63	1895-97	1,709,858	8,226,169	22,741,077	29,108,839	78-12	58-84	1897
1898	1,746,155	6,740,966	23,158,218	29,899,184	77-45	56-87	1896-98	1,944,310	8,266,449	21,555,997	29,782,166	72-44	59-58	1898
1899	1,901,038	6,790,262	22,462,239	29,252,501	76-79	56-87	1897-99	2,031,011	8,268,401	21,398,250	29,666,631	72-13	58-78	1899
1900	1,772,840	7,284,800	24,918,504	32,203,309	77-32	62-92	1898-01	1,900,828	7,312,933	22,706,787	30,019,720	75-63	58-83	1900
1901	1,620,988	6,102,348	27,006,377	33,108,725	81-60	62-67	1899-01	1,806,344	6,938,678	23,512,987	30,551,665	76-96	58-86	1901
1902	1,407,618	4,739,973	27,302,547	32,042,520	83-32	60-15	1900-02	1,600,482	6,042,875	26,409,143	32,451,518	81-39	61-46	1902
1903	1,836,398	7,541,582	25,992,342	33,533,924	77-52	62-38	1901-03	1,713,328	6,709,373	25,027,700	31,737,073	78-83	60-63	1903
1904	1,665,017	7,377,305	25,837,096	33,414,401	77-36	61-30	1902-04	1,681,829	6,121,735	26,467,089	32,895,031	81-36	61-77	1904
1905	1,664,860	6,741,199	24,677,736	31,418,916	78-91	61-27	1903-05	1,710,383	7,128,295	25,649,586	33,483,530	77-94	61-70	1905
1906	1,868,385	7,809,587	25,889,042	33,788,629	76-61	60-71	1904-06	1,732,754	7,235,722	25,666,902	32,902,624	78-02	59-65	1906
1907	1,857,671	7,074,179	27,166,003	34,240,182	79-36	60-98	1905-07	1,796,972	7,238,282	25,910,927	33,149,209	78-18	59-55	1907
1908	1,952,422	8,039,182	25,567,339	33,606,521	76-08	59-30	1906-08	1,892,826	7,670,983	26,207,461	33,878,444	77-20	60-34	1908
1909	1,971,801	7,175,288	28,098,446	35,273,734	79-68	61-98	1907-09	1,927,298	7,429,550	26,943,929	34,373,479	78-09	60-77	1909
1910	1,791,569	7,087,050	27,890,185	34,977,235	79-73	61-22	1908-10	1,805,264	7,437,173	27,185,323	34,622,496	78-52	60-85	1910
1911							1911-13							1911
1912														1912
1913														1913

\* Italic type indicates Gilbert and Lewis estimates and calculations based thereon. † Population estimated on percentage rate of increase.



TABLE II.

## Gross Imports, of Wheat, Barley and Oats.

(a) for the years 1852-1913; (b) for the consecutive Triennial Periods 1852-4—1911-3 (average).

Year.	Wheat and Wheat Flour in the Equivalent Weight of Grain.						Barley.						Oats.					
	For the Year.		Average for the Triennial Period to		For the Year.		Average for the Triennial Period to		For the Year.		Average for the Triennial Period to		For the Year.		Average for the Triennial Period to			
	(1) Quantity.	(2) Value.	(1) Quantity.	(2) Value.	(1) Quantity.	(2) Value.	(1) Quantity.	(2) Value.	(1) Quantity.	(2) Value.	(1) Quantity.	(2) Value.	(1) Quantity.	(2) Value.	(1) Quantity.	(2) Value.		
1852	Cwt. 18,092,627	£ —	Cwt. —	£ —	Cwt. 2,234,071	£ —	Cwt. —	£ —	Cwt. 2,720,539	£ —	Cwt. —	£ —	Cwt. —	£ —	Cwt. —	£ —		
1853	27,077,079	—	—	—	2,943,100	—	—	—	2,828,125	—	—	—	—	—	—	—		
1854	19,426,781	15,964,286	21,532,162	—	1,974,900	836,798	2,384,024	—	2,791,110	1,377,226	2,779,925	—	—	—	2,779,925	—		
1855	13,940,322	11,983,784	20,144,727	—	1,246,822	575,458	—	—	2,842,749	1,336,929	2,820,661	—	—	—	2,820,661	—		
1856	22,611,568	16,794,077	18,659,557	74,514,382	2,612,186	1,170,309	1,944,639	869,855	3,153,832	1,376,217	2,932,564	1,363,157	—	—	2,932,564	1,363,157		
1857	17,820,499	11,326,721	18,057,463	13,434,861	6,076,679	2,824,210	3,311,896	1,523,359	4,703,322	1,979,213	3,569,968	1,563,820	1857	—	—	—		
1858	23,209,941	12,240,103	21,144,336	13,520,300	5,933,543	2,136,725	4,874,136	2,043,781	5,104,773	1,945,915	4,320,642	1,740,482	1858	—	—	—		
1859	21,497,734	11,105,827	20,773,656	11,624,217	6,170,910	2,274,000	6,060,377	2,411,675	4,613,358	1,739,917	4,807,151	1,895,075	1859	—	—	—		
1860	31,841,926	20,874,641	28,846,867	14,740,190	7,545,932	3,356,903	6,350,128	2,589,209	6,309,115	2,624,158	5,339,415	2,109,997	1860	—	—	—		
1861	37,046,705	23,997,099	30,328,788	18,659,189	5,001,432	2,130,664	6,239,425	2,587,189	5,114,398	2,049,072	5,342,624	2,137,716	1861	—	—	—		
1862	50,942,394	28,390,884	32,843,675	24,487,541	6,624,800	2,516,754	6,394,055	2,668,107	7,426,994	1,671,335	5,280,502	2,114,855	1862	—	—	—		
1863	30,887,892	15,537,937	39,525,664	22,708,640	7,383,528	2,823,544	6,336,583	2,490,321	6,495,585	2,215,676	5,345,659	1,978,694	1863	—	—	—		
1864	28,837,203	13,306,854	30,589,166	19,211,892	4,921,362	1,624,291	6,309,897	2,321,530	5,562,959	1,827,990	5,491,846	1,905,000	1864	—	—	—		
1865	25,843,552	12,398,504	28,522,882	13,814,432	7,818,404	2,524,668	6,707,765	2,324,168	7,714,230	2,771,133	6,590,928	2,271,600	1865	—	—	—		
1866	29,371,679	16,780,001	28,017,477	14,228,453	8,434,323	3,746,312	7,058,033	2,631,745	8,844,586	3,632,385	7,373,925	2,743,836	1866	—	—	—		
1867	39,136,780	23,504,673	31,450,670	19,227,726	5,684,956	2,833,563	7,312,594	3,034,848	9,407,136	4,319,908	8,655,317	3,607,809	1867	—	—	—		
1868	36,506,045	24,901,430	35,004,835	23,394,368	7,476,490	3,799,752	7,198,586	3,459,846	8,112,563	3,875,929	8,788,095	3,942,747	1868	—	—	—		
1869	44,447,722	23,308,697	40,030,199	25,571,933	8,053,769	3,379,877	7,071,738	3,337,731	7,916,870	3,340,494	8,512,190	3,845,444	1869	—	—	—		
1870	36,906,115	19,947,778	39,319,977	22,619,302	7,217,369	2,831,885	7,582,543	3,337,171	10,830,630	4,381,607	8,953,354	3,866,010	1870	—	—	—		
1871	44,362,227	26,516,891	41,905,371	23,257,789	8,569,012	3,399,598	7,946,717	3,293,783	10,914,186	4,167,675	9,887,229	3,963,259	1871	—	—	—		
1872	47,612,896	30,256,824	42,960,413	25,573,831	15,046,566	6,194,096	10,277,649	4,141,860	11,537,325	4,201,492	11,094,047	4,250,258	1872	—	—	—		

1873	1871-73	51,631,197	34,388,598	47,868,773	30,487,435	9,241,063	4,013,572	10,952,214	4,535,755	11,997,702	4,739,839	11,453,071	4,389,335	1873
1874	1872-74	49,322,693	30,922,008	49,522,262	31,855,370	11,335,396	5,291,287	11,874,008	5,166,313	11,387,768	5,116,732	11,607,553	4,706,021	1874
1875	1873-75	59,346,621	32,380,726	53,500,170	32,563,777	11,049,476	4,635,644	10,541,978	4,646,834	12,435,888	5,406,758	11,910,438	5,107,776	1875
1876	1874-76	51,904,433	27,919,526	53,591,349	30,407,420	9,772,945	3,747,685	10,719,272	4,558,305	11,211,019	4,620,450	11,678,225	5,047,980	1876
1877	1875-77	63,491,429	40,694,419	58,374,761	33,668,439	12,959,328	5,396,019	11,260,649	4,593,716	12,910,935	4,982,879	12,188,647	5,066,696	1877
1878	1876-78	59,691,523	44,217,641	58,362,422	34,277,229	14,156,919	5,546,503	12,269,463	4,895,450	12,774,420	4,357,665	12,298,449	4,723,665	1878
1879	1877-79	73,002,110	39,970,120	65,395,041	38,294,060	11,546,314	4,804,469	12,887,586	5,247,664	13,471,660	4,496,927	13,052,038	4,682,490	1879
1880	1878-80	68,459,814	39,327,920	70,057,769	37,838,569	11,705,290	5,011,159	12,469,508	5,119,377	13,826,732	4,934,468	13,537,607	4,663,020	1880
1881	1879-81	71,344,659	40,736,754	77,953,328	40,115,988	9,850,944	4,067,706	11,019,183	4,627,778	10,324,119	3,776,462	12,540,837	4,402,752	1881
1882	1880-82	80,764,107	44,921,565	73,524,327	41,662,080	15,540,112	5,529,087	12,850,449	4,869,517	13,638,457	4,601,176	12,596,436	4,437,502	1882
1883	1881-83	85,073,643	43,799,259	79,062,471	43,152,526	16,461,328	5,741,795	13,935,795	5,113,063	15,137,540	5,010,293	13,033,372	4,496,170	1883
1884	1882-84	66,910,443	31,065,577	77,584,399	39,938,288	12,953,013	4,220,411	14,984,818	5,163,964	12,921,866	4,191,791	13,899,288	4,601,053	1884
1885	1883-85	82,331,552	33,736,358	78,105,214	36,200,398	15,366,160	4,532,886	14,926,834	4,831,531	13,057,189	4,250,707	13,705,532	4,484,204	1885
1886	1884-86	67,021,886	26,137,681	72,087,960	30,413,205	13,713,637	3,962,941	14,010,937	4,238,277	13,485,239	3,973,783	13,154,763	4,138,760	1886
1887	1885-87	80,212,392	31,365,802	76,521,010	30,413,205	14,239,566	3,761,497	14,439,788	4,085,308	14,492,943	3,988,329	13,668,455	3,904,273	1887
1888	1886-88	80,426,352	31,526,720	75,886,844	29,676,734	21,305,350	6,070,093	16,419,518	4,597,877	18,770,986	4,598,006	15,572,954	4,016,706	1888
1889	1887-89	78,929,778	31,054,410	79,856,741	31,315,644	17,400,910	4,964,739	17,315,275	4,932,110	15,990,367	4,470,420	16,408,065	4,185,538	1889
1890	1888-90	82,381,591	32,658,132	80,579,240	31,746,421	16,677,988	4,985,456	18,461,416	5,340,079	17,227,186	3,908,497	15,832,813	4,325,641	1890
1891	1889-91	89,339,353	39,633,091	83,616,908	34,448,544	17,465,698	5,941,589	17,181,532	5,297,348	16,600,394	5,471,279	15,106,049	4,616,732	1891
1892	1890-92	95,604,589	37,125,355	89,175,178	36,472,526	14,277,342	4,313,902	16,139,676	5,080,402	15,661,394	5,013,545	14,996,325	4,797,774	1892
1893	1891-93	93,806,666	30,831,538	92,983,537	35,896,661	22,844,562	5,770,933	18,195,867	5,343,945	13,954,986	4,907,986	15,372,258	4,927,603	1893
1894	1892-94	96,702,072	24,755,178	95,371,093	31,570,690	31,241,384	7,090,379	22,787,763	5,726,838	14,979,210	3,900,096	14,865,198	4,403,876	1894
1895	1893-95	107,261,636	30,210,189	99,256,791	29,265,635	23,618,867	5,538,405	25,991,604	6,135,066	15,528,310	3,723,465	14,820,837	3,973,849	1895
1896	1894-96	99,637,369	34,906,862	101,200,359	29,000,743	22,447,322	5,709,531	25,779,191	6,112,838	17,586,730	4,226,317	16,031,418	3,949,939	1896
1897	1895-97	88,685,554	32,963,159	98,528,186	31,360,070	18,958,720	4,681,074	21,351,636	5,309,677	16,116,810	4,038,813	16,407,283	3,996,165	1897
1898	1896-98	94,418,359	37,692,669	94,247,094	33,854,240	24,457,004	6,791,472	21,961,015	5,727,359	15,577,900	4,382,857	16,427,147	4,215,996	1898
1899	1897-99	98,505,117	32,982,199	97,173,642	34,546,107	17,189,338	4,950,132	20,201,694	5,474,229	15,626,730	4,199,724	15,773,813	4,207,131	1899
1900	1898-1900	98,597,450	33,448,477	97,675,642	34,707,792	17,054,990	5,152,977	19,567,117	5,631,527	20,109,560	5,236,409	17,104,730	4,606,330	1900
1901	1899-01	101,064,683	33,422,891	99,359,083	33,284,522	21,873,430	6,163,012	18,765,926	5,422,040	22,470,670	6,347,719	19,402,320	5,594,617	1901
1902	1900-02	107,927,101	36,005,440	102,529,945	34,292,269	25,210,956	7,136,321	21,379,792	6,150,770	15,857,167	5,041,323	19,479,132	5,541,817	1902
1903	1901-03	116,744,152	39,663,843	108,578,845	36,363,225	26,555,807	7,221,780	24,550,084	6,840,374	16,283,763	4,263,950	18,303,867	5,217,664	1903
1904	1902-04	118,230,963	41,525,016	114,399,939	39,064,766	37,152,300	7,161,600	20,306,374	7,173,237	14,097,700	3,726,120	15,412,877	4,343,798	1904
1905	1903-05	114,226,589	41,324,776	116,400,395	40,837,878	21,426,900	6,017,350	25,045,022	6,800,246	17,095,463	4,713,265	15,825,642	4,234,445	1905
1906	1904-06	112,675,950	39,490,398	115,044,501	40,781,063	19,934,500	5,677,587	22,837,900	6,285,512	15,286,500	4,592,160	15,493,221	4,257,182	1906
1907	1905-07	115,636,564	44,630,630	114,779,701	41,610,667	19,627,620	6,564,670	20,329,673	6,086,536	10,485,290	3,383,553	14,289,084	4,209,559	1907
1908	1906-08	109,144,893	34,370,558	112,485,806	42,968,195	18,137,200	6,113,945	19,233,107	6,118,731	14,249,250	4,162,576	13,347,013	4,026,096	1908
1909	1907-09	113,205,175	31,642,611	112,662,211	47,017,933	21,556,470	7,143,849	19,773,763	6,607,488	17,835,998	5,487,857	14,196,846	4,327,995	1909
1910	1908-10	119,056,663	49,671,789	113,802,240	48,894,962	18,281,500	5,396,452	19,325,057	6,218,088	17,495,012	4,823,869	16,533,421	4,026,096	1910
1911	1909-11	112,047,137	44,186,850	114,769,655	48,500,420	24,545,420	8,266,145	21,461,130	6,935,482	18,273,037	5,390,970	17,868,016	5,217,565	1911
1912	1910-12	123,724,589	51,963,736	118,276,126	48,607,461	20,126,294	7,871,581	20,984,405	7,178,059	18,300,400	6,338,451	18,022,817	5,517,763	1912
1913	1911-13	122,514,426	50,196,944	119,428,717	48,782,513	22,439,248	8,077,100	22,370,321	8,038,275	18,162,663	5,671,957	18,245,367	6,800,459	1913

TABLE III.  
Imports of Wheat.  
1855-1896.

Year.	Russia.	U.S.A.	Argentine.	India.	Canada.	Australasia.	Other Countries.
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
1855	—	1,078,593	—	—	63,137	—	10,418,312
1856	3,290,989	5,542,983	—	—	484,549	—	8,330,422
1857	3,060,959	2,819,934	—	—	497,445	—	8,519,476
1858	2,652,940	2,576,791	—	—	436,891	—	12,684,160
1859	3,836,993	159,926	—	—	29,124	—	13,311,286
1860	5,638,299	6,497,235	—	—	794,829	—	12,553,688
1861	4,512,998	10,866,891	—	—	2,381,275	—	12,194,368
1862	5,751,018	16,140,670	—	—	3,732,959	—	15,408,866
1863	4,534,305	8,704,401	—	—	2,093,997	—	9,031,468
1864	5,119,234	7,895,015	—	—	1,225,523	—	8,956,942
1865	8,093,879	1,177,618	—	—	306,765	—	11,384,701
1866	8,937,199	635,239	—	—	8,789	—	13,573,102
1867	14,025,236	4,188,013	—	5,208	683,127	718,259	15,023,726
1868	10,053,617	5,908,149	—	161,556	557,443	193,553	15,765,432
1869	9,158,331	13,181,507	—	998	2,723,053	179,092	12,452,847
1870	10,269,198	12,371,922	—	8,600	2,838,361	85,222	5,327,926
1871	15,654,000	13,386,122	—	220,023	3,278,031	317,338	6,534,289
1872	17,855,658	8,719,940	—	156,665	1,734,982	500,589	13,159,892
1873	9,595,669	19,796,414	—	740,934	3,761,863	1,801,363	8,167,255
1874	5,725,661	23,090,091	—	1,073,940	3,811,575	907,453	7,218,918
1875	10,005,325	23,523,307	—	1,334,366	3,622,075	1,156,843	12,134,601
1876	8,780,628	19,323,054	—	3,287,236	2,423,183	2,605,550	8,035,036
1877	10,828,236	21,386,980	—	6,104,985	2,951,891	425,697	12,572,011
1878	9,021,679	29,060,809	—	1,820,881	2,620,830	1,453,814	5,928,471
1879	8,004,591	36,041,895	180,793	887,006	4,781,736	2,247,605	7,448,249
1880	2,880,324	36,190,814	25,449	3,229,050	3,887,532	4,246,376	4,802,379
1881	4,046,649	36,083,488	31	7,334,616	2,875,606	2,968,730	3,838,813
1882	9,575,632	35,137,173	18	8,461,004	2,689,264	2,475,127	5,902,531
1883	13,346,762	26,128,761	125,293	11,248,988	1,798,587	2,683,590	8,806,651
1884	5,402,396	22,641,050	210,444	7,980,831	1,757,435	5,091,212	4,222,788
1885	11,975,644	24,272,852	334,195	12,170,251	1,745,373	5,279,232	5,721,317
1886	3,720,662	24,648,581	268,696	11,023,949	3,080,633	738,699	3,954,586
1887	5,501,380	30,530,263	1,013,869	8,511,512	3,968,800	1,347,151	4,929,543
1888	21,450,346	14,643,572	1,751,717	8,166,254	1,089,623	2,315,700	7,744,151
1889	21,310,304	17,009,036	37,792	9,218,204	1,170,650	1,406,060	8,397,841
1890	19,389,025	17,201,063	2,810,317	9,111,582	1,128,349	3,057,693	7,976,151
1891	14,552,905	24,194,955	2,478,456	13,005,785	3,173,840	2,085,671	6,821,350
1892	4,362,986	33,886,742	3,466,096	12,495,442	3,874,984	2,016,846	4,798,703
1893	10,061,988	32,262,848	7,845,587	6,196,096	3,157,355	2,589,588	3,348,526
1894	16,775,881	24,658,245	13,272,152	5,349,056	2,828,515	3,877,418	3,364,690
1895	23,017,035	27,084,120	11,400,360	8,802,950	1,844,600	3,486,620	6,114,270
1896	17,241,600	30,694,900	4,927,600	2,112,940	3,617,900	6,500	11,424,540

TABLE IV.

*Imports of Wheat Meal and Flour.*

1855-1896.

Year.	Russia.	U.S.A.*	Argen- tine.	India.	Canada.	Aus- tralia.	Other. Countries.
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
1855	22	684,126	—	—	10,928	—	1,209,148
1856	24,233	2,892,518	—	—	304,115	—	749,234
1857	6,908	1,464,867	—	—	179,077	—	527,296
1858	754	1,764,795	—	—	212,758	—	1,877,820
1859	369	216,462	—	—	113,358	—	2,998,135
1860	17,338	2,254,232	—	—	412,658	—	2,401,992
1861	21,988	3,794,865	—	—	805,339	—	1,530,746
1862	3,817	4,499,534	—	—	1,108,591	—	1,595,171
1863	3,703	2,531,822	—	—	883,352	—	1,800,100
1864	8,141	1,745,933	—	—	485,099	—	2,273,218
1865	88	256,769	—	—	177,353	—	3,470,261
1866	195,387	280,792	—	—	40,650	—	4,455,451
1867	113,247	722,976	—	146	121,503	104,508	2,530,589
1868	1,377	676,192	—	135	192,850	106,860	2,115,608
1869	23,124	1,711,000	—	754	538,766	69,027	3,058,884
1870	46,117	2,148,251	—	—	451,463	5,936	2,152,142
1871	28,755	1,791,367	—	4	403,796	41,910	1,712,107
1872	66,655	731,527	—	4,200	337,750	44,473	3,203,531
1873	78,662	1,582,957	—	333	443,077	232,113	3,877,337
1874	58,652	3,292,769	—	360	389,392	199,317	2,295,554
1875	122,018	2,279,075	—	6	357,992	87,123	3,289,869
1876	104,928	2,320,279	—	7,471	283,034	189,320	3,054,789
1877	140,545	1,765,620	—	875	250,626	20,324	5,199,313
1878	102,777	3,621,881	—	—	302,856	85,754	3,714,811
1879	90,316	6,862,179	—	2,020	457,569	37,638	3,280,530
1880	66,747	6,873,829	—	875	524,700	293,582	2,798,579
1881	42,659	7,693,174	—	3,308	259,862	276,648	3,081,730
1882	83,447	7,800,806	—	2,170	341,204	488,929	4,340,847
1883	81,285	11,270,459	—	—	503,864	82,250	4,391,454
1884	94,443	10,336,481	—	120	688,780	222,517	3,752,960
1885	85,398	11,731,903	—	4,007	280,002	131,485	3,600,048
1886	22,610	11,425,251	—	2,555	770,665	72,692	2,395,787
1887	42,985	14,860,415	—	750	957,553	7,023	2,194,508
1888	232,544	12,558,640	—	—	785,056	51,013	3,283,189
1889	236,105	10,043,720	—	10	1,168,368	33,263	3,190,616
1890	196,224	12,025,800	—	31	933,422	131,140	3,486,719
1891	76,526	13,703,035	—	3,937	1,029,247	158,380	1,751,878
1892	1,431	19,467,391	—	643	1,359,859	42,098	1,234,587
1893	1,171	17,995,601	—	2,800	1,080,986	30,055	1,297,555
1894	33,401	15,925,486	8,435	10,579	1,195,421	61,156	1,900,127
1895	34,840	13,131,850	23,300	200	2,343,300	73,110	2,761,810
1896	15,090	15,905,100	58,500	200	1,932,720	—	3,408,590

TABLE V.  
Imports of Barley.  
1855-1896.

Year.	Russia.	U.S.A.	Canada.	Other Countries.
	cwts.	cwts.	cwts.	cwts.
1855	—	—	—	1,246,822
1856	184,732	—	—	2,427,454
1857	626,024	—	—	5,450,655
1858	1,148,861	—	—	4,784,682
1859	1,193,774	—	—	4,977,136
1860	554,957	—	—	6,990,975
1861	801,479	—	—	4,200,953
1862	840,332	—	—	5,784,468
1863	243,271	—	—	7,140,257
1864	361,917	5	—	4,559,400
1865	853,792	8	—	6,964,770
1866	910,154	346,527	—	7,176,642
1867	380,865	591,821	—	4,712,270
1868	1,082,019	219	—	6,394,252
1869	989,673	815	—	7,063,281
1870	2,564,274	—	—	4,653,095
1871	2,398,773	66,132	—	6,104,107
1872	1,755,349	17,656	—	13,273,561
1873	1,119,094	14,529	—	8,107,440
1874	2,019,360	32,200	—	9,283,836
1875	2,585,558	7,708	—	8,456,210
1876	1,547,518	128,571	—	8,096,856
1877	1,499,565	807,401	—	10,652,560
1878	4,827,663	1,084,562	—	8,244,694
1879	2,473,104	158,521	—	8,914,689
1880	1,491,464	328,345	—	9,885,481
1881	1,167,922	273,859	—	7,986,135
1882	4,097,344	47,578	—	11,395,190
1883	5,517,049	118,756	—	10,825,523
1884	4,965,593	226,659	—	7,760,763
1885	6,524,542	135,913	—	8,705,705
1886	5,541,041	49,809	—	8,122,787
1887	7,463,633	369,169	—	6,406,764
1888	11,530,403	52,420	—	9,722,527
1889	7,855,500	388,636	—	9,156,774
1890	8,254,567	415,333	—	8,008,008
1891	6,438,666	749,451	—	10,277,581
1892	5,182,076	1,196,678	—	7,898,588
1893	13,610,085	1,586,441	—	7,648,036
1894	19,447,120	1,514,751	3,711	10,229,587
1895	13,281,157	734,250	400	9,562,940
1896	9,245,400	3,241,900	118,800	9,968,722

TABLE VI.  
Imports of Oats.  
1855-1896.

Year.	Russia.	U.S.A.	Canada.	Other Countries.
	ewt.	ewt.	ewt.	ewt.
1855	—	—	591	2,842,158
1856	913,038	—	15,818	2,224,976
1857	2,130,681	—	13,819	2,558,822
1858	2,743,136	—	29,582	2,332,055
1859	2,480,112	—	11,811	2,121,435
1860	2,694,753	—	121,885	3,483,477
1861	1,415,367	—	203,877	3,405,154
1862	886,187	—	84,271	3,456,536
1863	1,058,860	—	25,553	5,411,172
1864	2,222,879	—	20,964	3,319,116
1865	1,950,114	2,629	161,723	5,599,764
1866	3,169,540	382,136	1,091,809	4,201,101
1867	2,791,837	284,890	503,277	5,827,932
1868	3,253,920	49,433	416,435	4,392,775
1869	2,354,076	21,161	313,819	5,227,814
1870	4,034,187	17,658	389,674	6,389,111
1871	4,873,154	20,010	380,579	5,640,443
1872	2,303,957	70	345,534	8,887,864
1873	4,873,281	8,725	264,612	6,761,084
1874	5,016,883	5,435	272,702	6,092,748
1875	6,425,535	29,399	394,612	5,586,342
1876	4,719,581	182,566	1,085,644	5,223,228
1877	7,412,961	41,923	604,373	4,850,778
1878	6,301,684	40,148	664,883	5,767,705
1879	7,069,190	20,605	485,336	5,897,529
1880	7,843,657	57,804	738,990	5,186,281
1881	5,698,287	7,877	546,214	4,071,741
1882	8,471,227	177	184,754	4,982,299
1883	9,030,383	97	89,351	6,017,709
1884	9,357,189	251,075	277,948	3,035,654
1885	6,411,246	1,453,541	758,210	4,434,192
1886	7,216,913	412,624	766,732	5,088,964
1887	9,676,451	17,195	216,248	4,553,049
1888	16,203,306	101	25,589	2,541,690
1889	13,966,926	148,946	4,067	1,870,628
1890	8,950,266	2,010,451	120,054	1,646,415
1891	10,883,401	904,072	355,759	4,057,162
1892	5,325,063	2,569,667	1,865,238	5,901,426
1893	8,250,906	876,441	729,911	4,097,728
1894	12,456,906	37,981	80,931	2,401,596
1895	12,122,500	297,800	3,350	3,104,660
1896	10,222,800	4,552,500	781,700	2,029,730

TABLE VII.  
Prices of Wheat, Barley and Oats.

Year.	Wheat.			Barley.			Oats.			Wheat.			Barley.			Oats.														
	s. d.	s. d.	s. d.	Price for Year.	Triennial Average Price for Year ending.	Average of 1876-78. Price in 1900.	Price for Year.	Triennial Average Price for Year ending.	Average of 1876-78. Price in 1900.	Price for Year.	Triennial Average Price for Year ending.	Average of 1876-78. Price in 1900.	Price for Year.	Triennial Average Price for Year ending.	Average of 1876-78. Price in 1900.	Price for Year.	Triennial Average Price for Year ending.	Average of 1876-78. Price in 1900.	Price for Year.	Triennial Average Price for Year ending.	Average of 1876-78. Price in 1900.									
1821	56	1	—	26	0	—	19	6	—	18	1	—	1871	56	8	50	7	102	188	36	2	36	9	96	147	25	2	24	8	—
1822	44	7	—	21	10	—	18	1	—	18	1	—	1872	57	0	53	6	108	199	37	4	36	0	94	144	23	2	23	9	96
1823	53	4	51	31	6	26	5	69	106	22	11	20	2	81	115	—	109	201	40	5	38	0	99	153	26	5	24	7	99	
1824	63	11	53	11	108	200	36	4	29	11	78	120	24	10	21	11	109	201	40	5	38	0	99	153	26	5	24	7	99	
1825	68	6	61	11	125	230	40	0	35	11	94	144	25	8	24	6	117	212	44	11	40	11	107	164	28	10	25	10	104	
1826	58	8	63	8	128	237	34	4	36	11	98	148	26	8	25	5	107	198	38	5	41	3	108	166	28	8	27	8	111	
1827	58	6	61	11	125	230	37	7	37	4	97	150	28	2	26	10	98	182	35	2	39	6	103	159	26	3	27	11	112	
1828	60	5	59	2	119	219	32	10	34	11	91	140	22	6	25	9	99	183	39	8	37	10	99	151	25	11	26	11	108	
1829	66	3	61	9	124	230	32	6	34	4	90	137	22	9	24	6	98	182	34	0	37	11	99	152	21	9	24	0	100	
1830	64	3	63	8	128	237	32	7	32	8	85	128	24	5	23	3	90	167	33	1	35	9	93	144	23	1	23	1	93	
1831	66	4	65	7	132	244	38	0	34	4	90	137	25	4	24	2	89	165	31	11	33	0	86	132	21	9	22	2	89	
1832	58	8	63	1	127	234	33	1	34	7	90	138	20	5	23	5	90	167	31	2	32	1	84	129	21	10	22	3	90	
1833	52	1	59	4	119	220	27	6	32	10	86	132	18	5	21	5	88	164	31	10	31	8	83	127	21	5	21	8	87	
1834	46	2	52	7	108	195	29	0	29	10	78	123	20	11	19	11	89	151	30	8	31	3	82	125	20	3	21	8	85	
1835	39	4	46	2	93	172	29	11	28	10	76	116	22	0	20	5	82	136	30	1	30	10	80	132	20	7	20	9	84	
1836	48	6	44	8	90	166	32	10	30	7	80	123	23	1	22	0	89	123	26	7	32	5	84	130	19	0	20	0	79	
1837	55	10	47	11	96	178	30	4	31	0	81	124	23	1	22	0	92	119	25	4	27	4	71	110	16	3	18	7	75	
1838	64	7	56	4	113	209	31	5	31	6	82	126	22	5	22	10	92	118	27	10	26	7	69	107	16	9	17	4	70	
1839	70	8	63	8	128	237	39	6	33	9	89	135	25	11	23	10	96	116	25	10	26	4	69	106	17	9	16	11	68	
1840	66	4	67	9	135	250	36	5	35	9	93	143	25	8	24	8	99	130	31	11	31	2	72	111	18	7	17	8	71	





TABLE VIII.

*Freight Rates on Wheat, 1868-1902.*

Year.	Chicago to New York.		New York to Liverpool by Steamer.
	By Lake and Rail per qr.	By all Rail. per qr.	
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1868 - - - -	6 11	10 2	4 7½
1869 - - - -	6 3	8 9½	4 5½
1870 - - - -	6 4½	9 8	3 11
1871 - - - -	7 5½	9 3	5 6
1872 - - - -	8 3½	9 11	5 2
1873 - - - -	7 10½	9 8½	7 0½
1874 - - - -	5 1	8 7	5 10½
1875 - - - -	4 3	7 0	5 7½
1876 - - - -	3 6½	4 11	5 4
1877 - - - -	5 0½	6 5½	4 8
1878 - - - -	3 9	5 10	5 1
1879 - - - -	4 5	5 9	4 1½
1880 - - - -	5 3	6 7½	3 10½
1881 - - - -	3 5½	4 9½	2 9
1882 - - - -	3 7½	4 10½	2 7½
1883 - - - -	3 10	5 6	2 10½
1884 - - - -	3 4	4 4½	2 4
1885 - - - -	3 0	4 8	2 1½
1886 - - - -	4 0	5 6	2 2½
1887 - - - -	4 0	5 3*	1 8
1888 - - - -	3 8	4 10*	1 9
1889 - - - -	2 11*	5 0	2 7½
1890 - - - -	2 10	4 9	1 7½
1891 - - - -	2 10	5 0	2 1
1892 - - - -	2 10	4 9	1 9
1893 - - - -	2 6	4 11	1 7
1894 - - - -	2 10	4 3½	1 3½
1895 - - - -	2 4	4 0½	1 8½
1896 - - - -	2 4	4 0	1 11½
1897 - - - -	2 5½	4 1½	2 0½
1898 - - - -	3 2†	3 10	2 3½
1899 - - - -	2 2½	3 8½	1 7½
1900 - - - -	1 8	3 0½‡	2 3
1901 - - - -	1 10½	3 0†	0 10
1902 - - - -	1 11	2 11‡	0 11½

\* Quotations; actual rates lower.

† Actual rate about 1s. 8d.

‡ For export only.

TABLE IX.

*Areas of Arable Land, Wheat, Barley, Oats and Clover and Rotation Grasses in England and Wales in the undermentioned years.*

Year.	Arable Land.	Wheat.	Barley.	Oats.	Clover & Rotation Grasses.
	Acres.	Acres.	Acres.	Acres.	Acres.
1896 - -	12,334,674	1,656,228	1,886,481	2,087,372	3,024,465
1897 - -	12,505,049	1,839,372	1,802,694	2,067,582	3,259,901
1898 - -	12,406,086	2,046,345	1,665,682	1,961,827	3,303,366
1899 - -	12,315,647	1,953,725	1,741,612	2,001,882	3,201,297
1900 - -	12,217,208	1,796,210	1,750,070	2,076,960	3,164,720
1901 - -	12,118,289	1,664,740	1,737,333	2,040,513	3,262,926
1902 - -	12,102,995	1,679,215	1,680,303	2,102,870	3,230,505
1903 - -	11,931,768	1,540,451	1,644,434	2,167,132	3,208,095
1904 - -	11,761,090	1,337,548	1,639,920	2,272,223	3,080,738
1905 - -	11,656,079	1,748,354	1,501,530	2,088,404	2,919,241
1906 - -	11,589,107	1,705,615	1,532,542	2,086,141	2,885,098
1907 - -	11,547,077	1,577,138	1,501,785	2,171,590	2,931,717
1908 - -	11,406,186	1,583,305	1,470,019	2,160,405	2,867,895
1909 - -	11,358,112	1,773,819	1,464,405	2,038,440	2,676,095
1910 - -	11,320,444	1,756,057	1,537,061	2,062,824	2,645,648
1911 - -	11,299,220	1,842,532	1,424,313	2,047,173	2,608,777
1912 - -	11,335,276	1,863,364	1,456,528	2,072,479	2,523,013
1913 - -	11,058,233	1,701,588	1,588,856	1,974,700	2,495,832

TABLE X.

*Imports of Barley, and quantity used for Brewing in the United Kingdom. 1896-1913.*

Year.	Imports.	Used for Brewing.	Year.	Imports.	Used for Brewing.
	Thousand cwts.	Thousand cwts.		Thousand cwts.	Thousand cwts.
1896	22,477	29,054	1905	21,427	25,988
1897	18,959	28,321	1906	19,934	26,183
1898	24,457	28,832	1907	19,628	26,093
1899	17,189	29,371	1908	18,137	25,538
1900	17,055	28,677	1909	21,556	24,844
1901	21,873	28,396	1910	18,281	25,034
1902	25,211	27,896	1911	24,545	25,879
1903	26,556	27,459	1912	20,126	25,824
1904	27,152	26,661	1913	22,439	26,196

## APPENDIX II.

## EXTRACT FROM THE FIRST INTERIM REPORT OF THE COMMITTEE ON CURRENCY AND FOREIGN EXCHANGES AFTER THE WAR.

“ Under the Bank Charter Act of 1844, apart from the fiduciary issue of the Bank of England and the notes of Scottish and Irish Banks of Issue (which were not actually legal tender), the currency in circulation and in Bank reserves consisted before the war entirely of gold and subsidiary coin or of notes representing gold. Gold was freely coined by the Mint without any charge. There were no restrictions upon the import of gold. Sovereigns were freely given by the Bank in exchange for notes at par value, and there were no obstacles to the export of gold. Apart from the presentation for minting of gold already in use in the arts (which under normal conditions did not take place) there was no means whereby the legal tender currency could be increased except the importation of gold from abroad to form the basis of an increase in the note issue of the Bank of England or to be presented to the Mint for coinage, and no means whereby it could be diminished (apart from the normal demand for the arts, amounting to about £2,000,000 a year, which was only partly taken out of the currency supply) except the export of bullion or sovereigns.

“ Since the passing of the Act of 1844 there has been a great development of the cheque system. The essence of that system is that purchasing power is largely in the form of bank deposits operated upon by cheque, legal tender money being required only for the purpose of the reserves held by the banks against those deposits and for actual public circulation in connection with the payment of wages and retail transactions. The provisions of the Act of 1844 as applied to that system have operated both to correct unfavourable exchanges and to check undue expansions of credit.

“ When the exchanges were favourable, gold flowed freely into this country and an increase of legal tender money accompanied the development of trade. When the balance of trade was unfavourable and the exchanges were adverse, it became profitable to export gold. The would-be exporter bought his gold from the Bank of England and paid for it by a cheque on his account. The Bank obtained the gold from the Issue Department in exchange for notes taken out of its banking reserve, with the result that its liabilities to depositors and its banking reserve were reduced by an equal amount, and the ratio of reserve to liabilities consequently fell. If the process was repeated sufficiently often to reduce the ratio in a degree considered dangerous, the Bank raised its rate of discount. The raising of the discount rate had the immediate effect of retaining money here which would otherwise have been remitted abroad and of attracting remittances from abroad to take advantage of the higher rate, thus checking the outflow of gold and even reversing the stream.

“ If the adverse condition of the exchanges was due not merely to seasonal fluctuations, but to circumstances tending to create a permanently adverse trade balance, it is obvious that the procedure above described would not have been sufficient. It would have resulted in the creation of a volume of short-dated indebtedness to foreign countries which would have been in the end disastrous to our credit and the position of London as the financial centre of the world. But the raising of the Bank's discount rate and the steps taken to make it effective in the market necessarily led to a general rise of interest rates and a restriction of credit. New enterprises were therefore postponed and the demand for constructional materials and other capital goods was lessened. The consequent slackening of employment also diminished the demand for consumable goods, while holders of stocks of commodities carried largely with borrowed money, being confronted with an increase of interest charges, if not with actual difficulty in renewing loans, and with the prospect of falling prices,

tended to press their goods on a weak market. The result was a decline in general prices in the home market which, by checking imports and stimulating exports, corrected the adverse trade balance which was the primary cause of the difficulty.

"When, apart from a foreign drain of gold, credit at home threatened to become unduly expanded, the old currency system tended to restrain the expansion and to prevent the consequent rise in domestic prices which ultimately causes such a drain. The expansion of credit, by forcing up prices, involves an increased demand for legal tender currency both from the banks in order to maintain their normal proportion of cash to liabilities and from the general public for the payment of wages and for retail transactions. In this case also the demand for such currency fell upon the reserve of the Bank of England, and the Bank was thereupon obliged to raise its rate of discount in order to prevent the fall in the proportion of that reserve to its liabilities. The same chain of consequence as we have just described followed and speculative trade activity was similarly restrained. There was therefore an automatic machinery by which the volume of purchasing power in this country was continuously adjusted to world prices of commodities in general. Domestic prices were automatically regulated so as to prevent excessive imports; and the creation of banking credit was so controlled that banking could be safely permitted a freedom from State interference which would not have been possible under a less rigid currency system."

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### APPENDIX III.

#### EXTRACTS FROM STATEMENTS BY VARIOUS AUTHORITIES, RELATING TO THE STABILISATION OF AGRICULTURAL PRICES.

"The fluctuating price system, which means great profits to a wealthy few, serious losses and wrecked lives for a few, and a bare livelihood for many, is the natural result of the *laissez faire* policy of the old classical economists. Their idea was to let things alone, on the theory that, let alone, prices would sooner or later adjust themselves to the proper point. In practice, prices almost never reach a proper point, but are constantly moving either above or below cost of production. One hundred years of *laissez faire* policy have demonstrated beyond a doubt that under such a system the wealthy few inevitably become richer, whereas the bulk of the people get just enough to keep them going. The fluctuating price system is condemned by nearly everyone except the business men who run it and believe they understand its beneficent workings, and the economists of the classical type who, in their careful reasoning, are unable to think of any other way of determining prices over any period of time."—HENRY WALLACE, late Secretary for Agriculture, United States of America.

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"Co-operative marketing associations organised along sound lines and with competent management and business guidance, offer, at the present time, in our opinion, more promise of helpful results than any other plan or programme that has been suggested. They can do what the speculator cannot with safety be relied upon to do. They can, by orderly marketing, regulate the flow of wheat so that supply is adjusted from time to time to the consumptive demand."—Report to the President of the United States on the wheat situation, by EUGENE MEYER, Junr., and FRANK W. MANDILL.

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“Co-operative marketing seeks to control the movement of commodities to market, thus substituting orderly marketing for after-harvest dumping; it improves the quality of products through grading and processing, thus broadening the outlet; it develops new markets through advertising and salesmanship; it collects all available data bearing on future demand and advises its members so that they may individually adjust their production; and it reduces the usual high charges for marketing service by doing part or all of that work itself for its members at cost.”—HERMAN STEEN: “Co-operative Marketing: the Golden Rule in Agriculture.”

“The farmer is the only large producer who produces without informing himself carefully as to future demand; who sells at the price the buyer is willing to pay; who does not condition his products carefully for market; who dumps them in large quantities on the market soon after harvest; and who therefore pays high charges of all sorts to other people to do what he ought to do for himself.”—HERMAN STEEN: “Co-operative Marketing: the Golden Rule in Agriculture.”

“Intelligent merchandising of farm commodities through co-operative associations leads finally to a stabilised agriculture, in which fluctuations in prices are minimised, risks of operations greatly reduced, and a premium placed on a farmer's ability as a producer of food. . . .”—HERMAN STEEN: “Co-operative Marketing: the Golden Rule in Agriculture.”

“The benefits of co-operative marketing are now being recognised by primary producers all over the world, and Queensland farmers have already experienced something of the advantages accruing from practical applications of this principle. Much good, solid spade work has already been done on the commercial side by existing co-operative companies, and to them is due the credit that should be accorded the pioneers in any forward movement. In some directions, however, particularly in the matter of marketing, it has been found that separate co-operative units operating independently cannot protect fully the interests of primary producers. Modern marketing economy, therefore, demands unity of effort by instituting methods of compulsory co-operative marketing, which have become to be known as ‘pools.’ War-time experience demonstrated the advantages of this form of co-operation by—(1) eliminating unnecessary cost as between grower and consumer; (2) blocking unnecessary competition between growers to the benefit of unnecessary middlemen; (3) stabilising prices; and (4) facilitating the financing of marketing and other operations. So manifest were the advantages through war-time pools that a large volume of opinion among the producers of the Commonwealth is now definitely and strongly in favour of the perpetuation of the pooling principle.”—*Queensland Agricultural Journal*, 1922.



DIAGRAM II.

