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ECONOMIC COMMITTEE

THE

AGRICULTURAL CRISIS

VOLUME I

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[Distributed to the Council
and the Members of the League.]

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ECONOMIC COMMITTEE

THE AGRICULTURAL CRISIS

VOLUME I

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I.

REPORT OF THE ECONOMIC COMMITTEE ON THE AGRICULTURAL CRISIS.

INTRODUCTION.

The Economic Organisation of the League of Nations is well aware of the all-important part played by the agricultural problem in the life of any community. This problem was on the agenda of the International Economic Conference of 1927. The position of agriculture was then carefully studied. [1] The report of the Conference dealt at some length with the agricultural problem. It emphasised the very great importance of agriculture in world trade, and asserted the interdependence of agricultural, industrial and commercial activities. " It would be vain to hope that one class could enjoy lasting prosperity independently of the others. "

Since 1927, the agricultural situation has grown more serious.

The Economic Committee expressed its desire and its intention to hear periodically the views and recommendations of agricultural experts. It desired to have precise information on the agricultural situation in different countries. For this situation necessarily has an immediate and profound influence on the development of economic policy, and particularly on the commercial relations between nations, to which field the Committee must devote the best portion of its efforts.

With the valuable assistance of the International Institute of Agriculture, the Committee summoned a meeting in January 1930 of twenty, and in January 1931 of twenty-four, experts acquainted with the general problems of agricultural economy. [2] A delegation of the International Institute of Agriculture co-operated with the delegation of the Economic Committee which heard the experts. During these consultations the experts supplied the information and suggestions necessary for the development of the work of the international organs which had recourse to their advice. The Economic Committee and the International Institute of Agriculture addressed themselves to the question how far and in what way it was possible to give practical effect to these suggestions.

The Economic Committee was specially interested in obtaining exact information on the *agricultural crisis*. It could not be content with this general and vague expression, which has the inconvenience of giving the impression of a transitory state of things. It attached much importance to obtaining a general conspectus of the exact situation of the different countries. It considered that such a conspectus would be in itself a

[1] Agricultural publications of the Economic Conference of 1927.

[2] The experts present at the meeting in January 1930 belonged to the following countries : Australia, Austria, Belgium, Canada, Czechoslovakia, Denmark, Finland, France, Germany, Great Britain, Hungary, India, the Netherlands, Norway, Poland, Roumania, Spain, Switzerland, the United States of America, Yugoslavia.

The meeting in January 1931 was attended by experts belonging to the following countries : the Argentine, Australia, Austria, Belgium, Canada, Czechoslovakia, Denmark, Finland, France, Germany, Great Britain, Hungary, India, Irish Free State, Latvia, the Netherlands, Norway, Poland, Roumania, Spain, Sweden, Switzerland, the United States of America, Yugoslavia, and the Secretary-General of the International Federation of Land Workers.

The list of members of the Agricultural delegation of the Economic Committee and of the experts is annexed

valuable source of information and would permit the Committee to define the possibilities of the work of international economic *rapprochement* with which it is entrusted.

For this purpose, the simplest method seemed to be to ask the experts themselves for a brief statement of the situation in their country. They were entirely free to describe the situation as they thought fit and as they saw it. These notes are collected as a sequel to the present report. The eleventh Assembly held that it was desirable to collect this important and varied documentation on the character and causes of the agricultural crisis in different countries. This publication, says the report of the Second Committee, " will undoubtedly constitute an interesting basis for future discussion ".

The reports of the League of Nations experts have been supplemented by a certain number of studies [1] covering countries which were not represented at the meetings in January 1930 and 1931. All this information enables a judgment to be formed as to the world incidence of the agricultural crisis.

In showing how each country has been affected by the crisis and how it is endeavouring to resist it, in giving evidence of the sufferings and difficulties entailed, the experts have not lost sight of the international aspect of the agricultural problem. They did not limit themselves to the national aspects of this problem, for they realised the practical nature of the work asked of them. It was no question of academic and theoretical compositions, deliberately setting aside the mass of details they had to supply the international organs with a general view of the predominant factors of the crisis and the general causes operating in all countries.

The consultation of the experts has enabled a distinction to be drawn between characters and causes of the crisis which for each country are national and characters and causes which are universal. The causes of the agricultural crisis differ, no doubt, to some extent in different countries ; but there are international causes, and in the crisis may be found elements common to all systems of agriculture.

The present report only deals with facts which seem indispensable for defining the general aspect of the crisis and is designed solely to set forth these general and international truths as they appear to arise out of the meetings held by the agricultural experts in January 1930 and January 1931.

It is in four parts.

The first concerning the facts deals with the general characteristics of the crisis.

The second defines its causes.

The third part investigates market conditions in the principal branches of agricultural production. A large portion of this statement is devoted to the question of cereals, which afford the most striking evidence of the crisis.

The fourth part of the report relates to possible remedies and describes the various measures proposed or suggested to deal with the crisis.

The report endeavours to provide a world balance-sheet of the agricultural situation. It should, nevertheless, be pointed out that the expert consultations referred more particularly to European agriculture rather than to world agriculture.

The Council will find in this study, if not an expression of the unanimous views of the members of the Economic Committee and of the agricultural experts, at any rate an indication of the general ideas arising from a comparison of the various opinions, ideas inspired with a common desire for the welfare of all.

[1] Several studies will be published in an additional volume.

Part I.

GENERAL CHARACTERISTICS OF THE AGRICULTURAL CRISIS.

All countries report the existence of a more or less accentuated agricultural crisis, even countries hitherto renowned for the prosperous situation ensured to their farmers by specialisation and by the diversification of their agricultural undertakings.

What is called the *agricultural crisis* is not, properly speaking, a crisis, that is to say, a fortuitous event rapidly occurring and disappearing as rapidly as it arises. We are confronted with a period of depression dating back a considerable time, and with every month that passes becoming more serious from the mere fact of its continuance.

Immediately after the world war, agriculture experienced a period of prosperity, but in most countries it passed through a crisis in 1920 and 1921 ; then a very real improvement took place in 1924 and 1925; finally, a marked depression occurred in the cultivation of cereals, and from 1928 spread throughout the entire world, after having also affected other branches of agricultural production, such as wool and cotton. Gradually, the situation became distinctly unfavourable. The year 1930 was a year of disappointment in every way, and it has left in the minds of farmers the memory of something approaching disaster. The stagnation is such that discouragement threatens to spread to every countryside in spite of the agriculturists' traditional quality of endurance, and the material difficulties are enhanced by the prevailing atmosphere of despondency. The complaints of the farmers are heard in almost every country. The difficulties have assumed a general international character, though there are certain aspects of them which are peculiar to particular countries. It is not merely a question of bad harvests caused by natural or atmospheric disorders, such as continuous rain or drought. The evil is deep-rooted and its progress may be traced throughout the world.

The crisis is universal ; it does not merely affect the European market. It affects overseas States as well as the States of Europe. It operates with *unequal* intensity according to the economic development of the countries, their capacity for resistance and the relative advantages which they enjoy as agricultural producers. They do not suffer to the same extent from the same evils. The manifestations of the crisis vary according to the economic structure of States.

In agricultural exporting countries the economic organisation is more severely hit if the products of the soil are sold at a loss ; and this fact explains the efforts undertaken since 1930 at successive conferences (Bucharest, Warsaw, Belgrade) by the States of Central and Eastern Europe, which are drawing together to establish between themselves positive economic collaboration, to reach an agreement as to a common defence of their interests and to find in common action a remedy for the situation.

It is the lowness of prices that constitutes the agricultural crisis. It is becoming difficult to sell products, and in many cases prices have reached a level at which they are scarcely, if at all, sufficient to cover the cost of production.

The reason for the crisis and for its continuance is to be found in the fact that agricultural prices are low in comparison with the expenditure which the farmer must meet. The profit-earning potentialities of agriculture are weakened. Agricultural products cost a lot to produce and then fetch very little in the market. In spite of the great technical progress achieved, operating costs remain implacably higher than selling prices, farmers obtain no longer a fair return on their labour or on their capital. Frequently the returns of agricultural undertakings are not enough to cover the necessary outlay for the purchase of the material or products necessary for continued operation or for the payment of wages and taxes and so forth.

This disproportion between the income and expenditure of agricultural undertakings, a condition due to a much more drastic fall of agricultural prices than of goods farmers buy for use in production and consumption, appears to constitute the dominant and decisive element of the prevailing agricultural depression.

Until 1929, prices were low as compared with prices of industrial products, but were above pre-war prices. The predominating tendency to a fall which was observed was not altogether general nor was it abnormally rapid. The general character of the price movement completely changed in 1930. A fall, sometimes catastrophic, spread with extreme violence to almost all agricultural produce. It was so rapid that at the end of the year, whilst some products reached the pre-war level of prices, others fell as low as one-quarter or one-half below the 1913 level. In many countries, this fall in agricultural prices was the most abrupt experienced for half a century, and, save for the period 1920-21, modern economic history gives few instances of such a decline. Farmers throughout the world have suffered from it. This fall was more serious than that which occurred in retail prices or in the cost of living, and the inadequacy of agricultural prices is for the most part responsible for the agricultural depression.

The harm caused to farming by the relatively low level of prices is greatly aggravated by the *instability* of these prices. The fluctuations have pernicious results both for producers and consumers. They are incalculable and unforesecable and increase the risks of producers and cause the income drawn by them from their harvest to vary greatly. They are particularly harmful during the months after the harvest, since many farmers are obliged to sell at any price to meet their obligations ; and these sales *en masse* mean the collapse of prices. The violent fluctuations that have taken place in the prices of certain products completely nonplus consumers. The value of price stability to farmers cannot be over-estimated.

Index Numbers of Agricultural Prices.

The lack of uniformity in the elements contained in index numbers of agricultural prices has been rightly emphasised on many occasions. The greatest caution must be observed in international comparisons. [1]

At present, nine countries supply agricultural price-index numbers based on that pre-war level of prices, and therefore capable of being used in an approximate international comparison of the situation of agriculture in these countries, [2] but even these index numbers are constructed on very different bases. [3]

Extreme care is thus needed in the handling of agricultural statistics. They are

[1] See the recent publication of the International Institute of Agriculture : *Index Numbers of Prices of Agricultural Produce*. Rome, 1930.

[2] The index number of agricultural produce in the Argentine is based on the 1926 price-level. The Australian figures comprise three separate index numbers for different classes of agricultural produce. In Finland, the index numbers are based, not on solar years, but on agricultural years. The Norwegian numbers relate to six different classes of agricultural products. The Swedish indices are based on agricultural years. The Netherlands index number from June 1929 is based on agricultural years. The Yugoslav index number is based on the 1926 price-level. The Estonian index number relates only to certain exported agricultural products.

[3] Four countries only base their index numbers on prices paid to producers (England, Canada, United States and Switzerland) ; the other five countries (Germany, Hungary, Italy, New Zealand, Poland) base their index numbers on wholesale prices, so that the results published only indirectly show the changes in the level of prices obtained by producers. The differences resulting from this situation may be neglected at a time when prices only fluctuate within narrow limits ; but they may become serious when agricultural prices change rapidly as is at present the case, and when the spread between the prices received by the producer, wholesale prices and prices paid by consumers is considerable.

The value of index numbers for an international comparison is further diminished by the fact that the prices of the articles to which they refer, are weighted according to several different systems. The German index is weighted according to the quantities of agricultural produce consumed in the country, except quantities

(Continued on page 9.)

by no means always conclusive and reliable, and are frequently open to dispute. But it is impossible to question the general tendency to which they point. The existence of the agricultural crisis is beyond dispute.

In the countries under consideration, with the exception of Great Britain, Italy and Switzerland, the index numbers of agricultural prices show a distinct tendency to remain below the wholesale price index numbers for the same periods,[1] as will appear from the following tables :

	Canada		Germany [4]				
	Agricultural products X C [2]	Wholesale prices [3]	Agricultural products Y A	Chemical fertilisers	Agricultural material	Cattle fodder	Wholesale prices
Basis 100 =	1913	1913	1913	1913	1913	1913	1913
1921	145.2	156.3	—	—	—	—	—
1926	143.6	156.3	129.3	86.3	132.9	114.6	134.4
1927	138.6	152.7	137.8	83.3	133.3	146.1	137.6
1928	121.5	150.6	134.3	81.8	139.4	147.4	140.0
1929	157.3	149.4	130.2	84.6	141.3	125.9	137.2
June 1930. . .	—	—	109.7	84.3	140.0	90.2	124.5
Nov. 1930. . .	—	—	112.0	80.4	137.4	87.9	120.1
Dec. 1930. . .	—	—	110.4	80.5	136.0	91.1	117.8

	Great Britain				Hungary		Italy	
	Agricultural products [5] X B	Cattle fodder [5]	Fertilisers [5]	Wholesale prices [6]	Agricultural products Y C [7]	Wholesale prices [7]	Agricultural products Y [8]	Wholesale prices [8]
Basis 100 =	1911-1913	1911-1913	1911-1913	1913	1913	1913	1913	1913
1921	219	181	220	197.2	—	—	—	—
1926	151	125	113	148.1	—	—	—	—
1927	144	139	110	141.6	—	—	—	—
1928	147	154	98	140.3	—	—	144.6	133.9
1929	144	139	100	136.5	116	121	138.6	130.5
June 1930. . .	131	92	103	120.7	82	94	113.1	112.0
Nov. 1930. . .	129	82	99	112.0	80	92	101.8	102.9
Dec. 1930. . .	126	81	101	108.9	78	90	91.8	100.4

(Continued from p. 8.)

consumed by the farmers themselves. The English index and the United States index are weighted according to the value of the products sold by the farmers themselves. The indices of Canada and Hungary, on the other hand, are weighted according to the quantity of agricultural produce produced in those countries ; the New Zealand index according to the quantities exported ; the Polish index according to the value of the agricultural produce coming into the trade in the country ; the Swiss index according to the quantities sold and the quantities consumed by the producers.

[1] To make the general picture of the relation between agricultural prices and the general level of wholesale prices quite clear, it would be necessary to include the rise in prices of the years 1919-1921, which was the maximum rise in the years succeeding the war ; but for this the statistical data available are insufficient.

[2] Index numbers of Agricultural Section of the Federal Statistical Office (basis 1913 = 100).

[3] Index numbers of Internal Trade Section of the Federal Statistical Office (basis 1913 = 100).

[4] Index numbers of " Statistisches Reichsamt ".

[5] Index numbers of Ministry of Agriculture and Fisheries.

[6] Board of Trade, index numbers.

[7] Index numbers of Central Statistical Office.

[8] Index numbers of " Consiglio Provinciale di Economia Milano ", converted into current money.

	New Zealand		Poland		Switzerland		
	Agricultural products [1] Y D	Wholesale prices [1]	Agricultural products Y E [2]	Wholesale prices [2]	Agricultural products [3] X F	Cost of production [3]	Wholesale prices [4]
Basis 100 =	1909-1913	1909-1913	January 1914	January 1914	1914	1914	July 1914
1921	—	202.5	—	—	—	—	—
1926	152.6	162.0	—	—	154	172	142
1927	151.3	154.1	130.5	118.6	146	172	142
1928	168.4	155.5	110.7	119.3	151	172	145
1929	161.3	155.2	98.6	113.4	147	168	141
June 1930	134.1	152.7	89.9	98.5	—	—	126
Nov. 1930	107.4	140.9	86.4	93.1	—	—	120
Dec. 1930	101.3	140.9	83.0	90.8	147	—	117

	United States of America		
	Agricultural products X B [5]	Products purchased by agriculturists [5]	Wholesale prices [6]
Basis 100 =	1909-10 to 1913-14	1909-10 to 1913-14	1913
1921	116	156	139.8
1926	136	156	143.3
1927	131	154	136.7
1928	139	156	140.0
1929	138	155	138.3
June 1930	123	149	124.4
Nov. 1930	103	142	115.2
Dec. 1930	97	139	112.3

This tendency was already marked before the close of 1929, but it was accentuated during 1930. While the index numbers of wholesale prices are still much higher than before the war in the majority of countries, the index numbers of agricultural prices

[1] Index numbers of the Census and Statistics Office.
[2] Index numbers of the Central Statistical Office.
[3] Index numbers of the Swiss Peasants Secretariat.
[4] Index numbers of the Federal Office of Industry, Commerce and Labour.
[5] Index numbers of Bureau of Agricultural Economics.
[6] Index numbers of Bureau of Labour reduced to the basis of 1913 = 100.

Prices on which the index numbers are based :

X = Prices paid to producers.
Y = Wholesale prices.

Bases of weighting :

A = Quantities consumed in the country other than quantities consumed by agricultural producers themselves.
B = Values of products sold by agricultural producers.
C = Quantities produced in the country.
D = Value of the quantities exported.
E = Value of quantities coming into the trade of the country.
F = Values of quantities sold and consumed by agricultural producers.

in the industrial countries of Europe and in the great oversea agricultural countries are but slightly higher than they were before the war. [1]

In the agricultural countries of Eastern Europe, the index of prices of agricultural products is not only below the general wholesale price level, but also very much below pre-war prices. In December 1930, the index of agricultural prices was 78 per cent in Hungary and 83 per cent in Poland.

Under these circumstances, it is intelligible that there should be a widespread feeling amongst farmers that the products of their labour are no longer bringing in the same return as industrial products. In the very large majority of cases, agricultural prices are lower than industrial prices. But industrial prices are not a matter of indifference to farmers, who have to purchase manufactured products both for the purposes of their work as producers and for their domestic consumption. The difference in the movements of the two categories of prices means, in their case, a simultaneous drop in income and increase in expenditure as compared with pre-war conditions.

The crisis brings about a disproportion *between the prices of commodities and services for which the farmer has to pay and the prices of the products which he is able to sell.* As far back as 1927 the report of the Economic Conference remarked on " the disequilibrium which has arisen between the prices of agricultural products and those of manufactured products ; as a result, agriculturists in a great number of countries no longer receive a sufficient return for their labour and on their capital ".

Since 1927, this situation has become steadily worse.

Beyond doubt, agricultural questions lie at the very heart of the general problem of the world economic depression. Agricultural classes, unable to sell their products at a remunerative price, restrict their purchases of industrial products. The crisis, which is seriously affecting the situation of millions of farmers and lowering their purchasing power, has a grave effect on the industrial market. The peasant whose income is diminishing reduces his expenditure ; he lives on the food provided by his holding, but diminishes or suppresses his purchases. The most numerous of all classes of consumers is subjecting itself to severe restrictions.

Cost of Production.

Taken as a whole, though the sale prices of agricultural products have increased in comparison with pre-war prices in the case of certain articles, they have not risen in the same proportion as the general price-level. It is not possible to obtain exact and certain information for calculating the expenditure of agriculture. Cost prices vary infinitely, not only in different countries, but also within the same country in different localities, farms, or plots of land. It is certain, however, that the prices obtained are often such that production ceases to be remunerative.

There can be no doubt that the position of the farmer has become worse in comparison with pre-war conditions, and that many agricultural undertakings have closed their accounts in recent years with more losses than profits.

Comparison between the index numbers of the prices obtained by farmers from the sale of their products and index numbers of the prices they have to pay for the commodities they purchase (whether for use in production, or for their personal consumption) does not allow of any definite conclusions as to the returns of agricultural production. In order to determine with regard to the agriculture of a particular

[1] In Great Britain, the index number of agricultural prices for December 1930 is 26 per cent above the basic period 1911-1913, and is also higher than the general price-level (the Board of Trade index number for December 1930 was 108.9). This apparent exception is explained by the fact that, owing to the character of British agriculture, this index number is mainly dependent on the price of live-stock and dairy products ; cereal prices, which are most affected by the international fall of prices, represent only 15 per cent of the total.

country whether a year's production has ended with a profit or a loss, it is not sufficient to ascertain the average variations of sale prices and of costs in respect of factors of production. The proportions in which income and expenditure enter respectively into the frequently obscure accounts of the producers must also be known. But, whereas the expenditure on production in any given agricultural year depends on the farmer himself, the quantities produced are dependent on factors over which he sometimes has no influence at all. The return on cereals, even more than that on live-stock and dairy produce, varies greatly. The cost price of agricultural products per unit varies from one year to another without any very definite connection with the costs of production per acre. Returns do not increase in strict proportion to increased expenditure except in very special cases, which in practice are rarely encountered, even where there have been no changes in the technical methods of agriculture. In the case of comparisons extending over a number of years, the situation is complicated by technical improvements which, by progressively increasing the yield of production, lead to a fall in the costs of production per unit of product.

It is not possible to take the rise or fall of prices of an agricultural product over a number of years as a basis for the conclusion that production is being carried on at a profit or a loss. The total income of agriculturists is dependent both on fluctuations in the prices of the products and on changes in the volume yield of the harvests.

On the other hand, it is also essential to know the variations in the cost of production. In countries where index numbers of costs of production are available, they do not show a considerable drop in 1930, except in the case of artificial fertilisers and cattle fodder. Wages and farming material remained at the comparatively high level previously reached. There appears to have been no reduction in the cost of capital or in the burden of taxation.

Practically everywhere there is a marked fall in the profit-earning capacity of agriculture. This fall in the income of agriculture is reflected in the depreciation of land values. In some countries, the value of landed property has fallen by 50 per cent. In a number of countries many landowners are anxious to get rid of their estates ; but they find no purchasers even for the best land.

There can be no doubt that the prices of agricultural products are low in comparison with the cost of production, which has risen steadily and appreciably. In Switzerland, the cost of production has nearly doubled since the war. In Austria, the average index number of prices of agricultural products is 108, taking 100 as the figure for the corresponding prices before the war, while the average index number of operating costs is up to 163. The fall in the price of the majority of agricultural products for some years past would not have given rise to so much economic disturbance if the cost of production had fallen at the same time.

If the cost of production is too high, that is a consequence of the increase in the cost of all or nearly all its constituent items (machinery, fertilisers, various manufactured articles, wages, building, etc.). This increase is often very great in comparison with pre-war prices. The critical position of agriculture is apparent when the prices of articles purchased by farmers for their production or for the household are considered. The index number of prices of agricultural implements and materials *(totes Inventar)* in Germany, which until 1928 followed more or less closely the variations in the general price level, has since 1930 been higher either than the general price-level or the level of agricultural prices. In the United States, the index number of products purchased by farmers for both their production and for the household, which between 1926 and 1929 was some twenty points higher than the prices of agricultural products, showed no marked drop in 1930, and in December 1930 was more than fifty points above the level of agricultural prices. A similar tendency is apparent in Switzerland, where the index number of the cost of agricultural production remained unchanged from 1926 to 1928 at a level some twenty points above the level of agricultural prices.

The general situation subsists in spite of the comparative cheapness of certain important elements in the cost of production, such as fertilisers and cattle fodder. The prices of chemical fertilisers are in England nearly the same as before the war and in Germany 15 per cent lower than before the war.

The fall in the prices of fertilisers is due partly to the reduction in consumption, since farmers cannot keep up their outlay on production when the sale prices of their products leave them with a loss. But insufficient fertilisers mean reduced returns, and so the balance between income and expenditure is not restored.

The indices of prices of cattle fodder have fallen since 1929, and to such an extent that, in December 1930, they were well below the pre-war level both in Germany and in Great Britain.

Wages.

The cost of *agricultural labour* has increased as compared with the period before the war. Though agricultural wages are not up to the level of industrial wages, and only allow of a very modest standard of living for the workers, they constitute a heavy charge on agriculture. They are one of the principal elements in the cost of production, but the proportion varies greatly according to the country and to the nature of the undertaking. In a certain number of States, agricultural labour is scarce, with the result that wages tend to rise. In several other countries, on the other hand, there has been a certain amount of agricultural unemployment for some months past.

The majority of experts attach considerable importance to the increase of wages as a factor in the increase of cost prices of agricultural commodities ; but the fact that, in a fairly large number of countries, a large part of agricultural wages — more than half — is paid in kind in the form of lodging, wood for heating, farm produce, etc., lessens the primary importance of wages as a factor in the movement of cost prices. This may well be one of the reasons for the remarkable circumstance that agricultural wages have not, up to the present, been affected by the crisis ; they have not noticeably fallen. This was the fact established by the Mixed Advisory Commission on Agriculture of the International Labour Office and the International Institute of Agriculture, which met at Geneva on December 9th and 10th, 1930.

The agricultural employers have not attempted to reduce wages as a means of diminishing their cost prices. But, compelled themselves to reduce their standard of living, they have in many cases lowered the standard of living of the agricultural worker, in so far as that part of his wages is concerned which is paid in kind, by not improving his housing conditions or by not developing the health and welfare institutions and schemes for the utilisation of his leisure which were formerly set on foot, or would have been if the circumstances had been different. On the whole, however, the crisis has not as yet had any marked effect on agricultural wages, which seem to have achieved a certain stability.

Social and Fiscal Charges on Agriculture.

Suffering as it is from the big drop in the prices obtainable for its products, agriculture is also labouring under the burden of fiscal charges. This burden varies from country to country, but is heavy in all cases.

In the majority of countries, the fiscal contributions and charges (national, departmental and communal taxes) are considerably higher than they were before the war. Social insurance and assistance charges constitute an additional burden. The reductions of taxation, which are considerable if regarded from the standpoint of the national budgets, are by no means considerable so far as their incidence on individual producers is concerned.

Certain agricultural products constituting remunerative and convenient objects of taxation are heavily taxed in every way : wine, tobacco and sugar, for example, are sources of revenue in a large number of countries.

Credit.

In many countries the high level of interest on loans increases the cost of production. Farmers, being unable to obtain sufficient long-term credits, are compelled to contract short-term loans at a high rate of interest, which are often a curse for agriculture. In Hungary, for example, the rates of interest, which stood at 4 per cent to 5 per cent before the war, have doubled. In certain countries the farmer cannot obtain credit except at usurious rates varying from 18 per cent to 50 per cent. In Poland and in Eastern Europe, the shortage of long-term credit further aggravates the agricultural crisis.

In the United States, where the farmers work largely on credit, the total agricultural mortgage debt has markedly increased since 1920 (from $ 7,858,000,000 in 1920 to $ 9,469,000,000 in 1928). In Germany, where estates are often heavily mortgaged, the agricultural indebtedness, estimated at 12 milliards of marks, greatly aggravates the situation. The burden of interest involved is very great in Germany, the aggregate volume being over a milliard, or twice what it was before the war. Their effect in intensifying the crisis is very great.

On the other hand, in many countries, traders, who no longer have large sums at their command as in the past, insist on more or less lengthy periods for payment ; this embarrasses the farmer and delays the marketing of his produce. If the farmer wants to be paid in cash, he has to make concessions on the price, with damaging effects on the returns of his undertaking.

The profound changes which have thus been introduced into the conditions of the sale of agricultural produce compel the farmer himself to have recourse to credit in order to have the funds required for the running of the farm available at the right time. Only too frequently is he compelled to submit to onerous terms in respect both of interest rates and of capital repayments.

Agricultural undertakings thus find themselves compelled to produce at fixed dates large sums of ready money, which they can only raise by extensive sales, frequently undertaken at moments when the prices obtainable are wholly unremunerative.

Lastly, the shortage of working capital makes it impossible for the farmer to take advantage of favourable opportunities for accumulating cheap stocks of fodder and other foodstuffs for live-stock.

Part II.

CAUSES OF THE AGRICULTURAL CRISIS.

Most of the experts predict a long duration for the agricultural crisis ; for it consists in a *universal disturbance of the balance between production and consumption.*

There is no doubt that the crisis is due to a disturbance of the balance between production and consumption ; but is it due to an excess of production or to an abnormal diminution of consumption ? The two things co-exist, as will be seen from the following successive studies of agricultural consumption and agricultural production.

Consumption.

Generally speaking, the consumption of many agricultural products, especially cereals, is not elastic and varies only within narrow limits. The human consumption of food cannot be expanded at will to absorb excess production.

Several important agricultural products supply a demand which does not usually increase much more rapidly than the population. This demand is practically constant per head of the population ; it doubtless corresponds to the purchasing power of the consumers, but it is not capable of such expansion as the demand for manufactured articles.

The demand for industrial products depends, not only on an increase in the number of consumers, but on a variety of other factors — to a great extent, for instance, on the incomes of individuals. There are peasants who are said to purchase shoes only on the day of their wedding ; if their income permitted they would purchase them every year. The demand for industrial products can be considerably stimulated by means of credit.

The relative importance of needs in respect of food diminishes as we pass from the budgets of the poorest to the budgets of persons of ampler means. The needs being considerably multiplied, the part played by food on the whole needs of the individual tends to lose its importance. The enhanced purchasing power of non-agricultural sections of the population has been used less for further purchases of foodstuffs than for the satisfaction of needs other than those of nourishment.

Moreover, the progress achieved in the preservation of foodstuffs of every kind, or in their more complete utilisation, has contributed to a better use of agricultural produce, and has, in consequence, restricted purchases of agricultural products.

Although agriculture has been hard hit by the fall in prices in recent months, this fall has not to any considerable extent caused new classes of consumers to appear ; for a country's habits in food matters are not rapidly changed.

However, certain changes in consumption that have appeared during recent years in the demand for agricultural products play a part in the crisis. They have sometimes increased the congestion of the home markets. Thus, in the marketing of cotton, competition due to the development of artificial silk production has to be faced. In the same way, needs for fodder are affected by the diminution of draught animals and the growing use of motors. The consumption of rye is being reduced, as the population prefers white bread to black bread. Rye is hardly used any longer for making alcohol. In breweries, barley finds a rival in rice and maize. The consumption of wine tends to diminish, while the consumption of other drinks, such as coffee, tea, mineral waters, or other foodstuffs, such as sugar, is considerably increased.

In Europe and in the United States, at any rate, individual consumption of bread seems to have reached its maximum ; it is a basic foodstuff, the essential foodstuff, the consumption of which seems to diminish per head of population, perhaps with the steady reduction of muscular work.

On the contrary, a marked increase is noticeable in the consumption of fruits, vegetables, milk products, eggs, poultry and fats. As mankind progresses, the appetite demands satisfactions of a more and more varied character. A growing differentiation in the consumption of foodstuffs is to be observed. There is a clearly marked evolution in the direction of variety, so that each individual consumes an ever-growing number of products. And thus, although the consumption of certain agricultural products remains almost constant, there are others in the case of which it is capable of increase. The consumption of wine, for instance, is extremely variable ; it depends largely on the price asked of consumers, and closely follows changes in the purchasing-power of the masses. Meat was once considered as a luxury which the poorer classes reserved for feast days ; for the last half-century the demand for meat has grown with the increase in the wages of the working-class. Like the consumption of meat, that of butter, tea, coffee, cocoa and sugar has increased. Thus, certain agricultural products may benefit by the increase of wealth.

It has been calculated that it would suffice to increase consumption in Belgium by one single egg per inhabitant per week in order to create an additional demand for 450,000,000 eggs per year, and that in Germany the consumption of eggs could, if compared with that of other industrial countries, be increased by 50 per cent.

If Germany consumed as much fresh milk per head of the population as Switzerland (270 kilogrammes per year), the milk production of Germany would be insufficient for the total consumption of fresh milk.

A further increase in the consumption of certain agricultural products is evidently possible. The saturation point cannot be predicted.

Now it is certain that the purchasing power of hundreds of millions of inhabitants in certain large countries cannot develop normally on account of disturbed general conditions, aggravated in a part of Asia by the collapse of the silver currency. In those countries, there exists a potential consumption. An enormous population is not improving its standard of living. There is no lack of hunger among the masses ; what they lack is the ability to buy.

Moreover, in the industrial countries which are large consumers, the industrial depression has considerably reduced the internal consumption of States. The growth of unemployment, which affects numbers of workers — *i.e.*, consumers — in their standard of life, involves a diminution in the demand for agricultural products. Under-consumption arises from insufficiency of purchasing power. In the case of some foodstuffs (for instance, bread) an increase in the purchasing power of European or American consumers would perhaps not much increase the capacity of consumption ; but it would do so incontestably in the case of other foodstuffs — for instance, meat, fruit, drinke and many manufactured articles, such as textiles, the raw material of which is agricultural in origin. The diminution of purchasing power in countries whers unemployement prevails seems to be borne out by facts. Thus, in the case of certain products at least, the agricultural crisis is due to restriction in internal consumption.

Production.

On the other hand, we are faced with over-production in agriculture. It is hardly possible to speak of under-consumption as regards many articles, and some of the principal products of the soil are purely and simply being over-produced.

Yet, the idea of agricultural over-production remains foreign to consumers as such, who are accustomed to consider plenty and cheapness as inseparable and are somewhat inclined to conclude, from the fact that they pay for their food a price which they consider high and even excessive, that production is far from being over-developed. But a certain number of foodstuffs are certainly being over-produced. There is a surplus of produce in the countries where it can be consumed, and its depreciation is due to its excessive abundance as compared with the actual demand of the world market. There are, in certain producing countries, greater quantities of foodstuffs than can be sold and consumed on terms remunerative to the producer, although famine may be caused in certain parts of the world through inadequate distribution, technique or other causes. Sometimes there is over-production in a particular year ; sometimes there is an accumulation of stocks for export as the result of over-production over a number of years.

This is due primarily to two things : (1) the technical progress of agriculture, and (2) the disorganisation caused by the war.

Technical Progress of Agriculture.

Improvements in technical methods, increased yield, and the cultivation of new areas have all advanced more rapidly than the needs have grown. The yield of the land has been increased, not only by the extension of the cultivated area, but also by the adoption of scientific methods, seed selection, the more general introduction of new varieties, the use of fertilisers and heavy manuring, the employment of machinery and the like. The technical processes of agriculture have been literally revolutionised.

Countries with extensive cultivation have made large use of mechanical improvements. They have become accustomed to working with agricultural machines. In the cultivation of cereals, the use of labour-saving machinery is a factor of the first importance which has played a big part in the increase of production. With tractors and "combines" large areas can be cultivated with fewer hands and consequently at less cost. " Differences in the quality of the soil, the dampness of the climate at harvest-time, multiplicity of crops and the small size of farms — all these are obstacles which, considering the types of machines now in use, have so far stood in the way of the complete mechanisation of cereal cultivation. But it is probable that all these difficulties will be overcome in turn, and that increasingly large areas will be enabled to share in the economic advantages of continuously improved machinery."[1] The oversea countries have already transformed vast areas of virgin soil into wheatfields. The use of motors in the cultivation of the soil, which largely increases the production per head and diminishes the cost, is likely to stimulate still further the extension of the areas under cereals.

The substitution of machinery for human and animal labour is considered as a means of reducing expenses. It is a development which goes to the very foundations of agriculture and represents a step forward in the history of civilisation. The number of agricultural machines is rapidly growing, and they are being applied little by little to all farming operations. In the United States of America, the number of tractors has increased more than three-fold since 1920, rising from 246,000 in 1920 to 853,000 in 1929. The value of the equipment per farm labourer was 200 dollars in 1925 as compared with 36 dollars in 1870.

As a result of all these agricultural improvements, a farmer to-day can produce enough to feed many more persons than formerly. With the intensive development of artifical fertilisers, the adoption of modern methods of cultivation, and the selection

[1] Lecture by Professor Warmbold to the International Agricultural Commission in August 1930 on the cereal crisis.

of prolific seeds, the production of agriculture per head has considerably increased in certain countries.

Science and technical improvements — in particular, the extended use of selected seeds and artificial fertilisers — already exercise, and may in the future continue to exercise, a considerable influence in the direction of increasing the output of cereals.

Without neglecting mechanical progress, the European countries have also endeavoured to attain a high output, and they have obtained encouraging results. If the mechanisation of European farming were to be carried to the point reached in the oversea countries, it would inevitably mean unemployment for a large number of labourers.

Technical progress necessarily involves increased production : all other things being equal, it means more abundant harvests.

The same is true, though to a lesser extent, of cotton. The cultivation of new species of sugar-cane, richer and more productive than the old, has enabled the output in sugar of the best plantations to be increased by one-third.

The world production of wine has also increased in quantity, and sometimes in quality, by the adoption of new methods of cultivation and pruning, the spread of very productive hybrids, the general employment of fertilisers and the discovery of new anti-cryptogamic preparations. From certain stocks a really excessive harvest has been obtained which has become a danger for the wine-growing industry. The yield per hectare of the European vineyards was 19.7 hectolitres from 1909 to 1913 ; it rose to 24 hectolitres in 1928 and 25 hectolitres in 1929.

There can be no question but that the improvement of methods and systems of production have already much complicated the serious problem of adjusting agricultural output to market requirements.

Technical progress in farming, which has been proceeding since the war at an ever-increasing pace, and which it would be foolish to resist, amply counterbalances the normal effect which the low level of prices should have of diminishing the volume of production. This progress and the bringing into cultivation of new land has increased the production of the wealth of the soil. It has led to a development which chance events, such as the war, may have disguised for years and which more normal conditions have brought to light. By its effect upon the market and on the price of products, it has largely contributed to the agricultural crisis.

Disorganisation caused by the War.

The war has left great economic disorganisation behind it.

First, it has caused a considerable development of production in extra-European countries. The regular currents of trade were turned backwards. In order to provide food for the belligerents, distant countries were asked to increase their production. In the principal non-European exporting countries, the area under cereals increased. New Zealand, the Argentine and Australia at present export 350 million English pounds of butter in place of 50 million in 1900. The production of meat in these countries is calculated at 2,000 million pounds as against 300 million in 1900. As compared with the pre-war period, the output of sugar in Cuba increased from 2.5 to 5 million tons, and in Java from 1.5 to 2.5 million tons. A remunerative market was assured ; overseas farmers had an interest in increasing their output year by year.

At the same time, the war caused the upheaval in Russia which has resulted in a further stimulation of non-European production. To protect themselves against social unrest many countries decided on agrarian reforms which, temporarily and in certain States, have had unfortunate effects on agricultural production as a result of the breaking up of the large estates. After the oversea countries had thus been led to

increase their output, Europe recovered its productive power, and the oversea countries were faced with the defensive action of reviving national agriculture. All agricultural effort since the war has been towards the increase of production, whether of crops or live-stock. Increase of output has been treated as the one and only object, and by assiduous endeavours production has been increased to a point which is in excess of current requirements.

The seriousness of the situation is enhanced by the fact that, sooner or later, Russia and the Central and Eastern European countries, whose agricultural reorganisation is not yet complete, will appear in the market with increased outputs.

The production of wheat in Russia, according to the Russian statistics, has for some years been higher than it was before the war ; but the Russian exports which were formerly considerable (42 million quintals in 1909-1913) remained insignificant until 1930, practically the whole of the harvest being consumed in the country itself. Russia, since the war, has stood outside the international wheat market. She is now trying to recover the place in the grain trade of the world which she has lost, and reappears on a market already congested with stocks. Her systematic efforts affect not only cereals but flax, poultry, eggs, butter, timber, etc. By again appearing as a seller, Russia contributes to the sagging of prices. She has imported thousands of tractors ; she has endeavoured to carry on her agricultural development at a rapid pace. It is likely that her agriculture will play an important part in the coming years. A marked increase in Russian exports is generally expected.

Monetary Fluctuations.

Monetary fluctuation has been another consequence of the war. Its effects have differed in different countries, in some being predominant and in others of minor importance. No State has escaped from the effect of this powerful element of economic disequilibrium. But these effects have varied infinitely in the turmoil of inflation and deflation. Agriculture, which cannot adapt itself rapidly to changes in market conditions, has suffered from this situation, which increased the disorganisation of the market.

Certain economists regard changes in the purchasing power of gold as of paramount importance.

It is not possible in this report to deal with the important question of the interdependence between money and the general price-level. Moreover, the Financial Committee has undertaken a far-reaching enquiry into the causes of fluctuations of the purchasing power of gold and their effects on the economic life of nations.

In any case, agricultural economy, whose debts disappeared in several countries with inflation, is at present burdened by the new debts contracted during a period of prices higher than these now obtaining. Out of the lower present-day prices, interest on the debts has to be paid. During a general and continuous fall in prices such as that which has occurred during recent years, the farmer particularly feels the appreciation of money. The fact that periods of production are longer in agriculture than in most industries, makes the farming industry extremely sensitive to the automatic increase in the burden of indebtedness. The cost-of-production indices take account, at most, of the rate of interest that must be paid by the farmer on capital borrowed ; they do not permit the effects of the increase of operating costs due to the quasi-deflationist tendency of the monetary factor to be measured. In any case it is evident that the collapse of prices that occurred in 1929 and 1930 has greatly increased the depression, especially in the case of farms worked on a large proportion of borrowed capital, the interest on which has to be paid and the principal reimbursed at a value that remains stationary in relation to the monetary standard, but increases relatively to the value of agricultural produce.

Protectionism.

As a result of the war, the tendency of States towards economic self-sufficiency became more marked. Immediately after the war, however, as there was still a shortage of foodstuffs, a number of States entirely or partially suspended their agricultural protectionist duties.

After the acute crises of 1921 and 1922, the situation of agriculture improved. But when prices again declined in 1926 the European States entered upon an era of intensified agricultural protection combined with numerous measures of various kinds in favour of home agriculture. Since 1929, agricultural protection has gone far beyond anything practised before the war. States are leaving no stone unturned to overcome the depression. The attention paid to agricultural problems by Parliaments is greater than it has ever been. The laws that have in the past few years been voted in the interests of farming are innumerable.

The "emergency measures" of protection or prohibition reveal the anxiety caused to Governments by the agricultural depression.[1] A rapid and repeated increase in duties takes place, and protection breeds protection.

In particular, the duties on cereals have been raised. Faced with the competition of importers from other countries, European producers are determined to ensure a profit from their harvest and to protect it.

But, however high the Customs barriers behind which national markets endeavour to entrench themselves, it is difficult to isolate the agriculture of a country from the rest of the world ; national harvests do not stand alone ; there is a world harvest. All the limitations which appear in any given market cause supplies to flow towards another market, which, being soon submerged, finds itself obliged to increase its tariffs in order to maintain its prices on the home market or limit imports.

Even when tariffs are increased beyond all normal expectations up to twice the full amount of world prices, they appear insufficient to the producer, who demands other guarantees. In addition to the Customs tariff, a " candid form of protection ", the whole arsenal of indirect protectionism is employed. Protection by Customs tariffs is accompanied by measures which, at first accessory, soon assume the chief importance.

Certain sanitary police measures have no doubt hindered the development of imports more than Customs duties. None can deny that a State has both the right and the duty to protect its agriculture against animal and plant diseases. But it is impossible to overlook that the impression prevails in certain quarters that some States have taken too many measures of this kind with the primary object of reducing foreign competition.

Whilst limitations of every sort are placed on imports, export bounties are granted in certain countries. Whilst the greatest possible measure of protection of national produce by every possible means is demanded from Customs duties to import prohibitions, most determined efforts are made to increase exports. The export of agricultural produce is encouraged at State expense by bounties of the most varied character, either paid in money or by the exporter receiving a refund of the import duties or benefiting by exemptions from taxes, or by the State covering out of the budget the loss which the exporter suffers, by taking charge of exports at its own risk. In order to reduce stocks in a country, produce is exported at low prices, without regard to whether these forced exports suit farmers of other countries.

But the bounties granted in one country provoke similar favours on the part of other States, who are driven by competition to use the same weapons. The phase of competitive bounties then sets in. Bounties can only be effective when they are made use of by one or two States. As soon as they become general, they neutralise and cancel

[1] Cf. *The Agricultural Situation in 1929-30.* Publication of the International Institute of Agriculture. — Chapter II : " Government Measures of Farm Relief ". Appendix I : " Customs Duties on Cereals and Flour ". Appendix II : " Comparison between the Customs Duties in July 1930 and before the war ".

one another and become useless and burdensome. Home prices rise for a while under the influence of bounties ; there follows an increase in production which involves a fall in prices and brings us back to the starting-point. Finally, export bounties cause a corresponding drop in prices on the world market, neutralise the effect of Customs duties and eventually increase the intensity of the crisis. Contrary to the views which led to the grant of export bounties, a market already supersaturated becomes completely disorganised ; and, in the end, the situation becomes worse through the perpetuation of an irrational system of protection by desperate makeshifts.

Agricultural Crises in Modern Times.

There are two crises in modern history which may be compared with that of the present time. The first was after the Napoleonic wars, just as the present crisis follows on the conflict of 1914-1918. During the Napoleonic wars, agricultural production increased, particularly in the countries threatened by the continental blockade. After the conclusion of peace, it was in excess of the requirements of consumption. The prices of cereals fell between 1820 and 1825 by half or two-thirds, and the prices of live-stock by nearly one-half, while the prices of industrial products fell a good deal less heavily, and taxation, as a result of the wars, was very much heavier.

The increase in the consumption of potatoes reduced the markets for other agricultural products. Abundant harvests which followed between 1817 and 1824 in a number of countries led to a fall in agricultural prices. The crisis became less intense after 1825 and by 1835 was over.

This was a period of " high farming ", broken only by local and transitory exceptions and by one or two bad harvests.

In 1875, there was a renewal of agricultural depression. Agricultural prices fell. In Great Britain, where there was at this time no Customs protection for agriculture, wheat fell in 1894-95 to a minimum price representing only 43 per cent of the average prices obtained between 1851 and 1875. The prices of meat and dairy produce followed suit, but the fall was less marked than in the case of cereals. The minimum price of beef in Great Britain was reached in 1887, when it was 84 per cent of the prices from 1851 to 1875 ; the minimum price of butter was reached in 1895, when it was 82 per cent of the prices from 1851 to 1875.

One effect of the crisis was to divert agriculture from cereal-growing to stock-breeding in a number of European countries, such as Great Britain, the Netherlands, Belgium and Denmark.

The monetary factor was a contributory element of the crisis. Between 1875 and 1900, the value of gold increased. But the determining factor was the colossal development of agriculture, thanks to the railways, in the United States of America, after the Civil War, as well as in Canada from 1880 onwards, and in the Argentine, and, to a lesser degree, in Australia, after 1890. During the same period, Russia became the largest cereal exporter in the world.

The depression came to an end at the beginning of the twentieth century ; by 1905 it was over. Agricultural prices rose. In the period 1909-1913 cereal prices were 20 per cent higher than the average level of the years 1891-1900. [1]

The above two examples assist the comprehension of the features of the agricultural crisis which has prevailed within the last few years. It is, as we have seen, a crisis of over-production and under-consumption. This crisis is aggravated principally because it does not consist only of a drop in agricultural prices. Formerly, credit rates, the prices of manufactured goods and taxation were by no means as high as at present. Moreover, the crisis in the sale of agricultural products is accompanied at the present time, at any rate in some countries, by a credit crisis.

[1] From C. von Dietze, *Die gegenwärtige Agrarkrisis*, Berlin 1930.

Part III.

MARKET CONDITIONS.

The severity of the present crisis is aggravated by the fact that almost every branch of agricultural production is affected. In normal times, and even during periods of partial depression, the diversity of agricultural production offers a certain margin of safety. The general balance may continue to be favourable, even if some branch or other of agricultural production is working at a loss. At the present time, almost all elements of agricultural production are affected. There are only a few local or temporary exceptions. Hardly any country in the world, hardly any branch of agricultural activity, has escaped the general distress.

Agriculture cannot, however, be regarded as an indivisible whole ; an attempt must be made to distinguish between the various branches of production. The drop in the price-level of agricultural products, which is clearly reflected in the agricultural index numbers, has not been equally sharp for all products. For instance, the groups consisting of cereals, live-stock and dairy produce, textiles and colonial produce have moved on very different lines. Even within these groups there have been considerable differences in the case of different products.

We must briefly examine the market conditions in the principal branches of agricultural production. This will help us to obtain a clearer idea of the depression.

CEREALS.

Wheat.

Of all agricultural products, wheat is the one with which the whole world is most seriously concerned. It is the most important of all for human food, and is the most international in character. In respect of both production and consumption, it concerns the greatest number of countries ; it is consumed in large quantities in all countries of any importance. There is no country where production and consumption are so well balanced that wheat is not to some extent an import or export commodity ; almost all countries take part in the international wheat trade.

The wheat problem is therefore one of exceptional importance. It occupies a predominant position in the agricultural depression and illustrates with special clearness the essential features of that depression.

The depression in agricultural products is at the bottom of the general crisis ; the depression in cereals is at the bottom of the agricultural depression. It is the depression in cereals rather than that in other agricultural products which has suddenly brought the mass of the farmers face to face with the problem of markets and prices.

Just before the war, the international wheat market had apparently reached a sort of equilibrium. Violent fluctuations had formerly taken place in very localised markets, one district frequently experiencing a glut of wheat while neighbouring districts suffered from a serious dearth. This state of affairs had given way to a highly regulated system which was brought about by a development of the world market and which made all the wheat producing countries interdependent ; prices had been equalised with the help of the growing traffic facilities.

The equalisation of prices was all the easier to effect, as, in view of the difference of the seasons in different parts of the world and the variety of climatic conditions

there are always some countries where grain is being harvested and threshed. The distribution of harvests over the entire year stabilises the grain trade by constantly placing fresh crops or accumulated stocks at its disposal.

Just before the war, the world production of wheat exceeded one milliard quintals ; it had greatly increased. In 1910-13, twice as much wheat was harvested as twenty years earlier.

In spite of the enormous increase in production, prices continued to rise. The progressive drop and the prolonged low level of prices which in the last quarter of the nineteenth century had followed a period of rising prices — *i.e.*, 1850-1875 — had in turn been succeeded at the beginning of the twentieth century by a fresh rise. In 1913, the average prices per quintal of wheat in the shipping ports of the United States of America was 18.20 francs, as against 12.75 francs in 1892 ; in Liverpool it was 17.60 francs as against 14.60 francs (gold francs).

The demand had increased even more rapidly than the crops. The increase in consumption was due, not only to the growth of the population, but also to an advance in wealth and prosperity which resulted in the neglect of the inferior cereals.

Economists raised the question whether the world would be able to supply the crops necessary to meet this increased demand. In general, they considered that supplies might prove insufficient in the future, and they arrived at pessimistic conclusions. They were far from expecting a rapid and considerable increase in production to take place.

The imports into central and western Europe continued to increase. About half the supplies came from eastern Europe and the other half from the United States of America, the Argentine, Canada and Australia. Two countries had recently become large exporters — *i.e.*, the Argentine and Canada.

The outbreak of war upset the production of and trade in wheat. It caused Russia, which had been the principal exporter before 1914, to disappear from the list of exporting countries. It brought about a considerable decrease in sowing and an enormous deficit in crops in Europe. It stimulated the extra-European producers. Attracted by the prices, which had risen to three times their previous level, the oversea farmers cleared and sowed virgin soil. Banks advanced them money ; factories supplied them machinery. In a few years the land under wheat in oversea countries increased as much as in the previous forty years. The armistice did not arrest the enormous impetus of mechanised agriculture.

This impetus was made possible by improvements in agricultural implements, the use of new varieties of wheat and better methods of cultivation. It was possible to grow wheat on land which had formerly been considered unsuitable for this crop. Selection had resulted in the use of quick-growing varieties of spring wheat in Canada so that the boundary of cultivation could be extended northwards. In Australia and in the west of the United States of America, certain varieties gave high yields in dry districts, which it became possible to cultivate by " dry farming " methods. Finally, as already stated, there was a great development in mechanical methods which gave the oversea countries a high capacity of production.

During and immediately after the war there was obviously no question of the over-production of cereals. Alarmist publications maintained that wheat requirements would no longer be covered by agriculture. They stated that Europe was at the mercy of bad crops and would be condemned to famine if her cultivation could not be increased.

As a matter of fact, the oversea surplus production has placed European production in a critical position. America produces wheat under much more favourable conditions than before the war ; it has organised its warehousing system, and the wheat can be delivered to the silos immediately after it is threshed.

The competition of the new countries becomes especially formidable from the standpoint of European agriculture in view of the very low freight rates. Under modern

technical methods, the wheat can be transported at very low rates, which greatly assist oversea wheat to compete successfully with the European production. Their offers are more attractive than formerly.

Competition applies not only in regard to prices but also in regard to quality; the grain trade of North America is facilitated by standardisation. The question of quality arises whenever wheat is required that will meet the consumer's special requirements. In order to increase the proportion of gluten in the flour, the European milling industry has acquired the habit of purchasing strong wheat such as "Manitoba" from America. In various European countries, attempts are being made to study the baking qualities of home-grown wheat with the hope of reducing or entirely doing away with the importation of this strong wheat.

The following tables, drawn up by the International Institute of Agriculture, show to what extent the principal wheat-growing centres shared in the world production during the five years immediately preceding the war and during the years from 1925 to 1930; they clearly show which centres have contributed most to the increase in production.

World Production of Wheat.

Country	Average 1909-1913	1925	1926	1927	1928	1929	1930	Average 1925-1930
	Millions of quintals							
Europe [1]	371	382	331	347	383	389	371	367
Canada	54	108	111	131	154	83	108	116
United States	188	184	226	239	249	220	232	225
Argentine	40	52	62	77	95	44	65	66
Australia	25	31	44	32	43	34	56	43

Index Numbers of the World Production of Wheat.

Country	Average 1909-1913	1925	1926	1927	1928	1929	1930	Average 1925-1930
Europe [1]	100.0	102.9	89.2	93.5	103.2	104.9	100.0	98.9
Canada	100.0	200.0	205.6	242.6	285.2	153.7	200.0	214.8
United States	100.0	97.9	120.2	127.1	132.4	117.0	123.4	119.7
Argentine	100.0	130.0	155.0	192.5	237.5	110.0	162.5	165.0
Australia	100.0	124.0	176.0	128.1	172.0	136.0	224.0	172.0

On the whole, European production is below the pre-war average level; it only slightly exceeds it occasionally, in particularly favourable years. As a producer, Europe is practically in the same position as before the war. The rise in the production of wheat is essentially due to the great oversea producing countries. The increase which has taken place in Canada is of the greatest absolute and relative importance. The Argentine and Australia have also greatly increased their production. The advance in the United States of America, though not so pronounced in relative terms, nevertheless also represents large quantities in terms of absolute amounts.

The oversea increase has been a cause of serious danger since the disappearance of the exceptional European war demand. While the production of wheat is increasing outside Europe, it has been scarcely reduced in Europe where Russian wheat hardly began to reappear until 1930.

[1] Not including the Union of Soviet Socialist Republics.

This position necessarily led to a sagging of prices. In the face of enormous supplies, the demand remained unchanged. The fall became catastrophic.

Wheat Prices.

Year	Manitoba Northern 1, Winnipeg		Winter No 2, Chicago		Barletta, Buenos Aires		Australian, Liverpool and London		Home-grown, Berlin		Home-grown, Paris		Home-grown, Milan	
	Cents per 60 lb.	%	Cents per 60 lb.	%	Pesos per quintal	%	*s.* and *d.* per 480 lb.	%	R.M. per quintal	%	$ per quintal [1]	%	$ per quintal [1]	%
1913	88	100	90 1/4	100	[2] 8.65	100	36/7	100	19.67	100	5.36	100	5.32	100
1921	163 1/4	186	141 3/8	157	16.28	188	—	—	—	—	—	—	—	—
1922	123 3/4	141	121 1/2	135	12.52	145	53/3	146	—	—	—	—	—	—
1923	108 1/2	123	112 5/8	125	11.99	139	47/10	131	—	—	—	—	—	—
1924	127 3/4	145	125 7/8	139	13.28	154	53/2	145	—	—	—	—	—	—
1925	163 7/8	186	166	184	15.55	180	59/7	163	—	—	—	—	—	—
1926	149 5/8	170	155 1/4	172	14.69	170	57/5	157	26.79	136	6.05	113	7.81	147
1927	148 3/8	169	137 5/8	152	12.04	139	53/5	146	26.51	135	6.40	120	7.26	137
1928	135	153	131 1/4	145	11.05	128	49/9	136	23.38	119	6.32	118	7.05	133
1929	133 3/8	152	122 7/8	136	10.13	117	46/4	127	22.78	116	5.92	110	6.86	129
1930														
VI .	103 5/8	112	98 7/8	110	10.35	119	39/5	108	30.22	154	5.23	98	7.42	140
XI .	64 1/8	73	74 3/4	83	7.02	81	27/8	76	24.97	127	6.46	121	5.73	108
XII.	55 1/8	63	78 5/8	87	6.49	75	26/7	73	24.70	126	6.55	116	5.40	102

SOURCES : *International Year-Book of Agricultural Statistics ; Monthly Crop Report and Agricultural Statistics*, Rome.

Since 1925, production has constantly increased.

World-Production of Wheat. [3]

	Cultivated area		Production	
	Thousands of hectares	%	Millions of quintals	%
1909–1913 (Average)	109.5	100	1,029.6	100
1921–1925 (Average)	—	—	1,018.7	99
1926	119.8	109	1,182.3	115
1927	123.8	113	1,191.2	116
1928	124.7	114	1,280.9	124
1929	126.8	116	1,129.0	110
1930	—	—	1,276.7	124

SOURCE : *International Statistical Year-Book*, Geneva.

[1] Converted by the Secretariat.

[2] Wheat No. 1 at Rosario in September, " Pan " quality in October-December.

[3] Including the Union of Soviet Socialist Republics, but not including China, for which estimates of both population and cereal production are extremely vague. In order to obtain strictly comparable figures, the following countries have been eliminated from the totals of the *International Statistical Year-Book ;* Basutoland, Cyrenaica, Eritrea, Kenya, Rhodesia, Tripoli, Bolivia, China (Manchuria), Irak, Palestine, Sakhalin, Syria, Lebanon, Asiatic and European Turkey.

This table undoubtedly shows a considerable increase in production, but the quantities available for world consumption have grown to a smaller extent than is indicated by the figures. Part of the quantity produced is used for sowing and must therefore be deducted from consumption in the true sense ; in view of the fact that more land is now under wheat than before the war, the quantity to be deducted under this heading is also greater.

In spite of the great increase in the quantities actually available for consumption, this factor is insufficient to account for the seriousness of the present position. The decrease in demand must also be considered.

It is a fact that, at the present time, the equilibrium between supply and demand has been destroyed. Consumption naturally increases with the growth of the population ; it is, however, only rising slowly and is not keeping pace with production. It is very difficult to compare the increase in the supplies of wheat with the growth of the population. Certain very general tendencies appear, however, to emerge from the examination of the statistics.

During the five years 1921 to 1925, the production of wheat was slightly lower than the pre-war figure. In view, therefore, of the increase in world population, the supply of wheat per head dropped considerably with the result that the prices of wheat in the principal exporting and consuming countries remained approximately at the level of the respective wholesale-price indices. In the five following years, however, the output of wheat increased on an average by nearly 18 per cent, whereas the world population [1] rose from 1,317,329,000 in 1913 to 1,506,479,000 in 1929, representing an increase of only 14.4 per cent. The disproportion between the volume of production and the number of consumers is still more striking if we bear in mind the fact that the consumption of wheat per head fluctuates widely according to the continent. Although Europe represents less than one-fifth of the total population of the world, it consumes the greater part of the agricultural production mentioned in the statistics ; it absorbs four-fifths of the world exports of wheat ; the growth of the European population has not, however, kept pace with the increase in the total population of the world. In 1913, the population of Europe, excluding the territories at present belonging to the Union of Soviet Socialist Republics and Turkey was 346,279,000 and in 1929 it had increased to 373,110,000 — *i.e.*, by only 7.7 per cent ; it would appear that this last figure should be taken as a basis for any conclusions on the growth of the agricultural production of the world.

There is no doubt that the surplus supply of wheat in excess of the demand is partly due to a slight reduction in the average consumption per head of the population. In the following table, the International Institute of Agriculture gives, subject to all the necessary reservations, a calculation of the consumption, which would appear to show that, as compared with the pre-war period, a certain reduction in the average consumption per head has taken place (not including quantities used for sowing, but including those employed for fodder and industrial purposes).

[1] Estimates of the *International Statistical Year-Book* 1928, id. 1930, excluding, however, the figure relating to China and the other countries enumerated in the footnote on page 25.

Consumption of Wheat
(excluding the quantities necessary for sowing).

Country	Total consumption			Consumption per head[1]	
	Average 1909-10 to 1913-14	Average 1925-26 to 1928-30	% 1909-10 to 1913-14	Average 1909-10 to 1913-14	Average 1925-26 to 1929-30
	Millions of quintals			Kilogrammes	
Europe[2]	449	474	105.5	129.9	128.7
United States	139	149	107.2	147.3	124.6
The Argentine. . . .	12	16	133.3	170.6	149.1
Australia	8	9	112.5	160.3	146.0
India	74	79	106.8	23.6	23.7
Other countries[3]. . .	60	82	136.6	15.5	17.6
Total[3] . .	764	828	108.4	65.9	63.2

The reduction in the average consumption per head does not apply to all countries. In some centres, wheat is partly replacing other flour foods. The countries of Central and Eastern Europe are gradually substituting wheat for rye or maize. There seems to be a similar movement in Asia, at any rate in certain coastal districts, in favour of an increased use of wheat. In Africa, as in the Far East, new markets are being created by the increase in bread consumption.

The Asiatic countries with their enormous populations offer certain favourable prospects for an increase in consumption, but that very important question still has to be studied.

It should also be noted, that while consumption is increasing or is capable of being increased in certain parts of the world, it is decreasing in other parts. It is being reduced in centres where the rise in the standard of living has made it possible to introduce greater diversity of diet, especially by the increased use of sugar which has accompanied the greater consumption of fruit and vegetables.

The consumption of wheat is constantly decreasing in countries and districts or among social classes which enjoy a relatively high standard of life. This is the case particularly in the United States of America, Great Britain, Canada, Australia and various European countries.

	1909-1913	1925-1928
	Kilogrammes per head.	
Germany . .	86	81
Belgium . .	234	185
Spain . . .	159	155
France . . .	223	199
Great Britain	163	154
Switzerland .	143	140

In these countries, the fundamental part played by bread as an article of food has decreased. The advance in the national standard of nutrition is no longer measurable by the amount of bread consumed per head of the population.

[1] On the basis of population in 1913 and 1928.
[2] Not including the Union of Soviet Socialist Republics.
[3] Not including the Union of Soviet Socialist Republics, China and Turkey.

In the United States of America especially, there has been a marked drop in the importance of cereals as food, and an increase in the sale of dairy produce, sugar, fruit and vegetables, while the population has acquired an increasing taste for pastry. The decrease in immigration, particularly of Slavs and Italians, who are large bread consumers, has also brought about a reduction in the North American consumption of wheat. Greater longevity has also reduced the average figure of consumption per head. It has also been claimed that bread consumption has been greatly affected by female fashions and by the energetic campaign waged by a large section of the medical profession against the excessive consumption of farinaceous foods.

Stocks of Cereals.

(Millions of quintals.)

	Dec. 31st, 1930	Aug. 1st, 1930	Dec. 31st, 1929	Aug. 1st, 1929	Dec. 31st, 1928	Aug. 1st, 1928	Aug. 1st, 1927	Aug. 1st, 1926
Wheat :								
World stock.	—	114.3	—	122.5	—	69.2	51.4	34.2
Stock in the United States of America and Canada	110.3	—	111.3	—	93.6	—	—	—
Stock in the United Kingdom	6.2	—	1.6	—	1.7	—	—	—
Rye :								
Stock in the United States of America and Canada	4.1	—	3.3	—	1.6	—	—	—
Barley :								
Stock in the United States of America and Canada	9.2	—	8.5	—	6.3	—	—	—
Stock in the United Kingdom	0.9	—	0.6	—	0.8	—	—	—
Oats :								
Stock in the United States of America and Canada	6.6	—	7.4	—	5.0	—	—	—
Stock in the United Kingdom	0.5	—	0.2	—	0.2	—	—	—
Maize :								
Stock in the United States of America and Canada	3.4	—	2.2	—	4.5	—	—	—
Stock in the United Kingdom	0.9	—	1.6	—	1.0	—	—	—

SOURCE : *Monthly Crop Report and Agricultural Statistics*, Rome.

The decrease in the consumption of bread cereals is accompanied by a still greater decline in the use of fodder cereals. The growth of motor-car and motor-lorry traffic

and the development of tractors and " combines ", have brought about a reduction in the number of horses. From 1919 to 1929, the number of horses in the United States of America decreased from 26,600,000 to 19,600,000, and in Australia from 2,530,000 to 2,030,000. The cultivation of fodder crops has consequently been arrested, while that of cereals has been developed, since some of the area formerly under fodder cereals and now available as a result of the increase in motor traffic has been used for the cultivation of wheat. At the same time, fodder cereals lose an important market.

From 1919 to 1929, the consumption of bread cereals in the United States of America is said to have decreased by 27 million quintals, while the saving made on fodder during the same ten years has amounted to about 84 million quintals of cereals. [1]

The position is especially disquieting for producers, as the quantities produced exceed the demand and have resulted in the formation of stocks which increase from year to year and have finally reached an unprecedented figure.

Other Cereals.

The market in other cereals such as rye, barley and oats, has collapsed in the same manner as the wheat market. This slump has been even more pronounced, and the producers have been hard hit. A considerable part of the oats, rye and barley is no doubt, consumed on the spot at the farms ; but the producers who market a large part of their crops of oats or barley, and the districts in which soil and climate make rye the essential cereal, have found themselves in a deplorable position.

The simultaneous drop in cereal prices in 1930 would appear to be due to a great extent to a " sympathetic " movement in prices. As cereals are interchangeable, they can be substituted one for the other for purposes of consumption ; this results in an equalisation of prices, even though the process of substitution may, in actual fact, have operated but to a slight extent.

The drop in the prices of all cereals has apparently been caused, not by a sudden increase in production, but rather by the existence of stocks which have accumulated from year to year from the successive surpluses — comparatively small in themselves — of production over consumption. The excess of wheat, rye and barley has combined with an inelastic consumption and surplus stocks have grown to considerable proportions, although the area under cultivation has not increased enormously.

The general economic depression has no doubt further reduced consumption ; but it would appear that the general depression has not exercised a preponderant influence on the cereals position.

Rye.

Rye is undergoing a particularly acute depression. The consumption per head is rapidly decreasing, even in countries where rye has for long been the principal food of the people. White bread is taking the place of black bread, and, moreover, less bread is consumed. In addition, prohibition in the United States of America has restricted the use of rye for the manufacture of whisky.

The cultivation of rye is, at the present time, very unremunerative. Wherever the natural conditions of soil and climate permit, efforts are made to replace it by wheat. The area under rye has not increased since the war, though other cereals are more extensively grown.

[1] According to the lecture by Warmbold, already referred to.

Rye prices have varied greatly in different countries. In the United States of America, they followed the same general tendency as wheat prices, except for a fairly considerable rise in 1928. In Germany, the principal producing and exporting country in Europe, the drop in rye prices began in 1927. Although the drop was less pronounced than in the United States, at the end of 1930 prices were about 10 per cent lower than in 1913. The collapse of prices accompanied by the growth of stocks took place at a time when crops were hardly higher on an average than before the war.

Year	Prices				Area — Production [1]			
	No. 2, Minneapolis		Home-grown, Berlin		Area cultivated		Production	
	Cents per 56 lb.	%	RM. per quintal	%	Millions of hectares	%	Millions of quintals	%
1913	56 5/8	100	16.61	100	44.7 [2]	100	450.4 [2]	100
1926	91 3/4	162	19.04	115	45.7	102	447.7	99
1927	99 5/8	176	24.88	150	46.5	104	471.4	105
1928	108	191	23.88	144	44.4	100	437.8	97
1929	97 7/8	173	19.23	116	45.2	101	457.8	102
VI. 1930. . . .	56 5/8	100	17.45	105	—	—	—	—
XI. 1930. . . .	42 3/4	76	15.20	92	—	—	—	—
XII. 1930. . . .	44 1/2	79	15.49	93	—	—	—	—

SOURCES : *International Year-Book of Agricultural Statistics*, Rome ; *Monthly Crop Report and Agricultural Statistics*, Rome ; *International Statistical Year-Book*, Geneva.

Barley.

The consumption of barley has also greatly decreased, partly because the principal exporter, Russia, had disappeared from the market. In many cases barley has been replaced by maize. The area under cultivation in 1926-27 was less than before the war. Except for the unusually good crop in 1929, production has been somewhat below the pre-war average.

The barley position has varied considerably in different markets. In Canada, prices rose in 1927 and 1928 to about two-thirds over the pre-war level and then fell so rapidly that, at the end of 1930, they were even less than half the pre-war prices. In Germany, barley prices have been generally on a low level ; in 1926, they were even below the prices of 1913, while the maximum rise, in 1927, brought them up to only 20 per cent above the pre-war level ; the subsequent drop has gradually brought them down during 1930 to about the level existing before the war.

[1] Including the Union of Soviet Socialist Republics but not including China, the United Kingdom and Turkey.

[2] Average for 1909-1913.

Year	Prices				Area — Production [1]			
	Western No. 4, Winnipeg		Home-grown, Berlin		Area cultivated		Production	
	Cents per 56 lb.	%	RM. per quintal	%	Millions of hectares	%	Millions of quintals	%
1913	46	100	17.78	100	34.5 [2]	100	378.3 [2]	100
1926	58 5/8	127	17.37	98	32.3	94	343.7	91
1927	77 1/2	168	21.51	121	32.3	94	351.5	93
1928	76 5/8	167	20.61	116	34.7	101	405.5	107
1929	67 7/8	147	18.53	104	37.0	107	426.5	113
VI. 1930. . . .	35 1/4	77	17.52	99	—	—	—	—
XI. 1930. . . .	22 3/8	49	17.55	99	—	—	—	—
XII. 1930. . . .	22 3/4	49	19.16	108	—	—	—	—

SOURCES : *International Year-Book of Agricultural Statistics*, Rome ; *Monthly Crop Report and Agricultural Statistics*, Rome ; *International Statistical Year-Book*, Geneva.

Oats.

Oats are more important in international trade than barley and, if the world market outside Europe is taken into account, more important than rye. The conditions under which the trade in oats is carried on have become definitely unfavourable, largely owing to the decrease in the number of horses.

But, contrary to expectations based on the substitution of mechanical traction for animal traction, oats have not experienced a general drop on all markets. The area under cultivation was slightly greater than before the war and, for a long time, production, which remained on about the same level as in 1913, appeared to be insufficient to cover the total consumption. Until 1928-29 prices were maintained on a high level, although with considerable fluctuations, both on oversea markets and on the London market. In Canada for three years — from 1927 to 1929 — oats remained 80 per cent above the 1913 prices while, during 1928 in the United States, a maximum price of 141 per cent and in the Argentine of 160 per cent of the 1913 level was reached. In 1929 and 1930, a very rapid drop took place on these three markets, so that prices fell in North America to 20 per cent and in the Argentine to 50 per cent below pre-war prices. On the London market in 1928, the prices reached almost three times the pre-war level and dropped to the 1913 level at the end of 1930.

In France and Germany, price fluctuations have been smaller than on the oversea markets. After reaching the maximum height of 30 per cent above pre-war prices during 1928, prices fell to almost 20 per cent below the pre-war level in Germany and to 30 per cent in France.

[1] Including the Union of Soviet Socialist Republics but not including China and Turkey, and after elimination of the figures relating to Cyrenaica, Eritrea, Kenya, Tripoli, Iraq, Palestin, Sakhalin, Syria and Lebanon.

[2] Average for 1909-1913.

Year	Prices							
	White No. 2, Winnipeg		White No. 2, Chicago		La Plata, Buenos Aires		La Plata, London & Liverpool	
	Cents per 34 lb.	%	Cents per 34 lb.	%	Posos per quintal	%	*s.* and *d.* per 320 lb.	%
1913	34	100	39 1/2	100	5.57	100	10/–	100
1926	51 3/4	152	43 1/8	109	6.75	121	21/2	212
1927	62 1/8	182	49 7/8	107	7.42	133	24/3	242
1928	62	182	55 7/8	141	8.90	160	27/2	272
1929	63 3/8	183	48 3/4	123	6.99	126	22/–	220
VI. 1930 . .	47 3/8	139	39 1/2	100	3.97	71	11/11	111
XI. 1930 . .	27 5/8	81	33 3/4	85	3.22	58	10/4 1/2	104
XII. 1930 . .	26 5/8	78	34 3/8	87	3.17	57	10/1	101

Year	Prices				Area — Production [1]			
	Home-grown, Berlin		Home-grown, Paris		Area cultivated		Production	
	RM. per quintal	%	$ per quintal [2]	%	Millions of hectares	%	Millions of quintals	%
1913	17.35	100	3.78	100	57.8 [3]	100	655.1 [3]	100
1926	18.47	107	3.69	98	58.5	101	680.4	104
1927	21.56	124	4.33	115	60.4	105	643.8	98
1928	22.63	130	4.80	127	59.9	104	737.1	112
1929	18.40	106	4.47	118	61.0	106	712.8	109
VI. 1930 . .	15.09	87	2.64	70	—	—	—	—
XI. 1930 . .	14.40	83	2.75	73	—	—	—	—
XII. 1930 . .	14.26	82	2.89	77	—	—	—	—

SOURCES : *International Year-Book of Agricultural Statistics*, Rome ; *Monthly Crop Report and Agricultural Statistics*, Rome ; *International Statistical Year-Book*, Geneva.

Maize.

The production of maize is slightly higher than before the war, but has not increased in the same proportion as the population of the world.

Maize prices have developed differently on the principal markets. The maximum prices were reached in the United States of America and the Argentine in 1928 (152 per cent and 162 per cent as compared with the 1913 price-level). As a result of poor

[1] Including the Union of Soviet Socialist Republics, but not including China and Turkey, and after deduction of figures for Bolivia, Brazil, Syria and Lebanon.

[2] Converted by the Secretariat.

[3] Average for 1909-1913.

crops in the United States, the drop was slow and, at the end of 1930, prices were still about 15 per cent higher than before the war. In the Argentine, the fall was much more rapid ; at the end of 1930, prices were about 25 per cent lower than before the war. In London, the drop has been more accentuated during the last few months on account of the competition of Danube maize offered in large quantities at constantly falling prices.

Year	Prices						Area — Production [1]			
	Mixed America No. 2, Chicago		La Plata yellow, Buenos Aires		La Plata yellow, London and Liverpool		Area cultivated		Production	
	Cents per 52 lb.	%	Pesos per quintal	%	*s.* and *d.* per 480 lb.	%	Millions of hectares	%	Millions of quintals	%
1913. . .	64 1/4	100	5.22	100	23/6	100	71.8 [2]	100	1.061.6 [2]	100
1926. . .	75 3/4	118	6.51	125	29/10	123	74.5	104	1.132.2	107
1927. . .	89 3/8	139	6.50	125	30/11	131	73.9	103	1.105.4	104
1928. . .	97 3/4	152	8.54	164	38/11	162	77.8	108	1.084.9	102
1929. . .	94 7/8	148	8.04	154	36/5	155	77.0	107	1.122.2	106
VI. 1930	79 1/4	123	5.96	114	24/3	103	—	—	—	—
XI. 1930	74 1/4	116	3.89	75	16/7	71	—	—	—	—
XII. 1930	70 1/8	109	3.95	76	16/10	76	—	—	—	—

SOURCES : *International Year-Book of Agricultural Statistics*, Rome ; *Monthly Crop Report and Agricultural Statistics*, Rome ; *International Statistical Year-Book*, Geneva.

Rice.

Rice is in a very different position from the other cereals. Production is higher than before the war, as the area under cultivation has increased. But this increased production, amounting to about 10 per cent, appears to have been commensurate with the increased demand, so that the excess of production over consumption has not affected the relative stability of prices.

Rice prices have had a weak tendency since 1926, when they were still 75 per cent above the pre-war level. The drop has been relatively slow and prices only came down to the 1913 level during the last few months of 1930 ; in fact, until last year's crop was placed on the market, rice had suffered less than the other cereals from the general decline in prices.

[1] Including the Union of Soviet Socialist Republics, but not including China and Turkey, and after deduction of figures for French West Africa, Angola, Basutoland, the Cameroons, Eritrea, Kenya, Mozambique, Somaliland and South-West Africa, Sakhalin, Syria and Lebanon.

[2] Average for 1909-1913.

Year	Prices				Area — Production [1]			
	Burma rice No. 2, Rangoon		Burma rice No. 2, London and Liverpool		Area cultivated		Production	
	Rupees per 7,500 lb.	%	*s.* and *d.* par 112 lb.	%	Millions of hectares	%	Millions of quintals	%
1913. . .	321 1/2	100	9/10	100	48.4 [2]	100	778.9 [2]	100
1926. . .	567	176	15/5	174	54.3	112	848.8	109
1927. . .	520	162	14/7	166	54.0	112	851.5	109
1928. . .	468	146	13/8	155	55.3	114	880.6	113
1929. . .	465	145	13/2	149	54.8	113	865.6	111
VI. 1930	437 1/2	136	11/10	134	—	—	—	—
XI. 1930	317 1/2	99	9/–	92	—	—	—	—
XII. 1930	260	81	8/2 1/2	84	—	—	—	—

SOURCES : *International Year-Book of Agricultural Statistics*, Rome ; *Monthly Crop Report and Agricultural Statistics*, Rome ; *International Statistical Year-Book*, Geneva.

POTATOES.

After cereals, potatoes constitute one of the chief raw products of vegetable origin.

The production of potatoes has increased fairly considerably since before the war. Whereas, in 1926, the crop had only increased by 8 per cent — *i.e.*, less than the increase in the world population — from 1927 to 1929, the crops were about one-quarter to one-third, above the pre-war level.

Nevertheless the potato prices quoted in London were well maintained. From 1926 to 1928, the price-level was higher, by a-half to three-quarters, than before the war, and it was only during 1929 and 1930 that rates dropped to a level still about one-third above the pre-war level. For potatoes however, the world market is less important than the various national markets, and, depending on the producing country, the tendency of prices is extremely variable. In Germany, for instance, prices were superior to the pre-war level only during the years 1927 and 1928, and in 1930 they were considerably below that level.

[1] Excluding the Union of Soviet Socialist Republics, China, Turkey, Portuguese India, and after deduction of figures for French Equatorial Africa, Angola, Cameroons, Portuguese Guinea, Mozambique, Bolivia, Paraguay, Brunei, Manchuria, Syria and Lebanon, France and Australia.

[2] Average for 1909-1913.

Year	Prices (1)				Production (2) [1]	
	Home-grown, London *s.* and *d.* par 2,240 lb.	%	Red Eating Berlin RM per 50 kg	%	Thousands of quintals	%
1913	79/3	100	2.71	100	1,490.2 [2]	100
1926	112/10 1/2	142	2.23	82	1,611.1	108
1927	138/11 5/8	175	3.98	147	1,839.5	123
1928	140/9	178	2.99	110	1,886.2	127
1929	101/10 5/8	128	2.61	96	2,053.8	138
VI. 1930	65/0	82	1.58	58	—	—
XI. 1930	110/– (3)	139	1.31	48	—	—
XII. 1930	110/– (3)	139	1.30	48	—	—

SOURCES : (1) *Vierteljahreshefte zur Statistik des Deutschen Reiches.*
(2) *International Statistical Year-Book*, Geneva.
(3) *The Agricultural Market Report.* Second quality King Edward VII, London.

LIVE-STOCK.

Stock-breeding is perhaps the only form of agricultural work which has on the whole not much cause for complaint so far. The drop in prices is much less pronounced for live-stock and dairy produce than for cereals.

Stock-breeding has considerably developed since the war, as a result of the great increase in the consumption of meat in recent years. Many farmers have concentrated their efforts on live-stock production.

It is difficult to obtain such exact figures for the increase in live-stock as for the extension of areas under cultivation and crops.

Cattle.

There has been an undoubted increase in the number of cattle and sheep in the world. In 58 countries for which we possess information in respect of 1913 and 1928 or the nearest available years [3], the stock of cattle rose from 395,812,000 in 1913 to 450,246,000 in 1929, making an increase of 13.8 per cent. This increase, which was accompanied by a firm-price tendency, was greater than the growth of the population in Europe, and nearly as great as that of the world population, thus showing that the demand for beef has greatly increased.

[1] Including the Union of Soviet Socialist Republics, but not including China and Turkey, and after elimination of figures for Mozambique, Bermuda, Bolivia, Brazil, Syria, Lebanon, Hawaii.

[2] Average for 1909-1913.

[3] The year 1928 for France, the native States of British India and Australia ; the year 1930 for the Argentine.
The figures thus do not include, among the largest producing countries, Brazil, which had a stock of ; 30,705,000 in 1912 and 34,261,000 in 1920.

Sheep.

The increase in sheep is apparently greater ; but the available figures are still more conjectural than for cattle. Only forty-eight countries give figures for the years 1913 and 1929[1] ; the stock increased during these years from 463,474,000 to 548,479,000, — *i.e.*, by 18.3 per cent. The price-tendency for mutton and wool was well maintained during the years 1926-1928 ; the drop which occurred in 1929, and particularly in 1930, was to a great extent caused by the world-economic depression. This circumstance seems to show that the present depression is of a temporary nature and that the position is likely to recover as soon as there is a general improvement in the economic situation.

Pigs.

The increase in the number of pigs from 1913 to 1929 was small. In forty-eight countries supplying figures for these two years [2], the number rose from 134,817,000 to 137,771,000, making an almost negligible increase of 2.2 per cent. The prices of pigs and pork vary considerably in different years on account of seasonal factors. It would appear that the demand for pigs has not had the same rising tendency as that for cattle and that, although the number of pigs is slightly higher than before the war, it has reached a point where the supply might easily exceed the demand.

Meat.

The general position is very different for the group of live-stock products and for cereals. The price of beef, mutton and pork on the large consuming markets (London, Berlin, Chicago) has been maintained at a much higher level than before the war and in some cases prices have shown a definite tendency to increase. For instance, fresh beef was quoted in London at 14 to 28 per cent, fresh mutton at 30 to 50 per cent and fresh pork at 33 to 73 per cent, above pre-war prices. The price level is even higher for chilled meat ; Argentine chilled beef is sold at 67 to 92 per cent above pre-war prices, while New Zealand chilled mutton is quoted at 41 to 94 per cent above 1913 prices.

Until the middle of 1930, the prices of English and imported (Danish) bacon in London were maintained, at a high level as compared with pre-war prices ; but, since 1926, prices have varied considerably and have shown a declining tendency, while, in the second half of 1930, the drop in prices was very pronounced.

It is evident that the meat industry is in a much healthier position than cereals and that it has been much less affected by the general depression of 1930 ; but the question arises whether the high level of meat prices is a true index of the cattle-producers' position.

In the Danubian countries, for instance the position of the producers would appear to be unfavourable, At Budapest in 1928, 1929 and 1930, the prices of live cattle were 7 to 17 per cent lower than before the war ; the prices of live pigs in 1928 and 1929 were only 6 and 4 per cent higher, and in June 1930 were nearly 30 per cent lower, than before the war.

[1] The year 1928 for France and 1930 for the Argentine. The above figures do not include Spain (16,441,000 in 1913 ; 20,067,000 in 1925) ; Italy (11,163,000 in 1908 ; 12,350,000 in 1926), Brazil (10,550,000 in 1912 ; 7,993,000 in 1920) ; Uruguay (26,286,000 in 1908 ; 22,500,000 in 1927) ; the native States of British India (13, 682,000 in 1925 ; 12,155,000 in 1928) ; Turkey (11,443,000 in 1925 ; 10,166,000 in 1927).

[2] The year 1928 for France and 1930 for the Argentine. The above figures do not include Spain (2,710,000 in 1913 ; 5,267,000 in 1925) ; Italy (2,507,000 in 1908 ; 2,850,000 in 1926) ; Yugoslavia (2,515,000 in 1913 ; 2,593,000 in 1925) ; the Philippine Islands (2,016,000 in 1913 ; 9,798,000 in 1927).

Price of Live-stock Products.

Cattle and Beef											Mutton			
Quality	Cattle (2) Live weight		Cattle (2) Live weight		Beef (2) 1st quality		Beef (2) 1st quality		Beef (1) Argentine chilled 1st q.		Mutton (2) 1st quality		Mutton (1) New Zealand chilled	
Place	Berlin		Budapest		Berlin		London		London		London		London	
Basis of quotation	RM. per 100 kg.	%	Pengö per kg.	%	RM. per 100 kg.	%	*s.* and *d.* per 8 lb.	%	*s.* and *d.* per 112 lb.	%	*s.* and *d.* per 8 lb.	%	*s.* and *d.* per 112 lb.	%
Year														
1913 . .	103.70	100	1.18	100	165.00	100	4 7 1/4	100	37 6	100	5 2	100	38 1	100
1926 . .	109.20	105	—	—	181.80	110	5 8	123	65 4	174	7 2 1/2	136	67 7	180
1927 . .	118.00	114	—	—	194.80	118	5 2 3/4	114	62 9	167	6 9 3/8	131	66 9	175
1928 . .	114.20	110	1.05	89	186.40	113	5 8	123	70 2	187	7 5 1/4	144	73 9	194
1929 . .	113.60	110	1.10	93	189.00	114	5 6 5/8	121	72 –	192	7 1 1/2	138	72 5	190
VI. 1930	117.00	113	0.98	83	193.00	117	5 10 3/4	128	67 8	180	7 9 1/2	151	59 3	156
XI. 1930	111.00	107	—	—	187.20	113	5 0 3/4	110	68 10 (3)	183	7 1	115	54 10 (3)	144
XII. 1930	113.60	110	—	—	190.60	116	5/2	113	70/– (3)	187	7/2	116	53/8 (3)	141

Pigs, Pork and Bacon														
Quality	Pigs (2) Live weight		Pigs (2) Live weight		Pork (2) 1st quality		Pork (2)		Pork (2)		Bacon (1) (Wiltshire) English		Bacon (1) Danish, dried or smoked	
Place	Berlin		Budapest		Berlin		London		Chicago		London		London	
Basis of quotation	RM. per 100 kg.	%	Pengö per 100 kg.	%	RM. per 100 kg.	%	*s.* and *d.* per 8 lb.	%	$ per 200 lb.	%	*s.* and *d.* per 112 lb.	%	*s.* and *d.* per 112 lb.	%
Year														
1913 . .	117.20	100	1.58	100	139.20	100	4/9	100	22.35	100	90/10	100	78/6	100
1926 . .	158 00	135	—	—	196.60	141	8/2 5/8	173	35.52	159	159/11	176	137/–	175
1927 . .	128.80	110	—	—	166.20	119	7/0 7/8	149	32.53	145	134/9	148	107/6	137
1928 . .	133.60	114	1.68	106	172.00	124	6/4 1/4	134	30.63	137	130/4	144	110/5	141
1929 . .	162.00	138	1.65	104	206.80	149	7/6 7/8	159	30.44	136	141/4	156	128/4	164
VI. 1930	125.60	107	1.12	71	165.00	118	6/4	133	31.88	143	137/–	151	115/6	147
XI. 1930	127.80	109	—	—	164.60	118	6/8 3/4	142	32.75	147	125/– (4)	138	88/3 (4)	112
XII. 1930	119.60	102	—	—	159.60	115	6/11	146	31.00	139	118/6 (4)	130	83/3 (4)	106

SOURCES : (1) *International Year-Book of Agricultural Statistics* and *Monthly Crop Report* and *Agricultural Statistics*, Rome ;
(2) *Wirtschaft und Statistik ;*
(3) *The Statist*, London ;
(4) *The Agricultural Market Report*, London.

Dairy Produce.

The index numbers for dairy produce are few in number, incomplete and vague ; they would appear to show that production is not yet in excess of demand.

Butter.

Quality	Danish		Danish		New Zealand salt		Australian salt		Second Quality	
Market	Copenhagen		London		London		London		Hamburg	
Basis of quotation	kr. per quintal	%	*s.* and *d.* per 112 lb.	%	*s.* and *d.* per 112 lb.	%	*s.* and *d.* per 112 lb.	%	RM. per 50 kg.	%
Year										
1913	213	100	126/7	100	119/10	100	114/3	100	127.03	100
1926	308	145	184/10	146	172/4	144	169/6	148	174.47	137
1927	302	142	180/7	143	172/9	144	170/3	149	—	—
1928	314	147	192/–	152	180/–	150	170/7	149	185.22	146
1929	302	142	186/3	147	178/10	149	176/1	154	178.11	140
VI. 1930. .	227	107	138/3	109	136/3	114	135/9	119	133.19	105
XI. 1930. .	224	105	147/6	117	118/3	99	116/–	102	142.83	112
XII. 1930. .	223	105	140/–	111	115/1 ½	96	113/7 ½	99	144.01	113

Cheese.

Quality	English Cheddar		Canadian		New Zealand	
Market	London		London		London	
Basis of quotation	*s.* and *d.* per 112 lb.	%	*s.* and *d.* per 112 lb.	%	*s.* and *d.* per 112 lb.	%
Year						
1913	77/4	100	65/3	100	63/2	100
1926	127/11	165	100/–	153	95/10	152
1927	124/–	160	103/–	158	95/1	151
1928	135/8	175	113/9	173	106/2	168
1929	122/–	158	107/9	165	95/3	151
VI. 1930	90/–	116	109/–	167	84/9	134
XI. 1930	97/6	126	81/6	125	76/1 ½	120
XII. 1930	95/10 ½	124	81/–	124	65/6	104

Sources : *International Year-Book of Agricultural Statistics*, Rome ; *Monthly Crop Report and Agricultural Statistics*, Rome.

The index numbers of Danish butter at Copenhagen and in London show that prices were well maintained from 1926 to 1929 at 40 to 50 per cent above pre-war prices and, in spite of a certain decline in 1930, remained higher than before the war. The position is the same for salt butter coming from New Zealand and Australia, except that in the last few months of 1930 prices dropped below the pre-war level. The tendency of prices in Germany was the same as in Denmark and their tendency to decline was less marked in 1930.

The prices of English, Canadian and New Zealand cheese in London were very high until 1928, when they reached a level 68 to 75 per cent higher than before the war.

Subsequently they declined comparatively slightly, and, in December 1930, were about 25 per cent higher than before the war.

During the last few months, the dairy-produce market has shown signs of over-production. Most countries have raised their milk production to such an extent that a further increase is no longer desirable. Since 1928, the prices of milk, butter and cheese have been falling. The position of the butter producers would appear to be particularly difficult.

Judging by the high price-level at which these products were maintained, even during the first months of the present industrial depression, it would appear that there was an increased demand on the part of the consumers. The drop in the last few months would in this case be the immediate result of a lowering of the general standard of life during the economic depression; it is therefore probable that prices will show a rising tendency as soon as the general depression is overcome.

Eggs.

The egg market remains very firm judging by the prices obtained for Danish eggs in London.

	Quality	Danish, 18 lb. for 120.	
	Market	London.	
	Basis of quotation	*s.* and *d.* per 120 lb.	%
Year			
1913		12/3	100
1926		19/3	157
1927		18/5	150
1928		18/3	149
1929		—	—
VI. 1930		12/7	103
XI. 1930		22/6	184
XII. 1930		21/7	176

SOURCES : *International Year-Book of Agricultural Statistics*, Rome ; *The Agricultural Market Reports*, London.

The general price level from 1926 to 1928 was about 50 per cent higher than before the war, and the rates in 1930, notwithstanding considerable seasonal fluctuations, were maintained around this average high level, in spite of the general depression.

The production figures are very defective ; but the information available seems to show that production has greatly increased. In the few countries for which estimates are available in respect of 1913 and 1929,[1] the annual production of eggs increased from 5,349,000,000 to 10,892,000,000 so that it had more than doubled. These figures are too fragmentary to give a reliable idea of the general tendency of production, but, in view of the firmness of the market, they seem to show that a definite change has taken place in the consumers' habits and that the general depression has not materially decreased the demand for this article.

[1] Denmark, Irish Free State, England, Wales, Scotland, Norway, Switzerland, Canada, Japan ; figures from the *International Year-Book of Agricultural Statistics*.

TEXTILES.

The drop in the prices of textiles is evidently connected with the industrial depression. The prices of flax, wool, cotton and silk decreased to such an extent in 1930 that, at the end of the year, they only amounted to about half the average prices in 1928. There are however, certain fundamental differences in the position in respect of each of these products ; the price movement was very different.

Flax.

From 1926 to 1929, flax prices were very high. In Latvia in 1928, they rose as high as 331 per cent of the pre-war prices. The rise on the other producing markets was less pronounced; in London, prices stood at 279 per cent of the pre-war prices. The very rapid drop which occurred in 1929, and particularly in 1930, has not yet brought prices down to the pre-war level.

	Prices				Production	
Quality	(1) Livonia flax		(1) Riga ZK. flax		(3) Thousands of quintals	
Place	Riga		London			
Basis of quotation	£ s. d. per ton	%	£ s. d. per ton	%		%
Year						
1913	30 15 10	100	34 19 —	100	7.6	100
1926	72 17 3	237	64 5 —	184	5.5	72
1927	98 11 10	320	93 18 —	269	4.9	65
1928	101 19 6	331	97 15 —	279	5.4	71
1929	75 14 11	246	75 3 —	215	6.0	79
VI. 1930	59 11 —	193	58 — —	166		
XI. 1930	44 5 5(4)	144	39 — —(2)	112		
XII. 1930	37 15 —(4)	123	35 16 —(2)	102		

SOURCES : (1) *International Year-Book of Agricultural Statistics*, Rome ;
(2) *The Economist*, London ;
(3) *International Statistical Year-Book*, Geneva ;
(4) *Monthly Bulletin of Statistics*, Riga.

Wool.

According to the London quotations, wool prices were maintained during the years 1926, 1927 and 1928 at a level of 208 per cent of the pre-war prices. As in the case of the other textile materials, the decline began in 1929 and was accentuated in 1930, so that by the end of that year prices had dropped to the pre-war level.

	Prices (1)		Production (2)	
Quality	Victoria good average			
Place	London		Thousands of metric tons	%
Basis of quotation	*s.* and *d.* per lb.	%		
Year				
1913	1/-	100	1,392.5 [1]	100
1926	2/1	208	1,476.1	106
1927	2/1	208	1,529.2	110
1928	2/1	208	1,560.3	112
1929	1/7	158	1,629.8	117
VI. 1930	1/-	100	—	—
XI. 1930	1/-	100	—	—
XII. 1903	0/10	83	—	—

SOURCES : (1) *International Year-Book of Agricultural Statistics*, Rome ; *The Statist*, London.
(2) *International Statistical Year-Book*, Geneva, excluding figures for Egypt.

From 1926 to 1928, the prices of both flax and wool were two to three times higher than before the war. In the case of flax, this fact might be partly explained by the reduced production, which, in 1927, was only two-thirds of the pre-war production. But, in both cases, it would appear that the world demand, except in times of depression is equal to, if not greater than, the pre-war demand.

Cotton.

Cotton prices have shown a similar tendency, though on a much lower level. The maximum was reached in the years 1923 and 1924. During the last five years, however, the prices of American and Indian cotton were, only about 50 per cent higher than before the war, while, in the case of Egyptian cotton, the rise amounted to 80 per cent. A very rapid drop took place also at the end of 1930 and brought down American and Egyptian cotton to about 30 per cent and Indian cotton to 40 per cent below pre-war prices.

During the last five years, production was from 7 to 26 per cent higher than before the war. Even in 1928, when the greatest rise took place, cotton prices had difficulty in following the increase in the general price-level. This fact, together with the very heavy drop in prices in 1929 and 1930 and the great increase in stocks from year to year, would seem to show that there is an over-production of cotton and that economic depression alone does not satisfactorily explain the present very low price level.

[1] Average for 1909-1913.

Quality	Prices (1)						Production (2)	
	Middling		Sakellaridis		Machine-ginned Broach, Fully Good.		Millions of quintals	%
	New Orlenas		Alexandria		Liverpool			
Basis of quotation	Cents per lb.	%	Talaris per Kantar	%	Pence per lb.	%		
Year								
1913	12.68	100	20 3/4	100	6.42	100	48.5 [1]	100
1921	14.17	112	33 3/4	163	—	—		
1922	20.45	161	34 7/8	168	—	—		
1923	28.83	227	34 1/4	165	—	—	46.4	96
1924	27.95	220	45 5/8	220	—	—		
1925	23.01	182	55 7/8	269	11.01	172		
1926	17.79	140	30 3/8	146	7.69	120	61.5	127
1927	17.25	136	32 1/4	155	8.26	129	51.9	107
1928	19.44	153	37 1/4	180	9.22	144	56.9	117
1929	18.59	147	32 7/8	158	8.37	130	56.4	116
VI. 1930	13.67	108	27 5/8	133	5.42	85		
XI. 1930	10.55	83	17 1/8	83	5.97	93	56.0	115
XII. 1930	9.60	76	14 1/8	68	4.00	62		

SOURCES : (1) *International Year-Book of Agricultural Statistics* and *Monthly Crop Report* and *Agricultural Statistics*, Rome ;
(2) *International Statistical Year-Book*, Geneva.

Silk.

Silk prices have undergone a heavy fall. According to the quotations of raw " classica " silk at Milan, prices were still at one-half over the pre-war level in 1926, but fell to two-thirds of pre-war prices in 1930. This drop was to a great extent due to the competition of artificial silk ; but, at the same time, the production of natural silk greatly increased and was, on an average, almost twice as high as the pre-war production. It is therefore obvious that the demand for silk proved very elastic and that much larger quantities were consumed at lower prices.

Quality	Prices		Production	
	Raw " classica "		Millions of kilogrammes of cocoons	%
Market	Milan			
Basis of quotation	Cents per kilogr. [2]	%		
Year				
1913	8.87	100	220.4	100
1926	13.53	153	392.0	178
1927	12.43	140	417.1	189
1928	11.92	130	430.4	195
1929	10.39	117	465.9	211
VI. 1930	6.50	73		
XI. 1930	5.71	64		
XII. 1930	5.84	66		

SOURCES : *International Year-Book of Agricultural Statistics*, Rome.

[1] Average for 1909-1913.
[2] Converted by the Secretariat.

Rubber.

The world production of rubber has increased more than that of any of the agricultural products dealt with in this report. In 1926, it was almost six times and, in 1929, almost eight times what it was before the war.

Prices have dropped very heavily. In 1926, they still stood at 66 per cent of the pre-war prices, while, in 1928 and 1929, they hardly represented more than a quarter ; a still heavier drop occurred during 1930 so that, at the end of the year, prices were hardly more than one-eighth of the pre-war prices.

The drop in the prices of the finished product was partly offset by new methods of cultivation which greatly reduced the cost, so that new plantations were laid out in spite of the prolonged decline in prices. There is an obvious connection between the extraordinary growth of production and the drop in prices ; but the very heavy fall in 1930 was also brought about by a reduction in consumption due on the one hand to the general industrial depression, and on the other hand to the great progress made in the industrial utilisation of old rubber.

	Prices (1)			Production (2)	
Quality	Plantation			Thousands of tons	%
Market	London				
Basis of quotation	*s.* and *d.* per lb.		%		
Year					
1913	3/0	1/4	100.0	114	100
1926	1/11	3/4	65.9	660	579
1927	1/6	3/8	51.0	720	632
1928	0/10	11/16	29.7	688	604
1929	0/10	1/4	28.4	882	774
VI. 1930	0/6	3/4	18.7		
XI. 1930	0/4	5/8	12.8	830	728
XII. 1930	0/4	3/4	13.2		

Sources : (1) *The World's Rubber Position*, London.
(2) *International Statistical Year-Book*, Geneva.

Sugar.

The sugar industry, which occupies such an important place in agricultural production, has not escaped from the world over-production which is so heavily depressing the prices of most commodities. The consumption of sugar has, however, greatly increased since before the war, and the present difficulties are not due to a decrease in the demand. For some decades before the war, the consumption of sugar increased by about 3 per cent annually ; since the end of the war, it has regularly increased at the exceptionally high rate of 4 ½ per cent. But, in spite of the large regular increase in world consumption, this is surpassed by the constantly increasing production.

There is more beet sugar than before the war. Moreover, the competition of the sugar-cane is stronger than ever. At the beginning of the twentieth century, the

production of beet sugar amounted to barely more than half the total world production, while at present it is not more than a third. It is, nevertheless, considerably in excess of the pre-war production. Although the production of sugar-beet in 1926 was still slightly less than the average for 1909-1913, while in 1928, when it reached its maximum, it only exceeded that average by 14 per cent, the present production of beet sugar is nevertheless 20 per cent higher than the average for the last few years before the war.

Sugar-cane growing has rapidly developed. In recent years the production of cane sugar has been 85 to 90 per cent higher than before the war. The supremacy of the sugar-cane industry over the sugar-beet industry has been brought about by improvements in methods of cultivation and by the application of more scientific principles in selection of plants. This progress has given a still greater stimulus to the cultivation of the sugar cane than the world war, which, by upsetting conditions in Europe, hampered the European production of sugar-beet. [1]

In spite of the very pronounced increase in the world consumption of sugar, the growth of production has caused a rapid drop in prices. In December 1930, the average price of raw sugar (centrifugal 96 per cent) at New York, excluding Customs duties, was 1.23 cents per lb. This price is ruinous to the producers and is almost 50 per cent below the 1913 average — *i.e.*, 2.24 cents per lb., which was almost the lowest price on record since 1895.

Sugar Production.

Year	Beetroot [2]		Beet sugar [2]		Cane sugar [3]	
	Millions of quintals,	%	Millions of quintals	%	Millions of quintals	%
1909–13 (Average)	543.1	100	79.1	100	95.8	100
1926/7	533.2	98	77.8	98	161.9	169
1927/8	617.0	114	89.9	112	167.0	174
1928/9	616.9	114	94.5	119	182.2	190
1929/30	575.0	106	91.8	116	180.0	188
1930/31	-	-	114.4	144	- -	- -

SOURCE : *International Statistical Year-Book*, Geneva.

COLONIAL PRODUCE.

Cocoa.

The colonial produce group (cocoa, tea, coffee) does not show a uniform tendency. The production of cocoa has more than doubled since before the war, and, after violent fluctuations, prices have dropped to half the pre-war level.

[1] See the Economic Committee's report : " The World Sugar Situation ", Geneva, 1929.

[2] Without Turkey, and after elimination of figures for Korea and Japan.

[3] Excluding figures for Colombia.

	Prices (1)		Production (3)	
Quality	Accra F.F.		Millions of quintals	%
Market	London			
Basis of quotation	*s.* and *d.* per cwt.	%		
Years				
1913	59/11	100	2.3 [1]	100
1926	52/10	88	5.0	218
1927	72/9	120	5.1	222
1928	61/4	103	5.3	230
1929	17/–	79	5.5	239
VI. 1930	37/5	63	—	—
XI. 1930	31/1 (2)	52	—	—
XII. 1930	30/9 (2)	52	—	—

SOURCES : (1) *International Year-Book of Agricultural Statistics*, Rome.
(2) *Chamber of Commerce Journal*, London.
(3) *International Statistical Year-Book*, Geneva.

Tea.

The production of tea has increased by one-quarter while prices have remained very high as compared with 1913. They fell, it is true, from a maximum of 197 per cent in 1926 to 164 per cent in June 1930, but rose again to 172 per cent at the end of 1930.

	Prices (1)		Production (2)	
Quality	Indian. Fair to good		Millions of kilogrammes	%
Market	London			
Basis of quotation	*s.* and *d.* per lb.	%		
Year				
1913	0/10 1/2	100	379.2 [1]	100
1926	1/8 3/4	197	441.5	116
1927	1/8 1/2	195	455.3	120
1928	1/6 1/2	179	473.5	125
1929	1/6	172	494.2	130
VI. 1930	1/5 1/4	164	—	—
XI. 1930	1/6 (2)	172	-	—
XII. 1930	1/6 (2)	172	-	- -

SOURCES : (1) *International Year-Book of Agricultural Statistics*, Rome ;
(2) *The Chamber of Commerce Journal*, London ;
(3) *International Statistical Year-Book*, Geneva ; for Ceylon and China, exports only.

Average for 1909-1913.

Coffee.

Coffee prices form a special chapter in the history of the economic depression. After the war, the drop in prices induced the Brazilian growers, who produce 70 per cent of the world supply, to take steps for control and valorisation. Prices rose from 1922 to 1926 and this brought about an increase in production; a drop in prices ensued. Production was higher than before the war by a percentage varying from 36 to 83 in different years, and prices fell almost continually after 1926, when they were 65 per cent higher than before the war ; in 1929, they were still 44 per cent above the 1913 level, but dropped rapidly to 83 per cent of the pre-war prices in June and 64 per cent in December 1930.

	Prices (1)		Production (3)	
Quality	Rio No. 7.		Millions of quintals	%
Market	New York			
Basis of quotation	Cents per lb.	%		
Year				
1913	11 1/16	100	12.1 [1]	100
1926	18 1/4	165	16.5	136
1927	14 13/16	132	22.1	183
1928	16 1/4	145	17.3	143
1929	16 1/8	144	19.0	157
VI. 1930	9 1/8	83	—	—
XI. 1930	7 13/16 (2)	71	—	—
XII. 1930	7 1/8 (2)	64	—	—

SOURCES : (1) *International Year-Book of Agricultural Statistics*, Rome ;
(2) *Wirtschaft und Statistik*, Berlin ;
(3) *International Statistical Year-Book*, Geneva.

WINE.

There are few products in which the lack of equlibrium between the producing and consuming capacity is more disturbing than in the case of wine. Vine-growing has developed in places where it was formerly almost negligible. The area under vines has increased. The total area of the vineyards was :

6,505,000 hectares from 1900 to 1908,
6,786,000 ,, ,, 1909 to 1913,
6,874,000 ,, in 1927,
6,927,000 ,, ,, 1928,
6,994,000 ,, ,, 1929.

At the same time the production of wine increased from 150,000,000 hectolitres in 1900-1909 and 141,000,000 in 1909-1913 to :

161,000,000 hectolitres in 1927,
177,000,000 ,, ,, 1928,
184,000,000 ,, ,, 1929.

[1] Average for 1909-1913.

Abundant harvests, which can be neither prevented nor foreseen, are regarded as disasters ; they cause prices to collapse so that the vine-growers are not able to obtain any reward for their labour, and, in some cases, do not even recover the expenses of cultivation. The poor crop in 1930 " triumphed over the wine crisis ", but did not remove its causes.

Hops.

The crisis not only affects the vine, but also its rival, hops. The production is, however, somewhat less than before the war :

Years	Area thousands of hectares	Production thousands of quintals
1909-13	90	758
1926	57	545
1927	65	606
1928	72	603
1929	—	760

The fall in hop prices has been almost unprecedented, prices having declined to as low as one-tenth of those paid a few years ago. A great part of the crop was not picked, as the sale prices would not have covered the cost of picking.

Olives.

The Mediterranean countries are suffering from a severe depression in the olive business. The production of olive oil, which amounted to an average of 5,830,000 quintals in 1909-13, varies greatly in different years, but shows a decided tendency to increase :

1926	5,651,000	quintals
1927	10,591,000	,,
1928	6,630,000	,,
1929	12,000,000	,,

Ground-nuts.

Colonial circles in Africa are greatly disturbed by the ground-nut crisis. Prices have fallen to such a low level that the returns to the native growers have become quite insufficient. Production, chiefly from India (half the world production), has enormously increased :

1909	18,000,000	quintals
1926	35,640,000	,,
1927	44,780,000	,,
1928	49,600,000	,,

Relative Importance of the Different Groups of Agricultural Products.

The effect of the crisis from which all agricultural products are suffering on the general situation of agriculture varies, not only according to the acuteness of the crisis in each branch, but also with the importance of each particular production in comparison with the total agricultural production. In this respect, numerical data are uncertain and only approximate. The Secretariat of the League of Nations has compiled figures which, used with the necessary caution, emphasise facts which reveal certain characteristic features of the present crisis. [1] These figures show the total value in millions of dollars, at the average prices for the year, of the total production in the following groups :

Cereals and other foodstuffs (wheat, rye, oats, barley, rice, maize, potatoes, beet sugar, and cane sugar) ;

Meat (beef and veal, pork, mutton) ;

Colonial produce, etc. (coffee, cocoa, tea, hops, tobacco) ;

Vegetable-oil materials (cotton-seed, linseed, colza-seed, hemp-seed, sesame-sead, soya beans, copra, palm-oil and nuts, olive oil, ground-nuts) ;

Textiles (cotton, flax, hemp, Manila hemp, jute, wool, natural silk, artificial silk) ;

Rubber.

Total Production in Millions of Dollars and Distribution as a Percentage of the Total.

	Total value	Europe excld. U.S.S.R.	Europe incld. U.S.S.R.	North America	Central America	South America	Africa	Asia	Oceania
1913									
	$	%	%	%	%	%	%	%	%
Cereals and other vegetable foodstuffs	16,512.4	30.8	42.9	20.7	2.0	3.2	2.1	28.0	1.1
Meat	3,953.9	35.1	43.8	28.8	1.8	13.7	3.2	5.9	2.8
Colonial produce	1,004.9	8.9	11.8	14.7	8.4	26.3	3.9	34.7	0.2
Oleaginous materials	902.3	18.3	22.5	18.6	0.4	4.9	11.1	41.5	6.5
Textiles	2,695.8	10.4	18.1	31.8	0.6	14.2	5.1	33.0	5.2
Rubber	183.2	—	—	—	—	59.5	15.8	44.7	—
1928									
	$	%	%	%	%	%	%	%	%
Cereals and other vegetable foodstuffs	27,513.9	26.7	39.5	24.0	2.7	4.2	2.4	25.8	1.4
Meat	6,795.8	34.3	42.3	28.1	1.7	14.2	4.0	6.7	3.0
Colonial produce	2,222.9	5.8	8.2	12.4	6.6	30.0	6.9	35.7	0.2
Oleaginous materials	1,877.3	15.7	19.6	14.7	0.4	8.8	12.7	42.9	0.9
Textiles	5,910.0	14.6	21.4	28.1	0.5	5.4	5.9	30.8	7.9
Rubber	320.1	—	—	—	—	3.8	0.9	95.3	—

In these two years (1913 and 1928) the production of cereals was by far the most important ; this again shows that the crisis in cereals is at the root of the agricultural crisis, not only because the drop in prices and the disproportion between the cost of

[1] See *Memorandum on Production and Commerce*, 1913 and 1923-1927, *idem* 1923 to 1928-29, from which the above figures are extracted.

production and the sale prices are most marked in the case of cereals, but also because agriculture obtains the greatest part of its total revenue from this source.

The order of importance of other groups did not change in the two years under review. The production of meat ranked immediately after the cultivation of wheat ; then came textile materials, colonial produce and the like, oleaginous materials and rubber.

The value of all the groups has greatly increased as a result both of an increase in production and of changes in the purchasing-power of gold ; but development has not been uniform. While the total value of colonial produce, oleaginous materials, textiles and rubber was approximately twice as high as the pre-war figures, the value of meat production has increased to a smaller extent, while the value of the production of cereals increased only by one-half.

Characteristic details are revealed by comparing the percentage of production in different continents. Europe's share in production has decreased. The only exception is in the group of textile raw materials and is explained by the inclusion of the production of artificial silk. In the purely agricultural sphere, there has been a very marked decline in the part played by Europe. The drop in the production of cereals in Europe is offset by the increase in America and Oceania.

The changes are much less marked in meat production, but Europe has lost much ground in the colonial produce group.

The greatest changes have taken place in the production of rubber. In 1913, South America supplied 39.5 per cent and Africa 15.8 per cent of the total value of production. In 1928, these two parts of the world only produced 4.7 per cent of the total, so that Asia had an almost complete monopoly.

The extent of world trade in the products included in these groups and the proportion in each group of the exports from different parts of the world are not in direct proportion to the volume of production. This is accounted for by a series of reasons : the difference in the consumption per head of the population, the different density of the population in various producing districts, and finally, the unequal distribution of these districts throughout the world in consequence of differences of soil and climate.

In this respect, the difference between wheat and rubber, for example, is very marked. All wheat-producing countries consume part on the spot and only export the surplus. Even the countries with the greatest deficit in the production of wheat cover part of their needs from their own production. On the other hand, rubber is produced in areas which consume only insignificant quantities, while the great consuming districts produce practically none. The quantities entering international trade therefore represent a much greater proportion of the output in the second case than in the first.

It is impossible to estimate the exports of products included in the index numbers of the above table in such a way as to make these figures strictly comparable with the figures for production. But, on examining the part played by the export of some of the principal agricultural products in each continent, great inequalities may be noted, which show even more clearly than the index number of production the great differences in the problems arising in each continent in connection with the various branches of agriculture.

The average world production of wheat from 1926 to 1929 (excluding China and Turkey) was 1,200 million quintals, but the gross exports from all countries was only 194.2 million quintals, or less than one-sixth of this quantity. An even larger proportion of maize was consumed in the producing countries. Though the average production was about 1,113.9 million quintals, the gross exports only reached 92.1 million quintals, or less than one-twelfth. The net exports from each continent were entirely disproportionate to the percentages of the total production of cereals and vegetable foodstuffs of the same continents.

	Net exports				Net imports			
	Wheat		Maize		Wheat		Maize	
	Millions of quintals	%	Millions of quintals	%	Millions of quintals	%	Millions of quintals	%
Europe (including U.S.S.R.)	—	—	—	—	143.3	93.9	68.7	100
North and Central America	102.5	64.2	0.9	1.2	—	—	—	—
South America	38.5	24.1	61.7	87.8	—	—	—	—
Africa	0.6	0.4	5.2	7.4	—	—	—	—
Asia	—	—	2.4	3.3	9.3	6.1	—	—
Oceania	17.9	11.2	0.2	0.3	—	—	—	—
Total	159.5	100	70.2	100	152.6	100	68.7	100

SOURCE : *International Year-Book of Agricultural Statistics*, Rome.

Although Europe produces almost 40 per cent of cereals and other vegetable foodstuffs, it takes 94 per cent of the imports of wheat and 100 per cent of the imports of maize. North America and Central America, which together supply 26.7 per cent of the production of wheat, represent 64 per cent of the exports, while their exports of maize are negligible. South America is in complete contrast with Europe. While its production of cereals and vegetable foodstuffs only amounts to 4.2 per cent of the world production, it accounts for 24 per cent of the total net exports of wheat and 88 per cent of the exports of maize. Oceania is in a similar position ; its production of wheat is estimated at 1.4 per cent of the total and it accounts for 11 per cent of the total net wheat exports.

The position is quite different in the principal products of the textile group, as a much larger proportion of these products enters into world trade. The average world production of cotton (excluding the Union of Soviet Socialist Republics and Turkey) averaged 56.1 million quintals in the years 1926 to 1929, and more than half this quantity entered into international trade, the gross exports from all countries during the same years being 31.4 million quintals.

The world production of wool was 15.5 million quintals; the exports (11.4 million quintals), represented more than two-thirds of the production.

The disproportion between the total production figures for textile raw materials and the net exports for each continent was also very marked.

	Exports				Imports			
	Cotton		Wool		Cotton		Wool	
	Million quintals	%	Million quintals	%	Million quintals	%	Million quintals	%
Europe (including U.S.S.R.)	—	—	—	—	22.1	96.5	7.3	85.7
North and Central America	19.4	82.9	—	—	—	—	1.2	14.3
South America	0.9	3.8	2.2	27.1	—	—	—	—
Africa	3.1	13.2	1.4	17.3	—	—	—	—
Asia	—	—	0.1	1.2	0.8	3.5	—	—
Oceania	—	—	4.4	54.3	—	—	—	—
Total	23.4	100	8.1	100	22.9	100	8.5	100

SOURCE : *International Year-Book of Agricultural Statistics*, Rome.

Europe, including Russia, produces 21.4 per cent of the textile raw materials ; its imports of cotton represent 97 per cent and of wool 86 per cent of the total net imports.

North America and Central America, which together produce 28.6 per cent of the textiles, export 83 per cent of the total net exports of cotton, but import 14 per cent of the total net imports of wool.

Africa produces only 5.9 per cent of textiles and exports 13.2 per cent of cotton and 17.3 per cent of wool.

Although Asia produces 30 per cent of the textiles, it exports only insignificant quantities of wool and imports 4 per cent of the net world imports of cotton.

Oceania represents only 7.9 per cent of the world production of textiles ; it exports 54 per cent of the total net exports of wool, while its trade in cotton is almost insignificant.

Part IV.

INTERNATIONAL FACTORS OF THE AGRICULTURAL CRISIS.

There may be said to be no difference of opinion as to the essential causes of the agricultural crisis. Almost all the experts are agreed on two points : (1) the crisis is due to the disturbance of the balance between production (which is in excess) and consumption (which is short), and (2) it appears in the form of an abnormal relation between the cost of production and the sale prices of agricultural products.

The fundamental facts which give the agricultural depression its character seem to be clearly established ; further research could only serve to give precision to details and to the character of particular circumstances or conditions in particular countries.

The Economic Committee has not been content to confine itself to a mere enumeration of the difficulties with which agriculturists are confronted in different countries ; it has tried to ascertain the means of alleviating the painful situation in which the great majority of the world's farmers at present find themselves. Everywhere intervention is being urged and remedies are being proposed, and it was high time to endeavour to clear up the position. The Economic Committee has taken the opinion of the experts on the practical measures which can and should be adopted. It is undoubtedly necessary to take some action in the matter : but, whereas the experts are more or less agreed as to the causes of the crisis, they differ profoundly as to the means of combating it.

The Economic Committee's attention should be concentrated in the first place on the position of the international markets, purely national aspects of the question being left for the moment on the side.

But in agriculture, even more perhaps than in industry, questions arise which vary considerably from one country to another and would seem to be more suitable for solution on national than on international lines. The remedies in each country ought to conform to local peculiarities.

Governments can exercise, and are in fact exercising, considerable influence on agricultural development. They are doing what they can to remedy the crisis, and, for some months past, the agricultural problem has had almost the first place in their considerations. The acuteness of the crisis tends almost everywhere to strengthen the view that the State ought to give the national agricultural interest effective support. The circumstances are exceptional, and the State is called upon to make sacrifices of an equally exceptional character in behalf of the agriculturists. It is doing what it can to relieve the hard times through which agriculture is passing and to endeavour to shorten the inevitably painful period of transition. In so far as its resources allow, the State can reduce the charges and taxes with which the agriculturist is burdened, and can reduce transport rates for agricultural products in the home country. It can also exercise its influence on those who supply products or materials utilised in the cultivation of the soil, such as fertilisers, seed, fodder for live-stock machines and tools, by inducing the former to keep their prices as low as possible and to accord favourable conditions for payment.

There are factors peculiar to certain national markets which intensify the acute character of the agricultural crisis. It may be said, indeed, that there is not one crisis but a number of different crises since, in addition to the general underlying causes, there are certain causes which operate only in particular countries. Those features which are of general incidence cannot, from the point of view of the various countries,

be regarded as the sole causes of the crisis. Action taken by a single country may also constitute an immediate and powerful factor of disorganisation, and even on occasion of economic disturbance, for States with which the country in question maintains close commercial relations. The effect on one country of action taken by a second country is not confined to the former.

But there are factors of the agricultural crisis which are international in character, and that is a consideration of essential importance. The fundamental causes of the crisis should be considered in the light of the general economic conditions of the world. It would be the greatest mistake to imagine that any State, however skilful its conduct of affairs and however energetic its Government or population, is in a position by its own strength and capacity unaided to do away with the causes of such an economic upheaval as that through which mankind is at the moment passing. The problems of agriculture are not bounded by the frontiers of any one country. The interdependence of the various peoples has never been so apparent. The solution of the agricultural crisis cannot be the work of a single State. No national solution can relieve this vast and universal problem.

As the essential reasons of the agricultural crisis in the various countries are to all appearance of a universal character, the possibilities of coping with the crisis in a particular country are very limited. In the case of a large number of agricultural products, the present situation raises at the outset the question of the balance between production and consumption, so that the position of the international markets assumes much greater importance for agriculture in the various countries than it has held in the past. Agriculture has remained too long outside the general economic system of the world, and in spite of dangerous shocks received, which were in the nature of warnings, it has not taken the question of foreign markets sufficiently into account.

The agricultural systems of the various countries are beginning to realise, and will indeed be forced to conclude, that national production cannot stand alone irrespective of the position of the world market. In times of prosperity and disaster alike the nations have the same interests in regard to all great economic movements. Agriculture, like the other industries, is necessarily bound to have recourse to international agreements. The agriculturists are called upon to organise themselves in such a manner as to enable them to meet and discuss their problems on an international footing like the other industries. The agricultural industry will henceforward be dominated by an instinctive sense of this imperative necessity.

The international congresses of agriculturists are thus losing increasingly their former character of academic meetings. The contact of the different interests, tends to bring together conflicting points of view. The periodical consideration of agricultural problems from an international angle at the conferences of the League of Nations and at the general meetings of the International Institute of Agriculture and the International Agricultural Commission have led to the development of striking efforts at co-operation in the agricultural field, which had for long seemed one of the branches of economic activity furthest removed from co-ordinated international action. It is essential to take a hand in these efforts, with the exercise of due care, no doubt, and having regard to the complicated character of the economic facts, but with the utmost possible measure of goodwill.

Free Trade and Protection.

Considerable difference of opinion amongst the agricultural experts is apparent in regard to the question of protection or free trade for agriculture.

Some experts believe that under free trade the mere play of economic forces would make it possible to restore the situation. Amongst the obstacles to the normal marketing of agricultural products they give first place to the Customs barriers which, they

consider, have done much to provoke the crisis. Customs barriers increase the cost of living and consequently reduce the consumption of foodstuffs, and tend to encourage production even in countries which geographically or in virtue of their soil, climate or social conditions are least fitted to produce cheaply, whereas the ideal would be that only those regions should produce where the conditions are most favourable and economic functions should be distributed on the basis of the cost price. An increase in duty necessarily brings about an equivalent or partial increase in the price of the protected product on the market, but duties can only bring transitory relief. A remedy for the economic lack of equilibrium should not be sought in protectionist measures. They cannot form a durable foundation for agricultural policy.

If the recommendations of the Economic Conference of 1927 in favour of the reduction of Customs barriers are left unheeded, it may well be difficult to prevent the least protectionist countries from establishing import duties on agricultural products, at any rate temporarily.

It may be that the adherents of free trade are right from the standpoint of complete rationalisation ; but it would seem they do not take sufficiently into account social and political exigencies which make the preservation — and consequently the protection — of agriculture an altogether vital question in the eyes of the majority of countries. These countries believe that, in a crisis like the present, the abolition or even considerable reduction of such protection would reduce a large peasant population to distress. The maintenance of agriculture in Europe is not a purely economic problem ; it is necessary for social, historic and national reasons.

The Governments wish to maintain a strong peasant population, not only in order to safeguard the provisioning of the country in times of emergency but also because they realise that the peasant represents an element of order and tranquillity ; they are aware that they cannot disregard the essential part played by the peasant class in the reconstitution and regeneration of the populations worn out by the life in industrial centres and large towns. This aspect of the question should not be lost sight of when forming an opinion on agricultural protectionism and its consequences.

The countries which are hard hit have recourse to energetic action, which they consider essential for the protection of their vital interests, even when such action affects the interests of third countries. In industrialised countries the peasant has had so clearly before his eyes the example of prosperity for protected industries and menace for those which were left without protection that he remains deaf to the most ingenious arguments to convince him of the uselessness for home agriculture of protection against foreign competition. If, for example, Switzerland were to abolish the import duty on hogs (50 francs a head), leaving their import entirely free, there would be no longer any use for the waste products on which hogs are fed, and the waste of the Swiss cheese factories would have to be thrown into the gutter. Similarly, the abolition of the duty on wine (30 francs per hectolitre net) would mean the disappearance of the Swiss cultivation of the vine, only a few fine brands being able to survive.

Even the advocates of free trade must admit that, for national reasons of a political, economic or demographic character, a large number of countries consider it impossible to abandon certain forms of cultivation, the products of which are essential for the national food supply. The desire of States to be economically self-supporting has been intensified to such an extent that there is no prospect for the moment of a liberal policy in regard to agriculture.

Preferential Customs Treatment.

1. The agricultural crisis has hit heavily those European countries where agriculture predominates that have not been in a position to modernise their methods of cultivation. The gravity of the crisis in these countries is altogether exceptional. This consideration led the nations of Eastern Europe to hold a large number of conferences in 1930, at Bucharest, at Sinaia, at Warsaw, at Belgrade, etc., with a view to finding a way out of the crisis which was reducing their peasant populations to acute distress. Some of them set themselves to establish agreements for the marketing of their cereals instead of competing with one another. At the same time they endeavoured to find means of promoting their commercial relations with the industrial countries of Europe.

They accordingly asked for a system of preference to be given them by the European States which import cereals.

They contend that such a system would enable them to remedy the worst difficulties of Eastern Europe and would stabilise the economic balance of Europe.

As compared with oversea products, the difference established on the European markets between the Customs treatment of the two would enable the Eastern European countries to bring about easily and rapidly an improvement in the prices of their agricultural products; and they suggest that such a preference system would also constitute a serviceable basis for understandings between European countries with different economic systems and would facilitate the interchange of products between such.

The Geneva conferences examined and endeavoured to fix all the stipulations, to prevent such a system creating obstacles to international trade.[1] Preferential treatment was not to be applicable without the assent of the countries enjoying most-favoured-nation treatment. It would not perhaps prejudice oversea countries, which were to be left as the principal suppliers of Europe and which (it was maintained) would benefit by a strong and economically healthy Europe.

The accumulation of foodstuffs in the markets of Eastern Europe is trifling in comparison with the accumulation in the world market.

The surpluses in the hands of the exporting countries of Europe are not sufficient to cover according to the harvests more than 8 to 15 per cent of the European imports. There remains 85 to 92 per cent to be covered out of oversea production. The production of cereals was not to be increased in the countries given preferential treatment. This treatment was to apply only to the quantities actually passing between countries last year, or to the average quantities exported in recent years. Any surplus amounts were to be subject to the duties applicable under the most-favoured-nation clause.

The agricultural countries of Europe state their willingness to come to an understanding with the industrial countries under the auspices of the League of Nations and with the co-operation of the oversea countries. In the event of an agreement proving impossible of attainment, they propose to take up the idea of regional understandings.

2. The proposal for preferential treatment has met with opposition owing to the most-favoured-nation clause. It gives rise to considerable difficulties. The present position of engagements contracted between the oversea countries and the European countries is such as to make the latter hesitate a long time before giving preferential treatment to European cereals.

Failing preferential Customs treatment, certain European importing countries are seeking means of assisting the Eastern European countries. There is no question of

[1] See Final Act of the Second International Conference with a view to Concerted Economic Action (document C.655.M.270.1930.II), report of the Sub-Committee appointed to examine the question of negotiations concerning the trade of the agricultural States of Central and Eastern Europe.

placing the European countries in opposition to the oversea countries ; any such opposition would be prejudicial to the common interests of all. But Europe might favour its own products without attempting to make changes in the existing Customs system which, in view of the existing commercial agreements, would be difficult or even impossible. It might come to the assistance of the Eastern European countries by varied and elastic measures — for example, the organisation of cereal purchases by the importing countries. The surpluses of Eastern Europe are not sufficient in relation to the total consumption of Europe to induce any marked fall of prices on the home markets of the importing countries. The exporting countries would have to negotiate with the importing countries with a view to the conclusion of agreements under which they would themselves be assured of the purchase of fixed quantities of their cereals, while the latter would receive facilities in respect of their exports.

3. The experts of the oversea countries did not declare themselves in favour of any preferential system of particular European countries. They are not in any way opposed to a system which would improve the European situation, but they consider that the proposals of the Eastern European States tend to split up the existing organisation of the world's trade and are tantamount to discriminating between other groups of producers.

The demand for preferential treatment, they say, is aimed at a solution of the problems of Eastern Europe only. It does nothing to facilitate the remedy for which the present crisis calls, — namely, the readjustment of the world's production — or rather it places the burden of readjustment exclusively on the oversea countries. But the oversea countries themselves are suffering seriously and painfully from the agricultural crisis.

4. The Preparatory International Conference for the Second World Conference on Wheat held at Rome from March 26th to April 2nd, 1931, reached the following conclusion :

> " The discussion of the preferential system, arising out of the report of the Committee of the Second Conference for Concerted Economic Action, which met at Geneva in November 1930, has been carried as far as is now possible in the form of multilateral conversations.
>
> " The principal difficulty encountered lay in the fact that the Delegates of several important wheat exporting countries declared that they did not possess the materials necessary to enable them to estimate the possible loss which they might suffer as a result of the preferential system, nor the possible advantages that they might be able to derive therefrom.
>
> " Hence, if the interested countries, who are prepared to make trade agreements on a preferential basis, desire to continue the discussion, it will be necessary for them to have recourse to diplomatic channels.
>
> " The Conference also ascertained that all exporting countries have the same interest, in so far as they all desire to see the European market strengthened, so that they may obtain remunerative prices for their cereals. "

At its third meeting (May 15th-21st, 1931) the Commission of Enquiry for European Union has recognised that the establishment of a preferential agricultural regime would have the effect of ensuring in the abnormal circumstances now prevailing prices which would afford a better return for the Central and Eastern European grain exporters.

The Commission of Enquiry considers that the particular facilities in question, designed to meet the difficulties of the present situation, could be granted only as an exceptional and temporary measure and subject to the interests of third States.

Further, the concessions which might be made in compensation should not be of a preferential character.

Increase of Consumption.

The agricultural crisis is due to disturbance of the balance between production and consumption and it would be ended if the balance could be restored either by an increase of consumption or by a curtailment of production. First of all, is it possible to promote an increase in the demand for agricultural products ? Can consumption be developed and enlarged markets be assured for the growing production ?

The increase in the number of consumers — that is to say, of the population — is too slow to offer any rapid solution of the crisis ; and in countries which are most developed, and are consequently the largest consumers, the consumption does not show a rapid increase. There does not seem to be any prospect of opening up new markets on any considerable scale. But a considerable increase in consumption would obviously be possible in case of an alleviation of the industrial crisis and, in particular, a decrease in unemployment, together with an improvement in general conditions in certain parts of the world.

In this respect the value of increasing the consumption of animal products with a view to absorbing the excess agricultural production should not be overlooked.

Though the individual demand is inelastic, as we have seen, in the case of a large number of agricultural products, the consumption of animal products per head of the population can be greatly increased, especially among workmen and employees when wage conditions improve.

Consumption can undoubtedly be increased in the case of certain products if it is found possible to reduce the cost of production. Low prices may bring new consumers into the market and allow of the transformation of products with concomitant increased production.

But there are even more favourable chances of increasing consumption if the production of foodstuffs is developed on qualitative rather than quantitative lines. Agriculture must aim at producing the best possible quality. In many districts, farmers are already making great and effective efforts to standardise certain products such as fruit and vegetables. Improvement of quality may stimulate the consumption of certain agricultural products. There is reason to think that the poor quality of bread since the war has led in certain countries to the reduction in its consumption.

Consumption changes. Production should also endeavour to change progressively in order to adapt itself to the changes in consumption and to develop an increased variety of agricultural products, with a view to stimulating the individual consumer's demand.

At the same time, agriculture should endeavour to exploit the recent extension of certain forms of luxury production. In this field, efforts are to be made and programmes of development to be drawn up. Excessive expectations must not, however, be founded on these possibilities. The areas where special crops can be grown are limited. Before increasing such forms of cultivation or developing new ones, markets for the products must be assured.

Lastly, agriculture should endeavour to satisfy other needs than food supply and recover to some extent the position it formerly held. Madder has been driven out by aniline dyes. But great progress can be realised by the industrial exploitation of certain agricultural products such as cereals and potatoes. Some experts are already of opinion that, under existing conditions, there are good prospects of rapidly increasing the consumption of industrial raw materials of agricultural origin, such as wool, flax, oleaginous seeds, etc.

In any case, agricultural production may benefit by new developments or changes in the forms of popular consumption.

Curtailment of Production.

1. *General Considerations.* — Instead of waiting for a number of years until there is an increase in the demand, proposals have been made in some quarters for a curtailment of production as the only practical means of correcting over-production. There can be no doubt, as we have seen, that there is over-production in the case of several agricultural products. That is an established fact, and any agricultural policy which does not take it into account is liable to lead to bitter disappointment. The development of production may become a danger if it is not organised and directed.

Production must be controlled and maintained at a level corresponding to the requirements of consumption — in other words, a disastrous surfeit of supply must be prevented by voluntary limitation. This affords a means of stabilising prices at a level which will assure the agriculturist of a reasonable remuneration for his labour and his capital.

The first suggestion, therefore, which occurs when seeking for means of alleviating the agricultural crisis is the exercise of direct action on the producers to stop over-production. By regulating production we avoid over-production.

Some experts have put forward methods of achieving this object.

It is clear, however, that it is particularly difficult to regulate agricultural production. Agriculture is at the mercy of climatic developments, and its production cannot be regulated like the production of a factory. Industry can limit its production by agreements on a large scale, national or international. The industrialist who becomes aware of a falling-off in consumption can voluntarily suspend manufacture. But the agriculturist who has too good a harvest, exceeding the normal requirements of consumption, incurs a loss on the whole of his production.

The attempt is, of course, made to find remedies. Systems for reducing stocks — of coffee in the case of Brazil, of cotton in the case of Egypt, etc. — have been attempted. Steps have been taken to diminish over-abundant production. In a number of countries sugar-producers or rubber-planters have called in governmental assistance to restrict the harvest of the cane and the rubber trees. But an understanding between producing countries for regulating production and adjusting it to the consumption requirements of the world is an exceptionally delicate proposition ; it conflicts with vested interests and established habits. Any restriction of the producing capacity of agriculture gives rise to stubborn and legitimate resistance on the part both of the consumers and of the producers. It would appear to be hardly practicable.

If it is to have an immediate direct effect, the only conceivable form it can take is that of general regulations for the proportional reduction of areas sown, the prohibition of new planting and the like. But such methods restrict the competition of the producers with one another and hamper necessary variations and adjustments. The regulations will be liable, moreover, to prove either inadequate or excessive — inadequate in the event of favourable climatic conditions and excessive in the contrary event.

The current over-production is comparatively small. It might be unwise to impose an artificial solution which might lead to a shortage of production. Climatic conditions exercise a decisive influence on agricultural production. The coincidence of abundant harvests in the majority of the principal producing countries has glutted the market. It must not be forgotten what might happen in the contrary case, which is equally possible, of simultaneous short harvests in the majority of the great producing countries. Precautions taken against excess may lead to a shortage. Over-production and under-production are dangers which are always on the horizon.

Further, while it is easy to ask the farmer to abandon crops which do not pay and to turn to other forms of cultivation, it is not always easy for the farmer to follow

this advice and to " try something else ". When substituting one crop for another, care must be taken not to provoke a crisis in the products, the cultivation of which is being extended. Otherwise, the crisis will merely be shifted, and each agricultural product in succession will be imperilled by over-production.

2. *Cereals.* — It is mainly in the case of wheat that the problem is one, not of increasing production but of absorbing existing stocks. The wheat crisis is due to the accumulation of exportable stocks resulting from the over-production of a number of years. The excess of stocks on the market would prevent any return to normal conditions, even if the balance of production and consumption were restored. If the excess of stocks could be got rid of, prices would *ipso facto* improve. The producers cannot hope for a satisfactory prive-level until the stocks have been brought back to the normal figure and the total of production has been brought into relation with the total consumption. This problem is occupying, as never before, the attention of economists and statesmen. What is desired is to give the agriculturist a remunerative price for his wheat, while at the same time preventing any excessive rise in the price of bread. The measures proposed for the purpose vary to a singular degree. Some of the bolder proposals are sceptically received in agricultural quarters.

If the cultivation of wheat is to yield a profit to the producers in the coming years, it must be regulated to a much greater extent than at present. One expert proposed to limit the world's production of wheat over the short period of a single agricultural year in order to restore a level at which the excess stocks could be marketed. The exportable stocks of wheat in the principal producing countries amount to some 115 million quintals. In the years 1925 and 1926, before the fall of prices, the exportable stocks in these countries totalled 38.7 and 34.2 million quintals respectively. The latter quantities may be considered as normal, while 40 million quintals may be taken as sufficient to cover any contingency. The difference between 115 and 40 millions — *i.e.*, 75 million quintals — accordingly represents the surplus to which the demoralisation of the wheat market is due. These 75 million quintals must be disposed of, if the market is to be restored to normal conditions ; but it is essential that production and consumption should be correlated at the same time as much as possible. The annual production of wheat is estimated at a milliard quintals. If the production during a single year were reduced by 7 ½ per cent, the excess stocks would be absorbed, and this would have an instantaneous effect on prices and would assure the agriculturists of immediate profits. An additional reduction of the surface sown for wheat by 2 ¼ per cent would probably be sufficient to prevent over-production and a new flooding of the market.

No doubt production does not depend solely on the extent of the area under cultivation. It depends also on weather conditions. But the metereological factor, which is so powerful from a local or regional standpoint, is not of very great importance from a world standpoint. A good harvest in one part of the world frequently synchronises with a bad harvest in another part of the world. The statistics show that the average world yield per hectare of wheat varies remarkably little from year to year. The following are the figures in quintals : *1909-1913*, 10.4 ; *1925*, 10.2 ; *1926*, 10 ; *1927*, 10.4 ; *1928*, 10.9 ; *1925-1928*, 10.4 ; *1929*, 9.7.

Consequently, the area sown is a possible basis for a programme of reducing the production of wheat to a point at which the normal operation of the law of supply and demand is restored.

This proposal has been considered by the experts, and the discussion has shown the numerous difficulties in the way of its application, even in particular countries.

Should the surfaces sown be reduced in equal proportions throughout the whole of the territory concerned ? Or should there be slight reduction in regions with favourable natural conditions and greater reduction in the case of producers who have to contend with adverse conditions of soil or climate ?

Can the States force the agriculturists to restrict their production ? And, if so, will the States be prepared to do so ? The reduction of sown surfaces must be literally universal, since cereals are produced in practically every part of the globe. The whole effort will be frustrated if a single country of any importance remains outside.

What is to be the basis of reduction ? The present area of land under wheat ? The quantities exported ? The area of the different countries ? Or their population ? Or their several peculiar conditions ? Reduction will encounter great difficulties inside each country. It will be impracticable in countries with small holdings, where the agriculturist reckons to deal with his land as he pleases and exploit it to suit himself, and increase rather than restrict production, since he regards increase of production as a step in advance.

Lastly, what is to be done with the areas becoming free if the impossible should happen and the production of cereals is generally reduced ? If, as is probable, the land is turned into pasture for raising live-stock and developing the production of dairy produce, there is a new danger of over-production. Moreover, capital would be required for such a reorganisation of agriculture, and in many countries capital is lacking.

The majority of the experts believe that restriction of sown areas will be imposed by hard realities themselves. The cultivation of wheat is already so unremunerative that in many countries there is a tendency to make the change wherever possible. The cultivation of wheat is already being abandoned in a number of cases, particularly where land has been under wheat which is suitable for forest or pasture. In view, however, of the protection surrounding certain national agriculture, the greatest restrictions will perhaps have to be made in countries where costs of growing wheat are lowest.

In many countries, the question is being raised whether it would not be wise to replace the intensive cultivation (which has hitherto been developed to the utmost possible extent) by extensive cultivation, now that the expenditure involved in intensive cultivation is no longer sufficiently remunerative. Arable land would be turned into pasture on the lines followed in England and Wales, where 800,000 hectares have been turned over to grass during the last ten years. One result obviously will be a reduction in the number of agricultural labourers, since stock-raising requires less labour than the cultivation of crops ; but this is not the point for consideration in this aspect of the question, important as it is.

The logic of present prices would seem to indicate a reduction of sewn areas on some considerable scale as probable. Such reduction, taken in conjunction with the falling off in the purchase of fertilisers, which the shortage of funds in the hands of the agriculturists renders inevitable, should lead to a marked decline in the volume of future harvests, whatever the climatic conditions. The fall of prices leads to a reduction of production. If the farmers who cannot get remunerative prices for their grain are convinced that the fall is bound to continue without any prospect of improvement, they will have the sense to restrict their own sowings.

It is no doubt probable that the present low prices will of themselves lead to a reduction in sowings in a great part of the world ; but it is by no means sure that the increase of cultivation will not continue for a long time yet in a number of countries, even if prices fall below the present level. It is quite possible that the aggregate reduction of sown areas throughout the world will be insignificant.

An attempt can at least be made to convince the agriculturist that over-production is ruinous, and thus induce him on his own intitiative to curtail the area under grain. Propaganda in this sense is being carried on, particularly in the United States, where there are no longer any illusions as to the need of drastic measures to restore the balance between the production and the consumption of wheat. The fall in prices has already led to a reduction in the surface sown which, it is estimated, will amount in 1931 to 5-6 per cent. The Department of Agriculture and the Federal Farm Board are

endeavouring to ensure the maintenance and extension of this movement, so long as the overproduction lasts. These agencies are urging all farmers to give serious consideration to the question whether under present circumstances they are in a position to produce wheat at a profit, and it recommends the abandonment of the less productive land. At the same time, they warn the farmers against the dangerous step of putting more land under wheat. The example of America can only be effective if all the countries responsible for over-production are prepared to reduce their sown areas.[1]

Organisation of Markets.

1. *General Considerations.* The discussions of the experts have thrown light on all the practical difficulties in the way of applying a general programme for reducing agricultural production. But it would perhaps not be impossible to influence production indirectly by endeavouring to regulate the marketing of agricultural products. Without proposing to express an opinion on this big question, the extent and complexity of which are obvious, one wonders whether it would not be possible to make some effort in this direction, at any rate in the case of wheat. These ideas are closely connected with the various views put forward by the experts in regard to the possible organisation of the international trade in agricultural products, and particularly cereals.

Farmers are wondering whether it would not be better to consider, both in the national and in the international sphere, measures in harmony with the spirit of conscious organisation which sometimes appears ready to assert itself in present-day economic life. They are aware of the disadvantages from which the sale of their products suffers as a result of the inadequate organisation of agricultural markets. They are gradually coming to see the crisis as to a considerable extent the consequence of this failure. There is no doubt a crisis of production, but there is also a crisis of disorganisation, a crisis in respect of the sale of agricultural products.

So far as output is concerned, agriculture has made remarkable advances. It has not sufficiently developed the commercial spirit. It is not sufficiently acquainted with the conditions governing the remunerative marketing of its products, whether on the home or foreign markets.

No doubt some progress has been made ; but it is still very little. The marketing of agricultural produce requires regulation if prices are to be given more stability than at present and if agriculture is to enjoy any permanent improvement.

From whatever angle one approaches the agricultural problem, one is always and everywhere brought back to the problem of surpluses. If there were not quantities of wheat and wine larger than those for which the consumer is prepared to pay a remunerative price, there would be no grain problem or wine problem. The sufferings of the producer begin with the appearance of a surplus beyond the actual demand.

In the division of markets and in the distribution to the consumers, forms of commercial organisation have to be found which will make it possible to a certain extent to render these surpluses innocuous and to distribute them while leaving prices at a fair level. To regulate the sale of agricultural products alike on the

[1] After studying the question, the International Preparatory Conference for the Second Conference on Wheat (March 26th to April 2nd, 1931) reached the following conclusion :

" The Conference recognises that it is impossible to secure a general reduction in the areas sown throughout the world by the direct method of obligatory restriction, whether advocated by an international body or by national bodies.

" It is convinced that the reduction of sowings can only be obtained by natural methods, by the farmers themselves, influenced by the conditions of the market and a study of the figures and of the facts.

" It recommends that in countries which consider it advisable, this influence should be reinforced by an educational propaganda among the producers. "

home and on foreign markets, and to organise the national market and its relations with the foreign market by the aid of as exact information as possible with regard to the needs of the one and the resources of the other — in other words, to follow the example of the syndicates which have been formed in industry to contend with over-production and the depreciation of prices — such is to-day one of the essential preoccupations of agriculture.

Industrial producers have succeeded in creating sale organisations which in certain branches have become the rule. But in the field of agriculture such organisations are the exception. In view of the numerous agreements which are to be found in the industrial field, it is high time for the agricultural producers to redouble such efforts as have been made for a rational and more remunerative sale of their products.

Undoubtedly, there are special difficulties in the way of organisation of the agricultural world. The industrial producers commend reserves of capital which the mass of small agricultural *entrepreneurs* are entirely without. The organisation of agriculture means the association of millions of scattered producers. But effective forms for the assertion of common interests will have to be found.

One of the principal causes of the disproportion between the prices of industrial products and those of agricultural products appears to consist in the fact that the manufacturer can, to some extent, at any rate regulate his production and adjust it to the demand, reducing or even arresting his activities altogether. The agriculturist cannot do this. While in other spheres the conception of economic direction is everywhere making headway, agriculture is compelled to exist in unstable conditions, a prey to incessant changes and fluctuations ; it cannot predetermine its own development. In many countries industry has learnt that regulation of competition is frequently preferable to free competition without restrictions. It has succeeded in assuring and maintaining prices by way of agreements, cartels and trusts, dividing markets by a policy of quotas and distributing production geographically. At the same time labour organisations have taken action to fix wages and labour conditions on as favourable lines as possible.

Agriculturists are compelled to accept the conditions imposed on them. They cannot pass on to others the burdens of the charges they have to carry. Industry can do this by means of its trusts and cartels, and can successfully regulate its production. Agriculture, being without any organisation to speak of, has no deliberate policy by which to control the trade in its products. Each agriculturist is left free to operate as he pleases for his own account.

If the producers were grouped in professional organisations, that would help to strengthen the position of those who have agricultural products to sell, it would mean a more satisfactory remuneration of the agriculturist's labour. Organisations of this kind have already made marked progress in the last few years; it remains to make them general. The agricultural organisations should be strong and powerful on a national basis. This will make it possible to create the conditions necessary for the success of the work of international agricultural co-operation. But this work of co-operation will take time. It will be long before it can produce decisive results.

It will be necessary to wait for the development of such organisations of the producers for the sale of agricultural products before beginning to think of regulating agricultural production in relation to demand.

A large number of experts are of opinion that it would be desirable, in accordance with a resolution of the World Economic Conference of 1927, to organise the market in agricultural products on rational lines. The crisis, they think, would be alleviated if agriculture were organised like other forms of economic effort. The organisation of sales would improve the situation. These experts attach the utmost importance to rational organisation of the marketing of commodities by the producers, programmes

of foreign purchases and sales being drawn up and measures being taken to ensure the carrying out of such programmes, either directly or through co-operative societies or private traders. They see the salvation of agriculture in such systematic organisation for the marketing of products, and they hail as steps in this direction the formation of grain pools and the cereal monopolies which have been set up or are in preparation in a number of countries, together with the national organisations established in several countries for the sale of live-stock, butter, cheese, bacon and eggs.

A large number of countries are undoubtedly tending to organise the sale of their agricultural products in the direct interest of the producers, and this organisation frequently takes the form of centralised supervision. Many governments are instigating or supporting the necessary action for the improvement of collective organisations for the sale of products or for the extension of markets. The purchase and sale of products through centralised organisations will enable, they think, the conclusion of bargains on terms which are reasonable alike for the consumer and for the producer.

For some years past a great part of the agricultural world has been turning in the direction of the establishment of organisations to regulate production, home consumption and international trade, with the participation of representatives of the producers, traders, the transforming industries and the consumers. By assiduous watching of the market and of the accumulation of reserves it will be possible, they think, to forecast the general tendency of the market and to direct agricultural production. A record of national resources and national requirements, supplemented by international agreements, will make it possible to diminish the lack of correlation between production and consumption.

In this sense a number of experts are urging the intervention of governmental authority. In view of the unstable character and infinite multiplicity of agricultural undertakings, they think that the organisation of the agricultural industry cannot be successfully taken in hand without the enlightened co-operation of the State. The co-operation of the State would permit of an organisation for the purpose of obtaining reasonable prices for agricultural commodities being substituted for the regime of price-fixing by free competition. Some experts go so far as to recommend giving the State the sole control of sales and even of the international trade in agricultural products. Others think that the regulating organisations should not be monopolies or State organisations at all, but might be co-operative companies recognised by the State, or even private organisations. Many countries are still attached to the principle of free competition and believe that governmental intervention in such matters, or even any attempt at regulation, is going counter to the natural laws of commerce.

Weighty objections have been put forward against any system of organising the sale of agricultural products, and it is clear that no steps should be taken in this direction without careful consideration. Such organisations will have to make forecasts of the future, and it is pointed out how serious might be the effect of any errors in their estimates, the possibility of which cannot be excluded, however great the competence of those at the head of such organisations. Would it be possible to limit intervention to the machinery of trade ? Would it not be found necessary, after regulating trade, to proceed to regulate cultivation ?

Once set up, the national organisations for centralised action might come to an understanding with the similar organisations in neighbouring countries and in certain circumstances might unite with a view to international action. The first step would be for their delegates to meet at conferences and discuss the position of the market and the sale of products. By establishing agricultural co-operation in each separate country, it would be possible to extend co-operation to a number of countries. All will have an interest in substituting intelligent collaboration and international agreements for the merciless competition which sets the different countries against each other in a relentless and barren struggle for the search and conquest of markets. All will have an

interest in replacing a system under which antagonistic forces are let loose without control by a system of rational order and concerned agreement for the organisation of the marketing of agricultural products. The agriculturists thus co-operating must realise that without a certain regulation of the international competition of agricultural products, there is no possibility of realising more advantageous price terms.

Some experts consider that international agreements might be very helpful in this connection. Just as recently in the case of sugar, agreements might be concluded, not directly limiting production, but regulating the distribution of particular exports in the international market. What has been found possible in the case of producers of sugar should be equally practicable for other commodities. The attempt, it is suggested, should be made by international agreement to restrict the flow of such products into the market and to establish quotas of the supply to correspond with the demand of the various countries, and to distribute the supply between the various markets which have hitherto been the prey of ruinous undercutting.

This organisation might serve as a link between the exporting and importing countries. It would assist the agriculture of the exporting countries without injuring that of the importing countries. It would make it possible to improve the market for agricultural products and to ensure better distribution and more stable prices for the same, and a reduction of the middleman's charges. The national organisations of agricultural producers might form the basis of an international organisation to regulate production. What has already been done in certain directions by the producers is encouraging for the future ; but the vastness of the task must not be lost sight of, agriculture being what it is -- namely, the least organised industry in the world.

2. *Cereals.* The chief part of the experts' discussions was devoted to cereals, and in particular wheat. In view of the large proportion of the aggregate value of agricultural production and international trade which cereals represent, it may be said that any measure the effect of which would be to diminish the difficulties of the trade in cereals would *ipso facto* afford effective relief to the agricultural crisis as a whole.

The crisis in the wheat trade is no doubt not confined to Europe, where wheat is still the corner-stone of the agricultural system and retains a truly symbolic significance. The crisis also affects the principal overseas countries producing wheat.

But, although the wheat crisis is not peculiar to Europe, it has attained in Europe a formidable acuteness, and its consequences are nowhere more serious. The majority of European States have hurried to the defence of this threatened crop.

But national and regional sale organisations can only ensure that the agriculturist receives the actual price of his goods ; they cannot obtain for him a price above the world prices. But the over-production of cereals is such that national and regional organisations are not in a position, owing to the continued fall in world prices, to obtain reasonable remuneration for the agriculturist. Matters might be different if there were an international organisation of exports allowing of regulation of the marketing and prices of cereals. The national export organisations set up in certain States may make it possible to arrive at an international organisation, of which they would be the basis.

These ideas are emerging with diffidence and are still lacking in precision. The only certain thing is that, for some years past, big changes, which are of the utmost importance for the collective organisations, have been taking place in the cereal trade. The movement towards concentration in the cereal trade is becoming more and more accentuated. It has developed in proportion as the question of marketing became increasingly acute with the disorganised and glutted markets. Under pressure of necessity it is making very rapid progress. This movement, which runs parallel with the development of agricultural protectionism, is fostered by the Governments, whose intervention is becoming systematic.

The forms which it takes vary in the different countries. Sometimes it assumes

the character of direct administration of commercial undertakings by the Governments. Sometimes a number of markets are dominated by a few large firms with a system of approved correspondents throughout the world.

Russia, the largest European producer, has a State monopoly. A State monopoly has been founded in Norway, and similar monopolies are in preparation or under discussion in a large number of countries. In Switzerland, the sale of national production is centralised in the interest of the producers.

The idea of the co-operative sale of wheat is accepted in a large number of countries. Agriculture is being organised commercially for the accumulation and conservation of stocks and the common sale of grain. This commercial effort is supported and encouraged by the State. The weakness of the agriculturists' individual resources is supplemented by co-operative organisations.

The organisation of the Canadian pool finds eager imitators. In the United States, the Federal Farm Board is endeavouring to organise the marketing of agricultural products and their joint sale. Australia is studying the advantages of establishing a compulsory or optional wheat pool.

In Europe, Poland founded a union of cereal exporters in 1929. Yugoslavia set up a privileged joint-stock company in 1930 for the export of agricultural products, with a view to co-ordinating the hitherto scattered activities of the exporters and the agricultural co-operative societies. This company has taken over the bulk of the trade in cereals. Bulgaria has set up a similar organisation. At the Belgrade Conference (November 1930) the agricultural countries of Eastern Europe which export cereals took steps for the establishment of national organisations, and for the organisation of co-operation through the intermediary of a central office with the task of fixing prices and terms of sale.

While the sellers are uniting in defence of their interests, the purchasers are also organising. National organisations bearing a close resemblance to import monopolies are in preparation or in course of formation in a number of countries, and the number of small mills is diminishing. There is an almost complete disappearance of the merchants in whose hands the grain trade lay before the war. They used to be the bankers of the agriculturist, accumulating stocks when the supply was large and feeding the market when there was a shortage. They played a valuable part as intermediaries between the farmers eager to sell and the millers anxious not to buy more than they required owing to lack of money or storage room. They enabled reserves of grain to be formed which were always available. Nowadays, they have ceased to act as regulators of the market. The large milling concerns, whose activities are greatly increased, now in practice regulate the market by purchasing or abstaining from purchases in accordance with the instructions of their central organisations.

The growing movement towards concentration in the modern flour trade is already a source of anxiety to certain groups of producers and consumers, although the flour trade has just as much interest as agriculture in the maintenance of stable prices, and would prefer a steady uniform return on its labours to the hazardous profits of the speculation with which it is too freely charged.

In the majority of European countries, the trade in cereals has thus attained, or is on the point of attaining, such a degree of concentration that there would seem to be a possibility of the conclusion between national bodies of agreements on other than Customs questions — for example, agreements to avoid sudden and violent fluctuations of prices as and when desired by the countries in question. Arrangements of this kind are already in force in other fields of production, and even in connection with agricultural production. An agreement was concluded in 1930 between Germany and Poland for the export of rye. It has proved effective in preventing the fall of prices from attaining the dimensions which it would certainly have assumed if the competition between Germany and Poland had led to still further depression of the market.

The Conference with a View to Concerted Economic Action, which met in Geneva from November 17th to 28th, 1930, in its Final Act, emphasised the importance of questions relating to " the organisation of the trade in cereals, the establishment of exporting and importing organisations and collaboration between these organisations ". The discussions of the Conference had shown that a solution relating only to Customs would meet with considerable difficulties in view of the engagements contracted by countries throughout the world in connection with the most-favoured-nation clause. The Conference accordingly enquired into other possibilities, addressing a pressing appeal to the League of Nations in support of agricultural credit, and also drawing attention to the importance of improved organisation of the cereal trade. These efforts encountered halfway the action of the Conference of the agricultural countries of Central and South-Eastern Europe which was held in Bucharest from October 18th to 30th, 1930, following on the Conference in Warsaw at the end of August 1930.

In January 1931, the Commission of Enquiry for European Union recognised the exceptional gravity of the crisis through which these States were passing, and invited the authorised representatives of the European countries affected (grain-exporting and grain-importing countries) to meet and make a common effort to find means of disposing of the grain surplus then available. This meeting was held in Paris on February 23rd, 24th and 25th, 1931, under the chairmanship of M. François-Poncet (France), Under-Secretary of State to the Presidency of the Council and for National Economy. " Its members, being prepared to reserve a certain proportion of their imports of foreign wheat for wheat originating in the countries under consideration ", undertook " to initiate without delay the negotiations necessary to enable transactions " to be carried out which would bind the producers to the vendors (document C.E.U.E /E.C /8).

The Commission of Enquiry for European Union also appointed a Committee to study the question of the export of future surplus harvests in Europe. This Committee, which met in Paris on February 26th, 27th and 28th, 1931, under the chairmanship of M. Francois-Poncet (France), examined the measures which seemed to it calculated to facilitate the regular disposal of the surplus cereals in question by improving the conditions of sale. It was glad to note the progress made by exporting countries in the organisation of their exports of cereals, and hoped that these efforts would be continued. As regards the purchasing countries, it also hoped that statistics would be collected more rapidly and in greater detail "in order to enable available stocks and requirements to be estimated at all times with greater certainty. Closer collaboration between the public services and private trade would also facilitate and render more fruitful negotiations with the organisations of selling countries ".

The Committee recognised further that " the disposal of surplus European cereals was not merely a European but a world problem, and that a wholly satisfactory solution could be reached only by an understanding between all the parts of the world concerned ". It considered that it was in the interest of producers in every continent to act together with a view to checking the spread of the crisis (document C. 192. M. 75. 1931.II.B (C.E.U.E /E.C.F /2 (2)).

One may wonder whether it would really be chimerical for the two parties concerned — namely, the oversea countries on the one hand and the Eastern European countries on the other, to endeavour to arrive at an understanding, permitting the former to continue to supply Europe, while at the same time enabling the latter to market the comparatively small surpluses of their production. It would seem that the two groups of producing countries must get together, consult each other and, if possible, seek an agreement. Even some of those experts who have maintained free-trade views have not been against such agreements if freely concluded.

Only organisation of the market can put an end to the crisis.

It is obvious that a problem of these dimensions cannot have any immediate solution, and that there are still intermediate stages to be passed. The preliminary

Conference on Wheat, which met in Rome from March 26th to April 2nd, 1931, afforded an opportunity to engage in detailed and thorough discussion. It reached the following conclusion :

" The Conference considers that, in order to secure the solution of the wheat crisis, it is particularly necessary that there should be an improved organisation of the wheat market. Such organisation should be brought about rather by a gradual and progressive policy, based step by step on the results obtained, than by any policy that claims to cover every aspect of the problem.

" The Conference is glad to note that the wheat exporting countries, Overseas and European, have decided to draw up together a scheme to deal with the wheat export season 1931-32 and with existing stocks, and that they will meet for this purpose, in London, on May 18th.

" At the same time the Conference recommends the different buyers in those importing countries where the need should make itself felt to endeavour to form organisations for the purchase of imported wheats. Such organisation may take any form whatever which may be suitable in view of the particular situation in each country.

" The Conference considers that the International Institute of Agriculture and the Economic Organisation of the League of Nations should follow closely the efforts to be made by the various countries in the sphere of wheat production and trade in order to be in a position to take in full agreement such steps as current experience may suggest ".

Eleven wheat-exporting countries sent representatives to the London Conference which sat from May 18th to 23rd : of the oversea countries : the Argentine, Australia, Canada, India and the United States of America ; and of the European countries : Bulgaria, Hungary, Poland, Roumania, the Union of Soviet Socialist Republics and Yugoslavia. The Conference was unable to secure an immediate agreement with regard to concerted action which, aimed as it is at eliminating ruinous competition, might have been directed primarily towards the rationing of exports. The Conference decided to set up a permanent committee to organise a statistical and commercial information service for the exporting countries, study the possibilities of an increase in the consumption of wheat, and prepare for a further meeting of the exporting countries.

The Spread between the Prices obtained by the Producers and the Prices paid by the Consumers.

The crisis has led many agricultural circles to take the view that the co-operative organisation of production and sales can do much in the way of organising the marketing of agricultural products. They believe the co-operative idea is well suited to provide the necessary forms of this indispensable organisation.

The unsatisfactory relation between agricultural prices and the general price-level, which is one of the principal factors of the crisis does not afford a very considerable advantage to the consumer, since a fall in the prices realised by the producer does not involve a corresponding reduction in the sale prices paid by the consumer. The reduction in the prices of agricultural products, which in the case of cereals have fallen 50 per cent in a few months, has not appreciably reduced the consumers' cost of living. Flour followed cereals to some extent, but the price of bread has hardly fallen at all. Agriculturists say that when wheat falls the price of bread does not fall, or only falls slowly and very little, whereas when wheat rises the price of bread rises largely and at once. The producer has all the risks and the transforming industry has all the safeguards.

The fall in the producer's prices does not reach the consumer except very gradually and with alleviations which almost prevent his feeling it.

Agriculturists find the same thing with the prices of wool and raw hides, on the one hand, and the prices of fabrics and shoes on the other. It goes without saying that there is always a difference between the prices paid to the producer and the retailer's prices ; but the margin of the middleman's profit — in the case of meat and wine, for example — appears considerable. Similarly, when powerful organisations of the distributors control the market, as in the case of milk in a number of countries, they put the greater part, if not the whole, of any fall in prices on the shoulders of the producer.

Frequently, the consumer is compelled to pay dearly for a product for which the agriculturist only gets an inadequate price, and the whole of the difference goes into the middleman's pocket. In many cases, the price of agricultural products is almost doubled on the way from the producer to the consumer. It is a common saying in the United States that " the farmer only gets a poor share of the consumer's dollar ".

The view of the majority of the experts is that this margin is one of the essential factors in present-day agricultural conditions. The margin is not the same in all countries ; it varies according to wages, transport costs, rents, etc.

Enquiries have been made on the spot in various countries. The resulting reports do not appear to have shown with sufficient clearness the process of causation in regard to this margin, which it is extremely difficult to measure in quantitative terms. There is no need to dwell on the complexity of a problem like this, in which so many elements have to be taken into account. Who is the producer and, above all, who is the consumer ? Who are the middlemen and what part do they play ? What exactly are the prices on which the calculation is to be based, in view of the fact that both the prices paid to the producer and the prices paid by the consumer vary very greatly in one and the same region according to the time and place of sale ? What is the effect on the margin between these two of such necessary operations as transport, handling, warehousing and the like ?

A very large part of the margin between production and retail is attributable to transport costs and the charges to which many products are subject. The public is too prone to attribute all the profit to the middleman, ignoring overhead costs, which really account for a considerable proportion of the final price of the product.

Such studies as it is possible to undertake in this connection encounter the greatest difficulties. Index numbers of wholesale and retail prices which are not compiled from the same elements can hardly be compared with one another. Even when it is possible to compile safe statistics, the interpretation is an extremely delicate matter.

At the same time, there can be no doubt that, in many cases, the links in the chain of intermediary processes of distribution are excessive. They are more than they were before they war. Innumerable middlemen working for their own profit make gains at the expense of both the producers and the consumers. In this field the co-operative organisations can play a big part by facilitating and shortening the passage of products from producer to consumer.

Important agricultural circles are convinced that the middlemen take much too large a margin of profit, depressing the purchase prices to the producer and unduly increasing the sale prices to the consumer. The abundant documentary evidence collected by the aid of the agricultural experts has not, and cannot have, a strictly scientific character ; but, if it does not allow of indisputable assertions, it at any rate draws attention to genuinely disturbing features, in certain countries especially. The spread between producers' prices and retail prices is very large, and it is certain that it might be reduced.

From that to conclude, as certain agricultural circles do, that all private intermediaries should be eliminated is a long step. Some picture a dual system of

co-operative organisations spread over all countries — *i.e.*, producers' co-operatives on the one hand and consumers' co-operatives on the other hand — eliminating altogether the private trader (who, they say, is the source of all the trouble) from the distribution of agricultural products. But the question of the part played by the free market in distribution is not settled by such affirmations. The question of the free market is not only a national matter, international trade is also involved, and the problem of its organisation. Commerce is one thing and speculation is another, and the two should not be confused. Commerce is capable of excesses ; but it serves as a buffer between the two groups of production and consumption. It acts as a mediator and lessens the shock of conflict between the two, mitigating fundamental antagonisms of interests. It is quick to respond to demands made on it. Further, the enormous complexity of the operations involved in the trade in certain agricultural commodities has to be taken into account.

While recognising that co-operation has already had satisfactory results in agriculture and has served the interests of the producers, some persons are afraid that, if pushed to the extreme point of a practical monopoly in the marketing of commodities, it is in danger of causing artificial increases in the prices of agricultural products to the detriment of industry, and that industry in such case might itself be involved in a crisis which in its turn would involve an agricultural crisis. When prices are too high, international trade brings into play the competition of producers from other more distant countries or puts substitute products on to the market.

Again, there is no lack of sceptics who ask whether the co-operation of the consumers is really less costly than ordinary private trading. Do co-operatives sell at lower prices than other commercial undertakings ? The multiplicity of products, differences in quality and local variations render it extremely difficult to compare retail prices. If co-operatives really sold cheaper than private traders, they would compete with them successfully, and the consumers would go to them in preference to the private traders. In fact, however, their turnover is, up to the present, only an infinitesimal part of the aggregate turnover of retail trade. This is the view commonly put forward in private trading circles.

The co-operators, of course, are of a different opinion. They approach the subject, indeed, from a different standpoint. They point out that abundant capital would be required to set going a number of co-operative organisations and to finance the advertising and publicity which would be essential.

A large number of experts advocate increased co-operation. They consider that the direct sale of agricultural products to the consumers, whether individually or grouped in co-operatives, should be encouraged as much as possible. They point out the general economic advantages to be derived from a rationalisation of trade relations as a result of establishing direct relations between consumers' co-operatives and agricultural sale co-operatives. If producers and consumers could get together, production might be marketed at higher prices without any increased charges to the consumer. Consequently, the producers' organisations should be brought into direct relation with the consumers' co-operatives in order to cut down the middlemen's charges. A number of agreements have already been concluded between consumers' co-operatives and co-operatives of agricultural associations. Up to the present, the relations between the two are based on contracts in which the two organisations concerned face one another with different and conflicting interests ; the one side is there to sell and the other to buy. But would it not be possible to go beyond the establishment of commercial relations on such lines and by common action between the consumers and producers in association with one another to create and develop co-operative organisations *organically* linked with one another, and even having common institutions ? Various projects drawn up by producers and consumers' co-operatives contemplate an organic co-operative agreement between producers and consumers.

In the co-operative field, there is still much to be done to strengthen the feeling of common economic interest between the parties concerned. It is not a question only of establishing relations between the co-operatives of agricultural producers and the co-operatives of consumers in the towns. It is a question also of establishing relations between co-operatives of agricultural producers in one country and co-operatives of the same in another country. If, for example, a particular country requires foreign seed potatoes, it would be very advantageous if direct association were established between the agriculturists in the country producing seed potatoes and the agriculturists in the country requiring them. The advantages to be derived from international co-operation of this kind might be extended to all other forms of seeds which are the object of international trade, as well as to live-stock for breeding, cereals for cattle fodder, and so on.

It would be possible in this way to reduce the margin between the prices paid by the agriculturists of the other countries requiring to purchase foreign products. Such international co-operation between the co-operatives of the exporting and the importing countries would reduce the costs of agricultural undertakings.

A beginning of a solution of the problem of direct relations between consumers' co-operatives and agricultural co-operatives was made with the establishment of an *International Committee for Inter-Co-operative Relations*, set up in Geneva on November 4th, 1930, on the joint initiative of the International Co-operative Alliance and the International Agricultural Commission. This mixed Committee, of which the Director of the International Labour Office, M. Albert Thomas, is President, is entrusted with the task of promoting the development of moral and economic relations between agricultural co-operatives and consumers' co-operatives.

The composition and the aims of this Committee meet the desires expressed in a resolution of the World Economic Conference of 1927, to the effect that the convergent efforts of the agricultural co-operative organisations and the consumers' co-operative organisations should " receive attention and be furthered by the creation of a committee representing national and international co-operative organisations of agriculturists and of consumers ".

The first exchanges of view of the Inter-Co-operative Committee have shown how the agricultural co-operatives and consumers' co-operatives, by developing the closest possible relations with one another, can contribute to the work of economic reconstruction by better adjustment of supply to demand and by more effective organisation of a more stable market, with the elimination to the general advantage of certain elements of waste in the present distribution of agricultural products.

The International Committee took steps first to propose certain model forms already in use or proposed for both types of co-operatives, and to make these proposals more widely known, and, secondly, to complete the documentary material with a view to extending and intensifying the field of study. It recommended the establishment of mixed committees in all countries where no connection at present exists between agricultural co-operatives and consumers' co-operatives, in order to serve both to prepare and to prolong the action of the International Committee.

International Agricultural Credit.

A large number of experts regard the organisation of international agricultural credit as of the first urgency.

It has been recognised that, in certain countries, particularly in the east of Europe, agriculture is not receiving long-term credits. The position of the indebted agriculturists is becoming intolerable, and they are without resources. It is extremely desirable

to convert their debts into long-term loans at moderate rates of interest. In many countries, such action is not possible with the national resources.

There is general agreement as to the desirability of agricultural credit being organised internationally ; but difficulty is found in determining the necessary forms, regulations and safeguards, and the project is held up altogether when the question of the capital to be furnished comes up for discussion. It is clear that reduction of interest rates would enable agriculture to face the crisis more easily.

However, certain experts wonder whether it is internationally possible to give abundant agricultural credit on advantageous terms in a situation characterised, as the present situation is, by over-production. It is perfectly intelligible that countries in which the rates of interest are exorbitant should want such credits ; but the increase of the volume of credits, if it does not lead to a rise in wages and in the remuneration of the peasant, threatens to bring with it an increase of production, which under present circumstances would be undesirable in the extreme. This, at any rate, is what has happened in the United States. From the national point of view, extreme prudence is necessary in the matter of agricultural credits. There must be no extension of credits if they are only to go to increase production which is commercially unsound. In certain cases, credit should be used as a means to readjust over-production, the capital involved being increased or diminished as required.

But the majority of experts have no fear of international agricultural credit accentuating the world's over-production. It should ease the agricultural situation without increasing production.

A great part of such credits would go to replace money lent at high rates of interest. The agriculturist, being enabled to convert his debts on advantageous terms, would be in a position to improve and vary his crops. Without increasing his production, he would be able to raise his standard of living and increase his consumption, which has fallen enormously as a result of the crisis.

The way has been prepared for the organisation of international agricultural credit by the work of the International Institute of Agriculture. The question has been actively studied since January 1931 by the Financial Committee of the League of Nations and a special delegation of this Committee, of which the Chairman of the Economic Committee is a member.

This delegation drew up a concrete proposal to facilitate the grant of credits to agriculturists on international lines by the establishment of an international mortgage credit company. The proposal was considered at Geneva in April and May 1931 by a sub-committee of the Commission of Enquiry for European Union, and was approved by the latter in May 1931 and by the Council (document C.375.M.155.1931.II.A.). An organisation committee was appointed by the Council to take all necessary steps with a view to the organisation and operation of the International Agricultural Mortgage Credit Company.

The discussion by the agricultral experts of the future utilisation of such loans as might be granted was resumed by the Sub-Committee for Agricultural Credit and the Commission of Enquiry for European Union.

Certain members expressed the fear that the main result of the granting of credits by the International Company might be an increase in the production of cereals and certain other agricultural products the output of which was already excessive. On the other hand, it was pointed out that the lack of capital was one of the major factors which prevented agriculturists from abandoning the cultivation of crops of which there was at present an excess and from growing those the consumption of which was tending to increase. Moreover, all measures aimed at raising the standard of living in those countries where the standard is at present relatively low must help to increase the demand for the agricultural products of higher value, such as meat, milk, fruit, etc. The granting of credits, more especially in countries where rates

of interest are now abnormally high, would therefore help considerably, on the one hand, to bring about changes in production and, on the other, an increase in demand, which are alike necessary for a general improvement in agricultural conditions. These measures would also serve to increase the demand of agriculturists for industrial products.

In giving its approval to the proposal for the establishment of an international credit company, the Commission of Enquiry for European Union emphasised the point that the essential object of the proposal was " . . . to alleviate the burdens which weigh on agricultural production in various countries, to diminish the working expenses which at present absorb too large a share of the profits, and to increase the purchasing capacity of the agriculturist ". By increasing the purchasing power of the agriculturists the proposal should serve to promote the interests of the industrial countries whose prosperity is dependent in a large measure on the markets they can find in the agricultural countries. The Commission at the same time laid stress upon the fact that the new Company in the conduct of its affairs should avoid exposing itself to criticism on the ground that it has encouraged an injudicious increase of agricultural production.

Part V.

CONCLUSIONS.

In concluding this study, the Economic Committee thinks it advisable to draw some conclusions showing the result of its agricultural enquiry.

1. The agricultural crisis is aggravated by the general disorganisation which it has caused. This disorganisation is evinced in certain excesses of Customs protection, in the bounties and subsidies intended to promote the export of agricultural products and in the numerous forms of indirect protectionism. It is also evinced in the creation of artificial organisations which disturb the normal course of business, accumulate stocks in some countries and make it possible to sell at prices even lower than the already low prices brought about by the depression.

2. The present chaotic state of the grain market is fraught with danger for the future. Negotiations are necessary for organising the wheat trade. This organisation should aim, not only at improving home market conditions in each country, but also at promoting agreements with foreign countries.

Opinions may differ as to the possibility of taking international action. It is, however, an imperative duty to make a close study of this problem. The present position is such that most importing countries are willing, in the interests of their own agriculture, to pay higher prices for their imports of cereals. In these circumstances, the exporting countries concerned should be induced to consider an agreement.

The Economic Committee proposes to follow closely the efforts to be made by the various countries in regard to the trade in cereals.

3. In general, the Economic Committee recommends that the formation of groups of agricultural producers, numerous and disciplined enough to organise the sale of their crops, be encouraged. Such a course would be useful to farmers by enabling them to improve their economic position.

4. It would obviously be desirable, too, that Customs protection applied to agricultural products, should be reduced as soon as an improvement in the position of the world market takes place. At times of crisis, there is always a tendency to forget the fundamental importance of international exchanges. In order to realise the normal sale of products, a position of relative stability should be reached by which trade would become regular and would be no longer threatened by constant changes in international relations.

5. The Economic Committee's attention has been directed to the proportions assumed in certain countries by the system of export bounties and subsidies for agricultural products. They entirely deprive Customs duties of their value and cause serious harm both to importing and to exporting countries. The importance which the Economic Committee attaches to questions of commercial policy lends special interest, in its view, to the suggestions which it has received in the matter. It considers it essential that such measures and their repercussions should form the subject of a detailed and earnest investigation in all countries.

By means of bilateral treaties, they may be abolished. Moreover, international discussions and negotiations might take place to consider the possibility of taking action to avoid protective measures, which, though natural enough from a national, are dangerous from an international point of view, and finally become ineffective, while causing serious disturbance to international trade.

6. The question of the discrepancy between the prices paid to the producer and the prices paid by the consumer has been examined by the Economic Committee. It would be desirable to have internationally comparable data and to be able at follow the results already obtained in the different countries. The question should be cleared up in all its various aspects.

7. The difficult situation of agriculture is aggravated by the difficulties encountered by a number of agricultural countries in Europe in respect of credit. In this connection the Economic Committee is glad to note the creation, under the auspices of the League of Nations, of the International Agricultural Mortgage Credit Company. International action seems to be not far from realisation in respect of long- and medium-term credits. International agricultural credit would play an important part in the improvement of the conditions of agricultural production and trade and in the increase of markets. It would have the most beneficial effects from a moral and psychological point of view by restoring confidence and introducing effective international co-operation in financial matters between the countries possessing capital in abundance and those deprived of it.

II.

THE POSITION OF AGRICULTURE IN VARIOUS COUNTRIES.

ARGENTINE.

M. CARLOS BREBBIA,
Official Delegate of the Argentine Government to the International Institute of Agriculture.

The principal factors in Argentine production, in order of importance, are agriculture and stock-breeding.

The value of the annual average production in various branches may be divided as follows:

	Paper pesos [1] in millions	Percentage of total
Agricultural products		*49.6*
(*a*) Cereals	1,360	27.2
(*b*) Industrial crops	685	13.7
(*c*) Subsidiary products	435	8.7
	2,480	
Animal products		*32.6*
(*a*) Meat	930	18.8
(*b*) By-products (hides, wool, etc.)	590	11.8
(*c*) Subsidiary products	110	2.2
	1,630	
Industrial products	510	*10.2*
Mineral products		*2.8*
(*a*) Raw petroleum	50	1
(*b*) Refineries and distilleries	50	1
(*c*) Other minerals	40	0.8
Forestry products	120	*2.4*
Various products	120	*2.4*

AGRICULTURAL PRODUCTS.

The Argentine occupies the fourth place among the large grain producing countries in respect of the area under cultivation and the total production, and the first place in respect of the volume of exports.

The large surplus available for export is due to the relatively small population compared with the fertility of the soil, and to the vast extent of the territory, which is equal to Austria, Czechoslovakia, France, Germany, Great Britain, Hungary, Italy, Poland, and Switzerland together.

1 paper peso = 2.20 Swiss francs.

From the point of view of production, the total area of the Argentine may be divided up as follows:

	Hectares
Land suitable for cereals	85,000,000
Lucerne and other fodder	25,000,000
Natural pasture	
Mountains and forests .	74,740,000
Lakes and barren land .	29,000,000
Total area.	279,270,000

The following table, published by the International Institute of Agriculture, shows the position of the Argentine Republic compared with that of the other large producing countries in the world during the four years from 1925 to 1928.

AREA UNDER CULTIVATION IN THOUSANDS OF HECTARES.

	Argentine	Russia	United States	Canada	India
Wheat	8,000	28,000	22,600	9,100	12,700
Linseed	2,700	1,600	1,200	300	1,600
Oats .	1,200	18,000	17,600	5,500	—
Maize.	4,200	3,000	40,000	70	2,200
	16,100	50,600	81,400	14,970	16,500

PRODUCTION IN THOUSANDS OF TONS

Wheat	6,000	21,000	22,400	12,300	8,700
Linseed	1,700	550	600	150	450
Oats .	900	13,800	20,000	7,000	—
Maize.	8,000	3,500	70,000	200	2,000
	16,600	38,850	113,000	19,650	11,150

EXPORTS IN THOUSANDS OF TONS.

Wheat	3,600	700	3,300	6,500	200
Linseed	1,500	30	—	85	220
Oats .	500	32	220	420	—
Maize.	6,000	150	450	150	7
	11,600	912	3,970	7,155	427

Production of Cereals.

Wheat and maize occupy the largest cultivated area and together represent more than half the total value of the country's exports.

Wheat.

The area under wheat during the five years from 1925 to 1929 fluctuated around 8 million hectares and the average production was 6 million tons.

Wheat-growing is extending as new railways open up districts situated at great distances from the ports. During the agricultural year 1930-31 the area under cultivation has reached 8,626,000 hectares.

Wheat-growing in the Argentine.

Year	Area under cultivation (thousands of hectares)	Total production (thousands of tons)	Yield per hectare (Kg.)
1899-1900	3,250	2,766	850
1909-10 .	5,836	3,565	610
1922-23 .	6,578	5,329	810
1923-24 .	6,951	6,744	970
1924-25 .	7,200	5,201	722
1925-26 .	7,768	5,202	670
1926-27 .	7,800	6,010	770
1927-28 .	7,978	6,510	952
1928-29 .	8,620	8,365	1,044 (estimated)
1929-30	7,700	3,896	
1930-31	8,626	6,750 (estimated)	

Maize.

In the last twenty years maize-growing has greatly developed. The production has varied between 6½ and 8 million tons. The Argentine now ranks second among producing countries and first among exporting countries.

Maize-growing in the Argentine.

Year	Area under cultivation (thousands of hectares)	Total production (thousands of tons)	Yield per hectare (Kg.)
1899-1900	1,010	1,412	1,400
1909-10 .	3,005	4,450	1,488
1922-23 .	3,177	4,473	1,408
1923-24 .	3,435	7,030	2,046
1924-25 .		4,732	1,276
1925-26 .	4,297	8,170	1,901
1926-27 .	4,289	8,150	1,900
1927-28 .	4,346	7,765	1,786
1928-29 .	4,788	5,885	1,230
1929-30 .		6,430	

Industrial Crops.

Linseed.

The Argentine ranks first among countries producing and exporting linseed and supplies 76 per cent of the world consumption.

Linseed-growing in the Argentine

Year	Area under cultivation (thousands of hectares)	Total production (thousands of tons)	Yield per hectare (Kg.)
1909-10	1,276	716	561
1924-25	2,559	1,145	447
1925-26	2,509	1,098	761
1926-27	2,950	1,755	650
1927-28	2,855	2,018	706
1928-29	2,953	2,103	712
1929-30	2,900	1,402	
1930-31	2,995	—	

Vines.

Vine-growing dates from the Colonial period, but has only acquired predominant importance in the last 50 years in the Andes. The area under cultivation is 130,000 hectares, with an average crop of 8 million quintals of grapes yearly, and a wine production which, in 1928-29, reached 8,200,000 hectolitres.

Cotton.

Rational cotton-growing is of recent date and of relatively small importance. During the war, however, it extended rapidly. The exploitation of this new source of wealth is due to the good prices obtained during the war, and to the undoubted suitability of large areas of the Republic to the cultivation of this plant.

The production of raw cotton has varied in recent years between 80,000 and 100,000 tons.

Stock-breeding.

Stock-breeding is another important factor in the economic structure of the country, on account of the high degree of perfection to which the native breeds have been brought and the development of the refrigerating industry for the preservation and transport of the meat.

The products of stock-breeding represent 37 per cent of all Argentine exports. The Argentine occupies the fourth place in the world in absolute figures for live-stock, while it ranks first, with a large margin, as an exporter of animal products.

According to the census carried out in June 1930, the figures for live-stock are as follows:

	Number
Cattle	31,973,802
Sheep.	43,083,909
Horses	9,839,463
Pigs .	3,763,393

Meat industry.

The total numbers of animals slaughtered in the " Saladeros " refrigerating establishments, preserved meat factories and local slaughter houses have been as follows in recent years:

Years	Cattle	Sheep (in thousands)	Pigs
1910-1914 (average)	3,397	4,845	153
1915-1919 (average)	3,983	3,804	385
1920-1924 (average)		5,652	560
	7,515	5,836	475
1926	6,980	5,288	595
1927	6,957	6,061	675
1928	6,427	6,320	815

More than 50 per cent of the animals slaughtered are for account of the refrigerating industry, the development of which may be seen from the following table, which gives the average volume of the exports of animal products in recent five-year periods

EXPORTS (IN TONS).
(Five-yearly Averages).

Years	Meat	Leather	Wool	Milk Products
1910-1914	502,600	125,400	137,000	6,600
1915-1919	626,200	122,800	121,400	16,800
1920-1924	692,100	156,600	138,100	37,700
1925-1929	874,700	178,100	145,300	40,000

THE AGRICULTURAL SITUATION IN THE ARGENTINE.

After briefly summarising the principal sources of production, the following comparative table of Argentine exports will give an idea of the importance of agricultural products in the economic structure of the country.

ARGENTINE EXPORTS IN MILLIONS OF GOLD PESOS.

	1911-1913		1927		1928		1929	
Products:								
Of stock-breeding	174.1	40.5	360.9	35.7	342.7	33.2	299.2	31.4
Of agriculture . .	239.7	55.8	609.3	60.3	649.6	63.–	624.7	65.6
Of forests	10.6	2.4	22.7	2.3	24.4	2.4	18.4	1.9
Other	5.2	1.3	16.4	1.7	13.5	1.4	10.6	1.1
Total . .	429.6	100.–	1,009.3	100.–	1,030.2	100.–	952.9	100.–

Thus 95 per cent of Argentine exports consist of agricultural products; any factor seriously affecting these exports will obviously endanger the general economic foundations of the country.

Argentine agriculture has been in an unfavourable position since 1921 as a result of the post-war economic depression throughout the world, which interrupted the growing

expansion due to the great European demand between 1918 and 1920. The most serious effects of this depression were felt by stock-breeders from 1921 to 1923.

After various fluctuations, a serious crisis arose in 1929 owing to a combination of circumstances. The heavy drop in the prices of agricultural products in 1929-30 was the immediate, if not the fundamental, cause of the depression through which Argentine agriculture is passing.

AVERAGE PRICES OF WHEAT, MAIZE AND LINSEED, PER 100 KILOS.

On the Buenos Aires Markets.

Year	Wheat	Maize (In paper pesos)	Linseed
1910	8.71	5.15	16.75
	8.02	4.99	18.34
1912	8.46	5.22	15.09
1913	8.30	5.32	11.16
1914	8.61	4.98	11.59
1915	12.—	4.91	10.68
1916	9.56	5.84	13.41
1917	14.73	9.98	20.79
1918	12.90	5.86	22.56
1919	14.93	7.25	25.56
1920	20.95	9.08	24.71
1921	16.31	8.58	17.20
1922	12.42	8.04	19.69
1923	11.70	8.81	21.25
1924	12.46	9.57	20.77
1925	14.50	9.28	20.86
1926	12.93	6.46	15.79
1927	11.46	6.53	15.11
1928	10.57	8.52	15.40
1929	9.75	8.10	18.22
1930	7.50	4.50	12.50

AVERAGE RELATIVE PRICES OF WHEAT, MAIZE AND LINSEED.

Year	Index figures	Year	Index figures
1910	100	1920	201
1911	97	1921	164
1912	97	1922	142
1913	92	1923	145
1914	92	1924	153
1915	109		163
1916	105	1926	130
1917	168	1927	122
1918	135	1928	130
1919	158	1929	126
		1930	84

Taking the figure 100 as a basis for the pre-war period, the present index figures of various agricultural factors are as follows:

Average price of agricultural products	95
Average rent of farms	165
Rail transport	162
Agricultural machinery	193
Foodstuffs and clothing	200

Fundamental Causes of the Depression.

Among the factors which have led up to the present depression, we must distinguish between a *contingent cause* on the one hand and *permanent causes* on the other. The latter may again be divided into *external and internal causes.*

The catastrophic drop in the prices of agricultural products which has brought the farmers to the edge of ruin may be considered as the *contingent cause.* The origin of this phenomenon should be sought in the world over-production for which there is no market.

An ideal solution of the problem would be to avoid this over-production; but as regards countries with extensive agriculture, the difficulties in this respect may be regarded as insurmountable. In the Argentine, any restrictive measure would be contrary to the natural bent of the population, which desires to develop fully the natural resources of the country.

There can be no doubt that the seriousness of the depression is principally due to the over-production of cereals, which are most suitably grown in overseas countries where large fertile tracts of land can be extensively tilled by mechanical methods, and where it is difficult to rationalise production by substituting other crops for cereals.

The question would be easier to solve if the proposed remedies—*i.e.*, the reduction of the area under grain and the rationalisation of agricultural production—were applied to certain densely populated countries where cereals are intensively cultivated to the detriment of other products which give a higher economic yield and are easier to sell on the large European markets.

Export Difficulties.

Among the permanent causes which have contributed to the agricultural depression in overseas grain exporting countries we may mention, in the first place, the protectionist policy adopted by importing countries.

Before the war, and even in the first few years after the armistice, exports were encouraged by the difference between the cost of production and the prices obtainable on the world markets.

But this situation rapidly changed. Several essentially industrial countries favoured the production of raw materials in the newer countries in order that they might purchase these raw materials and convert them into manufactured goods for re-export. At present, the predominant principle of every country is to supply its own requirements, and all countries are endeavouring to become independent of imported foreign products.

This has resulted in most countries adopting extreme protectionism as the basis of their economic policy. An unjustified campaign is being waged everywhere against foreign products; import prohibitions and restrictions are being extensively introduced and imports are being subject to supervision and vexatious formalities. The frequency with which Customs tariffs are amended hinders trade and prevents its normal development.

Tariffs are obviously national questions, but it cannot be denied that they are also of international importance. The World Economic Conference of 1927 called the attention of various countries to the great danger of pursuing what may be called the policy of " fighting or defensive tariffs ". If the activities of countries producing raw materials are restricted, their power of purchasing industrial goods is thereby decreased.

Four years after this Conference, which met in the hope of attaining loyal co-operation, facts have shown how wide is the gulf between its aims and their practical application in each country. The same countries and, in some cases, the same persons who voted resolutions at Geneva in favour of reducing tariffs have subsequently raised insurmountable barriers on their own frontiers. This policy is leading to the commercial and economic isolation of the nations and is beginning to create a reaction.

In the Argentine also, the time has come to pay careful attention to this wave of protectionism which is submerging the economic activity of the entire world. The Press and public opinion demand speedy action and recommend *purchasing only from countries which purchase national products*. At the same time, the agricultural co-operative associations have requested the Governments to denounce the commercial treaties and substitute for them other treaties providing for conditional reciprocity of the most-favoured-nation clause.

Statesmen cannot and must not merely pursue a short-sighted and purely commercial policy. They must look farther ahead and foresee the results of a protectionist policy which is separating the overseas countries ever more widely from Europe.

Internal Organisation.

As regards its internal organisation, the present position in the Argentine is in some respects better than before the war. The methods of sowing and the selection of seed have been improved, while the spread of mechanical methods facilitates deeper ploughing which gives a better result by more effectively protecting the germination of the seed in periods of drought.

The following table shows the progressive increase in the yield per hectare:

Yield of Crops.

(Kilos. produced per hectare)

Year	Wheat	Maize	Linseed	Oats	Barley	Rye
1910-1914	615	1,362	468	834	370	582
1915-1919	675	1,266	448	660	276	102
1919-1920	838	1,984	717	484	205	265
1920-1921	699	1,788	788	882	321	235
1921-1922	902	1,506	581	521	519	439
1922-1923	810	1,408	691	762	695	605
1923-1924	970	2,046	674	997	932	605
1924-1925	722	1,276	447	724	455	236
1925-1926	670	1,901	761	903	1,019	593
1926-1927	770	1,900	650	750	1,010	377
1927-1928	816	1,786	706	593	660	464
1928-1929	952	1,230	702	636	674	—

Considering that this yield was obtained by natural systems of cultivation without the use of fertilisers, it obviously could be considerably increased.

But, while technical progress has resulted in an increase of production in the ratio of 1 : 2, the cost of putting the product on the market up to the moment of delivering it at the ports of shipment has risen from 2 to 4, thus converting the profit into a loss.

Among the causes that have led to this increase, we may mention the rise in the price of land and in rent and the increased cost of transport and wages.

In Argentine farming, the most usual system is to hire land at a fixed rate per hectare or a rent proportionate to the production (payment in kind). The *métayage* system is also in use. It has been estimated that in the six principal grain-growing provinces of the Republic, only 30 per cent of the owners work the land themselves. Consequently, the farmer is not attached to the soil, and his only care is to extract as much as possible from it without endeavouring to improve it.

The high prices of cereals during the war led to an increase in farm rents; these rents cannot, however, be maintained at their present level, which constitutes a crushing weight on the farmers.

The position is similar in respect of transport. This problem is being investigated by the Federal Government with a view to reducing, as far as possible, the disparity between transport rates and the present prices of the products.

As regards the sale of cereals, it must be admitted that, in spite of the position occupied by agriculture in the Argentine, the organisation of the grain trade is not commensurate with the volume of business done.

As a rule, this business is transacted on primitive lines, as there is no system of elevators and warehouses which would enable the product to be standardised and facilitate credit by the issue of " warrants ".

As the farmers have no warehouses suitable for storing their products and there are no official warehouses which they can use, they are obliged to sell, at any rate, part of their crop, and in so doing cannot avoid the serious consequences of speculation.

The problem is complicated. A solution is possible but not easy, since this problem touches upon such interrelated questions as the elevator system, standardisation and agricultural credit; its solution its essential, however, if the costs are to be reduced; these are still unduly high in the Argentine on account of the insufficient development of commercial organisation on modern technical lines.

This question is being seriously considered by the Federal Government and the co-operative producing associations. The public is convinced that it would be contrary to the general interests of the country to delay the settlement of the question any longer.

Some steps are at present being taken, such as the construction of a number of elevators, under the auspices of the Argentine Agricultural Federation and the Argentine Association of Co-operative Societies.

At the same time, the Ministry of Agriculture is endeavouring to induce the large railway companies to convert most of the railway warehouses into bonded warehouses. This would allow the growers to avail themselves of the facilities granted under the law regarding " warrants " for the financing of the crops and thus to reduce to some extent the effect of indiscriminate offers on the market.

The absence of an agricultural bank for the special purpose of financing agriculture has hitherto prevented the organisation of agricultural credit on the European system. On the other hand, a great incentive has been given to agriculture in the Argentine Republic by the grant of private credit facilities, and particularly by the assistance accorded by the Argentine Banca de la Nacion and the National Mortgage Bank.

There is no doubt that the lack of modern sales organisation is partly responsible for the considerable rise in production costs.

This fact is of particular importance at the present time when the sale prices of cereals do not cover the most carefully calculated costs.

According to a very recent publication by the Argentine Agricultural Federation, the cost of the principal cereals in farms of 100 hectares for each kind is as follows:

PRODUCTS PLACED IN SACKS AT THE FARM.

(In paper pesos [1] per 100 kilos.)

	Wheat	Maize	Linseed
Cost of production	9.29	5.21	13.38
Plus transport costs from the farm to the port	1.—	0.80	1.25
Total	10.29	6.01	14.63
Quotation of November 20th on the Buenos Aires market	6.50	3.75	12.—
Actual Loss	3.79	2.26	2.63

Unfortunately, there is no prospect of an immediate improvement in international grain prices except in the unlikely case of failures or considerable decreases in the crops in some large producing countries.

One of the reasons which leads us to think that this stagnation of the markets will continue—if it does not, indeed, grow worse—is that we have entered on one of the cyclic periods which usually follow great wars, consisting of inflation followed by stabilisation at low prices. This happened with some fluctuations in the periods from 1810 to 1850 and from 1865 to 1895 and such a period began again in 1920. [2]

In these circumstances the economic " normalisation " of the Argentine will depend on carrying out a programme, on the following fundamental principles:

(1) Amendment of commercial treaties by omitting the general most-favoured-nation clause and concluding bilateral agreements providing for the exchange of agricultural products for manufactured articles;

(2) Increase of the yield per unit and improvement in the quality of the product;

(3) Reform of the warehousing and transport systems on modern commercial principles, by which means alone producers can have direct access to the principal markets.

[1] 1 paper peso = 2.20 Swiss francs

[2] Cf. The movement for sounder money — The Stable Money Association, New York, 1929.

AUSTRALIA.

MR. McDOUGALL,
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In a very brief review of the situation, the present problems of Australian agriculture can be considered as those arising from internal conditions and those caused by the world situation in regard to agricultural commodities. The internal problems are those arising: (1) from climatic conditions; (2) from the limitation of the size of the home market relatively to the magnitude of Australian agricultural production, and (3) from the relatively high costs of production especially in certain commodities.

1. In facing the difficulties due to climatic conditions, the Australian agriculturist, assisted by the scientist and the engineer, has produced results which have not only greatly modified these disadvantages, but which are also proving beneficial to world agriculture. Thus, though rainfall ultimately governs the extent to which different forms of agricultural production can proceed, research work in Australia has shown that new types of plants and systems of cultivation may make production possible in what was hitherto considered land quite unfitted for agriculture—*e.g.*, wheat-growing in the eight to ten-inch rainfall belt of Western Australia. A number of special wheats, bred to meet conditions in the semi-arid areas in Australia, have proved a great value in India and in other parts of the world.

Although it can confidently be anticipated that the application of scientific methods, the conservation of water and the improvement of means of transport, will in each quinquennium, steadily modify the incidence of unfavourable seasons of the Australian production, yet in spite of all such efforts the climatic factor must be expected to cause considerable fluctuations in the volume of Australian agricultural exports with the disadvantages that such fluctuations necessarily imply.

2. The high standard of living in Australia renders the Australian people very large purchasers per caput of agricultural produce, but the size of the population necessarily limits the proportion of her own produce that Australia can absorb. This factor also results in very rapid changes in the proportion of the production which has to be exported—a fact which, owing to the marked difference in external and internal price-levels for some commodities, has proved a source of serious embarrassment to producers. The home market for the Australian farmer is one of less than seven million people, and when comparison is made with the United States of America, or with European countries, the relative importance of world demand to the Australian farmer immediately becomes evident.

3. There can be no doubt that the Australian farmer encounters considerable difficulties in world markets through the relatively high level of costs of production caused by high labour charges and the fact that the internal level of prices for many forms of goods and services is higher than the general world average. This factor is more serious in regard to commodities in which it has so far not been found practicable to introduce labour-saving methods and particularly affects the various fruit industries, while its incidence is less severe in the case of cereals where labour-saving machinery has reached a high level of efficiency or in regard to wool, in the production of which, in Australia, the labour charge per unit is probably lower than in any other form of agricultural production. An example of the way in which labour costs affect the competitive

power of certain Australian industries can be taken from the Australian dried fruit industry. Here, the hourly wage rates in Australia are believed to be from six to eight times as high as those obtaining in the Levant, and in this industry it does not appear probable that labour-saving devices can be adopted to any considerable extent. There is, however, no doubt that, in the Commonwealth, the maintenance of wages at a level higher than those generally obtaining in the world has speeded up the mechanisation of primary industries. The use of machinery has contributed substantially to the extention of agriculture, particularly in the harvesting of wheat, the shearing of sheep and the milking of cows. The improved yields and lowered costs of production which this mechanisation has brought about have also benefited the other countries where it has been applied. To give only one example: the " stripper " was invented as early as 1846 and revolutionised wheat harvesting. Further inventions and improvements have followed, the most recent being the " Autoheader " which in one operation strips, winnows and bags the produce of 40 to 50 acres a day. The existence of such labour-saving machinery makes it possible for the Australian farmer to grow wheat in competition with the world, although he is 11,000 miles from his main market. Research into further possibilities of mechanisation—*e.g.*, in sugar-cane and cotton harvesting—is now being directed to the reduction of labour charges in production, and this may subsequently permit the extension of those industries on an economic basis, especially in the tropical parts of the Commonwealth. The extent to which the efforts to reduce costs of production in agriculture by increased mechanisation have been successful is well demonstrated by certain figures prepared by the Commonwealth Statistician, Mr. C. H. Wickens, showing the increase as between 1911 and 1924 in the average value per person engaged in the various primary industries on the one hand and in all industries on the other.

AVERAGE VALUE PER PERSON ENGAGED (corrected to 1911 Price-Levels).

Year	Agriculture	Pastoral	Dairying, etc.	All industries
	£	£	£	£
1911	135	575	315	218
1920	187	406	384	214
1923	176	427	451	213
1924	202	523	560	236

PRODUCTIVE EFFICIENCY INDEX.

1911 = 1,000.

Year	Agriculture	Pastoral	Dairying, etc.	All industries
	£	£	£	£
1911	1,000	1,000	1,000	1,000
1920	1,390	705	1,219	979
1923	1,311	742	1,434	976
1924	1,505	910	1,779	1,079

The figures in the Productive Efficiency Index table show clearly how relatively large has been the increase in output per unit in agriculture and dairying as compared

with all industries. The fact that, in the pastoral class, the value per person does not show the same increase, is partly accounted for by the fact that, in this sphere, many of the mechanical and other improvements were carried out prior to 1911.

Australian agriculture in the more closely settled areas may be regarded as being in a state of transition from extension to intensive methods. It has been found possible greatly to increase the yields per acre of crops and the production per head of domestic animals by the adoption of modern methods of cultivation, fertilisation and by closer attention to the art or science of animal breeding and improved practices in animal nutrition. These changes, which are being markedly facilitated through the work of the Commonwealth Council for Scientific and Industrial Research, are regarded as being greatly to Australia's interest. This is of special importance, because the areas suited for more intensive development are already supplied with railways and other transport facilities. It will, however, be recognised that transitional periods involve considerable difficulties, and in certain districts in Australia these are accentuated by the fact that there, as in other countries, farms changed hands at inflated values during the immediate post-war years, and the resulting fixed charges are still an undue burden on the farmer.

In spite, therefore, of the very marked advances which Australian agriculture has made through the strenuous efforts to reduce costs of production, increase yields, etc., the Australian agriculturist has many difficulties to face, and the main ones are those which are affecting farmers in all countries which export agricultural produce—namely, the depression in prices.

The significance of the export market to Australian agriculture will be appreciated when the following facts are realised.

In 1928-29, the rural industries contributed 57.3 per cent and manufacturing 35.7 per cent of the total value of production. The rural agricultural industries contribute 40 per cent of their production for export, while 5 per cent of the manufactured output is exported. In other words, the manufactures are produced mainly for a relatively small sheltered home market, while a large percentage of the agricultural products must be sent abroad to compete in the world's markets.

The relative importance of the three chief forms of agricultural production is shown from the values of production for 1928-29, as follows:

Industry	Value of production £	Chief products	Value of production £
Pastoral	116,733,000	Wool	70,833,000
Arable farming	89,440,000	Wheat	38,303,000
		Hay	14,137,000
		Fruit	8,807,000
Dairying, farmyard . .	50,717,000	Butter	23,566,000
		Poultry and eggs . . .	10,109,000

The values of the chief products of the above industries exported in 1928-29 are as follows:

	£ (000's)
Wool	61,611
Wheat and Flour.	26,334
Hides and Skins.	9,279
Butter	7,545
Meats	6,189
Fruit	3,240

It will be seen that wool and wheat are by far the most important products, since such a large part of the whole amount produced is exported—in 1928, 87.1 per cent of the wool and 52.6 per cent of the wheat crop was exported. The recent world depression in agricultural commodity values has, therefore, been disastrous to Australia, and it has been estimated that the fall in wheat prices of 24 per cent and of wool tops of 33 per cent between June 1929 and June 1930 has reduced the income of Australian farmers by approximately £35,000,000 in the past year. This fact renders consideration of the causes of the depression in world agricultural prices a matter of great importance to Australia—for there, as elsewhere, the agriculturist has suffered from the additional burden of a drop in prices considerably greater than the fall in retail prices or in the cost of living.

The manufacturer, when faced with falling prices, can reduce operations or close down, but the tendency to resist falling prices reacts unfavourably upon the agricultural community, for it constitutes a contraction of demand for their products. This result, coupled with the fact that the farmer cannot readily adjust his output to new phases of the decline of purchasing power, or only over a considerable period of time, has the effect of depressing still further the prices he eventually obtains for his products.

This general and continued depression of agricultural prices has inevitably led to the impression that many agricultural commodities are over-produced. In the absence of sufficient co-ordinated data regarding world stocks and the probable future production and consumption of all the chief products, it is impossible to determine which commodities, if any, are suffering from absolute over-production or whether they are all suffering from apparent over-production due to the general low ebb to which demand has been reduced as a result of the world depression. All agricultural communities would obviously reap enormous benefit from the compilation of statistics based on such information about world conditions as would enable them to judge how far their agriculture is suffering merely from temporary over-production which will pass with the world depression and which could be met by the regulation of output to meet fluctuations in demand and supply, by organised marketing, etc. Even more important, they would be able to recognise where they are engaged in producing commodities which are suffering from absolute world over-production and whose position will not therefore improve as the depression passes and cannot be assisted by temporary expedients. Such data could obviously only be compiled from information obtained by elaborate investigations as to consumption, habits, etc., throughout the world. Without this knowledge of world conditions, however, when the passing of the depression gives a spurt to demand, the production of certain commodities may actually be increased, when, in fact, it should be restricted or at most kept at the same level. The restriction of output is a problem of peculiar difficulty so far as agriculture is concerned, and for this reason a policy of preventing further expansion, based on the knowledge of world conditions, would be likely to meet with far greater success than one of forced artificial restriction of output to counteract the disastrous economic effects of undue expansion. In the case of a young country, such as Australia, anxious to develop its resources, these latter methods would prove particularly difficult as being contrary to the basic idea of the whole community. Australia, and, indeed, all other of the younger nations, should therefore derive great benefit from such knowledge of world conditions as would enable the agricultural community to expand production only in those spheres where such action would be justified over a considerable period.

AUSTRIA

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I.

CAUSES OF THE AGRICULTURAL DEPRESSION IN AUSTRIA.

1. ASPECTS OF THE DEPRESSION.

When the great war came to an end in 1918, and the face of Europe was fundamentally changed by the new frontiers, the position of agriculture in the new Austria seemed hopeless. An economic unit shaped by centuries of history was split asunder, the soil was impoverished, and the live-stock decimated, while the restrictions of Government control and the lack of essential plant and machinery made it, at the outset, impossible for our agriculture to ensure the food supply of the population. But in a world of political instability and disturbance the Austrian peasant set about the work of reconstruction with indomitable energy and tenacity. With a rapidity which could not have been anticipated, the losses of the war—so far as lay within his power—were made good. The soil was once more fertilised, the live-stock replaced, and the volume of production was increased.

A few figures may serve to illustrate this development.

	Area under cultivation (without Burgenland) (In thousands of hectares) 1919	1929	Area under cultivation (1919 = 100) 1929
Wheat	150	176	117
Rye	291	344	118
Barley	94	137	146
Oats	245	279	114
Sugar-beet	5.5	25.1	456
Potatoes	97	171	176

	Yield of harvest (without Burgenland) (In thousands of quintals) 1919	1929	Yield of harvest (1919 = 100) 1929
Wheat	1,895	2,695	142
Rye	2,311	4,675	202
Barley	839	2,277	271
Oats	1,974	4,243	215
Sugar-beet	765	6,158	805
Potatoes	5,471	25,878	473

The area under cultivation was extended in the case of all crops of importance, and the yield was very considerably increased. The increase in the sugar-beet and potato crop is particularly striking. Austrian agriculture at present supplies 45 per cent of the country's *wheat* requirements, and 80 per cent of its *rye* requirements. The increase in the production of sugar-beet has made it possible to raise the percentage of the country's sugar requirements supplied from home sources from 6 to 60 per cent. Potatoes are already being exported. In Lower Austria alone, fourteen new distilling companies have been founded for the industrial exploitation of the surplus output of potatoes.

Great successes have also been obtained in the case of stock-raising and the dairy industry. Home-raised cattle and pigs supply the greater part of the countryside and the small centres of consumption outside Vienna, and their share in the supply of Vienna itself has been considerably increased. The proportion of home-raised live-stock in the total meat supply of the Vienna market was as follows:

	1925 Per cent	1930 Per cent
Live cattle in St. Marx	19	44
Beef in the Grossmarkthalle	17	33
Live pigs in St. Marx	—	11
Pork in the Grossmarkthalle	47	52

Austria has made herself completely self-supporting as regards fresh milk. The annual deliveries of home-produced milk to Vienna increased between 1920 and 1928 from 28 to 286 million litres. The increase in the Austrian production of milk is reflected in the figures of the trade statistics. Between 1924 and 1929, the import of milk and other dairy products fell from 40.1 to 9.1 million schillings, while the exports of these products in the same period increased from 1.1 to 10.5 million schillings. That is to say, the adverse trade balance of some 40 million schillings was completely wiped out, and a favourable trade balance created, in the course of six years. This expansion was largely due to the establishment of 310 new co-operative dairy-farming and cheese-making companies.

In spite of the legitimate pride with which Austrian agriculture can point to its success in increasing production, its satisfaction is not unmixed. Just at first, superficial observers, deceived by the general shortage of foodstuffs in Europe and the consequences of the inflation during the post-war period, did not perceive the menacing clouds that were massing on the horizon. In a single year, price fluctuations, on a scale which before the war was almost unknown, and marketing difficulties, now in this branch of agriculture and now in that, introduced an element of growing uncertainty into the normal process of agricultural production. The driving forces of the increasing production had hardly been developed and organised before anxiety in regard to the *marketing* of agricultural products began to be felt, and these marketing difficulties have since then remained permanent. The price level of agricultural products flunctuated and fell, while the general level of wages and the price of finished products increased. *The so-called "Preis-schere" ("price scissor") phenomenon became daily more marked as the purchasing power of agricultural products declined.*

While the cultivator by increased effort is continually wringing more out of the soil, he is obtaining less and less for that which he produces. He cannot fail to see the decline in the demand for his products, and he cannot but observe that the consumer is being compelled to pay a high price for products for which he himself receives but little.

Briefly, the main features of the prevailing depression, the causes and effects of which are closely related, are as follows:

1. Falling prices for agricultural products and rising costs of production;
2. Reduced purchasing power of agricultural products (the phenomenon of the "Scissors");

3. Increasing margin between the prices paid to the producers and those obtained from the consumers;
4. Marketing difficulties.

The study of the origins of these phenomena and the means of combating them is a burning question, which has been the subject of numerous searching enquiries and of keen national and international discussions. The economic results of the depression are shown in the reduction or elimination of profits for the producer and in the diminished purchasing power of the agricultural population. The social consequences are seen in the reduction of the standard of living of the rural population below the general level, fixing a gulf between them and the members of other branches of economic activity and strengthening the tendency to abandon agriculture for other pursuits: the flight from the land.

Before investigating the fundamental causes of the depression, certain preliminary observations should be made.

Austrian agriculture is closely linked up with international economy by reason of Austria's very considerable imports of agricultural products (especially grain and flour and cattle for slaughter) and not inconsiderable exports (mainly timber and live-stock). The agricultural depression in Austria is no isolated case; but it is a special case. The same causes which are responsible for the worldwide agricultural depression are operative directly or indirectly in the case of Austria. No enquiry into the Austrian agricultural depression can ignore, therefore, what is happening in the world's markets for agricultural products. But, at the same time, there are a number of circumstances arising out of the territorial and political situation of the new Austria in Central Europe which give the Austrian problem a special aspect of its own. A very important factor in our view is to be found in the transformation of the national and international economic structure of the world, accelerated but not initiated by the world war and its aftermath, which has had a disastrous effect upon agriculture. The *ultimate causes* of the agricultural depression are not to be sought, in our opinion, in cyclical changes in the economic situation, but in the far-reaching revolution which has taken place in the economic structure of the world, partly as a result of the territorial changes in Europe, partly as a result of the divergent development of agriculture and industry.

2. Production and Consumption.

In any appreciation of the economic position, one essential is to decide whether there have been any considerable changes in the production and consumption of agricultural products as compared with the period before the war.

In the development of *cereal production* during the last twenty years the changes have been very marked. During the war, the exports of the East European agricultural States ceased altogether and, as the world's import requirements were not diminished to a corresponding extent, the overseas countries were enabled to expand their production and export on a considerable scale. This was especially the case with North America, for the countries in the Southern Hemisphere were relatively more seriously hampered by the lack of shipping, though this handicap was removed after the end of the war.

Grain was offered at attractive prices and the demand was maintained under the influence of the American food credits until the middle of 1920. When at this date the United States ceased to give credit to the Allied Powers of Western Europe, the artificially heightened purchasing power of Europe collapsed and there was a fall in the price of grain, which, in Central Europe, was at first concealed by inflation. This was the post-war depression, which lasted approximately from 1920 to 1924. Under the influence of this

depression, the area under cereals in the United States and Canada fell below the maximum figure reached, but with the passing of the depression gradually regained its previous level.

In the meantime forces were at work, which had already exercised their influence before the war on the technical side of overseas cereal production, but now made themselves felt to a much greater extent under pressure of the post-war difficulties. The change in question was the *mechanisation* of agricultural undertakings. This process has indeed made great advances in all parts of the world, but nowhere on so important a scale as in the areas of extensive grain cultivation. Among the main factors which contributed to strengthen American agriculture were the growing use of tractors and mechanical mower-and-threshers, and the progress made in the selection of seeds.

In the year 1920, there were in the United States of America 293,300 farms equipped with tractors; by 1925 their number had risen to 473,800 and by 1928 500,000 additional tractors were in use. The mower-and-thresher machine, which cuts, threshes and cleans the grain, cheapens the cost of harvesting and does much to make the use of tractors more profitable. The combination of tractors and mower-and-threshers now constitutes a powerful weapon in the competition between extensive and intensive cultivation. In the case of seeds, the introduction of an early ripening variety has extended the climatic limits within which wheat can be grown, and so increased the area under that cereal. The quality has been improved. The yield per hectare has also increased and is, in some cases, higher than before the war. The figures of the average production in the Argentine are some 30 per cent more than before the war—and they are relatively low.

The centre of gravity of the world's cereal production has consequently shifted during the war and post-war periods to the overseas countries. The world's statistics of grain production are particularly well organised, and it is possible to arrive at an accurate estimate of the position, thanks to the exhaustive enquiries which have been made into the matter.

The following table shows the changes in the percentage share of the principal exporting countries in the world's export of wheat:

	1909-1913	1924-1926
Eastern Europe	36	—
United States of America	17	22
Argentine	17	20
Canada	13	40
Australia	8	13
Other countries	9	5
	100	100

A comparison of the world's annual production, averaged over the five-year periods 1909-1913 and 1921-1925, shows the following figures:

Cereal Production.

	In millions of quintals. 1909-1913	1921-1925
Europe (including Russia)	1,807	1,422
Non-European countries	1,712	1,946
World production	3,519	3,368

The world production of cereals has consequently declined by 151 million quintals, or 4 per cent. The increase of overseas production was not enough to offset the decline in the production of Europe.

Between 1910-11 and 1920-21, the population of the earth increased from 1,690 millions to 1,813 millions—*i.e.*, by 7 per cent. The population of Europe in the same period increased from 417 to 451 millions—*i.e.*, by 8 per cent. The change which has come about in the requirements of Europe is of some interest:

Consumption of Cereals in Europe (excluding Russia).

	(In millions of quintals) 1909-1913	1921-1925
Production	1,209	1,027
Excess of imports over exports	237	238
	1,446	1,265

In spite of the diminished production, the import of cereals has remained practically stationary. In other words, an increased population has managed to satisfy its requirements with smaller quantities.

	1909-1913 =100	1921-1925
Consumption of cereals	100	87.5
Population	100	108
Consumption per head	100	81

The consumption of cereals in Europe has decreased therefore by 12.5 per cent, and the consumption per head of the population by an average of 19 per cent. These calculations include all forms of cereals.

The situation in regard to individual cereals is as follows:

Consumption of Cereals in Europe (excluding Russia).

	(In millions of quintals) 1909-1913	1921-1925	1909-1913 = 100
(a) *Wheat:*			
Production	370	324	—
Excess of imports	123	148	—
Consumption	493	472	96
(b) *Rye:*			
Production	251	198	—
Excess of imports	7	13	—
Consumption	258	211	82
(c) *Barley:*			
Production	154	136	—
Excess of imports	43	15	—
Consumption	197	151	77
(d) *Oats:*			
Production	282	241	—
Excess of imports	19	11	—
Consumption	301	252	84
(e) *Maize:*			
Production	151	127	—
Excess of imports	45	52	—
Consumption	196	179	91

Average Annual Consumption of Bread Cereals per Head.

	1909-1913 = 100	1921-1925
Wheat:		
Population	100	
Consumption	100	
Consumption per head	100	
Rye:		
Population	100	
Consumption	100	
Consumption per head	100	76

It will be seen from the foregoing tables that the consumption of wheat has declined by 4 per cent in the aggregate, or 11 per cent per head. The reduction in the consumption of rye has been even more marked—namely, 18 per cent in the aggregate, or 24 per cent per head.

The chief reduction is in the case of barley. Oats show a falling-off similar to that of rye. Next to wheat, maize was the cereal least affected.

There has been a steady decline in the consumption of cereals in Europe since the war. The reason is to be sought partly in the reduced purchasing power, but mainly in changes in the consumption. So far as foodstuffs for human consumption are concerned it is found that of the cereals wheat is preferred to rye, while there has been a general shifting of consumption from cereals to other forms of foodstuffs. This assumption is confirmed by the fact that the world's production of potatoes has increased by 23 per cent, sugar by 40 per cent, oleaginous seeds by 13 per cent, wine by 21 per cent, coffee by 28 per cent and cocoa by 13 per cent. As regards foodstuffs for animal consumption, there is little doubt that the demand for grain for horses has been greatly reduced as a result of the gradual replacement of horses by motors: but one factor in this change is the rationalisation of the feeding of animals, which has set free large quantities of grain as a result of the increasing use of albuminous foods and the waste products of agricultural industries.

There are, of course, differences between the various countries. The falling-off in the consumption of bread cereals per head in the various States, or groups of States, is as follows:

Percentage Increase (+) *or Decrease* (—) *in* 1925 *as compared with* 1909-1913.

	Wheat (Per cent)	Rye (Per cent)
United States of America	— 13	— 34
Great Britain	— 14	?
Denmark	+ 13	— 32
Germany	— 12	— 20
Switzerland	— 10	— 35
France	+ 4	— 15
Italy	+ 17	— 2
Eastern Europe	+ 2	+ 8

In Austria, according to data collected by the Chamber of Labour (Arbeiterkammer regarding the standard of living of the workers in Vienna, the total consumption of

flour and baker's products (bread, etc.) in 1925 was 10 per cent higher than before the war, though the consumption of black bread was 4 per cent lower. As the result of an enquiry made by the Federal Chancellor's Office, the consumption of bread and baker's products (white bread, etc.) was found to have further declined since then, especially that of bread.

In the case of *Stock-breeding*, there is a marked increase in the surplus of exports over imports. As against this development must be set the reductions in the numbers of live-stock in the importing countries. It remains doubtful, therefore, whether the *aggregate* production of the period before the war has been reached or exceeded. A comparative table of the numbers of live-stock per every 100 inhabitants gives the following results:

	Cattle		Pigs	
	Pre-war	Post-war	Pre-war	Post-war
France	38.5	36.0	18.9	14.5
Switzerland	37.3	36.4	14.8	16.3
Germany	28.5	27.2	34.7	30.7
Belgium	24.2	21.2	18.5	14.7
Great Britain	17.5	15.4	7.0	5.8
Austria	34.9	32.6	29.0	22.1
Hungary	35.0	22.1	36.3	30.1
Denmark	79.6	80.6	51.9	73.6
Poland	28.5	27.6	18.5	18.1

The excess of exports over imports in the case of *meat* in the principal exporting countries was as follows:

	1909-1913	
	(In thousands of tons)	
United States of America	239	238
But exported fats	219	312
Argentine	388	842
Australia	146	156
Denmark	132	217

The consumption of meat has increased. In some cases it has already exceeded the consumption before the war. The consumption per head in kilos was:

	1913	
Great Britain	57.1	58.9 [1]
Germany	52.0	47.1
Switzerland	32.2	34.2

The statistics published by the Vienna Chamber of Labour show that the consumption of meat per head for an average of 100 workers' families in the years 1912-1914 was 49.9 kilos; for an average of 42 workers' families in the year 1925 it was 57.5 kilos. But the narrow basis of these data makes it impossible to draw any conclusions of general application.

[1] Figures for 1923-24.

The excess of exports over imports in the case of the *dairy products* of the principal exporting countries amounted in thousands of tons to:

	1909-1913	1926
Butter	254	317
Cheese	210	372
Together	464	689

The following percentages show the respective shares of particular countries:

	1909-1913	1926
Denmark	18	28
Netherlands	19	19
Switzerland	6	4
Italy	5	5
Finland	2	2
Russia	14	—
Canada	16	9
Australia	7	8
Argentine	1	4
New Zealand	9	18
Other countries	3	3
	100	100

Comprehensive enquiries into the consumption of dairy products are not available. Enquiries in Germany and Austria lead to the conclusion that the consumption is steadily increasing, but has probably not yet reached the pre-war level.

The statistical material on stock-breeding and the consumption of animal products is defective. It shows, however, that the overseas exporting countries, especially New Zealand and the Argentine, and, in Europe, Denmark, are making great efforts to expand their exports and to continue to extend their markets. That development is bound to affect the agriculture of those countries which are anxious to bring their production up to its previous level—are indeed compelled to do so, if they are to continue to exist.

Here, again, it is impossible to speak of any absolute over-production. The tendency, so far as consumption is concerned, is rather to favour the production of live-stock. But what affects the market so unfavourably is the shifting of the centres of production.

The centre of gravity in the production of mass agricultural products has shifted, under the influence of the economic situation during and since the war, to countries which before the war took a very much smaller share in supplying the import requirements of Europe. Their efforts to retain, and indeed extend, the markets they have captured cut across the necessary efforts of the agriculture of the industrial countries and of the East European agricultural exporting States to recapture the markets they have lost. The result is unrestricted competition and disorganisation of the market, and accordingly permanent conditions of depression. This is bound to be felt most in those countries in which the increasing production of Eastern Europe is endeavouring to find an outlet for its surpluses; and it is precisely at this point of intersection that Austria stands.

3. The Position of Austria.

Geographically and politically, Austria constitutes the dividing-line between Western and Eastern Europe. Closely related to the West in culture, she has vigorous economic connections with the East of Europe. Her dominating position in the framework of the former Austro-Hungarian Monarchy was due, not to specially favourable conditions of agricultural or industrial production, but to her place at the centre of a great Empire. It was this circumstance alone which enabled the city of Vienna to develop into one of the great cities of Europe. But the expanding Austrian capital was not only a cultural but also an economic centre. The appetite of Vienna played a dominant part in the organisation of the agriculture of the old Austria. Fine quality Hungarian wheat and Lower Austrian rye poured into the Viennese market. Bohemia and Moravia sent their barley to be turned into beer, and in their fertile fields, as well as in the neighbouring parts of Lower Austria and Hungary, the sugar-beet was grown. The fattest oxen and the cows with the richest yield of milk were to be found in the sugar-beet districts. The Alpine provinces supplied food, thin cattle and milch kine of their own. Galicia sent pigs, geese and eggs. Styria supplied ample fruit and fat poultry. In the neighbourhood of Vienna, vegetables of the first quality were produced, and so on. The agricultural system of Austro-Hungary had grown up in mutual interdependence in the course of centuries. The difficulties with which the Monarchy had to contend, and which long before the war had made the Empire on the Danube the "Sick Man of Europe", were not economic in character, but rather the result of the clash of nationalities.

There followed the catastrophe of the war with its consequence: the splitting up of Europe into a number of independent units. In the place of three great Empires, there arose eight small States. On a territory the size of the United States there are now twenty-eight independent countries, each with its own currency and Customs sovereignty, and all endeavouring to the best of their ability to increase their economic independence by the erection of commercial barriers. At the outset, this confusion was not felt outside the sphere of internal and external politics. The terrific exhaustion of stocks and the unparalleled demand for commodities, coupled with the increasing inflation of the note issue which acted as a concealed export premium, gave rise to an unprecedented commercial activity, of an artificial nature, picturesquely termed in German "Schiebertum" (profiteering). With the stabilisation of the currency, a limit was set to this open squandering of the national capital and the connection with the world market was established. In 1922, the last fetters of the system of Government control of agricultural products were removed. From this time onwards the conditions, which have led to the development of the peculiar aspect of the agricultural depression in Austria, became increasingly clearer—namely, the economic protectionism of the Succession States, a mistaken commercial policy on the part of Austria, and a remarkable cleavage in the economic relations of Western and Eastern Europe.

Austria thought at first to find salvation in free trade and believed in the possibility of retaining and appreciably increasing the markets for her industrial products in the countries of Eastern Europe. In non-agricultural circles it was, at the outset, believed to be quite impossible for Austrian agriculture to take any considerable share in the supplying of Vienna with food; and there was a readiness to sacrifice agriculture accordingly for the maintenance and expansion of industrial exports. "Austria an industrial country" was the cry of these people. The warnings of the agriculturists remained unheard. It would be unjust not to recognise that the commercial position of Austria at the time was the most unfavourable that could be imagined. Absolutely compelled to import foodstuffs and other vital materials and regarded by the other parties to commercial

negotiations as an " enemy country ", it was difficult, if not impossible, for her at first to arrive at favourable agreements. The period that followed the war was one in which the sale of commodities was not a normal operation between buyer and seller, but an act of grace on the part of the owner of the commodities. There were not, as now, three sellers running after one purchaser, but three purchasers running after one seller. With the lapse of time, however—say, by the year 1925—the conditions had changed; and this would have been the moment for a fundamental revision of Austrian commercial policy. By this time it was already clear that the East European agricultural countries intended to establish and foster home industries under the protection of high tariff walls. In all probability many of the industrial duties which they imposed were conceived only as a means of bargaining in the negotiation of commercial treaties. There were two respects in which Austria might have held a strong position. In the first place, there was the fact that Austria's foreign trade with the majority of countries shows an adverse balance—that is to say, Austria was in a position to appear mainly as a *purchaser*. In the second place, the high autonomous agricultural duties already in existence afforded a basis of discussion and an object of bargaining.

It is one of the tragic circumstances in the history of Austrian agriculture that the imposition of agricultural duties is commonly regarded in an altogether false light. Agricultural duties are viewed from an ultramercantile standpoint, and the tendency is to look upon agriculture, not as a branch of the national economy with a strong purchasing power of its own, but solely as a means to an end—the end being a cheap food supply. In reality, agricultural duties, as the lessons of history might have taught us, are as effective a means of protecting agriculture as industrial duties are a means of protecting industry, and without forcing the national economy to the edge of the abyss. Moreover, for an agricultural importing country in negotiation with an industrial importing country, high autonomous agricultural duties are an extremely effective weapon with which to compel the latter to reduce its industrial duties.

Lastly, a country, the exports of which are shut out on all sides by high tariff walls, cannot—unless it is in a position to base its existence on abnormally favourable conditions of production, which is certainly not the case with Austria—forgo the use of such a weapon, even if it adheres in theory to the free-trade principle.

Once the moment for enforcing adequate agricultural duties was lost, whether by inadvertence or as a result of mistaken economic policy, subsequent increase of the duties became extremely difficult owing to the fact that Austria had tied her hands in relation to Yugoslavia for a long period (until July 1st, 1931) and cannot, owing to the most-favoured-nation clause, conclude any more favourable arrangements with other States until this obligation is removed.

The difficult position of Austrian agriculture is intensified by the fact that the agricultural surplus output of the Eastern European States is literally poured into the Austrian market. The occasional efforts of these countries to find markets for their products in Western Europe invariably fail, and they continue to seek their principal outlet in Vienna, with which they have relations from the past, and in which they receive the most favourable treatment as a result of a commercial policy based on a misconception of the interests of the consumer.

Hungary, for example, markets 50 per cent of her cattle and fat pigs for slaughter in Austria and 33 to 66 per cent of her grain and flour exports, to mention only the most important commodities. Yugoslavia exports 60 per cent of her cattle, 66 per cent of her pigs, 98 per cent of her sheep, 86 per cent of her eggs, 33 per cent of her cereals and 40 per cent of her fruit to Austria. Roumania exports to Austria 59 per cent of her wheatmeal, 73 per cent of her cattle and 42 per cent of her pigs. These countries send only very small amounts to Western Europe, though the latter sells industrial articles in Eastern

Europe to a much greater extent than it takes agricultural products in exchange. Germany, for example, as the latest figures show, has an adverse balance in relation to the west of Europe, from which she takes the best part of her agricultural imports, whereas she has a favourable balance in relation to the east of Europe as a result of her exports of industrial goods. It is true that the Eastern States have a comparatively unfavourable position on the world market; but that cannot constitute any argument for the maintenance of the present disorganised commercial relations. It is at most an argument against the system of the mechanical application of the most-favoured-nation clause.

Another factor which renders the position of Austrian agriculture more difficult is the circumstance that the great home market which Vienna represents, thanks to its eccentric position and to the convenient railway connections established in the past, offers a particularly ready approach to invasion from the East. Vienna is the only big market in Europe where it is impossible, by appropriate distribution of those imports which occasionally glut the market, to regularise supply and demand and thereby maintain a more favourable level of prices.

Lastly, Austria suffers from the fact that the other States, which without exception have higher agricultural duties than Austria, are in a position to practise an effective policy of dumping by means of the system of " free import permits " *(Einfuhrscheine)*.

The cultivation of vegetables and fruit suffers considerably from the competition of the neighbouring States, which are in a position to put their products earlier on the market in virtue of their more favourable climatic conditions. Austrian wine-growing also suffers from the change in the tastes of the consumers, who since the war have preferred the heavier kinds of wine. Foreign wines, moreover, are subject to a single uniform duty, without regard to their alcoholic content.

While the import of agricultural products into Austria is thus comparatively easy, and the principal exporting countries are not shut out from the Austrian market, but suffer only from the conditions of the world market, the effect of which they pass on to Austrian agriculture, the agrarian exports of Austria encounter great difficulties. Switzerland is protected against Austrian butter, Italy against Austrian potatoes. The export of timber has been recently declining steadily as a result of the flooding of the market with Russian timber.

The commercial conditions are therefore chaotic, and improvement can only be expected from fundamental changes in the present inelastic system of commercial treaties.

The causes of the depression, part general, part territorial, to which attention has been drawn, are sufficient to explain why the prices of Austrian agricultural products have fallen, and fallen to a point which is undoubtedly below the costs of agricultural production in countries which in comparison are highly taxed and have to pay more in wages and social charges. They also explain the difficulties of marketing. The scissor phenomenon " Preisschere " (margin between producers' and consumers' prices), as a result of which the agriculturist has for years past been able to purchase only a small quantity—which is steadily decreasing—of manufactured articles in return for his products, still requires elucidation.

4. The Scissor Phenomenon (" Preisschere ").

Our investigations into the movements in the prices of agricultural products have shown that their average index number at the present time is 108, taking the corresponding prices before the war at 100. The average index of overhead expenses, on the other hand, is 163 (weighted average). The costs of production have thus risen more than the prices for the products. The index numbers of expenditure on articles of consumption

are 183 for clothing, 169 for household utensils and 128 for articles of food. The purchasing power of agricultural products has thus fallen by 34 per cent as compared with the overhead expenses, 41 per cent as compared with the outlay for clothing, 36 per cent as compared with the outlay for household utensils and 15 per cent as compared with the outlay for food. A study of the curves of the producer's prices for foodstuffs and the retail prices of the same, on the one hand, and of the prices for industrial manufactured articles, on the other, shows an ever-widening gap between the two. Since these conditions are not specifically Austrian, but are common to the economic systems of the whole world, they must obviously be due to common causes.

The history of the evolution of industry is entirely different from that of agriculture. In the case of industry, the struggles for the home market and for the world market had already been going on for some time when European agriculture was still at a stage, in which the agriculturist was practically self-supporting and concerned in the main with producing that which he required for his own use. His task was at an end when he had made his surplus output available for the national market. When the peasant in Central Europe, after long and fluctuating struggles, at length achieved his personal freedom in the middle of the nineteenth century, the industrial supremacy of England in the world was already established. When the German economist, List, raised his voice in favour of protective duties in support of Continental industry, he himself never dreamt that agriculture would one day also come to suffer from the disadvantages of world trade. Industry has learnt since then that the regulation of competition is preferable to unfettered freedom of trade. It has been able to obtain and maintain prices and markets by means of agreements, cartels, syndicates and trusts. True, it has not always been successful in the process, and there have always been gaps in the system and counter-measures of defence. But the far-reaching effect of such measures, both as regards extent and intent is clearly apparent. The system of cartels has been increasingly developed; their application has been extended and their structure perfected. The most highly developed form of cartel is to be found in the case of price combinations for high grade articles. Price agreements also play a big part in the case of those branches of industry which are organised in occupational corporations. It has thus been made possible to include increases in the cost of production or distribution in the prices. That the relative ease of this process has not worked out in the end to the advantage of industry is another side of the same problem, which cannot be considered further here.

The compact and powerful organisations of the workers have been able to convert wage-fixing from an individual into a collective transaction. The tendency is to increase prices—and wages—at times when business is good, and to use all the means at the disposal of the workers' unions to maintain the level reached even when business is declining. It is no part of this memorandum to attack this development. On the contrary, agriculture can only welcome any increase in the purchasing power of those who are the customers for its mass products. But such an increase of purchasing power is only possible if there is an increase in the *real* wage of the workers, without disturbing the balance of the system of production. A part of the purchasing power of the wage and salary earners is in any case lost owing to the increase in the margin between the price paid to the producer and that paid by the consumer; and this development was obviously increased during the inflation period with its expansion of the numbers of distributing agents. That which concerns us is the fact that the *agriculturists find themselves confronted with a compact organisation for the maintenance of the prices both of commodities and of labour, to which they are unable themselves, owing to the special character of their own development in the past, to oppose any analogous or equally effective organisation.*

That mistakes have been made on occasion in the organisation of industry, or *per contra* successes achieved in the organisation of agriculture, should not blind us as to the essential truth of the above proposition.

By dominating the market, important branches of industry were enabled to dominate prices. The unregulated competition of agricultural production, on the other hand, has led to under-bidding of prices; and the result has been the ever-widening " spread " of the blades of the scissors. That is not belied by the fact that industry, in spite of the superior strength of its position, is itself at present in difficulties; for in the last resort the most rigorous price dictation is useless, if the chief ultimate purchasers of industrial products—*i.e.*, the agriculturists—are in distress. It needs no proof that international industry cannot flourish on the basis of impoverished international agriculture. It makes no difference that the conditions in the different countries are not absolutely identical, or that the interests of industries producing for the home market and industries producing for export are not the same. Nor is it an argument that the position of agriculture is not equally depressed in all branches or in all countries. The existence of a few oases does not prove that there is no desert.

The fundamental difference in the development of *central European* agriculture and industry is rooted in the divergent origins and growth of the two.

5. The Crisis in the Development of Agriculture.

The opening of the modern age of the agriculture of German Central Europe has been described by Hoffmeister in clear and striking language:

> " Our entire system of land settlement ", he writes, " and our agricultural system as a whole, has developed on the basis of conditions, which came into being at the close of the thirteenth century and remained operative until somewhere about 1870, but have since then ceased to exist. By the end of the thirteenth century, the great clearances of primeval forest in German Central Europe were in the main complete. The vast reservoir of potential arable land in the shape of forests awaiting clearance, which had previously served to absorb the increase in the population, was no longer available. The towns, which had already come into existence or were in process of formation, required, it is true, a certain influx of population from the land; but these small urban centres, with a birth rate much higher than that of our cities of the present day, were not in a position to absorb any considerable number of immigrants. The greater part of the increase of population represented by the prolific peasants' families was accordingly compelled to remain on the land, without any longer being able to increase the area under cultivation or to obtain land for themselves by forest clearances. The large increase of population on the countryside was therefore compelled, for the most part, to remain on the land as agricultural labourers. *Between 1300 and 1870—that is to say, over more than 500 years—agriculture developed under conditions in which (to vary the famous expression of Marx) a gigantic reserve army of agricultural workers was always available.* The result of this surplus humanity was that agriculture had always at its disposal a supply of labour which was prepared to work for little more than the most modest food and clothing and the humblest form of dwellings. Under these circumstances, it was possible to cultivate land, the natural yield of which was just sufficient to provide a miserable living for the cultivators—that is to say, the owners with their paid labourers—at the cost of the severest labour and the most immoderate hours of toil.
>
> " The superfluous children, who were not called to inherit a peasant holding, remained, as a rule, with the brother, to whom the inheritance fell, as unmarried servants until the end of their life, thankful only not to have to serve strangers for hire. It never occurred to them to ask for the payment of their share of the

inheritance, and in consequence the successions during this period were not as yet a source of indebtedness.

"All this was radically changed at the beginning of the 'seventies of the nineteenth century with the development of big industries, requiring vast supplies of labour, and so setting in motion a gigantic internal migration from the land into the towns and industrial centres. This exit of labour from the countryside soon began to make itself felt in two ways. There was a general shortage of agricultural labour, and the labour available became very much more expensive. The peasants in the Alpine provinces were the first to feel the shortage of labour in the case of those forms of work which involve exceptional discomfort and loneliness as, for instance, the work of the cow-herds in the high Alps.

"There was another factor which operated in the same direction. The mass production of big industry involves *mass sales;* and the industrial products soon found their way into the most remote Alpine valleys, where the textile products, in particular, owing to the greater attraction, especially for the feminine element of the population, of their finer texture and brighter colours, were not long in driving out the primitive home-made linen and clothing, in spite of the far greater durability of the latter. The peasant households were thus subjected to yet another economic transformation. While up to this time they had been purely self-supporting in the sense that they themselves produced all or practically all that was needed for the primitive conditions of their existence, they now began to turn to the system of marketing and to purchase for cash a part of what they had previously produced themselves."

The second development, which had a decisive influence on the economic history of the last few decades, was the settlement of the overseas countries, in particular America, and their inclusion in the world market as a result of technical improvements in the means of transport. A series of railways opened up the North American continent, and so made it possible to exploit vast and fertile virgin lands by a system of extensive cereal cultivation, the products of which soon began (from about 1875 onwards) to flood the European markets. The consequences for the industry and the agriculture of Western and Central Europe were diametrically opposite. The influx of cereals inaugurated a boom period for industry; for agriculture, it was a serious danger and the signal for a second fundamental revolution. Up to that time the increase of the population had always been ahead of the increase in agricultural production. The growth in the purchasing power of agricultural products ranked as a natural law. The reverse process now set in. From this time on agriculture had to struggle for the purchasing power of its products.

The flight from the land of the agricultural labourers—which, as the agrarian revolution ran its course, was only too soon followed by the flight of many peasant owners as well—the rise in the cost of agricultural labour, and the competition of overseas grain produced at a low cost on the virgin soil of the new world were the sponsors of the transition from the system of self-supporting peasant economy to the system of marketing. It is true that, on the other side, the economic expansion brought with it advantages in the shape of the rapidly developing market for agricultural products. The agriculturists did not fail to take advantage of the unparalleled technical improvements which the age placed at their disposal in the shape of rotation of crops and the use of artificial fertilisers and machinery in order to increase their gross production at a quicker rate than the growth in the necessary outlay, and so to keep pace with the new age. But there is a limit set to the increase of gross yield, as indeed of net yield, by the law of decreasing returns from the soil. Not all the land, which had been made to pay for cultivation under the entirely different conditions that have been described, was capable of such an increase of yield. Many peasant holdings were unable, owing to the restrictions set by nature to the volume

of their production or owing to shortage of capital, to affect the requisite transformation. How was the peasant, who until 1848 had lived under the tutelage of the ground landlords, to develop within a generation the quick and supplementality required to grasp a situation that was continually and kaleidoscopically changing ? If in spite of the great depopulation of the countryside in the 'seventies of the last century the peasant contrived, nevertheless, to remain on his land, that was due mainly to the peculiarity of the system of peasant cultivation—namely, family labour and the habit of self-support. These two props of the peasant system, which are essentially anti-capitalist in character, kept many properties going. The peasant holders have maintained, through bad times and through good, their conservative traditions in the economic as in other fields; and the problem now is how to adapt the system of cultivation in an increasing degree to present circumstances. To avoid unnecessary and useless sacrifices in the process, conditions must be created under which the transformation is possible. These conditions cannot be found under a system of unregulated free competition on an unstable market in a position to dictate to the agriculturist the conditions of his production; they are only possible with a market governed by economic insight and propitious to any and every form of healthy development.

BELGIUM

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Symptoms of agricultural distress have been apparent in Belgium since 1927, and attention has been called to them ever since that date by well-informed and clear-sighted authorities. The symptoms have been more pronounced since then owing to a variety of factors which are summarised below. These factors may be said to fall into two classes:

I. Accidental factors which are mainly temporary in character.
II. International factors the effects of which are more permanent.

I. ACCIDENTAL FACTORS.

CLIMATIC CONDITIONS.

Summer 1928. — The summer was dry, which was chiefly prejudicial to fodder crops.

Winter 1928-29. — Extreme and protracted cold (lasting some four months) which destroyed nearly all the winter oats sowings—a rare circumstance in Belgium—as well as winter barley and a great deal of sowings of wheat and clover, thus occasioning considerable increases in the expenditure for maintenance under cover of the two millions of live-stock which were prevented from going out to pasture until the end of April. Result: a delay of one to one and a half months.

Spring 1929. — Delay in all work as a result of the late cold and the state of the soil, which was deeply penetrated by the frosts. Late sowings of oats, beets, potatoes, while fodder crops (pasture, hay, clover, lucerne, etc.) developed late.

Summer 1929. — Drought following on the cold weather of the winter and spring; reduction of yield and late harvest of fodder crops; inadequate food for, and reduced production of, live-stock at pasture, with the resulting necessity of supplementing the daily pasture of the live-stock (especially cattle) by concentrated foods. Reduction of yield (5,000 kilos per hectare on the average) of sugar-beets, fodder stuffs and turnips. Potatoes alone had a good yield; but the sale prices of tubers were lower.

Winter 1929-30. — The winter was characterised by rather easy climatic conditions, and the work of preparing the soil could go forward on satisfactory lines.

Spring 1930. — Continuance of favourable climatic conditions for sowings and plantings; very good prospects for the crops.

Summer 1930. — Continuance of favourable conditions, but from the month of June the hay harvest was made difficult by continual rain. The hay could not be turned

in a number of cases and rotted as it lay. The continual rain and cold retarded growth and maturity of the cereal crops, and the rain and the laying of the grain made harvesting very difficult. It was almost impossible to dry the crops, and the sheaves on the fields frequently began to germinate.

The weather did not improve until after August 15th sufficiently to allow of getting in the crops, most of which were in a deplorable state and are likely to give yields which are inferior both in quality and in quantity.

The other crops seem not to have suffered very greatly from the bad weather, and it may be hoped that with the better weather they will be able to show yields of a more or less satisfactory character.

The losses to Belgian agriculture owing to the reduction of yield resulting from the unfavourable climatic conditions are estimated at 1½ to 2 milliards for 1929, and at approximately 1 milliard for the losses in 1930 in the case of the 700,000 hectares of cereals.

II. INTERNATIONAL FACTORS.

The principal factors are the following:

1. *The low price* of cereals as a result of over-production throughout the world and the dumping practised by certain countries. The over-production has figured prominently in the statements made at the Conference of Agricultural Experts by the experts of the great exporting countries, Australia, Canada, etc.

Wheat and oats have been dumped on the Belgian market, wheat and wheat flour chiefly by France, and oats chiefly by Germany and Poland.

The reduction of prices is as much as 30 to 40 per cent.

The price of wheat has fallen to 100-110-120 paper francs; oats to 75-80-85 francs; winter barleys and rye to 70-80 francs.

2. *The sugar crisis*, due to over-production throughout the world and to the development in the cultivation of cane sugar, has sent down prices and destroyed all interest for the present in the growing of the sugar-beet, the area under which has fallen in Belgium by nearly 50 per cent (from 84,000 in 1924 to 45,000 in 1930).

3. *The difficulties in connection with the potato crop*, due to the heavy production of the last few years and to the obstacles placed in the way of export in the form of import duties, plant pathological measures, etc. The result is seen in low prices and difficulties in marketing.

4. *The difficulties in the cultivation of flax, hops and tobacco.* The cultivation of the two last-named groups is confined to 2,000 to 3,000 hectares. Flax is cultivated on 20,000 to 30,000 hectares. The low prices due to competition on the international market have left the producers with a deficit, and are having the effect of reducing the area sown from year to year.

5. The stagnation in the sales of Belgian-bred draught *horses* as a result of the competition of motor traction, foreign horse breeding and the import duties imposed on our draught horses, especially by Germany (1,200 francs for horses with a value of less than 20,000 francs and 3,000 francs for horses with a value of over 20,000 francs) and France. Formerly, and down to the year 1926, our annual output of horses, amounting to from 40,000 to 50,000 animals, was taken as to 10,000 to 15,000 by the home market, and as to 30,000 to 35,000 by the foreign market. At the present time, the foreign market takes from 30 to 40 per cent less than those figures, and our horse breeders are compelled to send thousands of admirable colts to the slaughter-house. The price of draught horses

has naturally fallen heavily. Good colts are at present sold at 1,200 to 1,500 francs, as against 2,800 to 3,500 francs in 1926.

A reduction in the number of mares used for breeding purposes is reported, with, as a consequence, a decline in the number of foals; on the other hand, there is an improvement in the quality of the foals as a result of the stricter selection of the dams.

6. *Difficulties in the production of market gardening and fruit groups.* — The prices paid to the producers for vegetables and fruit are in general very low for medium and inferior qualities. Only superior qualities and early products obtain remunerative prices. The conserving factories, whose foreign sales have to face keen competition, cannot pay adequate prices. The producers have sold at ridiculously low prices during the last few years and have shown net adverse balances. Here, again, sales of exports are rendered difficult, if not impossible, by competition, by protectionist duties, and by sanitary measures or measures passing as such.

7. *Labour difficulties.* — The position of our agricultural producers is rendered more and more trying by the difficulty of finding labour, which is constantly becoming scarcer, and, in consequence, more and more exacting. Serious efforts are being made to improve the lot of the agricultural labourer in the matter of wages, housing, food, subsidiary gains and social legislation.

The use of agricultural machinery of all kinds has further become a necessity.

In general, the agricultural distress mainly affects the big and medium farmers, who are concerned with the forms of cultivation the profits on which are most affected and who are most dependent on foreign labour.

The small farmers (on farms worked by families) have fewer requirements and less produce to market, and consequently suffer less.

They have also still some speculative activities, which show more successful results (production of milk, butter, eggs, rabbits, etc.) and yield more reasonable profits.

But, taken as a whole, Belgian agriculture at the present moment is passing through a period of serious depression, comparable to the period of 40 to 50 years ago, which had a great and disastrous effect on the situation of our agricultural population.

BRAZIL.

J. A. BARBOZA-CARNEIRO,
Member of the Economic Consultative Committee of the League of Nations.

The importance of agriculture for Brazil was pointed out by the Right Honourable Viscount d'Abernon, President of the British Economic Mission to the Argentine, Brazil and Uruguay (1930):

> "Brazil is an agricultural country, and, whatever the prospects of industrial development may be, it is in agricultural, pastoral, forestal and mineral development that she will best realise her latent possibilities."

The following figures, giving the *area of the principal crops*, entirely confirm this statement:

	Hectares
Oats	6,000
Wheat	145,000
Maize	3,198,700
Barley	6,980
Rice	610,300
Rye	10,370
Lucerne	35,000
Beans	855,000
Manioc	292,000
Potatoes	38,000
Cotton	515,010
Sugar-cane	485,000
Cocoa	266,200
Coffee	3,200,000
Cocoanuts	38,000
Vines	26,510

According to the *Directoria do Fomento Agricola*, the *production* in 1930 was as follows:

Barley	9,578	tons
Oats	7,267	,,
Lucerne	192,980	,,
Wheat	170,541	,,
Rye	16,160	,,
Maize	4,416,753	,,
Rice	956,497	,,
Potatoes	309,304	,,
Beans	659,364	,,
Sugar	1,020,302	,,
Coffee	1,300,657	,,

Cocoa	64,545	tons
Manioc flour	847,966	,,
Maté	186,130	,,
Sugar-cane alcohol	1,949,692	hectolitres
Bananas	51,314,000	bunches
Oranges	7,339,700	cases
Pineapples	62,786,300	
Cocoanuts	1,463,771	hundreds
Brazil nuts	29,600	tons
Tobacco	88,234	,,
Rubber	17,663	,,
Cotton	126,726	,,
Barbassú nuts	22,835	,,
Carnauba wax	7,835	,,

Most of these products are exported; coffee occupies the first place, as will be seen from the following figures showing the share of this commodity in the total value of the exports for the last ten years.

Year	Percentage of the value of coffee exports in relation to the total exports
1921	59.6
1922	64.4
1923	64.4
1924	76.3
1925	72.1
1926	73.8
1927	70.6
1928	71.5
1929	70.9
1930	62.5

It is not only because it occupies a predominant position in the external trade of the country that coffee is so important for Brazilian commercial prosperity, but also because Brazil is the greatest coffee producer. According to the *Boletim Medeiros* the following figures represent world production and Brazilian production (in thousands of bags of 60 kilogrammes):

Year	World production	Brazilian production	Percentage of Brazil's share in total production
1920-21	20,283	14,496	71.46
1921-22	19,788	12,862	64.99
1922-23	15,899	10,194	64.11
1923-24	26,344	19,456	73.85
1924-25	17,777	11,015	61.96
1925-26	22,102	15,050	68.09
1926-27	21,742	14,674	67.49
1927-28	34,142	26,139	76.55
1928-29	19,588	10,928	55.78
1929-30	37,347	29,074	77.84

The following table shows the number of coffee trees in Brazil and in the principal other producing countries, according to a calculation made in 1928:

	Number of coffee trees
Brazil	2,579,858,746
Colombia	300,000,000
Venezuela	133,000,000
Ecuador	7,680,000
Netherlands Guiana	4,440,000
British Guiana	818,400
Peru	3,600,000
Guatemala	75,250,000
Salvador	72,000,000
Costa Rica	32,000,000
Nicaragua	27,960,000
Honduras	5,400,000
Mexico	80,000,000
Haiti	63,600,000
Porto Rico	54,600,000
Jamaica	8,000,000
San Domingo	6,000,000
Cuba	27,240,000
Netherlands Indies	129,240
British India	25,000,000
Angola	14,400,000
British East Africa	28,275,000
Madagascar	20,082,699

These figures show the capital importance for Brazil of the production and world consumption of coffee. [1] They explain why Brazilian statesmen have been anxious to protect this product from sudden fluctuations in world prices, and have endeavoured to re-establish the equilibrium between production and consumption by means of suitable State intervention. Such intervention, known as *coffee valorisations*, has taken place on three occasions: In 1906-07, when the crop was excessive; in 1917, when consumption declined considerably as a result of the European war; in 1920-21, in view of the lack

[1] The following figures show the development in the world consumption of coffee according to the Laneuville statistics:

Year	Thousands of bags of 60 kilogrammes
1920-21	18,462
1921-22	19,717
1922-23	19,162
1923-24	22,036
1924-25	20,506
1925-26	21,705
1926-27	21,298
1927-28	23,536
1928-29	22,251
1929-30	23,554

By the end of the year 1929-30, the production was therefore 22,477,000 bags in excess of the consumption.

of equilibrium between supply and demand resulting from the general economic depreciation and accentuated by a slightly higher production than in previous years.

This is not the place to go into the history of this intervention or to describe its mechanism. It will be sufficient to state that it was made possible by the financial assistance of foreign centres and that, on all three occasions, the desired object was attained. But it was an exceptional measure and therefore merely temporary. It showed the necessity of regulating the coffee market in order to avoid sudden price fluctuations and to protect the commodity from the frequent wild speculations which brought no advantage to the producer.

In order to attain this object, a permanent system of protecting the product was introduced, which consisted in strictly limiting the quantities placed at the disposal of the export trade in the ports. The producing States, by common agreement, created a permanent organisation for determining the deliveries to the ports and facilitating the grant of cash advances to producers, secured by coffee stored in special coffee warehouses in the interior or in certain ports. These warehouses are called " regulators ", their object being to regulate the export of coffee so that the planter may not be obliged to throw his product on the market as soon as the crop is gathered. Each State takes the necessary administrative measures for restricting transport, storing the stocks, collecting taxes and granting credits to planters. In this note, it is impossible to go into details of the legislative provisions or the steps taken in each State to carry out this protective plan.

In the year 1927-28, there was a considerable excess production; in 1928-29, the crop was relatively small, but, in 1929-30, it was abundant. A heavy drop in prices ensued. The index prices of Santos No. 4 at New York calculated on the basis of 100 in 1924-26, according to the *Bulletin of the International Institute of Statistics*, were as follows:

Year 1928	102
Year 1929	97
September 1930	54
October 1930	60
November 1930	52
December 1930	46
January 1931	43

The following figures show the effect of the drop in prices on Brazilian export trade:

COFFEE EXPORTS.

Year	Thousands of bags of 60 kilogrammes	Value in £
1928	13,881	69,701,000
1929	14,281	67,307,000
1930	15,288	41,179,000

The average value per bag of coffee exported fell from £5 in 1928 to £2 14*s.* in 1930.

Coffee is not the only article of which the price has dropped heavily; the position has been the same for all agricultural products. In 1929, the decline in value already amounted to 6.3 per cent; in 1930, prices collapsed and the total value of agricultural products decreased by 31.9 per cent as compared with the preceding year. Calculated in terms of gold, this drop is even greater on account of the decline in the milreis in 1930.

Value of agricultural production:

Year	
1927-28	7,419,978:670 $ 000
1928-29	6,952,048:070 $ 000
1929-30	4,732,320:272 $ 000

This position has had an unfortunate effect on general business. The reduced purchasing power of the bulk of the population has led to a considerable decrease in imports. In 1929, this decrease amounted to 4.4 per cent as compared with the previous year; in 1930, it was 38 per cent as against 1929. It is true that the tonnage of imported products only decreased by 20 per cent as a result of the general decline in prices of industrial products.

TOTAL IMPORTS.

Year	In thousands of £
1928	90,669
1929	86,653
1930	5

A comparison between the values of the industrial production of the country in the years under consideration shows the same position.

Although production has increased, the drop in prices has greatly reduced the value of exports. In 1929, they decreased by 2.3 per cent as compared with 1928 and by 30.6 per cent in 1930 as compared with 1929. The increase in quantity over the preceding year was 5 per cent in 1929 and 2.3 per cent in 1930.

EXPORTS OF BRAZILIAN PRODUCTS.

Year	Thousands of £	Thousands of tons
1928	97,426	2,075
1929	94,831	2,189
1930	65,770	2,274

Brazilian exports comprise three classes of articles: animals and animal products, minerals and mineral products and vegetables and vegetable products. The last class includes 16 main articles which are sold to foreign countries—*i.e.*, raw cotton, rice, cane sugar, rubber, cocoa, coffee, carnauba wax, bran from various grains, manioc flour, table fruit, tobacco, maté (Brazilian tea), wood, maize and vegetable oils.

In 1930, this class represented 83.85 per cent of the value of the total exports from Brazil. It is therefore evident that agricultural and forestral products have been most affected by the drop in prices. If the export figures of these products in 1929 are compared with those in 1928 and the figures for 1930 with those for 1929, it is seen that the decrease was only 0.58 per cent in 1929, but reached 35 per cent in 1930. If the values of agricultural production, imports and exports were shown in the form of a graph, it is significant that the curves would be practically parallel.

Agricultural and pastoral production in 1930 was greater than in the previous year. This fact is also seen from the tables of external trade, which show that the abundance of agricultural products made it possible to sell a greater tonnage in 1930 than in the previous year.

The exports of vegetables and vegetable products increased in 1930 by 134,946 tons or 7.9 per cent and the exports of animals and animal products by 50,892 tons or 30.5 per cent, while minerals decreased by 100,500 tons, or 31.8 per cent. In Brazil, crops were exceptionally good in 1930.

It is interesting to note that live-stock products did not decline in price to the same extent. There was even a slight rise in the prices of lard and jerked beef as compared with 1929. The average value of lard exports was 4.2 per cent higher than in the previous year and that of jerked beef 3.1 per cent higher.

There was a decline in the average prices of the following exports of animal products in 1930 as compared with 1929:

	Percentage of decrease
Preserved meat	1.30
Frozen meat	1.00
Leather	34.80
Wool	4.00
Hides and Skins	1.25
Tallow	4.00

The drop in agricultural and forestal products was much greater, as shown by the following figures representing the difference between the average value per ton exported in 1929 and in 1930.

	Percentage of decrease
Cotton	17.57
Cocoa	22.39
Rice	29.71
Sugar	54.20
Rubber	32.70
Coffee	55.90
Carnauba wax	10.10
Bran of various grains	27.90
Manioc flour	10.95
Table fruit	10.25
Oleaginous fruit	9.74
Tobacco	23.52
Maté	16.60
Wood	12.80
Maize	8.95
Vegetable oils	43.67

Stock-raising forms an important part of Brazilian agriculture.
According to the economic census of 1920, the stocks were as follows:

Cattle	34,271,324
Horses	5,253,699
Asses and mules	1,865,259
Sheep	7,933,437
Goats	5,086,655
Pigs	16,168,549

For the last fifteen years, the country has had a frozen-meat industry. The exports have been as follows:

Year	Tons	Value in thousands of £
1928	65,103	2,002
1929	79,342	2,735
1930	113,116	3,856

Jerked beef, which is largely consumed in the country, is also to some extent exported.

EXPORTS OF JERKED BEEF.

Year	Tons	Thousands of £
1928	1,189	64
1929	3,613	210
1930	3,646	214

The following exports of preserved meat may be added to these figures:

Year	Tons	Thousands of £
1928	3,030	8,149
1929	3,652	9,045
1930	6,598	17,307

Leather, hides and skins, wool, lard and tallow are the other live-stock products exported from Brazil; exports have been as follows in the last three years:

	Quantity in tons			Value in thousands of £		
	1928	1929	1930	1928	1929	1930
Leather	67,008	51,821	50,171	5,448	2,931	1,848
Hides and skins . .	5,400	5,247	5,919	1,319	1,217	1,356
Wool	4,609	5,167	7,362	660	746	1,020
Lard	20	389	447	1	25	30
Tallow	7,322	411	2,374	64	210	214

These figures show that in Brazil, as in other agricultural countries, the farmers are suffering the most severely from the results of the present economic depression. The effect of the decline in prices on the Brazilian farmer is aggravated by the shortage of capital and by the Customs obstacles encountered by the export of agricultural products, in particular to Europe.

The figures quoted in this note show that a considerable portion of the agricultural production is consumed in the country. Only a few products, such as coffee, cocoa, maté, fruit, rubber, cotton, carnauba wax, leather, meat, etc., are used to bring gold into the country. A drop in the *gold prices* of these articles reduces the purchasing power of the entire population. It not only affects producers in the country itself, but also countries producing industrial articles for which Brazil is a large customer.

Two effective ways of overcoming the present difficulties should be adopted immediately: Active assistance from countries able to grant long-term loans, and a

reduction in Customs duties and consumption taxes in Europe, which severely affect certain Brazilian products, especially coffee. If close co-operation were established between Brazil and the industrial and over-populated countries of Europe with a view to facilitating the grant of long-term credits to farmers and to developing the consumption of the principal Brazilian articles of export, especially coffee, this would be of great advantage to those countries themselves.

BULGARIA

M. TANTCHEFF
Governor of the Agricultural Bank.

I. GENERAL.

Bulgaria is an almost exclusively agricultural country. Of a total population of about 6,000,000, almost 80 per cent are engaged in the cultivation of the soil.

A great variety of crops can be grown, thanks to the diverse climatic conditions due to Bulgaria's geographical position between the Mediterranean and the Danube plains. Almost all kinds of cereals and fruit trees may be grown: the vine, the mulberry, the oleaginous rose, tobacco and other southern plants, such as anise, sesame, cotton, rice, etc.

1. Distribution of the Land.

Bulgaria has an area of 103,000 km., of which only 76,700 km. consist of arable land. In 1927 this was divided as follows:

	Square kilometres
Under cultivation. . .	38,800
Fallow	9,600
Forests	28,300
Total	76,700

The number of agricultural holdings is rapidly growing, and amounted to 734,191 in 1926 as against 546,084 in 1897.

If the holdings transferred to refugees and those granted to needy peasants are taken into account, the number of agricultural holdings at the end of 1929 may be estimated at 807,309 with a total area of 4,648,656 hectares.

In accordance with the statistics for 1926, the rural properties may be classified according to their size as follows:

Size of holdings	1926			
	Holdings		Area in hectares	
	Number	Per cent	Number of hectares	Per cent
Less than 1 hectare	86,323	11.8	42,916	0.9
From 1 to 2 hectares. .	90,418	12.3	132,678	3
,, 2 ,, 3 ,, . .	88,064	12	216,611	4.8
,, 3 ,, 4 ,, . .	81,150	11.1	280,806	6.3
,, 4 ,, 5 ,, . .	72,011	9.8	321,100	7.2
,, 5 ,, 10 ,, . .	206,557	28.1	1,456,117	32.6
,, 10 ,, 15 ,, . .	68,724	9.4	826,085	18.5
,, 15 ,, 20 ,, . .	23,281	3.2	397,696	8.9
,, 20 ,, 30 ,, . .	12,897	1.7	303,531	6.8
Exceeding 30 ,, . .	4,766	0.6	492,441	11
	734,191	100	4,469,987	100

The average area per holding was:

6.3 hectares in 1908.
6.0 ,, ,, 1926.
5.75 ,, ,, 1929.

The new holdings are created not only by bringing virgin soil under cultivation, but also by dividing up estates exceeding 30 hectares. This is illustrated by the following figures:

	1897	1908	1926
Estates exceeding 30 hectares . . .	1.12 %	1 %	0.6 %

The characteristics of Bulgarian agricultural holdings may be summed up as follows:

(*a*) The agricultural holdings are mostly small: 85.1 per cent less than 10 hectares, 17.3 per cent between 10 and 30 hectares, and only 0.6 per cent exceeding 30 hectares;

(*b*) There is a tendency to divide up the agricultural estates;

(*c*) The Bulgarian farmer is usually the owner of the land which he works;

(*d*) On account of the dividing up of the estates into small holdings Bulgarian agriculture is based exclusively on family work;

(*e*) As a result of the parcelling of the land, holdings hardly ever consist of a single plot. However small a property may be, it is divided over the entire territory of the commune. If the land were suitably redistributed this would greatly improve the general conditions of operation and ensure a higher yield.

2. Live-stock and Implements.

The Bulgarian farmer cultivates his land with insufficient and often rudimentary tools, and uses cattle bred according to primitive methods. On account of the parcelling of the agricultural land it is impossible to mechanise cultivation or to apply the latest technical improvements of modern agriculture. But by improving and rationalising the methods of working the land, it would be possible at least to double the yield.

In spite of the progress made since the war, more than half the ploughs are of primitive construction and merely scratch the surface of the soil; the crops are still often cut with the sickle and the grain is threshed by crushing the ears on the threshing-floor with a kind of sledge pulled by horses.

The following figures show the position in respect of implements in 1929:

	Implements in use	Further requirements
Ploughs.	320,000	280,000
Harrows	27,000	472,000
Sowing machines.	8,000	31,000

3. Agricultural Production.

Bulgarian agriculture is based on the production of cereals for feeding the population and cattle, the surplus being exported. Next in order of importance come the oleaginous and industrial plants (principally tobacco plants and rose trees), vines, vegetables, etc.

The following tables show the position of agricultural production according to the area under cultivation, the quantities produced and the value of the products:

Kinds	1897		1911		1922		1928	
	Hectares	Per cent	Hectares	Per cent	Hectares	Per cent	Hectares	Per cent
Cereals . . .	1,811,890	74.08	2,523,738	75.9	2,165,639	74.4	2,468,768	73.26
Oleaginous and industrial plants . .	8,771	0.36	41,542	1.3	64,294	2.21	152,989	4.54
Dried vegetables . . .	27,379	1.14	76,083	2.3	57,165	1.96	57,501	1.71
Potatoes . .	—	—	—	—	9,220	0.32	11,062	0.33
Kitchen gardens . . .	32,797	1.34	38,690	1.1	37,054	1.28	40,188	1.19
Fodder . . .	439,835	17.98	558,031	16.8	511,573	17.57	532,961	15.82
Vines	114,816	4.69	67,872	2	48,317	1.66	79,491	2.36
Rose gardens.	4,844	0.2	7,666	0.2	4,655	0.16	6,036	0.18
Orchards . .	4,842	0.2	8,595	0.2	10,606	0.36	17,417	0.52
Mulberry plantations	178	—	2,742	0.05	2,306	0.08	3,174	0.09
Totals .	2,445,352	100	3,324,959	100	2,910,829	100	3,369,587	100

In order to show the characteristical changes that have taken place in the relative areas under various crops, we give comparative figures for the periods from 1908 to 1912 and 1925 to 1929:

Kinds of Crops	Averages for		Differences	
	1908-1912	1925-1929	Hectares	Per cent
	(Hectares)			
Cereals	2,460,446	2,438,612	—21,854	— 0.08
Oleaginous and industrial plants	25,759	116,366	+90,607	+350
Green vegetables	68,550	69,003	+ 453	+ 0.7
Potatoes	2,958	10,629	+ 7,671	+255
Kitchen gardens	37,952	40,769	+ 2,817	+ 7.4
Fodder	541,290	550,547	+ 9,257	+ 1.7
Vineyards	76,091	76,671	+ 580	— 0.76
Orchards	7,332	17,117	+ 9,785	+133
Mulberry plantations	2,310	3,122	+ 812	+ 35
Rose gardens	7,629	5,568	— 2,061	— 27

Production in Tons.

Kinds of Crops	1897	1911	1922	1928
Cereals	2,113,809	2,876,305	1,912,179	2,623,012
Oleaginous and industrial plants	3,564	95,211	187,092	277,692
Green vegetables	41,807	68,883	6,361	2,458
Potatoes	—	—	28,998	21,131
Kitchen gardens	86,172	71,132	78,201	105,912
Fodder	1,211,512	1,328,499	825,341	1,211,733
Vineyards (grapes)	153,524	104,632	121,076	312,518
Attar of roses	539,000	654,000	338,000	394,000
Orchards (fruits)	26,126	20,887	25,124	45,804
Mulberry plantations (cocoons)	4,613	8,979	9,732	15,653

Value of Agricultural Products.

(In Swiss francs.)

	1911	1922	1928	1929
Cereals: grain	397,552,475	298,653,000	551,392,000	433,785,500
straw	80,636,133	56,961,678	84,742,000	73,362,785
Oleaginous and industrial plants	18,685,233	51,121,750	69,202,000	93,902,571
Beans, peas, etc,	16,665,408	6,674,124	12,236,563	21,170,150
Potatoes	1,956,178	1,967,592	4,841,632	5,757,647
Vegetables	17,396,525	10,727,335	17,106,897	19,470,546
Fodder	112,840,226	54,464,000	103,815,535	120,397,107
Grapes	36,168,942	23,705,379	45,985,964	49,234,107
Rose gardens (essence of roses)	5,641,199	1,073,226	4,300,693	5,419,680
Orchards (fruits)	3,466,855	2,954,669	7,157,485	5,586,287
Mulberry plantations (cocoons)	608,410	637,265	855,318	769,235

We give below a comparative table of the value of the agricultural production in Swiss francs for the periods before the war (1908-1912) and after the war (1925-1929).

	Averages for		Differences	
	1908-1912	1925-1929	In Swiss francs	Per cent
Cereals: grain	384,204,435	471,425,000	+87,220,565	
straw	110,218,064	79,272,000	—30,946,064	
Oleaginous and industrial plants	11,419,788	62,510,000	+51,090,212	
Beans, peas, etc,	15,412,244	12,864,600	— 2,547,644	
Potatoes	1,651,821	4,364,076	+ 2,712,255	
Vegetables	16,051,933	16,035,427	— 16,506	
Fodder	107,661,798	96,592,607	—11,069,191	
Vineyards (grapes)	57,254,945	41,973,857	—15,281,098	
Rose gardens (essence)	4,523,559	4,300,475	— 223,084	
Orchards (fruits)	5,349,585	7,515,242	+ 2,165,657	
Mulberry plantations (cocoons)	458,350	880,170	+ 421,820	

In 1926, according to the figures of the General Statistical Department, the [illegible] of live-stock products amounted to 7,294,649,950 paper leva, or 290,461,666 Swiss francs. [illegible] may be considered as correct for the period 1925-1929.

The total receipts from agriculture and stock-breeding therefore amounted in round figures to 1,090,000,000 Swiss francs, or 29,500,000,000 leva, making an average of 36,500 leva per holding for the period 1925-1929. The figures do not include the farmers' auxiliary resources, which, when added to the above-mentioned sums, bring the average receipts per holding to about 40,000 leva (1,480 Swiss francs).[1]

4. Destination of the Products.

The agricultural products (with the exception of industrial plants) are mostly consumed in the country. The surplus is exported to neighbouring or more distant European markets by sea, by the Danube or by rail.

The following table gives the export figures in Swiss francs for the years 1900, 1910, 1920 and 1929:

	1900	1910	1920	1929
		(Swiss francs)		
Live animals	5,610,000	7,324,000	6,560	12,983,732
Animal products	4,630,000	13,002,000	268,253	30,214,212
Cereals and their products	27,130,000	80,811,000	30,924,463	25,836,153
Fruits, vegetables and fodder plants	1,850,000	3,082,000	490,255	10,513,068
Tobacco and other industrial plants	240,000	2,056,000	49,127,627	104,069,100
Preserves	10,000	11,000	1,907	12,071
Fats, wax, etc.	10,000	15,000	53,746	4,857
Hides and skins	3,720,000	4,086,000	7,896,381	13,573,661
Perfumery, principally essence of roses	3,720,000	5,555,000	3,622,628	12,320,481
Cocoons	1,746,872	3,722,936	2,088,110	7,176,000
Total exports of agricultural products	48,666,872	119,664,936	94,479,930	216,703,335
Total Exports	53,980,000	129,052,000	96,646,900	228,466,500

The following conclusions may be drawn from a study of the production and marketing of agricultural products:

1. Bulgarian agriculture produces principally cereals; the decrease in the area under cereals is negligible and is due to accidental circumstances.

[1] The average number of persons working a holding is estimated at 5.5.

2. There is a considerable increase in the area under industrial crops on newly-cleared land. Bulgarian agriculture may therefore be said to have succeeded in adapting itself, though still to an insufficient degree, to the needs of the market.

3. The decrease in the area under vines is slight. On the other hand, the decrease of rose-growing is considerable. This is due to the fact that, on account of the fluctuations in the prices of essence of roses, profits are uncertain. The growers have therefore ceased to replace exhausted trees or have even pulled them up and replaced them by other crops.

4. Cereals rank first in the agricultural production both in respect of quantity and value, after which may be mentioned, in order of their importance, fodder plants, oleaginous and industrial plants (principally tobacco), grapes, vegetables, etc.

Progress has undoubtedly been made in the variety of the crops. The total agricultural production expressed in terms of value is growing, although the yield per unit of land under grain has not increased, but, according to official figures, has even decreased. We consider that the decrease which has taken place since 1925 is due to a succession of bad years and to the impoverishment of the land on account of the lack of fertilisers and of proper agricultural methods for husbanding its fertility.

5. About 95 per cent of Bulgarian exports consist of agricultural products and only 5 per cent of other products. Tobacco and other industrial plants occupy the first place (40 to 50 per cent). Live-stock and animal products, especially eggs, rank second (about 20 per cent); while the third place is occupied by cereals (12 per cent, although before the war this group represented 60 to 70 per cent of the agricultural exports).

The country's balance of trade can only be kept stable by agricultural production and it is only favourable when there is an abundant crop and prices are remunerative.

From the above it may be concluded that Bulgarian economy and trade is based principally on agriculture. In order to improve the economic life of the country in future, agricultural production must therefore be developed with a view to obtaining a better yield both as regards quality and quantity and the Bulgarian farmer must be led to produce goods capable of a quick and profitable sale.

Agriculture must be improved in accordance with a plan drawn up in advance and executed partly by the State and partly by the farmers. Such a plan was drawn up a few years ago but, in order to carry it into effect, credits are required which are not at present available. The State cannot provide funds in its budget for operations spread over a long period (fertilisation of the soil by irrigation and drainage, development of rural economy). Private individuals are also unable to set aside any part of their earnings in order to modernise their methods of cultivation and improve the yield.

It is therefore evident that agricultural credit is closely bound up with any attempt to improve agriculture and that no useful result can be attained unless sufficient credit is available to cover all requirements. Special attention must be paid to this question of agricultural credit as it presents difficulties peculiar to Bulgarian agriculture.

The farmer's resources are undeveloped. If a crop does not repay him for his work he has difficulty in maintaining his family on the savings scraped together in good

years. Under these circumstances he is normally unable to carry on his work without having resource to credit. *A fortiori* he cannot make any fundamental improvement or renew his utensils without a loan. The peasant experiences serious difficulties in obtaining credits on account of the small area of his land, which is, moreover, split up into small plots, and of the paucity of his live-stock, which is not valuable enough to pledge.

In order to overcome these difficulties a complete credit system has been established in Bulgaria, centring in the Agricultural Bank, assisted by the co-operative societies. The private banks are of secondary importance for agricultural credit. Unfortunately, the same cannot be said of the moneylenders, in spite of the efforts made to put an end to their exploitation of the peasants. It is estimated that the Agricultural Bank and the co-operative societies provide 80 per cent of the agricultural credit and the private banks and moneylenders the remaining 20 per cent.

5. Organisation of Industrial Credit.

The Agricultural Bank of Bulgaria.

The Agricultural Bank, which was founded in 1903 by a group of the " caisses agricoles " established on the liberation of the country, is under the supervision of the Ministry of Agriculture.

Its capital (35,000,000 leva) amounted on December 31st, 1930, together with reserves, to 703,258,192 leva.

The deposits (trust deposits, current accounts and time deposits of private persons, savings deposits, deposits of State institutions, departments and communes) are constantly growing, and on December 31st, 1930, reached 4,187,995,000 leva as against 3,962,500,000 on December 31st, 1929.

In 1930 the Bank effected the following operations:

	Millions of leva
Loans on personal guarantee	807
,, ,, collateral security	1,435
,, ,, mortgages	380
,, ,, stocks and shares, etc	125
Advances to co-operative societies	1,391
Various loans to the State administrations. . .	475

Under its statutes the Bank enjoys certain privileges which give it the maximum guarantee in carrying out its operations.

The Agricultural Co-operative Societies.

As already stated, the Bulgarian agricultural holdings are mostly small in area and worked by the owners themselves with a small quantity of live-stock. These conditions offer a fertile soil for agricultural co-operation. This is in fact the only method at the disposal of the smallholder for obtaining money without going to the moneylenders.

Moreover, the co-operative societies enable him to apply rational methods of cultivation, to handle his products and to secure greater stability in prices.

The first agricultural co-operative societies were established in 1890. The following figures show the great development which they have undergone since the war:

	1920	1929
Number of agricultural co-operative societies	1,122	2,449
Number of members	125,829	291,709
Own resources:	(leva)	(leva)
(*a*) shares and contributions	33,801,516	667,052,834
(*b*) funds	10,060,143	144,215,109
Deposits	93,279,728	377,389,204
Immovable property	11,390,422	586,885,995
Resources borrowed from State credit institutes, private banks, merchants, etc.	29,627,596 [1]	1,533,493,119

The following table relates to agricultural credit co-operative societies of the " Raiffeisen " type.

	1920	1929
Number of co-operative credit societies.	920	1,432
Number of members	86,350	152,575
Own resources:	(leva)	(leva)
(*a*) shares and contributions	14,829,048	245,419,150
(*b*) funds	7,462,102	84,693,923
Deposits	88,685,689	359,141,865
Immovable property	1,545,326	64,683,132
Resources borrowed from State credit institutions, private banks, merchants, etc.	18,339,874	706,508,822

The resources (shares, contributions and funds) of all the co-operative societies receiving credits from the Bank, to the number of 1,490 [2] with 211,519 members, amounted on December 31st, 1929 to the large sum of 625,575,161 leva, and the deposits amounted to 371,853,102 leva.

On the same date they had credits from the Bank amounting to 1,292,831,032 leva —namely:

	Leva
Personal credits (unsecured)	901,973,214
Credits on warrants	307,572,239
Credits on mortgages	48,052,600
Credits against collateral of bills	35,232,979
	1,292,831,032

[1] As no exact figures are available regarding the amount of the loans taken up by the co-operative societies in 1920, this figure is much lower than the actual loans.

[2] The relatively small number of agricultural co-operative societies receiving credits from the Agricultural Bank of Bulgaria (1,490) as compared with the total number of agricultural co-operative societies in the country (2,449) is accounted for by the fact that 675 agricultural co-operative societies for the insurance of cattle are dependent upon the co-operative Central Bank, which is in charge of agricultural insurance.

The co-operative societies receiving credits from the Bank may be divided as follows in accordance with the nature of their activities:

		Members
1,339	agricultural credit co-operative societies .	141,946
55	co-operative production societies	10,145
32	co-operative tobacco societies	20,300
27	co-operative unions.	1,146
22	co-operative syndicates	11,303
11	co-operative consumers' societies	2,510
4	various co-operative societies.	23,345
1,490	agricultural co-operative societies	210,695

II. POSITION OF BULGARIAN AGRICULTURE.

Bulgaria has not remained unaffected by the world depression, which is being very seriously felt. As the general causes of the difficulties encountered by agricultural countries are well known, we will not refer to them. We may merely note that the protectionist policy practised both in agriculture and industry since the war by most European countries with a view to making themselves self-supporting has, in our opinion, had a disastrous effect on economic conditions and has hastened the course of the events from which we are now suffering.

1. Development of the Agricultural Depression in Bulgaria.

In view of the conditions under which Bulgarian agriculture took its rise, it is not surprising that it has not yet arrived at a satisfactory stage of development and is still going through the normal difficulties of a period of growth. It is therefore suffering to a greater extent from the present difficulties than the agriculture of more highly-developed countries.

Strictly speaking, Bulgarian agriculture dates from the liberation of the country in 1878. Up to that time the farmers had been in a state of servitude and they were obliged to create their holdings out of land purchased from the large land-owners, who were for the most part Turks. As they had no funds they were obliged with few exceptions to borrow from moneylenders. The land was worked with inadequate means and gave a low yield, so that the peasant population was weighed down by debts and lived in actual poverty.

At the end of the last century the Agricultural Bank came to the help of the farmers, converted their debts into mortgage loans and saved them from ruin.

Since that time the position of agriculture has steadily improved; progress has been particularly rapid since 1908, as will be seen by the following figures:

		Swiss francs
In 1903	the production per inhabitant amounted to	102.98
1904	,, ,, ,, ,, ,,	,, 102.74
1905	,, ,, ,, ,, ,,	,, 108.60
1906	,, ,, ,, ,, ,,	,, 129.82

From 1908 to 1913 methods of cultivation became more rational; agricultural production increased and the farmers' living conditions were improved.

The value of the production rose from 726 to 778 million Swiss francs and the exports from 72 to 103 million Swiss francs.

This development continued until the Balkan war. During the long war period, which ended in the disaster of 1918, Bulgarian agriculture remained stagnant.

Thanks, however, to the proverbial thrift and industry of the Bulgarian peasant and to the high prices of agricultural products, relatively large savings were accumulated during the war. On the other hand, circumstances led to appreciable reduction in the area under grain and there was a considerable drop in the yield. From this period dates the development of tobacco-growing in the southern territories acquired after the Balkan war; tobacco then began to replace cereals as the primary export article.

After 1919 the farms were restored, the live-stock renewed and the land again placed under cultivation.

The relative abundance of money, the high prices of agricultural products and their easy sale favoured the development of prosperity among the agricultural masses.

Owing to the progressive depreciation of the leva the farmer received a constantly increasing number of paper leva for his products and was able without difficulty to pay off all the liabilities contracted before the war in gold leva. But unfortunately he often spent his savings on superfluous objects and did not endeavour to improve and rationalise his methods of operation.

Towards 1924-1925 difficulties began; the farmers' reserves diminished, and they had difficulty in meeting their various liabilities while still continuing to incur heavy expenses. The position became worse after 1928; the poor harvest of 1929 and the low prices obtained for the 1930 crop started the depression, which, in view of the capital importance of agriculture, soon spread to all branches of the national economy. The depression would doubtless have set in earlier and its consequences would have been still more serious but for the Refugees' Settlement Loan and the Stabilisation Loan, contracted under the auspices of the League of Nations, which from 1927 stimulated business by the introduction of fresh money. The crisis began to be felt as soon as the leva was stabilised, just at the moment when it might have been hoped that the financial restoration of Bulgaria would open an era of prosperity.

The depression is still continuing, spreading misery and discouragement.

2. Examination of Production, Prices and Receipts.

Before considering measures for improving the situation, we will give some figures showing the characteristics of agricultural production in recent years (1926-1930) as compared with the pre-war period (1908-1912).

In the tables contained in the first chapter of this report (pages 4 and 5) we have seen:

1. that the production of cereals forms the basis of agriculture and has a tendency to maintain its pre-war position;

2. that there is a very appreciable increase in the cultivation of oleaginous and industrial plants and other special crops of secondary importance.

The position may be summed up in the following figures:

Kinds of crops	Area planted or sown in hectares		Value of the production in Swiss francs	
	1908-1912	1925-1929	1908-1912	1925-1929
Cereals	2,460,446	2,438,612	414,422,499	550,697,000
Oleaginous and industrial plants	25,759	116,366	11,419,788	62,510,000
Orchards.	7,332	17,117	5,349,585	7,515,242

In 1910 the value of agricultural exports reached 129,052,000 Swiss francs, of which 80,811,000 represented cereals and only 2,056,000 oleaginous and industrial plants. In 1929, out of the total agricultural exports of 228,466,500 Swiss francs, cereals represented 25,836,153 and industrial and oleaginous plants 104,069,100 Swiss francs. The exports of live animals and live-stock products in 1929 amounted to 43,197,944 Swiss francs as against 20,326,000 in 1910.

There is therefore at the present time an obvious tendency to consume the cereals in the country and to substitute for them in external trade the industrial and oleaginous plants (tobacco) and live-stock products.

The prices of cereals, tobacco and eggs have developed since 1910 as follows:

Price per 100 kg. in Swiss francs.

	1910	1911	1912	1913	1925	1926	1927	1928	1929	1930
Wheat . .	17.42	16.22	18.54	18.89	28.80	27.84	24.30	23.86	22.24	14.37
Maize . .	11.63	11.32	13.50	13.22	14.91	11.59	12.41	18.25	15.95	8.28
Barley . .	11.43	11.95	15.35	15.66	15.91	13.43	17.51	19.05	14.80	6.71
Rye . . .	12.97	12.36	15.39	16.16	21.70	15.80	18.42	19.81	16.47	8.74
Tobacco .	106.56	91.43	100.53	125.46	119.4	96.—	157.—	255.—	223.—	187.—
Eggs p. hundred	5.35	5.75	5.35	5.29	7.61	7.67	7.80	8.71	9.40	7.10

The following variations have taken place in the index prices since 1908, taking 100 as a basis in 1910:

	Wheat	Maize	Barley	Rye	Tobacco	Eggs
1908	109	118	123	127	—	—
1910	*100*	*100*	*100*	*100*	*100*	*100*
1911	93	97	104	95	86	107
1912	106	116	134	119	94.4	100
1913	108	114	137	125	118	98
1925	165	128	139	166	112	142
1926	160	99	117	121	89	143
1927	157	106	153	142	146	145
1928	137	157	167	152	240	162
1929	128	137	128	135	210	175
1930	82	71	58	69	176	132

The prices of certain articles of prime necessity used in agricultural work have developed as follows since 1910:

Price per kg. in Swiss francs.

	Wheat	Salt	Petroleum	Iron	Cotton	1 plough Share No. 6
1910	0.174	0.20	0.43	0.25	2.23	46
1911	0.162	0.21	0.41	0.25	2.23	49
1922	0.185	0.22	0.45	0.25	2.23	49
1927	0.243	0.185	0.37	0.29	4.25	70
1928	0.238	0.185	0.37	0.29	4.25	70
1929	0.224	0.185	0.41	0.29	4.	65
1930	0.143	0.185	0.41	0.29	3.75	65
1931	0.111	0.185	0.41	0.29	1.10	62

On the basis of 100 as the price of wheat, the following figures are obtained:

1910	100	115	247	143	1,281	26,300
1911	100	130	250	154	1,376	30,000
1912	100	119	243	135	1,205	26,400
1927	100	172	152	119	1,780	28,807
1928	100	177.7	156	121	1,782	29,424
1929	100	182.5	183	129	1,785	29,018
1930	100	129	287	202	2,622	45,454

The receipts per farmer were as follows:

	Swiss francs		Swiss francs
1908	174.97	1925	
1909	160.31	1926	
1910	162.55	1927	263 to 218.
1911	159.48	1928	
1912	175.69	1929	
1913	174.32		

If we assume that prices dropped on an average 40 per cent in 1930 in comparison with the last five years, it may be calculated that the receipts per farmer have fallen to 158 Swiss francs.

The agricultural depression in Bulgaria began in 1929; the harvest was extremely bad, as 40 per cent of the winter sowings had been destroyed by frost. In addition, at the end of 1929 grain prices began to drop and the farmers were placed in a difficult position. The slump in prices which took place in 1930 was a veritable disaster in spite of an excellent harvest.

The present prices of cereals are 60 per cent lower than those obtained in 1928-29. Fortunately the drop in the prices of other agricultural products was less severe (from 5 to 20 per cent), thus to some extent mitigating the disaster.

As a result of the heavy drop in the prices of cereals, the returns from the land fell below the cost of cultivation.

The average yield of wheat, maize and barley per hectare was 1,200 kilos, 1,400 kilos and 1,500 kilos respectively in the large producing districts; the following table shows the receipts per hectare in Swiss francs for these three crops in 1910, 1911, 1912, 1927, 1928 and 1930:

Years	Wheat on a basis of 1,200 kg. per hectare	Maize on a basis of 1,400 kg. per hectare	Barley on a basis of 1,500 kg. per hectare
		Swiss francs	
1910	208.80	177.20	188.40
1911	194.40	168.50	188.—
1912	222.—	189.—	230.20
1927	319.20	173.70	262.65
1928	218.10	255.50	285.75
1929	295.70	223.30	222.10
1930 [1]	192.40	116.—	100.30

The drop in the receipts per hectare in 1930 as compared with the receipts obtained in the period 1927-1929 was as follows:

		On December 31st, 1930.
For wheat about	40%	57
For maize about	44%	44
For barley about	61%	61

About 35 per cent of the Bulgarian farmers derive their main income from crops other than cereals; they have therefore been less seriously affected by the drop in prices. The remaining 65 per cent have had their receipts decreased by about 55 per cent. On the other hand, costs have remained practically unchanged and were approximately as follows:

For wheat:	210	Swiss	francs	per	hectare	with a return of	133.2 Swiss francs.
For maize:	190	,,	,,	,,	,,		116 ,, ,,
For barley:	191	,,	,,	,,	,,		100.3 ,, ,,

3. Methods suggested for overcoming the Present Difficulties.

On January 1st, 1931, the Bulgarian farmer was therefore suffering a loss per hectare of 76.80 Swiss francs on wheat, 74 Swiss francs on maize and 90.70 Swiss francs on barley.

Under these circumstances, the question arises whether, in view of the present relation between the prices of these products and of industrial goods and colonial produce, the Bulgarian farmer producing cereals can continue to cultivate his land under existing conditions with any hope of success. Can he count on competing on the world market with the cereals of the large overseas agricultural countries which in view of the progress

[1] On December 31st, 1930, the receipts per hectare under wheat fell to 133.2 Swiss francs.

in their equipment and the extraordinary improvement in the yield, are enabled to produce enormous quantities of grain of a better quality and at a lower price ?

It would appear that for various reasons which we will briefly explain the Bulgarian farmer must give up the struggle.

We have seen in the first part of this report that the Bulgarian holdings are for the most part of small extent (5.7 hectares on an average) and are composed of numerous plots separated from each other. Under these circumstances the Bulgarian peasant is unable to utilise modern technical methods which would reduce his expenses for cultivation to a minimum.

We consider that it is impossible to unite the agricultural holdings into large estates. The Bulgarian peasant is so closely attached to his land that he can never abandon his feeling of ownership and agree to his property being incorporated in a collective estate.

The idea that the desired results might be obtained by co-operative production, using improved implements also appears to us, at any rate at present, to be an illusion.

Appreciable results might no doubt be obtained by joining the scattered plots of land into individual estates and, in general, by uniting agricultural property. But this would not make it possible to use modern technical methods with the same intensity, and therefore would not give the same yield, as in the immense farms of America, Canada and the Argentine.

The rounding off of holdings would naturally favour the farmers and would permit them to some extent to increase their production and reduce their working costs. But the results attained would still be insufficient to enable them to compete on the grain market.

In spite, however, of these difficulties and of the unfavourable prospects, the farmer must not abandon the production of cereals. Although he must continue his efforts to rationalise the cultivation of cereals with a view to satisfying the needs of internal consumption under better conditions, he must also realise that his prosperity and that of the country cannot henceforward be based exclusively on this type of agriculture.

In order to put an end to the present difficulties and to overcome the serious consequences of the depression, he must bring his production into line with the demands of the market. Agriculture must, therefore, be reorganised and new methods introduced. This must be done in accordance with a fixed plan and with the necessary financial means.

An example of what can be done in this respect is furnished by the increase in the production of tobacco, oleaginous plants, fruits, live-stock, poultry, etc.

In order to attain this aim the general plan for the improvement of agriculture drawn up some years ago by the Ministry of Agriculture must be put into effect both by the State and by the farmers, who should receive the necessary financial help.

As we have seen in the first part of this report, agricultural credits are granted by the Agricultural Bank directly or through co-operative societies, either in the form of short or medium term loans for current needs, or of long term loans for improving and developing the land.

At the end of 1930 the Agricultural Bank had given the following credits:

	Farmers in receipt of credits	Amount of credits in leva
1. Direct:		
Short and medium term. . .	326,000	2,241,000,000
Long term against mortgages.	14,000	380,000,000
Carried forward	340,000	2,621,000,000

	Farmers in receipt of credits	Amount of credits in leva
Brought forward	340,000	2,621,000,000
2. Through co-operative societies .	120,000	1,391,000,000
Total	460,000	4,012,000,000
In addition, the farmers had received from private persons or from private credit institutes (estimated figure)		1,735,000,000
The total agricultural debt was		5,747,000,000

The 750,000 agricultural holdings therefore receive a total credit of 5,745,000,000 leva (212,400,000 Swiss francs), that is to say an average of 7,666 leva (284 Swiss francs) per holding, or 1,345 leva (49.80 Swiss francs) per hectare.

If only the short and medium term credits granted by the Agricultural Bank itself or through the co-operative societies are taken into account, it will be seen that only 60 per cent of the holdings—*i.e.*, 446,000—are in receipt of credits amounting to 2,640,000,000 leva (97,400,000 Swiss francs) for their normal requirements, making 5,900 leva (218 Swiss francs) per holding, or 1,035 leva (38 Swiss francs) per hectare.

In view, on the one hand, of the numerous daily needs of agricultural undertakings and of the requirements for improvement purposes, and on the other hand of the Bulgarian farmers' lack of resources, it is evident that the credits granted are far below the minimum amounts required.

The position is still less favourable in respect of the long term loans which are indispensable for the modernisation and rationalisation of agriculture; only 14,000 farmers, —*i.e.*, 19 per cent of the total—owning 130,000 hectares, have been granted loans on mortgages. These loans amount to 380 million leva (1,407,000 Swiss francs), making an average of 27,000 leva (1,000 Swiss francs) per holding, or 2,920 leva (108 Swiss francs) per hectare.

The average interest paid on loans granted by private banks and moneylenders is estimated at 30 per cent. This imposes an extremely heavy burden on agriculture, and one of the most urgent measures is to free the farmers from liabilities contracted outside the Agricultural Bank and the co-operative societies. The present rate of interest on loans granted by the Agricultural Bank is 10 per cent, and there is a tendency to decrease this rate.

In accordance with a recent enquiry it is estimated that 3 milliards of leva are required in the form of agricultural credits to satisfy the various needs of Bulgarian agriculture.

The main points of the programme for the improvement of agriculture to which we have just alluded are as follows:

1. State execution of large operations, such as irrigation, drainage, etc.

2. An investigation of possible markets and provision for the regular sale of Bulgarian agricultural products by means of commercial treaties.

3. The creation in the country of all the conditions necessary for developing and promoting the exportation of products which can be easily and profitably sold.

4. The farmers, under the direction of the competent social and State organisations, must engage in a progressive reorganisation and transformation of their

holdings, and must develop new crops in accordance with market requirements. The following recommendations, which do not in any way claim to be exhaustive, may be made:

(*a*) an improvement in the quality of tobacco, while, however, using caution in increasing the planted area;

(*b*) intensive cultivation of certain industrial plants, such as hemp, flax, colza, etc.;

(*c*) the use of surplus maize, rye, and fodder plants for cattle-raising, with a view to obtaining derived products (meat, fat, butter, cheese, eggs, poultry, etc.);

(*d*) an increase in the cultivation of fruit trees, vines and vegetables, in order to compete in quality and price with similar products on foreign markets;

(*e*) an increase in the cultivation of fodder plants with the same object;

(*f*) a greater extension of agricultural industry (hemp, flax, preserved vegetables and fruits, etc.).

Agricultural co-operation must take the lead in the realisation of this vast programme which it is naturally impossible to summarise under a few headings.

Agriculture, especially if it has not reached an advanced state of development and has been engaged in a constant struggle, may be easily adapted to new conditions. The results achieved since the war by Bulgarian farmers, who have succeeded in appreciably changing the aspect of production, are particularly encouraging. The line indicated by market requirements must be steadily followed. In order to obtain quick results there must be not only a wide comprehension of what is required and a certain adaptability on the part of the farmer, but he must also have resources. The events of recent years have shown that the two first conditions have been realised in Bulgaria. In addition, the Bulgarian peasant shows no lack of industry and perseverance, but he has no financial means. The State is also without the resources necessary for improving the country by carrying out its vast plans. These resources must come from abroad; they must be in the form of long term credits, so that they can be easily repaid.

CANADA.[1]

Dr. RIDDELL,
Advisory Officer.

As far as the agricultural situation in Canada is concerned, while there apparently has been some over-production of wheat and fruit in comparison with the world demand at the present prices, there is distinct shortage of many other crops. In some commodities, such as beef, bacon and eggs, ruling prices are very high, while there is no exportable surplus. Dairy products have been showing a downward trend in spite of our very small exports, this being due to three factors—namely, the uncertainty of the United States tariff, the reduced consumption of cream, butter and milk in Canadian cities, and the very heavy importation of New Zealand butter at relatively lower prices than the Canadian product.

There does not appear to be any doubt but that the farmers are finding it rather difficult to make a decent living on their farms and in the majority of cases they do not appear to be willing to improve their production methods to meet the situation. An impression seems to prevail amongst them that the system of marketing is capable of a considerable amount of improvement, and it is along these lines that the Department of Agriculture feels some action should be taken in order to better conditions.

The merchandising policy followed by the trade organisations marketing agricultural products has been ineffective in encouraging the consumption of food products of high class quality, and as a consequence the producers are turning to co-operative organisation as the best means of protecting themselves against what they consider the unsatisfactory marketing methods of existing trade organisations. The Department of Agriculture is giving very careful consideration to this whole question of marketing, and it is held that the development of a satisfactory national marketing policy should be dealt with, not only as it relates to the home market but to empire markets and the markets of foreign countries as well.

There is no doubt in the mind of the average farmer but that there is too great a spread between the price he receives for his product and the price paid by the ultimate consumer. Unfortunately, it has not been possible, up to the present time, to obtain unprejudiced and reliable information as to what would be a proper spread, and consequently the producers have in the main come to the view that the fluctuation in prices, for which they themselves can see no reason, are due to speculative causes.

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[1] Dr. Riddell has prepared a detailed note, which will be published in the supplementary volume.

CUBA.

M. G. DE BLANCK

Envoy Extraordinary and Minister Plenipotentiary, Permanent Delegate to the League of Nations.

CEREALS, FOOD PLANTS, GARDEN PRODUCE AND FRUIT.

The Republic of Cuba consists of six provinces with a total area of 114,524 square kilometres, or 853,369 " caballerias ". (a caballeria = 1,343 ares). Of this area, 120,685 caballerias are under cultivation, 111,617 are covered with forests and 229,935 consist of pasture land.

In tropical countries maize is the staple cereal and corresponds to wheat in the temperate zone. Maize in sown on 6,455 caballerias, while, according to the latest official statistics, the Republic of Cuba imports about 700,000 quintals. This figure must have been considerably reduced by the economic depression. The maize is imported from the Argentine. The price of this cereal is so low that it is feared the farmers will be discouraged and cease to cultivate it. Cattle, whether intended for milk production or meat, are at present fed on maize; it is also proposed to use maize for feeding pigs, and an endeavour will be made to export this cereal.

Rice, which is consumed in large quantities, is only cultivated on a very small area. In 1928, the production amounted to 10,000,000lb. and in 1929 to 50,000,000lb. The Government is encouraging this crop and endeavouring to increase the average yield per hectare by distributing seed.

The production of coffee, which was formerly a source of wealth, especially in the period of slavery, had almost disappeared after the Wars of Independence. Since 1923, this crop has slightly increased. In 1925, the crop of the province of Oriente was 426,000 quintals, and in 1929 448,000; the latest statistics show a production of about 50,000 quintals in the province of Santa Clara and 8,000 quintals in the province of Pinar del Rio. In 1924, the imports of coffee amounted to about 36,000,000lb., and in 1928 to only 11,000,000lb. It is possible that in a few years imports will no longer be necessary.

Cocoa is cultivated in the province of Oriente. The production is about 73,000 quintals.

The area used for growing beans is small, although the country is very suitable for this kind of production; in 1928 the imports were 29,764,517 kilogrammes.

The production of garden produce is beginning to develop, as is also that of food plants, known as " viandas ". The yucca, in particular, is likely to develop largely, as starch, flour, fecula and other products can be easily extracted from it.

Potatoes are not yet cultivated in large quantities, but rapid progress is being made, as two crops can be obtained per year.

The commercial cultivation of fruit is still little developed except for the pineapple and banana; it is capable of making great progress.

SUGAR.

According to official statistics, the sugar-cane plantations in Cuba at present cover about 82,000 caballerias, or 10 per cent of the total area of the country; these plantations represent 67.81 per cent of the total agricultural wealth.

Sugar has apparently always been the principal crop in Cuba. In 1895—that is to say, at the beginning of the War of Independence—the sugar production reached 1,000,000 tons. During the four years of the war against Spain this production fell to 335,000 tons. From 1900 it again increased and in 1914 reached two and a half million tons.

The world war led to a great development in production, which rose from 3,700,000 tons in 1916 to the enormous figure of 5,000,000 tons in 1920, when unprecedented prices were paid. The average price in 1920 was 11.23 cents per lb., while the highest price was 23 cents.

The soil and climate of Cuba are extremely favourable to the cultivation of the sugar-cane; it is perhaps for this reason that the extensive system of cultivation is still used. It is estimated that, with the variety known as " crystalline ", the average yield is 50,000 arrobes of cane per caballeria. Recently, certain foreign varieties of cane have been introduced into the country, in particular P.O.J. (27-25), P.O.J. (27-14) and P.O.J. (28-78), which in some cases have yielded up to 200.000 arrobes per caballeria. If the intensive system of cultivation were adopted, the sugar production would greatly increase, especially if the land under cultivation were extended. This would be easy, as the land suitable for sugar-growing is estimated at 250,000 caballerias; while, as stated above, only 82,000 are cultivated. Cuba could, without difficulty, produce 20,000,000 tons of sugar.

Cuba is suffering severely from the world economic depression. An idea of the problem with which the Republic is faced will be obtained from the following figures regarding the main export product.

In 1924, Cuba exported 8,750,426,699 lb. of sugar, for which it received, at any rate in theory, $374,496,287. In 1925, it exported 10,882,399,222 lb., for which it received $280,349,739. The average price fell from 4.279 cents per lb. in 1924 to 2.575 cents in 1925. Since that time prices have fluctuated, but have, in general, fallen. In 1926, 10,299,822 lb. (at an average price of 2.302 cents per lb.) gave a return of $237,202,182. In 1927, 9,021,504,124 lb. (average price 2.819 cents) gave $254.393,529. In 1928, 8,302,847,133 lb. (average price 2.396 cents) gave a return of $199,021,415; and, in 1929, 10,271,686,000 lb. yielded $188,635,735 (average price 1.826 cents.) [1]

The following figures illustrate the price-level in relation to 1924:

Year	Value	Percentage of 1924 price
	$	$
1925	465,723,582	60.19
1926	440,782,192	53.82
1927	386,068,222	65.90
1928	355,322,077	56.01
1929	439,583,741	42.68

The following figures also show to what extent Cuba has been affected by the depression. In 1924, the value of Cuban exports amounted to $434,865,295 and had fallen in 1929 to $272,439,762 (or 37.5 per cent). From 1924 to 1929, the imports in round figures fell in the proportion of 25 per cent. During the same period the annual decreases in the exports amounted to a total of $645,419,546, and of the imports to $235,102,698.

The commercial and industrial activity of the Republic is so closely connected with sugar that the country naturally suffers from a drop in the price of this product in the international market. Present sugar prices are ruining almost all the producers and

[1] Report to his Government by Mr. F. Todds, Commercial Attaché of the United States at Havana, 1930.

causing the Government great difficulties; it is compelled, by the decrease in its resources, to effect large savings—in particular, by reducing the numbers and salaries of the officials.

On account of the drop in the price of sugar, the Cubans have endeavoured, in spite of the difficulties encountered, to introduce new crops and establish industries in the country. Though these efforts are modest, they are worthy of consideration in view of the possible future development. In the long run, they may contribute to the prosperity of the Republic and help to reduce the Cuban sugar production which, when added to the world production, is out of proportion to the consumption, at any rate in the present period of depression.

Tobacco.

Cuban tobacco is not an imported plant like the sugar-cane, but was found by the Spaniards when they discovered the island.

The following figures will give an idea of the importance for the Republic of this second staple agricultural product. In 1862, there were 11,550 tobacco plantations. At the beginning of the Wars of Independence the number was slightly over 9,000 (the crop amounted to about 560,000 bales of 100lb., which were exported in the leaf or in the form of cigars and cigarettes). At the end of these wars the number was only 1,250. In 1925 it had again risen to 1,426, [1] consisting of 1,649 caballerias of cultivated land, on which there were about 498,000,000 plants; 424,000,000 stems were cut and 73,000,000 young plants were lost.

The tobacco industry is in the hands of a foreign trust and a number of "free" factories. In 1927, the trust produced 55,000,000 cigars (the total exports being 90,000,000 in that year and 89,000,000 in 1929). The trust also produces cigarettes; in 1927, it produced 931,856,291 (58,241,018 packets) or 15.76 per cent of the total cigarette production. The Republic consumed 365,065,893 packets and exported 4,504,578, the total production being 369,570,471 packets. A restriction of the 1931/32 production is expected.

The local consumption of cigars and cigarettes in Cuba is very high compared with the population of three and a-half millions. In 1904, the consumption was about 184,000,000 cigars and 208,000,000 packets of cigarettes; in 1914, 188,000,000 cigars and about 234,000,000 packets of cigarettes; in 1920, 463,000,000 cigars and 336,000,000 packets of cigarettes; in 1927, 241,000,000 cigars and 365,000,000 packets of cigarettes.

The following quantities of stripped and unstripped leaf were exported: [2]

Year	Leaves $	Striped leaves $	Total $
1924	13,756,461	16,193,316	29,949,777
1925	13,330,864	15,418,039	28,748,903
1926	11,253,164	15,803,788	27,056,952
1927	10,429,808	15,102,299	25,538,107

Year	Leaves Lb.	Stripped leaves Lb.	Total Lb.
1924	17,241,116	14,419,303	31,660,419
1925	18,071,894	15,556,525	33,628,419
1926	22,787,622	17,446,281	40,233,903
1927	19,556,693	20,530,240	40,086,933

[1] "Memorandum submitted to the National Tobacco Propaganda and Protection Commission of Havana", A. González del Valle. Havana, 1929.

[2] In 1924, the crop amounted to 628,604 bales of leaf tobacco; in 1925, 458,191 bales; in 1926, bales and in 1927, 679,876 bales.

The following table shows the exports of cigars, cigarettes (in packets) and smoking tobacco (in lb.):

Year	Cigars	Cigarettes (Packets)	Smoking-tobacco lb.
1924	84,366,675	1,484,481	360,859
1925	108,721,553	2,748,050	469,622
1926	87,940,427	2,429,780	408,302
1927			332,426

The total values of these products during the four years in question were $39,405,807; $41,473,033; $37,345,544 and £36,424,499 respectively.

In 1928, the exports of tobacco leaf amounted to $27,846,857 and of manufactured tobacco to $11,567,138; about 98 million cigars were exported.

In 1929, the export trade in tobacco declined by $1,535,230 in comparison with 1928. The decreases in value were: leaf tobacco, $655,563; cigars, $831,798; cigarettes, $43,612; and smoking tobacco, $4,266. The decreases in quantity were: leaf tobacco, 162,690lb.; cigars, 8,730,000; cigarettes, 14,173,000; smoking tobacco, 18,186lb. Of these exports, 60 per cent went to Europe, 34.8 per cent to America, 2.6 per cent to Oceania, 2.4 per cent to Africa and 0.2 per cent to Asia. Cigar exports decreased by 8,730,000 as compared with 1928. The decrease was particularly great in America—*i.e.*, 12 per cent of the 1928 exports (the United States reduced their consumption by 4,263,000 cigars)—while the exports to Europe decreased by only 7½ per cent. [1]

In the last fifteen years cigar exports have greatly fluctuated, but have in general declined; in the period 1925-1929 they represented only 71 per cent of the exports in 1915-1919. The best recent years have been 1925 and 1928.

Average exports in the last three five-year periods:

Cigars.

1915-1919	
1920-1924	94,758,000
1925-1929	94,925,000

Cigarettes.

1915-1919	181,148,000
1920-1924	113,989,000
1925-1929	71,194,000

Smoking tobacco.

	lb.
1915-1919	721,856
1920-1924	599,465
1925-1929	359,593

1. The maximum export figure for cigars since the War of Independence was reached in 1906—*i.e.*,

Leaf Tobacco.

	$
1915-1919	32,856,334
1920-1924	38,454,853
1925-1929	38,511,212

The consumption of cigars in the last ten years has constantly decreased, while that of cigarettes and smoking-tobacco has been subject to fluctuations.

Annual Averages	Cigars (000's omitted)	Cigarettes (000's omitted)	Smoking-tobacco lb.
1920-1924	323,848	5,212,013	439,909
1925-1929	241,513	5,797,068	364,161

Conclusion.

An examination of the entire agricultural position in Cuba shows the gravity of the crisis through which the Republic is passing, particularly in respect of sugar. In view of this situation and of the world depression, together with the fact that many other countries are creating and protecting an artificial production, especially of sugar, Cuba, which was essentially a prosperous agricultural country using a large proportion of its profits to purchase all kinds of foreign products, has been obliged to protect itself by starting the cultivation of products which it formerly imported and by creating industries which it had hitherto considered unnecessary. In this manner, the country can no doubt to some extent reduce the export of its capital. It is as yet impossible to say what will be the final results of these efforts, which are still no more than a modest imitation of what has been accomplished in many other countries.

As regards sugar, it is hoped that practical results will be obtained by the well-known measures, described as the "Chadbourne plan", which have recently been taken in agreement with the sugar-producing countries.

As regards tobacco, it may be pointed out that this product, which is made by hand from a leaf grown in only one part of the territory, is looked upon as a source of revenue by countries wishing to obtain the greatest possible receipts on the ground that it is a luxury article; this fact naturally increases the price and hinders sales. The Governments which, by their Customs and fiscal measures, are helping to reduce the consumption of Cuban tobacco will finally realise the harm they are inflicting on themselves by their excessive taxes and will have to fall back on the common machine-made cigar with its colourless leaf and tasteless flavour and on cigarettes since smokers are gradually being obliged to give up Havana cigars. In the period of depression through which the sale of Cuban tobacco is passing, the exporters are endeavouring to combat the excessive duties and taxes and the imitations by which many people are deceived and thus to keep their remaining customers, by maintaining the high quality of their products while contenting themselves with modest profits.

The new agricultural and industrial production is already enabling the country to make certain economies and the future of this movement may be viewed with optimism.

CZECHOSLOVAKIA.

Dr. B. HANOSEK,
Chief Secretary to the Minister of Agriculture of Czechoslovakia

The different countries have suffered in various ways from the agricultural depression. The causes of the depression have operated in different directions and in varying degrees. In one group of countries, for instance, they have had primary consequences; in another group, their effects have been both primary and secondary, or entirely secondary. This phenomenon may be explained as follows: the general causes of the agricultural depression throughout the world have had certain definite consequences in a particular country, and these consequences, operating in their turn as fresh causes, sometimes produce secondary effects in their countries—either in conjunction with the general primary causes or more or less independently. The economic situation in the countries in question is complicated not a little by this combination of dynamic forces produced by primary and secondary causes.

In any attempt to analyse the position, we must as far as possible distinguish clearly between the effects of primary causes and those of secondary causes, without forgetting that the latter are the consequences of the former.

Thus it would be a mistake to attribute the depression in any particular branch of agriculture exclusively to over-production throughout the world, as there are often other causes more or less directly connected with over-production, such as certain economic measures deliberately adopted by third countries. In order to relieve depression in a particular branch of agriculture, we must find the remedies best suited to the particular case. The application of general remedies without reference to the specific causes of the crisis can never suffice to restore any branch of production suffering from depression any more than the use of general therapeutic methods in medicine can restore the human body to health, if the doctor ignores the specific causes of the disease which he is called upon to treat.

Economic remedies must be based on the principle of husbanding resources. Measures of protection based on erroneous suppositions disturb the interplay of economic forces and interests, and will sooner or later be felt as unjust or at least as endangering economic equilibrium.

When we study the problem in detail, we see the importance of the diversity of economic structure in the different countries.

The League went carefully into the problem of the economic relations between industrial countries and agricultural countries at the Preliminary Conference with a View to Concerted Economic Action held at Geneva from February 17th to March 24th. The difficulty of this problem was then realised and there was a wide diversity of opinion among those who took part in the Conference. If other experts were consulted, further differences would be revealed as regards the substance, causes, consequences and secondary aspects of the problem in question.

Even in the case of countries of homogeneous and one-sided economic structure—for instance, predominantly agricultural and predominantly industrial countries—it is by no

means easy to arrive at a true estimate of the difficulties involved in their mutual economic relations, and these difficulties are multiplied in the case of the economic relations of third countries to countries of mixed economic structure—that is, countries where industry and agriculture have both reached a very high level of development.

This is the aspect from which to approach the agricultural depression in Czechoslovakia, which is one of these countries with a twofold economic structure. The peculiar position of Czechoslovak agriculture as compared with industry at home and with agriculture and industry in other countries not only imposes upon it special functions in the economic system of the country itself, but determines the part it is to play in co-operation—and also competition—with other countries.

This peculiar position is thrown into special relief by the fact that Czechoslovakia is a small country with a large number of economic relations and is, consequently, very closely linked with—indeed, to some extent commercially dependent on—not only small countries, but also economically and politically powerful ones. Czechoslovakia is a Continental country which needs a sea-coast for her economic expansion. The geographical configuration of the country, elongated as it is from west to east, accentuates rather than diminishes this separation from the sea. This accident of geography determines the movement of the internal trade, as well as the export and import trade. Czechoslovakia is a bridge between West and East and touches two groups of countries totally different in economic structure and general civilisation.

She has for her immediate neighbours five countries, all of which have, besides their industrial interests, very powerful agricultural interests, three of them indeed—Poland, Hungary and Roumania—being predominantly agricultural.

In our relations with our neighbours, we have, unfortunately, been unable to arrange matters on a mutually complementary basis as regards our various agricultural products, so that every movement of an important agricultural product from Czechoslovakia to a neighbouring country, or *vice versa*, is felt as unwelcome competition by the importing country.

This renders the conclusion of commercial treaties more and more difficult, while at the same time militating against the stability of commercial treaties. It was for this reason that reservations with regard to the commercial treaties at present in force between Czechoslovakia, Austria and Hungary had to be inserted in the Convention of March 24th, 1930.

Another consequence of this state of affairs is that any step taken in one of these countries to protect agricultural production at home more effectively, or to promote exports of an important home product, necessarily so reacts on the agricultural interests of the neighbouring countries as to oblige the latter to take measures to neutralise, or at least to mitigate, the consequences to itself of such a step.

In order to explain the present position of agriculture in Czechoslovakia, we should like to say a few words on imports and exports of agricultural produce.

If we take the present volume of production, which is very small compared with the potential output, we find that Czechoslovakia covers her own requirements in cattle, dairy produce and edible potatoes, and in good years there is a potato surplus. There is a surplus of barley, rye and oats, but it is difficult to market it abroad owing to the very high protective duties and to other measures introduced by some of the neighbouring countries, which come under the head of " indirect protectionism ".

Of the principal export commodities may be mentioned sugar-beet, barley of superior quality, alcohol distilled from potatoes, malt and hops. Vegetables are more than plentiful, but it is difficult to export them.

Czechoslovakia imports wheat, flour, maize, bran, and the best qualities of fodder. Considerable quantities of pork and bacon are also being imported.

Among the causes of the agricultural depression which are peculiar to Czechoslovakia, we should like to add to the foregoing general considerations that the Customs duties in Czechoslovakia on the most important agricultural products are relatively low. The race to adjust tariffs arising out of the International Conference with a View to Concerted Economic Action could not but react on Czechoslovak agricultural interests. Czechoslovakia did not join in this upward movement, with the result that, in matters of commercial policy, she is now at a disadvantage, even as compared with the countries which signed the Commercial Convention.

The following figures may serve for a comparison between the various Customs duties on cereals and flour. At the end of March 1930, the duties on wheat amounted in Czechoslovakia to 30 crowns, while, expressed in Czechoslovak crowns, these duties amounted to Kč. 120 in Germany, Kč. 44.10 in Hungary, Kč. 41.80 in Poland, and in France Kč. 66 for uncrushed wheat and Kč. 105.60 for crushed wheat. The duty on rye was Kč. 38 in Czechoslovakia, Kč. 72 in Germany, Kč. 40.60 in Hungary, and Kč. 41.80 in Poland, while that on barley was Kč. 34 in Czechoslovakia, Kč. 120 in Germany, Kč. 41.80 in Poland, etc. The duty on wheat flour is Kč. 70 in Czechoslovakia, Kč. 252 in Germany, Kč. 80 to Kč. 151.80 (according to quality) in France, and Kč. 71.10 in Poland.

The tariff position and other economic measures taken by our northern neighbours have had the effect of flooding Czechoslovakia with foreign goods, thus producing a situation to which she cannot remain indifferent and from which she must seek to extricate herself. The competent authorities have considered the best means of dealing with this critical position and securing tolerable conditions for agriculture, regard being had at the same time to the interests of industry and of the consumer.

As regards future action by the League in the field of agriculture, I would like to emphasise the undoubted value of a direct exchange of views and the importance of the valuable information which the League has procured on the various problems in question. I am of opinion, however, that future conferences can only gain in utility if their programmes are strictly limited to specific problems. We can hardly expect to obtain concrete results by means of general conferences which endeavour to solve all the agricultural problems of the world at one and the same time. Meetings dealing with specific agricultural products and restricted to the countries specially concerned seem to me more likely to yield satisfactory results.

DENMARK.

M. EINAR COHN,
Chief of Bureau, Statistical Department.

In the course of the discussion at the first meeting of the Agricultural Experts in January 1930 I was able to state that the world agricultural crisis had not yet come to Denmark. Now, a year after, the general decline of the price level has influenced the conditions of our agriculture in such a way that the net revenue of our farms has been reduced by about Kr. 100 per hectare of the cultivated soil.

To explain the variations in the prices—which in this connection are of importance—I quote the following:

	January 1930	January 1931
Butter, Kr. per 100 kg.	305	235
Eggs, Øre per kg.	226	184
Pork, Øre per kg.	161	92
Beef, Øre per kg on the hoof . . .	48	38
Maize, Kr. per 100 kg..	13.60	8.10
Cottonseed Cakes, Kr. per 100 kg. .	16.45	13.75

Such a heavy fall in prices of the finished products must entail a very considerable reduction in agricultural revenue, if all the costs do not decrease in the same proportion.

The prices of corn and oil-cakes have fallen sharply, as the following proportional figures show:

	Price of butter, when price of cottonseed cakes = 100	Price of pork, when price of La Plata maize = 100
1929, 2nd half-year	1,514	1,011
1930, 1st half-year	1,411	1,216
1930, 2nd half-year	1,627	1,020

This indicates that there is rather an increase in the relation between butter and oil-cakes and an unaltered relation between pork and maize, but as Denmark imports only about 20 per cent of all its feeding-stuffs from abroad, and as the fixed charges of agriculture have remained unchanged (see below), the fall of prices will on the whole be synonymous with a reduced profit of the cultivation of the domestic feeding-stuffs, just as in the countries that sell their crops direct and not indirect as is the case in this country, by using it as fodder for pigs and cattle.

It is a doubtful advantage therefore, even to a country like Denmark, that the maize prices are falling, although the low prices of maize may tide the farms (especially the small ones, which buy more feeding-stuffs from outside than they grow themselves) over the

difficulties created in other countries by the general decline of the prices and Customs restrictions.

I drew attention to this in January 1931 because I wished to emphasise that the Customs restrictions and import hindrances, by diminishing the world market, give the buyers in countries with free import the possibility of getting the products cheaper, and thereby strengthen their power of competition in goods for the production of which they have been able to use cheaper raw products.

But in spite of this the effects of the fall of prices and Customs restrictions of foreign countries have, as already mentioned, caused a great reduction of the revenue of Danish agriculture.

The size of this reduction can be seen with fair precision by calculating revenue and expenditure for the closed financial year 1929-30 on the basis of the prices and the amounts of products per January 1st, 1931. I give the provisional figures for 1929-30, published by our Bureau of agricultural accountancy, and put the figures per January 1st beside them:

	Kroner per hectare Gross profit			Kroner per hectare Working expenses	
	1929-30	Jan. 1, 1931		1929-30	Jan. 1, 1931
Cereals, roots, seeds, etc.	61	35	Labour	272	270
Breeding of cattle . .	384	310	Oil-cakes, etc.	201	145
Breeding of pigs . . .	336	280	Fertilisers	32	30
Other domestic animals	45	40	Purchase of other goods.	71	65
Sundries	31	30	Other costs	137	140
Total	857	695		713	650

Of course these figures for January 1931 can only be provisional, but as the price variations, increased production, and the greater consumption of bought feeding-stuffs have been taken into account, they probably give a fairly correct picture of the changes which have taken place from the agricultural year 1929-30 till now. In the item "labour" an allowance (of about 150 Kr.) has been made for the proprietor and his family's own work on the farm, and "other costs" include taxes on the property, insurance, and repairs.

The decrease of about Kr. 100 per hectare of the net profit shows how much Danish agriculture has been affected by the fall in world prices. The decrease in the prices of butter and pork is probably due in part to the fall in the price of the maize used as raw material, in part to the reduced buying-power through the general slump in prices, and in part to increased production, especially of pork. However, the census of pigs which was made in this country on January 15th, 1931, showed that the increase in stock had ceased, so that Danish agriculture has, by limiting the production, pointed the way to a general settlement of the difficulties of international agriculture.

The statement indicates that Danish agriculture also is interested in arresting that part of the fall in prices of the finished products which is due to the fall in prices of raw materials, through a stabilisation and rise in the prices of maize, as it will always be difficult and take time to get the fixed expenses brought down. The statement further shows that in spite of the decrease agriculture makes a living for the family, which has been fixed at about Kr. 150 per hectare and a surplus of Kr. 45 in addition, so that it cannot be said that this country dumps agricultural products in the sense that they are being sold in a manner unremunerative to agriculture as a whole.

Survey of Prices paid to Producer and Prices paid by the Consumer up to January 1931.

P. p. = *Prices paid to producer.*
P. c. = *Prices paid by consumer.*

Butter.

	P. p. in Kr. per 100 kg.	P. c. in øre per kg.	Difference	
			Øre	%
January 1929	340	383	43	12.7
April 1929	280	330	50	17.9
July 1929	300	348	48	16.0
October 1929	346	395	49	14.2
January 1930	305	353	48	15.8
April 1930	250	296	46	18.4
July 1930	246	297	51	19.7
October 1930	248	298	50	20.2
January 1931	235	284	49	20.9

Eggs.

	P. p. in øre per kg.	P. c. in øre per 20 eggs.	In øre per kg. (20 eggs = 1.20 kg.)	Difference	
				Øre	%
January 1929	226	382	318	92	40.7
April 1929	126	250	208	82	65.1
July 1929	146	253	211	65	44.5
October 1929	182	308	257	75	41.3
January 1930	226	373	311	85	37.6
April 1930	116	222	185	69	59.5
July 1930	114	221	184	70	61.4
October 1930	154	277	231	77	50.0
January 1931	184	322	268	84	45.6

Pork.

	P. p.	P. c.								
		Fresh shoulder of pork in øre per kilogramme	Difference		Pork cutlets in øre per kilogramme	Difference		Salt pork in øre per kilogramme	Difference	
			øre	%		øre	%		øe	%
January 1929 .	153	153	0	0.0	269	116	75.8	242	89	58.2
April 1929 . .	173	177	4	2.3	334	161	93.1	262	89	51.5
July 1929. . .	177	181	4	2.3	360	183	103.4	270	93	52.5
October 1929 .	157	178	21	13.4	328	171	108.9	268	111	70.7
January 1930 .	161	161	0	0.0	283	122	75.8	255	94	58.4
April 1930 . .	169	168	1	0.5	279	110	65.1	257	88	52.1
July 1930. . .	144	141	3	2.1	296	152	105.5	225	81	56.2
October 1930 .	110	129	19	17.2	241	131	119.1	210	100	90.9
January 1931 .	92	105	13	14.1	213	121	131.5	166	74	80.4

Beef.

	P. p.		P. c.					
	In øre per kg. on the hoof	In øre per kg. slaughtered	Beef (foreqr.) in øre per kg.	Difference		Beef (prime qual.) in øre per kg.	Difference	
				øre	%		øre	%
January 1929 . . .	42	80	149	69	86.3	262	182	227.4
April 1929	42	95	159	64	67.4	268	173	182.1
July 1929	50	105	164	59	56.2	282	177	168.6
October 1929 . . .	46	95	159	64	67.4	272	177	186.3
January 1930 . . .	48	95	156	61	64.2	271	176	185.3
April 1930	45	100	159	59	59.0	271	171	171.0
July 1930	46	95	157	62	65.3	283	188	197.9
October 1930 . . .	46	85	154	69	81.2	267	182	214.1
January 1931 . . .	38	80	147	67	83.7	261	181	226.2

Potatoes.

	P. p.	P. c.					
	in Kr. per 100 kg.	In large quantities (in øre per 50 kg.)	Difference		In small quantities (in øre per kg.)	Difference	
			øre	%		øre	%
January 1929	6.50	617	584	89.8	16	9.5	146.2
April 1929.	9.00	785	660	73.3	19	10.0	111.1
July 1929	—	611	—	—	16	—	—
October 1929	6.00	623	646	107.7	15	9.0	150.0
January 1930	6.50	635	620	95.4	16	9.5	146.1
April 1930.	5.50	626	702	127.6	16	10.5	191.0
July 1930	—	—	—	—	—	—	—
October 1930	5.00	616	732	146.4	16	11.0	220.0
January 1931	4.50	570	690	153.3	15	11.5	233.4

Wheat and Wheat Flour.

	P. p.[1]	P. c.		
	In kr. per 100 kg. of wheat	In øre per kg. of wheat flour	Difference	
			øre	%
January 1929.	16.44	34	17.6	107.0
April 1929	17.44	35	17.6	101.0
July 1929	15.77	34	18.2	115.4
October 1929.	15.87	34	18.1	114.1
January 1930	16.19	34	17.2	106.2
April 1930.	14.31	33	18.7	130.7
July 1930	15.87	32	16.1	101.7
October 1930.	12.72	31	18.3	143.8
January 1931	11.31	29	17.7	156.4

[1] Average quotations for the previous month.

Milk.[1]

	P. p.	P. c.		
	At farm in øre per litre	(Delivered free in bottles) in øre per litre	Difference	
			øre	%
January 1929	18.0	37.2	19.2	106.7
April 1929	15.9	36.0	20.1	126.4
July 1929	17.2	36.5	19.3	112.2
October 1929.	18.1	36.5	18.4	101.7
January 1930	16.0	32.9	16.9	105.7
April 1930	12.8	28.2	15.4	120.3
July 1930	14.0	31.4	17.4	124.3
October 1930.	13.7	31.5	17.8	129.9

In the case of butter, eggs, pork, beef and potatoes the retail price given is that for the first week of the month named, whereas the price paid to the producer is the quotation for the previous week. In the case of wheat flour the retail price is that for the first week of the month named, whereas the price paid to the producer is an average of the quotations for the months preceding that for which the retail price is established. The milk prices shown are an average for the quarter in question. The prices paid by the consumer are the prices paid in Copenhagen.

[1] Average for the quarter in question.

ESTONIA.

M. P. RUBEL,
Councillor at the Ministry of Agriculture.

I. INTRODUCTION.

The difficulties caused by the general economic depression were experienced earlier in other countries; they were not fully felt by Estonian agriculture until 1930.

The drop in prices which took place in previous years had to some extent been set off by an increase in the crops and a decrease in expenditure due to a reduction in capital investments. This had been made possible by the great agrarian reform effected at the beginning of Estonia's independence.

Moreover, there was not a great difference between the farmers' receipts in 1927 and 1928 (years of high prices) and in 1929, when a period of low prices set in, since the Estonian crops were poor in 1927 and 1928.

Good crops were obtained in 1929 and 1930, especially in the latter year, and resulted in a rapid fall in prices. The first difficulties were then encountered, which the Government is taking steps to overcome.

The importance of agriculture in the economic life of Estonia is clearly shown by the fact that it directly occupies 59 per cent of the population. If the number of persons engaged in agricultural industry and trade is added to this figure, it may be estimated that about two-thirds of the total population depend on agriculture for their livelihood. If the population is divided according to the place of residence, it will be found that in 1929 67.3 per cent of the population lived in the country districts and 32.7 per cent in the towns.

The following comparative table shows the net receipts from agriculture and industry during the three years for which figures are available:

Year	Agricultural products		Industrial products	
	Kroons	%	Kroons	%
1925-26	233,608,000	100	43,571,000	18.6
1926-27	202,438,000	100	44,775,000	22.2
1927-28	213,286,000	100	52,660,000	24.7

During these three years industrial production therefore represented only 18 per cent to 24 per cent of the agricultural production. When it is further considered that a great part of the main agricultural products is intended for export, it will be seen how important a part agriculture plays in Estonian economic life.

The total value of the main agricultural products, compared with the value of exports (average figures for 1927-28 and 1928-29), is as follows:

Products	Total production		Exports	
	Kroons	%	Kroons	%
Dairy produce. . . .	60,187,000	100	30,363,000	50.4
Flax	14,804,000	100	9,756,000	65.9
Timber products. . .	14,111,000	100	17,810,000 [1]	126.3
Eggs	5,356,000	100	1,982,000	36.9

[1] The value of the timber and forestry exports is higher than that of the total production, because these products are to a great extent sold after being worked, their value thus being increased.

The various figures already given regarding the occupation and place of residence of the population and the importance of the total agricultural production and export show that Estonia is an agricultural country, and that its prosperity depends very largely on the possibility of exporting its agricultural products.

In addition to animal products, flax and forestry products occupy an important position in Estonian agricultural exports.

II. Nature of the Depression.

The clearest and most impartial view of the agricultural difficulties in recent years is supplied by the figures of the Estonian Agricultural Accounting Office on the yield of the net capital invested in agriculture. In the last three years the average return on the net capital invested in the undertakings considered was as follows:

1927-28	3.34 per cent.
1928-29	1.95 per cent.
1929-30	1.64 per cent.

The budget year is from April 1st to March 31st. The drop in the return which occurred in the second half of 1930, as a result of the very serious fall in agricultural prices, is not yet reflected in these figures. The difficulties which arose in 1930 may, to some extent, be followed by observing the growing insolvency of the farms, as shown by the rapid increase in the number of protested bills.

The number and amount of protested bills from 1928 to 1930 is as follows:

Year	No. of bills	Total amount in kroons
1928	45,155	10,340,000
1929	83,788	18,990,000
1930		19,850,000

This table gives the total number and amount of protested bills in Estonia. It is difficult to ascertain what portion belongs to agriculture; the decrease in the average amount of the protested bills, however, would seem to suggest that, in recent years, a

greater number of the farmers' bills were protested, as these bills are generally for smaller amounts than merchants' bills.

The indebtedness of agriculture has also increased from year to year. No exact figures are available except for loans granted by the State which, according to statistical inquiries, form more than 50 per cent of the total indebtedness. These loans amounted on December 31st, 1928, to a total of 33,220,000 kroons. On August 1st, 1930, this figure had risen to 50,932,000 kroons, making an increase of about 32 per cent in two years. Private credits amounting to about 34 million kroons should be added to these State credits.

III. The Causes of the Depression.

Among the causes of the depression should be mentioned, in the first place, the drop in the prices of the main export products on foreign markets. During the last five years the prices of the principal agricultural products exported from Estonia, in particular butter, flax and forestry products, have developed in the following manner (1926 price = 100):

Year	Butter	Flax	Timber
1926	100	100	100
1927	104	131	117
1928	116	157	122
1929	111	127	137
1930	87	80	108

The decline in prices in 1929 and 1930 followed a fairly favourable price level in 1928. The optimism engendered by the favourable prices in 1928 stimulated the spirit of enterprise and facilitated credit. The drop which followed brought about a decrease in solvency and caused difficulties; efforts are being made to overcome these difficulties to some extent by means of new loans.

The difficulties have been considerably increased by the fact that the prices of agricultural products fell more rapidly than the purchase prices of articles required by agriculture.

The movement of the general price index for agricultural export products during 1926-1930 (1913 = 100) was as follows:

Year	Index number of prices of export products
1926	122
1927	
1928	152
1929	139
1930	103
January 1930 .	123
December 1930	83

At the end of 1930 the prices of agricultural export products had fallen considerably below the pre-war level. Taking 100 as the price index number for agricultural exports in 1913, prices had fallen to 83 in December 1930, making a drop of 17 per cent as compared with 1913. When it is further considered that this extremely low index at the end of 1930 was reached after the very high figure of 152 in 1928, it will be understood how farms obtaining their earnings from the export of agricultural products were affected.

The decline in agricultural prices has not been accompanied by a proportional decrease in the cost of production. In the medium and large farms, wages form an essential element in the cost of production. Until 1929 wages showed a constantly rising tendency, and it was only in 1930 that a slight decline occurred. We give below the average monthly wages of workmen engaged by the year (1926 = 100):

Year	1926	1927	1928	1929	1930
Monthly wages. . . .	100	100.4	104	108.8	102

Another important factor adversely affecting the agricultural situation is the protectionist policy of countries importing agricultural products. This policy finds expression in the increase of Customs duties, the allocation of import quotas and the application of veterinary administrative regulations. Moreover, some countries endeavour to promote their exports by direct or indirect bounties.

There is not a single agricultural export product in Estonia which has not suffered from one of the above causes. In view of the great importance of agricultural products in Estonian exports, it is evident how much the national economy of the country has suffered from the changes in the conditions of foreign trade. In 1930 the exports of agricultural products represented the following percentages of the value of the total exports: Butter, 32.7 per cent, timber 9.8 per cent, flax 4.1 per cent, live animals, meat and meat products 2.5 per cent, eggs 2.2 per cent, potatoes 0.6 per cent.

Among the difficulties affecting the external trade should be mentioned, in the first place, the Customs duties introduced in 1925 and considerably increased in the autumn of 1930 by Germany, the principal market for Estonian butter. Of the other countries importing Estonian butter France also raised the import duties in 1930. The drop in butter prices was accentuated by the export bounties introduced in certain countries, in particular Australia, Latvia, Lithuania and Poland.

Obstacles to the sale of live animals, meat and meat products are constantly being created by administrative regulations issued for veterinary and sanitary reasons. Some countries create similar difficulties by means of purely administrative regulations. As an example, a case may be mentioned of regulations requiring that certain goods intended for retail sale should be provided with a mark of origin. While Estonia was formerly able to export meat to the Swedish market, these exports have become practically impossible since the introduction of Swedish regulations requiring that meat should be stamped with the name of the country of origin. A similar condition is applied to Estonian eggs on the English market. Other administrative provisions have also impeded the sale of Estonian products on various foreign markets.

In addition to the external difficulties the decline in prices on the home market has tended to increase the agricultural depression. This drop has had a twofold aspect. In the first place it has affected products imported from abroad to cover part of the needs of the towns (for instance wheat). The prices of these commodities have dropped in the same manner as on the world market. In the second place a drop in prices has been caused by the increased production of articles the export of which has not yet been satisfactorily organised on account of the uncertainty or insufficiency of the quantities available for export (meat, potatoes, vegetables).

The farmers' difficulties in paying off the short-term loans (bills of exchange)contracted as a result of the fall in prices, cannot be relieved by converting these loans into long-term credits, as the existing financial conditions hardly permit of such an operation. The cheap long-term credits hitherto obtainable were supplied out of Government funds. But in view of economic difficulties the Government is no longer able to invest considerable amounts in agriculture. The farmers who had taken up private short-term loans are therefore now in great difficulties. Estonia is especially interested in converting the agricultural short-term credits into long-term, or at any rate, medium-term credits.

On the free market long-term credits are only obtainable on payment of high rates of interest, up to 12 per cent. The high rate of money, which is out of proportion to the reduced return on agriculture, and the impossibility of obtaining private credits except for short terms, form, together with the fall in agricultural receipts, one of the causes of the present difficulties.

IV. Measures for relieving the Depression.

As only high quality goods realise favourable prices on foreign markets, the Estonian Government has introduced an official control of agricultural products intended for export. This control has existed for flax since 1920, for dairy produce since 1921, for meat and meat products since 1922, for potatoes since 1922, and for apples since 1925. It prevents the export of goods of poor quality which would have an unfavourable effect on prices, and it impels the producers to produce better and therefore more expensive goods. By the control of exports and the organisation of agronomic consultations, the quality of agricultural exports has been raised up to a standard recognised on foreign markets, and it has thus become easier to dispose of these products.

In order to improve the position of agricultural industry the Estonian Government has established a number of special funds for granting cheap credits to various branches of this industry. By a law which came into force in 1930 these funds are administered by the Rural Economic Fund Council, which works in conjunction with the Estonian State Bank for long-term credits. They are used for financing co-operative dairies, the bacon and flax industries and certain other related industries. The rate of interest is from 2 per cent to 3 per cent. At the beginning of 1931, however, these funds had only a total capital of about 6 million kroons.

In order to check the decline in prices on the home market, the Government in 1930 raised the import duties on wheat and fats. In the same year it introduced a Customs duty on barley in order to support the home prices of barley for brewing.

As rye prices fell considerably in 1930 on the world market— and this fall was accentuated by the export bounties granted by some Governments—Estonia was obliged to set up a monopoly for the importation of rye and rye flour in order to protect this cereal on the home market. Under the monopoly law the Government has the exclusive right to import rye and rye flour. The Government can either import the goods direct or grant import licences to persons or private firms. The rye produced in the country is purchased from the peasants by the Government, the time, place, quality and price being fixed by the Government. The object of this import monopoly is to enable the Government to regulate the price of bread.

As the depression in Estonian agriculture only became acute in 1930, effective measures to counteract it could only be taken during that year. The Government will now endeavour to take other steps in the same direction. In this connection, as stated above, the problem of long-term credits and reduced rates of interest is of special importance.

FINLAND.

Dr. EMIL HYNNINEN,
Former Minister.

The national economy of Finland comprises three main branches of production: agriculture, forestry and industry.

Agriculture is in many respects the most important for the livelihood of the population. In 1920, agriculture was the principal occupation of 65 per cent of the population, about 80 per cent of whom live in the country. The rural population also earns considerable amounts by the sale of timber; 51 per cent of the forests capable of exploitation belong to private persons, principally farmers, while 65 per cent of the annual growth falls to the share of private forests. The largest proportion of the profit earned on forestry, which has been estimated in recent years to amount to about 1½ milliard marks, thus falls to the share of the rural population. It has been computed that, in 1922, agriculture accounted for approximately 38 per cent of the national revenue of the country, industry for 34 per cent and forestry 22 per cent.

Finnish agriculture differs from that of various other countries by the comparatively small exports to foreign countries. Professor Jutila estimated the total agricultural output on farms on 1924-25 at 6,619,000,000 marks. The value sold was 3,546,000,000 marks—*i.e.*, 54 per cent—while the remainder was consumed on the farms. The export of agricultural produce from farms was about 600,000,000 marks, the value of the produce sold on the Finnish market 2,946,000,000 marks. The exports of agricultural produce consequently amounted to only 9 per cent of the output.

Thus, the Finnish market is essential for Finnish agriculture. The world market is, however, also of great importance, since the prices ruling on the world market determine those obtaining in the Finnish market.

The principal *agricultural products exported* from Finland are butter, cheese, and skins and hides. The following table shows the exports in tons and in millions of marks:

Year	Butter		Cheese		Skins and hides	
	Tons	Millions of marks	Tons	Millions of marks	Tons	Millions of marks
1911-1915	11,444	381	1,245	31	2,695	59
1921-1925	8,561	316	2,508	56	3,131	66
1925	13,191	478	3,820	77	4,755	102
1926	13,212	428	2,887	51	5,302	97
1927	15,076	475	2,949	54	5,679	111
1928	13,376	458	1,648	33	5,084	113
1929	16,606	537	2,194	40	5,370	99

The present production of cereals in Finland is insufficient for the needs of the population. In the years mentioned in the following table, the crops of grain per head of the population in kilos were:

Year	Rye and wheat	Barley	Oats and meslin
1911-1915	82	32	115
1916-1920	70	31	107
1921-1925	89	36	149
1926	93	44	171
1927	100	40	182
1928	85	35	162

Finland has been a regular purchaser of large quantities of foreign grain. In the last two years, the imports of cereals and secondary products have amounted to over 900,000,000 marks per annum.

For several years after the war agricultural conditions in Finland were satisfactory; the disparity between the prices and costs of production of agricultural produce was not so great as in some other countries. Finnish industry, the principal branches of which are timber and paper, also developed in the post-war years, and there was an increase in wealth among the industrial population. The conditions were therefore comparatively favourable for the sale of agricultural products in Finland. At the same time, for several years after the war there was a good demand for butter and cheese, the principal export products of the country, and prices were satisfactory in comparison with the cost.

Under these circumstances, the farmers appeared to be assured of a modest livelihood. In the years mentioned below, the net profit on invested capital was as follows:

Year	Net profit Per cent
1912-1914 (average)	4.4
1922-23	4.7
1923-24	1.8
1924-25	4.9
1925-26	5.8
1926-27	4.9
1927-28	5.4
1928-29	3.8

In the year 1923-24, the poorness of the harvest brought about a relative decrease in the profit on agriculture. In the other years between 1912 and 1928, the net profit varied from 4.4 per cent to 5.8 per cent on the invested capital.

It should, however, be taken into consideration that after the war interest rates were relatively high in Finland. The average rates of interest on loans granted by the co-operative credit societies were as follows:

Year	Rate of interest Per cent
1925	8.18
1926	8.72
1927	8.81
1928	8.41

At the end of 1929, 135,000 farmers were members of co-operative credit societies. Many farmers have borrowed money, particularly from private persons living in the

country or from banks, on which they pay interest at higher rates than those indicated above.

In comparison with some other countries, the indebtedness of agriculture in Finland has until recently been relatively low. In respect of farms keeping accounts, the indebtedness in 1912-13 represented 16 per cent of their total value. It decreased as a result of the inflation, and in 1921 amounted to only 6.6 per cent. After the war, for various reasons, the farmers were again obliged to borrow.

An important agrarian reform had been carried through in Finland. In 1910, there were 125,172 independent farms with more than half a hectare of agricultural land and 96,167 similar farms held on lease. In 1912, the total number of leased farms, including buildings, was 151,926. By the end of 1928, 101,949 leased farms had been converted into independent farms. The farmers who thus became owners took energetic steps to improve their property; they extended cultivation, repaired the old dwellings, stables and barns, and in many cases constructed new buildings; they improved their live-stock, etc. In view of the more intensive economic development after the war, the independent farmers (even those who were independent before the reform) invested capital in productive work to a greater extent than formerly. As a result of this activity, the area under cultivation increased from 1920 to 1928 by 162,000 hectares and the live-stock by 6 per cent. At the same time, the use of artificial fertilisers was increased and many technical improvements were introduced; from 1920 to 1928, the number of fodder units per hectare increased from 858 to 1,282.

Professor Gebhard has estimated that between 1918 and 1928 Finnish farmers spent about 4,000,000,000 Finnish marks in buildings, bringing land under cultivation, increasing the number of milch cows, agricultural machinery, etc. During the same period, 260 new co-operative dairies, 115 new co-operative consumers' societies, a large number of sawmills for domestic requirements, flour-mills, water-supply systems, etc., were installed in the rural communes. The communes also built a number of elementary schools, communal homes, hospitals and electric stations. Professor Gebhard estimates that from 1918 to 1928 about 2,700,000,000 marks were devoted to these objects.

At the beginning of 1930, the Government ordered an investigation into the indebtedness of the farmers.

Indebtedness was, on an average, 12.8 per cent of the capital value of the property. Consequently the average indebtedness of Finnish farmers is not very high. It should, however, be remembered that, according to the above enquiries, the ratio varies greatly from farm to farm.

According to categories the indebtedness was as follows:

		Per cent
1.	Farmers with no debts.	19.7
2.	Indebtedness less than 1,000 marks per hectare of farm land . .	16.2
3.	Indebtedness 1,000-3,000 marks per hectare of farm land. . . .	29.7
4.	Indebtedness 3,000-6,000 marks per hectare of farm land. . . .	20.6
5.	Indebtedness 6,000-10,000 marks per hectare of farm land . . .	9.7
6.	Indebtedness exceeding 10,000 marks per hectare of farm land .	4.1
		100

According to the above figures the total indebtedness of Finnish agriculture may be estimated at 6,500 millions of marks on 250,000 estates. Of these estates 34 per cent are indebted to the extent of 3,000 marks, or more, per hectare of farm land. More than one-third of the total estates therefore are encumbered with what may be regarded as a very heavy indebtedness.

In 1929, the interest payable on these debts was 8-73 per cent. In most cases, the loans had been granted to the farmers by private persons, co-operation credit societies, savings banks and also by commercial banks.

The first symptoms of the agricultural and economic depression in Finland began to appear in 1928, when the sawmill industry began to be seriously affected by the competition on the foreign market. In recent years, Russia and Poland have appeared on the timber market in competition with Finland and Sweden, which, after the world war, were among the principal timber-exporting countries. As market conditions became less favourable, the farmers' income from the forests gradually decreased, while their work in the rural communes and in industrial centres no longer brought the same profit.

In addition, Finland had a poor harvest in 1928. The grain crop was 10 per cent lower and the potato crop 11.4 per cent lower than the average for 1925-1927. The value of the 1928 crop is estimated at 4,778,000,000 marks—503,000,000 marks—*i.e.*, 9 per cent less than in the previous year, when it amounted to 5,281,000,000 marks.

As a result of the boom after the war, a great deal of capital was invested in buildings in the Finnish towns, while imports greatly exceeded exports, particularly in 1928. This brought about a serious shortage of money in all branches of production.

This unfavourable position began to make itself felt in agriculture in the year 1928-29; on the Finnish farms which keep accounts, the profit on agriculture dropped to 3.8 per cent. In 1930, agriculture encountered serious difficulties through the fall of world prices, which caused a considerable decrease in the price of agricultural products in Finland and the ratio between costs of production and sale prices became very unfavourable for the producers.

The prices of rye and butter were:

	Rye, per kilo, c.i.f.		Butter, per kilo, f.o.b.	
1929	Mark	Penni	Marks	Penni
January-June . . .	1	85	32	23
July-December. . .	1	61	32	99
1930				
January-June . . .	1	08	26	42
July-December. . .	—	88	25	01

It will be seen from this table that in the second half of 1929 there was a heavy fall in the price of rye, the principal grain consumed in Finland; this fall has continued in 1930, so that the price of rye decreased by 50 per cent.

The unfavourable position in which Finnish rye producers were placed was caused in the first place by the drop in rye prices on the world market and in the second place by the fact that in 1928 and 1929 there was a good crop in Germany and Poland, which countries were enabled by their system of export bounties to compete on the Finnish market.

This situation made it necessary to increase the Finnish Customs duties on cereals. In 1929 the Customs duties on unmilled rye were only 50 penni per kilo; from the beginning of 1931 they were 1 mark 25 penni per kilo. If a further slump occurs in the rye market, these duties may be reduced to 75 penni per kilo. With a view to encouraging local milling, the Customs duties on milled grain, including rye and wheat, have been greatly increased.

Butter prices in Finland are entirely dependent on the world market and the reduction in the Finnish prices is caused exclusively by the fall in England and Germany, the most important markets for Finnish butter.

The fall in prices of agricultural products would not have affected the economic prosperity of the country to such an extent if costs of production had decreased at the same time. If the 1926 price be taken as 100, the prices of the commodities and groups of commodities mentioned below were in 1930 as folllows: wheat, 76; dairy products, 84; meat, 88.

On the other hand, the index prices for fertilisers, for instance, was, in 1930, 90 on an average, and for the produce of the industry of the local market, 96.

In Finnish agriculture, wages represent approximately 60 per cent of the cost of production. Agricultural wages rose after the war and were 9 per cent higher in 1929 than in 1913. It must, however, be taken into consideration that payments in kind are customary to a greater extent in Finland than in many other countries. According to an enquiry made by the Social Statistics Section in the Ministry of Social Affairs, agricultural workers receiving part of their wages in kind were paid in 1929 in the proportion of 46.6 per cent in money and 53.4 per cent in kind. Payments in kind include principally lodgings, wood fuel, sufficient grain for the entire year, unskimmed milk, etc. According to this enquiry, day labourers also usually received food and in many cases lodgings. In 1929, 74.5 per cent of the day labourers received food in winter and 69 per cent in summer.

Servants hired by the year usually receive food. In 1929, only a small proportion of servants were not in receipt of food—namely, 11.9 per cent of the men and 1.8 per cent of the women.

As payments in kind are very much practised in Finland, price fluctuations do not affect wages to the same extent as if payment were made only in money. If, for instance, 53.4 per cent of the wages is paid in kind, the actual wage, as far as this portion is concerned, remains the same in spite of the drop in the prices of agricultural products; only that part which is paid in money—namely, 46.6 per cent—can be considered as having increased.

In 1930 the wages of agricultural workers were reduced. The daily winter wage of workers receiving their board fell by 7.8 per cent, their summer wages being reduced by 8.6 per cent; whereas the summer daily wages of workers who did not receive their board fell by 5 per cent as compared with 1929.

It is evident from the above that Finnish agriculture is encountering great difficulties due to the fact that the ratio between costs of production and sale prices has in recent months become very unfavourable for the producers. Finnish farmers are for the most part small landowners. In 1924, small holdings stood in the following relation to the entire agriculture of the country:

	Per cent
Area of holdings	44
Cattle	53
Agricultural capital	43
Total production	47
Sale of agricultural products	41
Expense of agricultural work	51
Purchase of agricultural implements	44

Even in normal years, the small farmers had to live frugally and work long hours. On account of the recent heavy fall in the prices of agricultural products, their profit is decreasing and their standard of living is being lowered. The owners of large estates employing more paid workmen and working for the market to a greater extent than the small farms are in a still more difficult position.

The present worldwide agricultural depression may be considered as due to the following causes:

1. The increase in the value of gold and, in consequence, a general fall in prices;
2. The great increase in the supply of agricultural products since the war;
3. The decrease in the consumption of agricultural products caused principally by the fact that the use of motors has made it possible to dispense with a large number of draught animals, and also by the fact that high import duties have prevented the natural increase in consumption.

As some of these causes of the agricultural crisis are of a permanent nature, the depression will probably continue. It will take years to adjust wages to the lower price-level created by the change in the value of gold.

A great deal of time will also be required to absorb a proportion of the agricultural population in other trades and thus decrease the supply of agricultural products in producing countries while increasing the demand and consolidating prices in consuming countries.

The causes of the agricultural depression in different countries appear to be universal. In Finland, it may be considered as a local crisis due to the same causes. The possibility of overcoming it is therefore very limited. As regards the export of such products as butter and cheese, Finland can only endeavour to decrease costs and to improve the quality of the products in order to compete on the world market.

Up to the present, she has bought excessive quantities of grain and various agricultural products from abroad, amounting to 950 million marks in 1928 and 993 million marks in 1929. As the increase in production and the Customs policy of certain countries have made it more difficult to sell dairy produce on foreign markets, Finland should do everything in her power to develop the production of grain within the country and in this respect to become less dependent on foreign countries.

Efforts should also be made to secure the home market for Finnish meat. This will entail the adoption of a suitable Customs policy and the granting of Government loans at low interest to the co-operative societies in order that they may erect modern factories with cold storage installations. The Government decided in the first half of 1931 that loans up to a total of 30 million marks would be granted from certain State funds to farmers' co-operatives for the construction of modern granaries, slaughter-houses and pork factories, and for the conversion of the short-term loans at a high rate of interest granted to dairy co-operatives into long-term loans at a low rate of interest.

It will be seen from the above that the agricultural depression is seriously felt in Finland. It should, however, be possible to overcome it gradually on account of the large number of small farms where most of the work is done by members of the family who are accustomed to a modest existence and to hard work. The co-operative and professional agricultural organisations, which are comparatively well developed in Finland, are endeavouring to decrease costs of production, to improve the quality of the products and to create a good sales organisation. It is of great importance that steps should be taken on a national basis to strengthen the commercial and professional organisations and the farmers' credit institutions, and thus to create the requisite conditions for the success of international co-operation in agriculture.

FRANCE.

M. JULES GAUTIER,

President of the National Federation of Agriculturist Associations of France.

I. THE AGRICULTURAL CRISIS THROUGHOUT THE WORLD.

The complaints of agriculturists are loud in all countries and have compelled recognition of the *existence* of an agricultural crisis. But " agricultural crisis " is too general and vague an expression and does not adequately describe the situation. A study of the difficulties and even severe sufferings of agriculturists shows that certain general causes have been operative in the majority of countries; but not all of them are in the same position or suffering equally from the same evils. The " world crisis of agriculture " should rather be considered as a phenomenon simultaneously appearing in different quarters, a concurrence of national crises or crises of particular branches of agriculture. Before generalising, it will be well to study the general economic phenomena with which we are confronted in all their complexity. The enquiry which the Economic Committee is making in expert agricultural circles should put us on our guard against premature generalisations.

This enquiry is certain, however, to show that the present agricultural depression has its origin in the upheavals occasioned by the war. Four years of destruction were bound to have their effect on the economic situation of the individual nations and of the whole world for a long time to come.

Men have died in millions and have not been replaced. The requirements of consumption have altered quantitatively and have taken new forms.

The flow of commerce has changed its regular channels. In one direction it has been accelerated, in another retarded. To feed the belligerents, distant lands were induced to increase their production. With the return of peace and the repair of the devastations these countries became competitors, finding themselves face to face with reviving national agricultural systems on the defensive.

Industrial enterprises, stimulated to abnormal activity by war orders, have endeavoured to maintain their production on a scale which is no longer in conformity with the requirements of the market. The old balance between agriculture and industry has been upset. Industry has been able to maintain the high level of prices for its products; agriculture has not.

Both wholesale and retail trade have widened the gap between the prices paid to agriculturists and the prices paid by consumers. The character of trade has, moreover, been modified. Formerly it purchased, it accumulated stocks and distributed in accordance with current requirements, fulfilling the functions of a regulator of the process of commercial exchange. The growth of taxation, the increase of transport charges and of rents, the abrupt fluctuations of prices and the restriction of credit by the banks have driven numbers of traders into becoming brokers, commission agents and, above all, speculators.

The financial and monetary crises which in varying degree have attacked almost every country have also not been without their effect on agricultural producers. In general, the latter have not been among those who have benefited. Apart from tenant-farmers and *métayers* with pre-war leases, who benefited by the fall in the value of the currency, the agriculturists are in the main amongst those who have suffered from the monetary crises.

Such are the principal phenomena which have provoked the general agricultural depression. But we have to consider how each of the several countries has been affected and how each is seeking to cope with the situation. This is the object of the enquiry and of this reply.

II. The Agricultural Depression in France.

In France, as elsewhere, the agricultural crisis is a consequence of the destruction and economic upheavals of the war.

The danger to agriculture was not confined to the invaded territories (which represent 6.31 per cent of the total agricultural area). Properly speaking, even in the interior of the country, land which was left uncultivated or badly cultivated, or wholly or partly deprived of fertilisers, has had to be restored to its former condition. Between 1913 and the end of 1918, live-stock was reduced by 343,000 horses, 943,000 cattle, 1,285,000 sheep and 463,000 pigs. Dwelling-houses and agricultural buildings in the invaded districts had been allowed to deteriorate or had been rendered unusable or even reduced to powder. Tools and equipment had been taken away or broken up. In the interior of the country, upkeep and repairs had been neglected or omitted.

It has taken years to restore the land to its former fertility, to rebuild and to reconstitute equipment and live-stock. It was not until 1925 in the case of grain, 1924 in the case of barley, 1926 in the case of oats, 1924 in the case of potatoes and 1927 in the case of sugar-beet that France again had harvests more or less equivalent to those of the years before the war. The stock of cattle did not reach its former figure until 1926.

During the period in which French agriculture was unable to supply the requirements of consumption and the fall of the currency led to a nominal increase in prices, economic policy—on the pretext of fighting " the increase in the cost of living "—was altogether unfavourable to agriculture.

The growing activities of industry, the restoration of the mines in working order and the reparations in the devastated area led a large number of young cultivators, who were without capital or were in search of easier conditions of life, to abandon agriculture. The fall in the birth rate during the war is beginning to make its effects felt in the countryside, and recourse to child labour is frequent. The introduction of foreign labour is only a palliative for the labour shortage.

The agricultural crisis finds expression in a greater increase of prices for the objects and services for which the agriculturist has to pay than in the case of the products which he is in a position to sell. The ratio of the stabilised franc to the gold franc being taken at 5, we get the following index numbers of the agriculturist's expenditure in 1929-30:

Fertilisers:

Nitrate of soda	5.14
Sulphate of ammonia	4.21
Mineral hyperphosphates . . .	5.41
Basic slag	5.97
Sylvinite	4.78

Anticryptogamous products:	
Iron sulphate	14.25
Copper sulphate	6.72
Sulphur	7.42
Material and equipment:	
Plough	5.03
Corn-drill	5.84
Fertiliser distributor	5.30
Reaper	7.26
Rake	6.7
Reaper and binder	6.97
String for binders	5.38
Threshing machine	6.35
Foods for live-stock:	
Linseed cake	9
Earth-nut cake	8.25
Plata maize	7.09
Compressed hay	8.45
Compressed straw	4.69
Wages:	
Year's wage	8 to 10
Summer wage of day-labourer	10
Winter wage of day-labourer	9
Clothing:	
Workman's suit	8.5
Black waistcoat	9
Velveteen trousers	8
Leather boots	7.5
Sabots	8
Building:	
Cubic metre of masonry	10
Tiling	7.3
Wood framing	8

The following are approximate index numbers of the prices paid for agricultural products to the producer during the last two years:

	In 1928-29	In 1929-30
Wheat	5.6	4.5
Oats	6	4
Beef	5.5	5.6
Pork	6.9	4.75
Milk	5.6	5.5
Butter	6	5.8
Wine	9	5.3

Although the harvests of 1929-30 were abundant, the fall in the exchanges has meant an actual loss on the season for a very large number of cultivators and has been the occasion

for Government intervention, taking the form in part of various increases in protective duties.

The persistence of the agricultural depression has led to changes in the rural economy of France, of which the following are the chief:

The area under cereals and, generally speaking, the area under cultivation has been reduced, and the grassland and pasture have increased. Stock-raising, which requires less labour and in recent years has been more remunerative than the cultivation of the primary crops on the system of rotation, has taken the place of the latter to an extent which should not, however, be exaggerated. It seems, moreover, that the saturation point is nearly reached on the national market, both in the case of the production of meat and in the case of the production of milk, butter and cheese.

The cost and the shortage of labour, coupled with the burden of taxation, block the progress of large-scale enterprises which would be in a position to operate on rational lines.

Small and medium enterprises have maintained their position and still constitute the high percentage of the total which is characteristic of the rural economy of France; but cultivation on a small scale, particularly in cases where the farms are split up into scattered plots, involves an amount of fatigue for the cultivator for which there cannot be any reasonable remuneration. The small and medium enterprises cannot be kept going except by recourse to co-operation in all its forms—provision of supplies, working up and sale of products, credit, insurance, interchange of ideas and the like. The co-operative principle has made very marked progress since the war; but it is not yet generally adopted.

At the beginning of the period of the devaluation of the franc, the nominal and deceptive rise in prices and the opening which it afforded to borrowers to pay off their obligations in a depreciated currency led to a fairly large number of tenant-farmers be comingowners of their land. The extent to which this took place must not be exaggerated; it was confined in the main to certain districts and has not altered the general proportions of the distribution of the tenure of the land.

The need for bringing the agricultural production of the country up to a point at which it is in a position to satisfy the national requirements, in spite of a decline in the cultivated area, and at the same time the necessity for increasing profits on account of the visible increase in the costs of production, led to the search for forms of cultivation which promised an increase of yield. In the case of grain, an average yield of 18 quintals per hectare has been obtained, whereas before the war the average yield was only 13.5 (the averages vary in the different departments from 8 to 40 quintals per hectare).

The general recourse to increasingly intensive cultivation involves two consequences. In the first place, agriculture becomes a capitalist industry, requiring, not (as formerly) plenty of strong and unwearying arms, but machinery, equipment and fertilisers, all of which cost much money. Those who have not the capital required must have recourse to credit. Here is one of the factors which tend to discourage the young agriculturist. The heavy initial capital investment and the need for a working fund to cover all contingencies prevents many from attempting this form of cultivation, hampers the most enterprising and makes them reluctant to assume charges under which a bad harvest may become a crushing misfortune. Agriculture is thus not looked upon with favour.

The second consequence is that, where all are endeavouring to produce on the largest possible scale in order to get a reasonable return on their efforts and on the money which they have borrowed, there is a great risk of over-production, of the market being flooded with a harvest larger than it requires, with the result of a fall in prices even below the cost of production.

This raises the question of the fundamental factors which are responsible for this state of things, factors which up to the present appear to be permanent and calculated, if they are not vigorously combated, to keep agriculture in a precarious condition.

III. Necessity of Organisations for the Regulation of Agricultural Production and for the Distribution of Agricultural Products.

The chief objection to the use of the expression "agricultural crisis" is that it suggests that the present conditions are transient and that, after a difficult period, a normal and stable prosperity will return. The answer to this is to be found in the circumstance with which all agriculturists are acquainted, but which economists accustomed to general considerations and statistical methods are only too apt to forget; that the agriculturist is compelled to live and carry on his business in unstable conditions, subject to perpetual variations, of which it is impossible to predict either the moment of arrival or the extent. There are no absolute or permanent elements in the business of agriculture; all depends on accidental and individual factors.

Above all, agriculture is dependent on atmospheric conditions, on what (to conceal our ignorance of natural laws) we call the vagaries of nature.

When one studies the statistics of agricultural production over a series of years, one cannot fail to be struck by the immense variations in harvest returns, although the areas under cultivation remain very nearly constant. The following, for example, are the figures for the principal agricultural products in France during the last five years:

	1925	1926	1927	1928	1929
		(In millions of quintals)			
Wheat	89.9	63.0	75.1	76.5	95.0
Oats	47.5	52.8	49.8	49.3	57.4
Maize	5.0	3.2	5.2	3.0	4.9
Potatoes	151.9	111.3	175.2	112.6	166.1
Sugar-beet	53.7	48.6	60.0	58.0	53.6
		(In millions of hectolitres)			
Wine	65.0	42.6	51.2	57.9	62
Cider and perry	9.9	12.3	26.7	13.8	23.3

The disastrous harvests of 1930 will constitute another characteristic demonstration of the instability of agricultural production.

In the world as a whole, no doubt these variations adjust themselves—but not always. The variations may take the same direction in a large number of countries, with the result that there is either over- or under-production.

In the first case, the consequence is a lowering of prices, to the extent (it may be) of collapse, and a disastrous difference between the sale price and the cost of production, with the resulting impoverishment or actual ruin of the agriculturists and the diminution of his purchasing-power, with all the effects which that involves for industry; and the paradoxical conclusion is that a good harvest, and still more two good harvests in succession, have come to be regarded as a catastrophe. That is the first case. In the second case, where the world's harvest is short, prices rise—to the advantage no doubt of those of the producers who have anything to sell, but to the disadvantage of the consumer—and the cost of living increases with all the economic and social consequences which follow such an increase. If the harvest is bad in one country and abundant elsewhere, the countries which are short are flooded with foreign products, and the prices they can obtain for their own products no longer bear any relation to their cost of production. In either case, there is a lack of balance, an instability in the condition of the producer which calls for protection, protection which Governments cannot refuse. The protectionist system is in reality only a reflection of the instinct of self-preservation.

The production and exchange of agricultural products are not governed by any reasoned rule; each producer produces at random and for his own account, without giving a thought to his neighbour unless it is to prevent him, as occasion may serve, from escaping from his embarrassments. Consequently, there is no organisation, apart from certain rudimentary efforts which threaten only to result in increasing the disorder: in a word, the conditions are anarchical.

Trade should act as the regulator of the process of commercial exchange. But it does not now fulfil this function, or it fulfils it inadequately. The trader is not governed by consideration of the general interest; he is concerned only with his own profits. He has no interest in maintaining the balance of production and consumption, because it is in the periods of disturbance of that balance that he obtains his biggest profits—not without, it is true, incurring the biggest risks. He endeavours to forecast the disturbances of the balance between supply and demand on this market or on that. That is what is called speculation. If he is in a position to do so, he tries by the circulation of tendentious or mendacious information to intensify these disturbances, from which he hopes to derive a maximum of profit.

One is forced to the conclusion that this anarchy ought to be replaced by some stabilising organisation. It is true that this cannot be done in a day. Before proceeding to constitute the national organisations for centralised action—the union of which will make international action possible—it will be essential to see that the local and regional organisations are working satisfactorily in every case. There will be need of patience; but immediate action is imperative.

Let it be said at once that the proposed organisation, if it is to have specialised sections, cannot be confined to cereals or in particular to wheat. In view of the interdependence of the various agricultural products and the requirements of human food supply, the preliminary studies and future agreements will have to cover all sides of the question.

It is comparatively easy to trace a programme of action in its main outlines. Ascertain the extent of available resources and requirements, and publish the results as rapidly as possible in order to prevent the speculators from profiting by the ignorance of the sellers; pave the way for a standardisation of profits and a classification under clearly defined and generally recognised categories and qualities; ensure that international exchanges are effected by the most rational machinery, and to that end abolish all dumping and export premiums, take into account average costs of production and sale prices in the various countries, restrict imports into countries with a shortage to the quantities they require, and, in a word, make the process of commercial exchange a manifestation of economic solidarity instead of another form of war under the name of commercial competition.

As to the means of organisation and execution of this programme, I do not expect the League of Nations to create a special organisation or to assume the rôle of standing regulator of the production and consumption of foodstuffs in Europe, and, incidentally, throughout the world. But the League should be the impelling spirit behind private initiative in this direction. It should help to bring the parties together and to facilitate combination as and when the opportunity arrives. It is the duty of the League to advise. It has the authority which can bridge over difficulties and dissipate misunderstandings. In the first instance, it can do much in the field of co-operation by promoting understandings, first in each country separately and then internationally, between the co-operatives of producers and the co-operatives of consumers, with a view to promoting the rational distribution of products and the fixing of fair prices.

It would be premature to propose plans and projects for immediate realisation. But a valuable step forward will have been taken if the Economic Committee will substitute for too general a study of the agricultural crisis the consideration of the

systematic and pacific organisation of the exchanges of agricultural products between exporting and importing countries. I will add in conclusion that, until a rigorous enquiry (which need not take long, since the elements of the problem are to be found already scattered throughout the statistical returns) has drawn up an inventory of the normal requirements of each country, and of its normal capacity of production of foodstuffs, has established the volume of surpluses and shortages and considered on what lines and by what means, and under what transport tariff conditions, the stocks can best be disposed of and the shortages made up, and indicated by what supplies of raw materials or finished or half-finished products, the countries with a large industrial production are to receive, by purchases from the producing agricultural countries, the compensation for the deliveries of agricultural products which they have themselves accepted—until all this has been done, manipulations of Customs tariffs will, in my opinion, provide only haphazard and ephemeral solutions of the trouble, and will only have the effect of postponing the moment when it will be possible to contemplate firm and lasting foundations for the economic organisation, first of Europe and then of the world.

The simplified and seductive theory of a Europe divided exactly into two clearly delimited halves, with the agricultural countries in the east and the industrial countries in the west, must be put on one side from the outset, as the starting-point for a rational organisation. There is no country which is not at once agricultural and industrial. It is a question of degree. In the east of Europe, there are agricultural countries which are at the same time industrial, and are only too anxious to increase their industrialisation. The theory leads nowhere. Its fundamental premiss is at fault. The question is more complicated, and it is useless to cherish illusions on the point.

As regards the enquiry which I propose, the League of Nations is the only body which can undertake such an enquiry and bring it to a successful conclusion. The League alone is in a position to take account of the multiple factors, at once political and social, of the agricultural economic problem, which factors call for attention and, if neglected by imprudent theorists, will soon force themselves on the latter's attention. The work is delicate, no doubt. The League of Nations has solved more difficult problems with success, and, with the aid of all the goodwill on which it can now rely in the agricultural world, it cannot fail to succeed.

ALGERIA

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Agriculture in Algeria could hardly suffer more than in the mother country from the effects of the fall in prices on the world market, since Algeria is protected by the same Customs regime. But Algeria has been suffering from a crisis of her own, mainly due to the vicissitudes of her inconstant climate and also to her economic evolution and organisation.

Two very different systems may be distinguished in Algerian agricultural production: the native system and the European system. The latter, known as the colonisation system, produces a gross yield of 16 quintals of all products to the hectare, the former yields 6 quintals to the hectare. While the colonisation system concentrates on viticulture, the native system is confined to the growing of cereals, stock-breeding and the cultivation of certain trees such as the fig, the olive and the date-palm, antiquated methods being followed with insufficient equipment. Out of about 4.5 million hectares under cultivation, 62 per cent is cultivated under the native and 38 per cent under the European system; and out of an aggregate production of 4 to 4.5 million tons, 53 per cent is produced by the European and 47 per cent by the native system.

About one-third of this production is exported, 62 per cent being represented by wine, 19 per cent by cereals, 2.5 per cent by cattle, and 16.5 per cent by various products, mainly dried vegetables, potatoes, fresh vegetables, citrus fruits and dates. The value of these exports represents about 83 per cent of the total exports, which came to a yearly average of 3,633 million francs for the period 1925 to 1929, as against 1,540 million francs[1] for the period 1901 to 1910; in 1930 it rose as high as 4,552 million francs, including 2,232 million francs in various agricultural products and 1,776 million francs in wine.

The average annual value of the imports for 1925 to 1929 rose to 4,689 million francs, against 1,971 million francs for the period 1901 to 1910, and to 5,829 million francs in 1930. Foodstuffs were responsible for 17.4, 21 and 18.3 per cent respectively of the total imports during the periods 1925 to 1929, 1901 to 1910 and 1930. Since 1928, imports have shown an appreciable increase in the number of tons of building materials (cement, tiles, marble, glasswork, iron and other metal work, etc.), mineral and lubricating oils, bar-steel, sheet-iron, copper and lead; soap, wax candles, tallow candles; paper, machinery (especially for flour-mills), railway material and articles in cast-iron. On the other hand, 1930 showed a setback in imports of motor-cars, tractors and agricultural implements, clothing and luxuries. Expenditure is being cut down in Algeria as in France.

The result is that Algeria is suffering from a deficit of her trade balance, the fluctuations of which depend, generally speaking, on the size of the good or bad harvests, and, especially during the last few years, on the activity of the building trade in the towns and the extension of vineyards, a distinguishing feature of the present period. During 1925 to 1929, this deficit averaged 1,066 million francs yearly, as against 431 million francs for the period 1901 to 1910, and reached 1,980 million francs in 1929, before sinking to

[1] In this note all values are estimated in francs at the current rate of exchange.

1,277 million francs in 1930. With increased exports of agricultural produce, the tonnage of which rose abruptly from 100 in 1925 to 1929 to 138 in 1930, the deficit on the trade balance should have been less pronounced. As a matter of fact, although the unit of value for the export of the principal product, wine, has not materially varied (between 100 and 105), it has sunk in the case of other products, especially cereals (from 100 to 73).

The yearly variations of this deficit reveal the vicissitudes of the climate and their influence on the economic activity of the country and the process of colonisation. A marked increase in the deficit is shown as the result of the good harvests of the Europeans as well as the bad harvests of the natives, and a setback occurs in the years following the bad harvests of the Europeans, since the failures of the native system necessitate heavy imports of cereals, and colonising activity requires the import of various materials.

Nevertheless, the persistent deficit on the trade balance since 1920, which totals 13,634 million francs for the eleven years 1920 to 1930, is completely abnormal, even considering that Algeria has been supplied with equipment during this period at prices which so far have been well above the prices ruling for agricultural produce. In spite of that, the agricultural production has developed considerably, as may be seen from the increase in agricultural exports.

It is true that this deficit is partly offset in the budget by the Treasury's expenditure in Algeria, which is estimated at 600 million francs per annum, and by the repatriation of the wages of native labourers working in France, amounting to about 120 million francs per annum; but it is aggravated by the expenditure of Algerian farmers during their various periods of residence in France.[1] When everything is taken into account, Algeria would have an annual credit balance of 700 million francs, making 7,700 million francs in eleven years, which would reduce her deficit to 6 milliard francs for that period. This sum represents the French and foreign capital invested in Algeria between 1920 and 1930, apart from the capital raised in Algeria itself.

The latter is considerable. As far as agriculture alone is concerned, the value of the exports of agricultural produce was 31,041 million francs between 1920 and 1930. If it is assumed that, as was the case for the period 1925 to 1929, Algeria exports 30 per cent of her agricultural produce, the value of the latter for the period in question comes to 93 milliard francs, of which 15 to 20 per cent has been saved for investment in new undertakings—*i.e.*, a sum of about 18 milliard francs, to which may be added part of the 6 milliards imported. The total invested in agriculture in Algeria since the war may therefore be estimated at 20 milliards at least.

The agricultural production of Algeria hardly appears to have developed to such an extent during the last ten years as to necessitate capital on such a large scale; after all, production only increased from 100 to 150 between 1900 and 1930. It is true that vineyards covering 100,000 hectares have been planted since 1920; this may have taken 4 to 5 milliard francs. The remainder is partly in the banks, or has been used in enlarging the towns. But, without doubt, the greater part has been invested in agriculture in order to improve conditions, to supply machinery, and especially to enlarge properties.

At the same time, the necessity for credit has considerably increased. Whereas the aggregate amount of short-term loans granted by regional banks was 411 million francs between 1920 and 1925, it rose to 1,402 million francs for the period 1926 to 1930, and exceeded 470 million francs for the year 1930 alone. It is true that this increase is partly due to renewals of bills which have often been given for several years on end, but the amount of new credits granted is none the less considerable. Allowance must also be

[1] Account should also be taken of the arrears due by Algeria to the mother country in respect of dividends, mortgage interest, etc., which are, however, offset by the interest paid by the mother country in Algeria on State loans.

made for the commercial debt, which is difficult to estimate, but is undoubtedly large. Commercial banks have also granted large credits in order to utilise their deposits.

Further, according to the official statistics, the value of uncultivated land has increased from 1,100 francs per hectare before the war to 2,620 francs in 1929 when sold by Europeans to natives, and from 700 to 1,880 francs when sold by natives to Europeans. That means an increase in value from 100 to 235 and 254, while the increase in the value of agricultural produce between 1900 and 1930 did not exceed 160, and this value now shows a tendency to fall rapidly to the level of 1900. Moreover, in transactions between Europeans, the increase in the price of land is still higher.

Algeria is clearly over-capitalised, which makes the economic situation extremely unstable. We need not dwell upon the obvious over-capitalisation of urban real estate—the building of which has been largely helped by the colonisation movement—due to competition, which has pushed up the price of building land to absurd heights and led to a considerable increase in the price of materials and made skilled labour difficult to obtain, wages sometimes exceeding 120 francs a day. What we have chiefly to consider is the over-capitalisation of land.

The cause of the latent crisis which is liable to arise at any moment, if the prices of wine or cereals decline even slightly, is to be found in this over-capitalisation of the land. This crisis will be due less to the fact that land values are so high than to the increasingly wide fluctuations in the prices of agricultural produce, the amount of working capital that has to be sunk in an agricultural undertaking, the shortage of labour, which makes it necessary to increase the amount of fixed capital laid out on material, and the precarious nature of the harvests, which is aggravated by the inconstant climate; all these considerations help to reduce the real value of the land. The price ought to be the lower in proportion to the difficulties of working.

With the decline in the prices of agricultural produce, this inflation of land values and credit will bring about a crisis which will be the severer because the consequent burdens on country property increase from day to day, in the shape both of taxation and of arrears, the rate of which normally varies from 8 to 12 per cent, and land values must perforce depreciate still further.

In the present circumstances, this over-capitalisation of the European economic system is accentuated by a complete lack of organisation, especially where the sale of agricultural produce is concerned, since the majority of the farmers, hard pressed by their creditors, are compelled to sell their harvests as soon as they are in, if not before. Consequently, most of the Algerian wheat-growers sold their crops in May and June of 1930 at the lowest rates, fearing a further fall. Many vine-growers also, who did not dispose of their harvests in the autumn of 1929, sold their wine at bottom prices in May and June 1930.

It cannot be denied that the lack of organisation in the Algerian economic system, and more especially the agricultural system, is the cause of most of the difficulties experienced and the crises that occur as a result of bad harvests or falls in the prices of agricultural produce.

It is even fair to suggest that this absence of organisation in the process of colonisation which makes its precipitating effects felt in every direction, is fraught with more serious consequences for the latter than the caprices of nature, with her alternating extremes of excessive drought and torrential rain.

In any case, it is the native economic system that is most hit by the variability of the climate, owing to the small return from the badly worked soil and the increasing lack of grazing-land for cattle, since great stretches of pasturage have been thoughtlessly destroyed in the process of colonising the 6,500,000 hectares now held by the colonist, only one-third of which, however, is really under cultivation. Excessive drought in the autumn of 1930, which made sowing impossible on the European estates, badly hit the

native cattle-breeders, and 60 per cent of their stock died in the south, while the beasts that remained lost 50 per cent of their value owing to the lack of pasturage on the north, and especially to the insufficiency of water-holes. This involved a total loss of 688 million francs, representing 80 per cent of the initial value of the stock, and the natives will take several years to recover from this disaster.

The alternation of good and bad harvests, which succeed each other at more or less short intervals according to the variability of the climate, affects the economic situation of the Europeans as well as that of the natives. Usually the latter suffer more; but the process of colonisation becomes affected to the same extent as soon as it reaches regions of pasturage where the nature of the soil and the light rainfall make cultivation a most hazardous affair. Moreover, in the process of colonisation excellent pasturage is destroyed,

Annually 925 to 1929	Principal products						Yearly average of exports				Production (1930) in quintals (000's omitted)
	Europeans		Natives		Total		1925 to 1929		1930		
	Quintals (000's omitted)	‰	Quintals (000's omitted)	‰	Quintals (000's omitted)	‰	Quintals (000's omitted)	%	Quintals (000's omitted)	%	
ereals . .	6,635	290	10,899	550	17,534	410	2,403	185	4,335	240	19,556
ried vege- tables . .	239	11	182	9	421	9	311	—	310	—	—
odder . .	1,370	62	842	42	2,212	52	171	—	78	—	—
otatoes .	745	33	151	6	896	21	401	—	422	—	—
otton (raw)	38	2	4.6	—	42.6	1	—	—	—	—	—
otton (milled) .	—	—	—	—	(17.5)	—	12	—	14	—	—
ssential oils	0.6	—	—	—	0.6	—	1	—	0.9	—	—
ines. . .	10,810	481	—	—	10,810	255	8,081	620	11,039	610	13,561
isteles . .	150	5	—	—	150	3	113	—	132	—	—
cid fruits.	648	30	53	2	701	16	215	—	222	—	—
ives. . .	572	26	1,046	52	1,618	38	—	—	—	—	—
live oil. .	—	—	—	—	(250)	—	126	—	225	—	—
obacco. .	97	4	156	7	253	6	153	—	117	—	—
resh vege- tables . .	572	26	—	—	572	13	286	22	281	16	—
ates . . .	—	—	1,386	67	1,386	32	141	—	121	—	—
gs . . .	—	—	930	45	930	22	95	—	102	—	—
ool . . .	—	—	180	9	180	4	113	—	84	—	—
ides and skins . .	—	—	40	2	40	1	40	—	46	—	—
ggs . . .	—	—	117	4	117	3	39	—	29	—	—
ttle. . .	423	19	2,100	105	2,523	60	9	—	45	—	—
eep. . .	249	11	2,000	100	2,249	52	315	24	407	22	—
Totals .	22,548	1,000	20,086	1,000	42,634	1,000	13,025		18,009		

which would certainly be better kept and improved since its destruction only serves to accentuate the crisis resulting from unsatisfactory harvests, the effects of which might be counterbalanced by stock-breeding.

Generally speaking, the present instability in the process of colonisation is undoubtedly the result of the monetary inflation, which has completely distorted values and blinded the farmers to possibilities of exploitation, and—together with the great credit facilities resulting from it—has led to an over-capitalisation which is laying increasingly heavy burdens on the European economic system. These credit facilities have obviously contributed to the prosperity of the Algerian vineyards, 100,000 hectares of which have been planted during the last few years, but there is the prospect of an abundant production of wine which will be difficult to market and will lead to a serious crisis when the wine will have to be sold at under cost. Then we shall see what we have already seen before; liquidation of the over-capitalised property, which will pass into other hands, together with a considerable reduction of capital, which is the only way of solving the crisis.

But the native economic system is not liable to the danger of over-production for a long time to come. On the contrary, it suffers from under-production, and it is desirable, from both the economic and social points of view, that it should be galvanised into life and helped to increase its yield. Otherwise the mass of consumers that it represents will be condemned to chronic under-consumption, with all the physical and moral misery that that entails.

The real problem is to restore equilibrium in the agricultural production of Algeria by means of credit, which should be a stabilising and supporting factor, and should not provoke over-capitalisation in colonial undertakings, since that is the most serious danger to the process of colonisation, not only in North Africa but also in other colonies.

GERMANY

DR. HERMES,
ex-Minister, Chairman of the Union of German Peasants' Associations.

Before the war, German agriculture had reached a high standard of intensive cultivation. As regards yield per unit of area, Germany ranked amongst the leading agricultural countries, in spite of far from favourable natural conditions. During the war, the crops and products of stock-breeding fell by one-third to a half owing to the shortage of labour, fertilisers and fodder, and it is only gradually, since the war, that Germany has succeeded in making good these losses. During the last two years approximately, the pre-war level has been again reached and even exceeded in the case of certain products.

In spite of every kind of difficulty and hampered by lack of capital, the German agriculturists have worked with the greatest energy and tenacity to restore agriculture, and have, in doing so, made considerable use of technical apparatus and improved methods of work. Thus, the consumption of artificial fertilisers has nearly doubled. Also the number of machines and implements has greatly increased, and great efforts have been made to " rationalise " the various concerns and bring them up to date. In particular, the peasants who, before the war, made little or no use of chemical products, have been employing fertilisers and machinery to a larger extent.

Nevertheless, the measure of success obtained by no means corresponds to the efforts put forth. On the contrary, since the stabilisation of the currency in 1924, German agriculture has been suffering from serious depression, which has increased in severity year by year. The big agricultural concerns in Eastern Germany, which for the most part employ paid labour, have been especially hard hit, while the other parts of Germany and the peasant holdings are also seriously affected; many of these holdings can only be kept going by means of gigantic efforts on the part of every member of the family and at the cost of a very serious fall in the standard of living to the detriment of health and of the younger generation. It is no exaggeration to say that, unless there is a radical improvement, a large part of German agriculture will inevitably be moving towards catastrophe.

One significant symptom of the depression is the position with regard to agricultural indebtedness, which at present amounts to nearly 12 milliards of marks, or nearly as much as before the war, after having fallen to a minimum after the inflation. The charges in respect of interest amount to 1 milliard of Reichsmarks or about two-thirds as much again as the pre-war figure of 600 million marks. Whereas, before the war, the average charge in respect of interest on a hectare of cultivated land amounted to 18 Reichsmarks, it is now approximately 38 marks. The lowest net rate of interest which the agriculturist has to pay on long-term mortgage credits is still as much as 8 per cent, while for short-term personal credits, the rate is considerably higher. During the first few years after the stabilisation of the currency, 12-15 per cent was usual. In many cases fresh loans have been contracted to pay arrears of interest and taxation.

During the six years following the stabilisation of the currency alone (approximately until the end of 1929), fresh debts amounting to nearly 9 milliards of marks were contracted which were set off by an increase of 3 milliards of marks at the most in the value of productive agricultural capital, buildings, improvements in equipment, increase of live-stock, etc., so that there was a dead loss of at least 6 milliards of marks during this period. These losses have since then assumed still larger proportions, now amounting, as a result of operating deficits, to 1.2-1.5 milliard marks a year, which in turn spells

increased indebtedness, capital losses, inability to make improvements in operation or to replenish live-stock, etc. The number of forced sales of agricultural undertakings would be still larger, if it were not for the moderation of the creditors who accord extensions of the time-limits for payment on the most generous scale, since, in the event of the compulsory sale of the undertaking, they would run the risk of losing most of the money they had loaned.

There is no doubt whatever that the agricultural depression in Germany is connected with the world agricultural crisis, the general effects of which are intensified in Germany's case by specific internal causes. In Germany, as in many other countries, the causes of depression are largely to be found in the disproportion between the receipts of the agricultural concerns for their produce and the expenditure incurred by them for the purchase of the necessary material and implements, and for the payments of wages, taxes, etc. This disproportion has existed ever since the stabilisation of the currency, as shown in the following tables. The calculations are based on the wholesale prices quoted on the Stock Exchange, from which certain deductions must be made (as much as 10 per cent for cereals) to arrive at the net prices obtained by the agriculturists.

TABLE A.

Agricultural Products.

	Year							Sept.
	1913	1924	1925	1926	1927	1928	1929	1930
Vegetable products.	100	115.1	127.1	130.5	153.8	142.2	126.3	116.7
Live-stock.	100	102.1	120.2	120.9	111.5	111.3	126.6	108.2
Animal products. .	100	155.3	162.2	145.7	142.9	144.0	142.1	124.6

TABLE B.

Articles consumed by Agriculture.

	Year							Sept.
	1913	1924	1925	1926	1927	1928	1929	1930
Fodder	100	104.3	122.4	114.6	146.1	147.4	125.9	96.8
Fertilisers	100	90.9	88.3	86.3	83.3	81.8	84.6	80.0
Building material	100	143.7	153.0	144.6	158.0	159.1	158.9	141.8
Agricultural Implements (Machines, ploughing equipment, etc.) .	100	129.4	133.8	132.9	133.3	139.4	141.3	139.1
Furniture	100			156.9	154.5	168.1	165.7	153.2
Clothing and boots and shoes	100			165.1	163.2	178.6	174.9	158.6

TABLE C.

	Agricultural prices	Industrial prices (raw materials and manufactured products)	Purchasing power of agriculture (Industrial prices = 100)
1913	100	100	100
Financial year July-June			
1924-25 . . .	129.5	144.8	89.4
1925-26 . . .	128.6	143.5	89.6
1926-27 . . .	137.6	135.0	101.9
1927-28 . . .	135.2	141.9	95.3
1928-29 . . .	132.5	143.3	92.5
1929-30 . . .	122.0	138.4	88.2
Sept. 1930 .	113.5	128.8	88.2

These tables show that the purchasing power of agriculture has fallen since the stabilisation of the currency to about 88 per cent of its pre-war level, though there was a temporary improvement in 1926-27. The lowest point was reached in March of this year (about 81 per cent). To this must be added the burden of taxation and social insurance, which amounts on an average for the last few years to 2½ times the pre-war figure, though the insolvency of many agricultural concerns makes it impossible to tax them to any considerable extent, if at all.

According to the findings of the Agricultural Sub-Committee of the Commission of Enquiry, about half of the 3,000 concerns of various sizes in different parts of Germany, whose books have been inspected, were already working at a loss during the years 1924-1927. According to results of an enquiry carried out on scientific lines, the costs of production for the most important cereals have amounted on an average during the last three years to approximately 150 per cent of the pre-war costs, while prices have not been more than about 125 per cent, in the case of rye, for instance, these have fallen during the last few months almost to the pre-war level. A Commission of Experts set up by the Reichstag last year, to make suitable proposals for improving the position with regard to cereals, estimated that an average price of 260 marks a ton for wheat and 230 marks a ton for rye would be necessary to cover costs of production. This average price has never been reached. For some time now, the prices of live-stock have in some cases fallen to below the pre-war level. It is hardly necessary to say that a problem of such importance as the reduction of costs of production is being given the closest attention. However, as many of the factors which go to make up costs are to some extent outside the control of the agriculturist, and as rationalisation on the scale on which it is practised in the United States, Canada and the Argentine, for instance, by the use of the combined reaping and threshing machine, is impossible in Germany owing to her different natural and economic conditions (area of the holdings, greater humidity, etc.), the possibilities of reducing costs of production are fairly limited and such reductions as can be made can only be made very gradually.

Especially prejudicial are the extraordinary price fluctuations, which are far more marked now than before the war, and the low prices obtaining during the first few months following the harvest, when large quantities are placed on the market, as most of the farmers are obliged to sell at almost any price in order to meet their heavy liabilities. The measures taken to reduce so-called emergency sales of this kind—artificial maintenance of prices, warehousing of stocks, etc. — have proved inadequate since lack of capital made it impossible to finance them on a sufficient scale. These difficulties are intensified by a further very important circumstance; although German agricultural production has reached and in some cases exceeded the pre-war level as regards both quantity and quality, imports of foodstuffs have steadily increased, amounting at present to about 4 milliards of marks; this is largely accounted for by the change which has taken place in the dietary habits of the people. The fact that brain work is assuming a more and more important place as compared with manual labour has, in Germany as in other countries, led to a change of diet; more albumen is consumed in the form of white meat, dairy products, eggs and a larger quantity of vegetables and fruit, while the consumption of bulky vegetable products such as bread, farinaceous foods, potatoes, etc., has diminished. A good example of this is the decrease in the human consumption of cereals and, in particular, of rye, which is estimated at 15 per cent. Hence, the large surplus of rye in Germany in good years, for which it is difficult to find a market and which must therefore be used as fodder.

Agriculture is endeavouring to adapt itself to the changed requirements of the market by a change in production, but this is rendered very difficult by the extraordinary variety of the climate and soil, and especially by the shortage of capital. Nevertheless,

considerable progress has been made in the last few years. Thus it is estimated that there will be for the sowing period 1930-31 an increase of 10-15 per cent in the area under wheat and a corresponding decrease in the area under rye. The charge so often made against the agriculturist that he is not adapting himself sufficiently to economic changes is not true. On the contrary, the majority of agriculturists in Germany do their utmost to adapt the operation of their concerns as rapidly as possible to the economic fluctuations, within the limits set by the various processes of agricultural production (rotation of crops, etc.).

In the same way, progress has been made with the organisation of the market and the work of adapting production to its requirements, in so far as the present shortage of capital allows. It must not be forgotten that other countries were able to effect this transformation and organisation of sales during the war and during the post-war years, and are in this respect, in the opinion of American experts, 10 years in advance of Germany, who is obliged to catch up in a short time under the most difficult conditions imaginable.

This fact fully justifies official measures, whether legislative or administrative, designed to secure the German market primarily for German producers, who are at present working under definitely less favourable conditions than the producers of other countries. If it has been necessary to take measures which directly or indirectly render the importation of foreign products more difficult, it must not be forgotten that the necessity is urgent and that some of these measures are transitional and can be abandoned when the transformation in question has been completed and the position of German agriculture has taken a definite turn for the better; for the continued prosperity of agriculture is a vital necessity for Germany, not only for reasons of population and social reasons, but also from the economic point of view. German agriculture is still an economic factor of the first importance, and its net yield may be estimated at about 10-12 milliards of marks a year. Any fall in agricultural production, which must take place if agriculture does not once more become profitable, would have incalculable consequences for the standard of living of the German people and its ability to meet foreign liabilities. A reduction in output of as little as 10 per cent would not merely mean that another milliard of marks' worth of foodstuffs would have to be imported, but would also aggravate the tendency to abandon the land and crowd into the towns, and thus considerably increase the already disquieteningly large number of urban unemployed.

GREAT BRITAIN.

Mr. R. ENFIELD,

Of the Ministry of Agriculture and Fisheries.

To give an account of the agricultural situation in Great Britain and the influences which have brought it about, it is necessary to distinguish between those causes which are of a general character and have affected every branch of agriculture and those special causes relating to individual agricultural commodities.

There can be no question that the principal general cause of the depression which has overshadowed agriculture in Great Britain during the last decade is the fall in commodity prices which began about the middle of 1920, and has continued with minor fluctuations ever since. It is therefore necessary, first of all to refer to the agricultural consequences of this general price movement. The following table shows the changes in the prices of agricultural products, as represented by an index number prepared by the Ministry of Agriculture, in comparison with the corresponding changes of general commodity prices shown in the index published by *The Statist* newspaper:

Year	*The Statist*: all commodities	Agricultural produce
1920	195	192
1921	82	119
1922	54	69
1923	52	57
1924	64	61
1925	60	59
1926	48	51
1927	44	44
1928	42	47
1929	35	44

Base for *The Statist* figures, 1913; base for agricultural produce, 1911-1913.

From the middle of 1920 to the end of 1921, the fall in commodity prices was the most rapid for which we have statistical records. But for the fact that it followed immediately upon a period of rising prices, 1914 to 1920, in which large profits were made, a much more serious crisis in agriculture might have developed. Thereafter, the fall in prices was less rapid and was interrupted by a slight rise in 1924. The restoration of the gold standard

in 1925 was accompanied by a further fall in commodity prices, and in each year since 1925 the decline in price of agricultural products, as represented by the Ministry of Agriculture index, was as follows:

	Per cent
December 1924 to December 1925 .	6.7
,, 1925 ,, 1926 .	5.2
,, 1926 ,, 1927 .	5.5
,, 1927 ,, 1928 .	+ 1.5 (rise)
,, 1928 ,, 1929 .	+ 2.1 (rise)
January 1930 to April 1930 .	— 8.1 (fall)

The agricultural consequences of this general fall in prices have been of profound importance. Broadly speaking, they are of two kinds. The first is the effect upon fixed charges and other costs of production in farming which can be adjusted downwards only with comparative difficulty. Conspicuous amongst these is mortgage interest. The indebtedness contracted to be paid off over a period of time is incurred on the tacit assumption that the purchasing-power of the monetary unit in which the debt is to be repaid will remain the same in the future. If this does not happen, and if by reason of a general fall in prices the value of money changes, it follows that the real cost of redeeming the debt is altered. This is precisely what happened in Great Britain. A farmer who bought his farm in 1920, raising the purchase money by way of a mortgage on the value of the farm at that time, found that each year of falling prices a larger and larger part of the produce of the farm had to be sold in order to pay the mortgage charges. In actual fact, a large number of farms were bought between the beginning of 1919 and the end of 1922, and these farmers suffered seriously by reason of the general fall in prices.

Similarly, as regards rent. Rent is not adjusted downwards automatically with prices. As the price level slowly falls, the real burden of rent increases; a disparity develops and continues to widen until the burden becomes intolerable. It has then to be met by agreement between landlord and tenant. For this reason, a fall in rent has usually lagged behind a fall in produce prices. In this country, however, the rise in agricultural rents during 1914 to 1920 was very much less than the rise in the prices of agricultural produce, and for this reason the difficulties under this head appear to have been less serious than in previous periods of agricultural depression. Lastly, and perhaps most important of all, agricultural wages have been fixed and remained practically stationary since 1925, notwithstanding the continued fall in prices. In effect, therefore, farmers have found, as in the case of other fixed charges, that in each year a larger proportion of produce must be sold off the farm in order to meet the wages bill.

The other effect of a general fall in prices arises in consequence of the length of the period of turnover, which is an essential condition of the farming industry. The costs of production are largely incurred by the farmer a year or even more before he sells his produce. In effect, the farmer buys his requisites and lays out his expenditure on cultivation at one price-level, and sells his produce at another. If the price-level has fallen in the meantime, he makes an unexpected loss. Furthermore, if prices are falling over a long period, the fall in the costs of production tend to lag behind the fall in produce prices. The result of this is to increase the farmer's difficulty in a period of falling prices by disturbing to his disadvantage the normal relation between produce prices and costs, thus diminishing or entirely absorbing his margin of profit.

These are the chief of what we will call the direct consequences of a fall in commodity prices upon agriculture, but indirectly such a general fall has exerted a profoundly

important, if less easily analysable, influence on agriculture. A period of falling prices creates what may be called an unfavourable economic environment, in which the farmer's calculations, based on the ordinary data of experience, must almost inevitably be miscalculations. The farmer, for example, lays out a certain amount of money on the cost of production and often incurs certain debts to banks, tradesmen and others, relying on his normal farm receipts to clear the debts. In so doing, he obviously takes the usual risk of fluctuations in prices which are unavoidable in farming, but his expectation is that in the long run these fluctuations will average themselves out. In a year of bad prices, due, say, to abundant world harvests, he may not be in a position fully to discharge his farming debts, and he therefore carried on on credit in the expectation of a future mprovement in prices. In normal circumstances, this is a perfectly correct use of credit, iut if there are causes bringing about a general fall in prices, these calculations must nevitably be misleading. A year of bad prices is followed by another and another and the expected recovery does not come. One of the consequences, therefore, of a fall in prices arising in this way is a tendency for the volume of debts to increase and to be carried forward even after prices have become stable. Although there is little statistical evidence, I have little doubt that the burden of debt is one of the depressing factors in British agriculture to-day, and that it has largely arisen in this way.

Again, agriculture at all times is exposed to relatively violent fluctuations resulting from large world harvests, good or bad seasons, outbreaks of disease, etc. One of the consequences of a falling price-level is to create a state of affairs in which agriculture is less able to sustain the shocks due to adverse seasons or similar causes than it otherwise would be. When a fall in price of an agricultural commodity due to abundant supplies or a loss of profits due to some other cause has been superimposed on a general fall in commodity prices, it has not infrequently brought about a crisis amongst producers of that commodity. There are several historical instances of this. In the post-war period, Great Britain suffered a minor crisis in 1923-24 which mainly affected the corn-growing districts and was largely due to the great expansion of production of cereals in overseas countries during the war. There was, again, a relatively sharp fall in meat and live-stock prices in 1926 and 1927, brought about by increased imports of chilled beef from the Argentine. Finally, we have to-day critical conditions amongst arable farmers due mainly to abnormally low cereal prices consequent upon large world harvests. During the whole of this period, the general level of commodity prices in this country was falling with but minor interruption.

During the past decade, all the influences described in the above paragraphs have been operating in a greater or less degree, and the conclusion to be drawn from it is that the chief general factor in bringing about depression in British agriculture has been the fall in commodity prices since 1920, a fall in which agricultural prices have participated almost to the same amount as commodity prices generally.

The second general factor in the situation is the rise in wages. This has been due partly to the passing of the Agricultural Wages Regulation Act in 1924, under which minimum wages for agricultural workers have been fixed. The Act also has led to a shortening of hours and the fixing of special overtime rates. In consequence, it has been variously estimated that the cost of employing hired labour per hour is roughly double what it was in pre-war days.

It is now possible to carry the analysis a step farther. The following table compares the movements of the index of commodity prices, published by *The Statist* newspaper, first, with the index of agricultural prices and then with the indices representing the prices of agricultural produce grouped under three main headings:

Base of *The Statist* figures is 1913; for agricultural produce, feeding-stuffs and fertilisers 1911-1913, and for wages 1914.

PERCENTAGE INCREASES OVER PRE-WAR.

Year	*The Statist*: all commodities	Agricultural produce generally	Live-stock and live-stock products	Cereals and farm crops	Fruit and vegetables	Feeding-stuffs	Fertilisers	Agricultural wages	Approximate estimated cost of employing hired labour, per hour
1920 . . .	195	192	192	185	247	173	159	—	
1921 . . .	82	119	120	90	176	81	120	—	
1922 . . .	54	69	76	49	90	46	47	74	
1923 . . .	52	57	66	28	103	36	23	56	
1924 . . .	64	61	63	54	75	54	19	56	
1925 . . .	60	59	64	44	92	52	14	72	100
1926 . . .	48	51	58	34	62	25	13	75	100
1927 . . .	44	44	44	39	65	39	10	76	100
1928 . . .	41.2	47	51	34	82	54	—2	76	100
1929 . . .	35.3	44	52	23	60	39	nil	76	100
1930 . . . (April only)	21.2 [1]	36	49	6 [2]	22 [3]	6	2	76	100

[1] March 31st, 1930.
[2] Excludes hops.
[3] Vegetables only.

These indices are compared in the second part of the table with those representing changes in the prices of feeding-stuffs and fertilisers and the cost of employing hired labour. The last column is purely an estimate and is not based on any statistics collected or published by the Ministry of Agriculture. It is, however, an approximation upon which there seems to be a considerable measure of agreement. When we examine the above table it will be seen that, relative to the level of commodity prices, prices of *live-stock and live-stock products* have been good, which is partly owing to the consistently good prices which have prevailed for milk. The chief disparity in this group is, of course, between the index representing the cost of employing hired labour and the index of prices. Labour, however, on the whole forms a considerably smaller proportion of the total costs of production in this group than in cereals and farm crops. Moreover, against the higher cost of labour must be set certain compensating advantages—namely:

(*a*) Low costs of feeding-stuffs and fertilisers;
(*b*) The fact that the level of rents has undoubtedly been lower than the level of prices.

Taking these figures in conjunction with the statistics of production and certain information available in regard to localities, the correct inference appears to be that there is no serious depression in farms mainly concerned with the production of the products included in this group. On the whole, the volume of output has been maintained, and in particular directions—namely, the production of milk, poultry and eggs—output has increased.

In regard to the second group, *cereals and farm crops*, not only have prices fallen, but they have fallen substantially faster than the general fall in commodity prices. The relationship between the two is the reverse of that in the live-stock group. Furthermore, in this group, labour forms a relatively high proportion of the total costs, and the lower cost of fertilisers has gone but a little way towards compensating the farmer for the wide disparity between cereal prices and the cost of labour.

The third group, like the first, has on the whole enjoyed relatively high prices, and for this reason has suffered less during the period under review, although a drought in 1929 had serious consequences in certain districts.

The result of these influences has been to cause a severe depression amongst farmers who are mainly concerned with arable cultivation. The disparity between the costs of labour and prices has forced farmers to turn to branches of production where less labour is required. One of the effects, therefore, has been the conversion of arable land to grass, a movement which in previous periods of agricultural history had been stimulated by a general fall in commodity prices. In the last decade, approximately 2,000,000 acres in England and Wales have been lost to the plough, and since 1921 the annual returns show a reduction of some 35,000 regular workers and 40,000 casual workers.

It is not necessary for me to set out here the causes which have brought about the fall in cereal prices, particularly the price of wheat, in relation to the prices of other agricultural produce. Great Britain, being the principal free market for imported wheat, naturally feels the full effect of a fall in world's prices due to abundant world's harvests, such as those which occurred in 1928. Moreover, British farmers are also indirectly affected by the commercial policies of other countries in so far as they restrict the free importation of wheat into their own territories through the instrumentality of tariffs or other measures.

Such are the main causes of the present situation in British agriculture. Certain minor influences have also affected agriculture adversely—such, for example, as the growth of the burden of taxation on landowners and the relatively high cost of upkeep of agricultural properties.

The future of British agriculture depends mainly on three general considerations:

(1) The future course of commodity prices;
(2) The future course of the world's cereal production;
(3) The ability of agriculture to adapt itself to a higher rate of wages than it was accustomed to before the war.

GREECE.

M. J. S. CARAMANOS,
Director-General at the Ministry of Agriculture.

The general economic depression from which the world has been suffering since 1929 —one aspect of which is the agricultural depression—was bound to affect Greece also. Indeed it has taken the same forms in Greece as in other countries—a fall in prices of agricultural products and a decrease in the exports of those products which formerly were regularly exported by Greece.

If we are to show clearly the serious effects which the agricultural depression has had on our country and its finances, we must explain the important part played by agriculture in Greece.

As regards the importance of agriculture in national production, it may be noted that the latter is now estimated at 22,500 million drachmæ (taking account of the fall in the prices of the various articles consequent upon the depression, and not including profits on shipping—estimated at 1,650 million drachmæ—and other unspecified revenue) and that agricultural products make up 16,000 millions of this figure. The value of these products thus represent about 71 per cent of the total national production.

This proportion was still higher before the consequences of the recent depression made themselves felt. Whereas the depression was responsible for an average fall of only 8 per cent in the prices of industrial products, it caused an average fall of about 25 per cent in the agricultural prices.

Agricultural products also make up a large proportion of the total value of Greek exports. Of a total annual export figure estimated at 5,855 million drachmæ (average for the five years 1926 to 1930), the value of the agricultural products exported amounts to 5,231 million drachmæ, or 89 per cent of the total value of exports.

Further, agriculture contributes considerable sums to the public revenue. Thus, tobacco alone, which is the most valuable agricultural product in Greece, brings to the Treasury annually something like 22 to 27 per cent of the Treasury's total revenue, in the form of taxes on production, consumption, etc.

Finally, the importance of agriculture to Greece may be seen from the percentage of the population, which derives its livelihood from agriculture and its various branches. According to the data of the last census (1928), the inhabitants of the big towns made up 33 per cent of the total population of Greece, those of the medium towns 9 per cent and those of the villages 58 per cent.

Since agriculture and its branches constitute the sole occupation of the inhabitants of the villages, and the same roughly applies to the inhabitants of the small towns; and since, at the time of the census, an appreciable number of persons who are engaged in agriculture—mainly as gardeners and stock-breeders—and live on the outskirts of the larger towns, were included among the population of these towns, it may be said that 65 per cent of the total population of Greece are engaged in agriculture as their principal occupation. It should also be remembered that a considerable percentage of the urban

population derives its livelihood from trading in and working up for industry the agricultural produce of the country.

According to the industrial and commercial census taking during the past year, the number of workmen and employees engaged in industry and trades is only 161,119, so that, if we assume that the total number of persons deriving their livelihood from industry and trades is four times this figure, we get 644,476 persons, or approximately 10 per cent of the total population of the country.

A comparison between the number of persons engaged in agriculture and the number of those engaged in industry, shows even more clearly the importance of agriculture to Greece.

We trust that the above explanations may give some idea of the economic and social disorganisation caused in our country by the agricultural depression.

Let us now consider the symptoms and consequences of this depression.

We said at the beginning that the agricultural depression had taken the form in our country of a fall in prices of agricultural products and a decrease in the exports of those products.

The obstacles in the way of the marketing abroad of the agricultural products of Greece will be seen from the following comparative table of the most important agricultural products exported by Greece during the last two years.

Products	Quantity 1929	1930	Difference	Per cent
Tobacco leaves	50,055	49,195	— 860	1.7
Olive oil	12,176	7,208	— 4,968	40.8
Olives	12,485	11,428	— 1,059	8.6
Wine	131,664	56,060	—75,604	57.4
Table grapes	8,212	7,310	— 902	11.–
Citrous fruits	4,334	5,809	+ 1,465	25.2
Dried figs	16,870	21.559	+ 4,689	21.7
Currants	68,812	72,996	+ 4,184	5.7
Sultanas	15,085	13,435	— 1,650	11.–

This total shows that, with the exception of currants, citrous fruits and dried figs, the exports of which have slightly increased, the exports of all the other articles decreased last year, especially those of wine and olive oil. The increase in the exports of the first-mentioned articles was obtained at the cost of an appreciable fall in prices, as compared with those obtaining in previous years, as will be seen from the following table:

Products	Value of exports in drachmæ 1929	1930
Currants	876,350,798	782,451,482
Dried figs	104,039,794	112,334,872

If we combine the figures of these two tables, we get the value per ton of the currants and dried figs exported in 1929 and 1930.

Products	Value in drachmæ per ton 1929	1930	Percentage of decrease
Currants	1,290	1,071	17.5
Dried figs	6,167	5,205	12.3

There was a similar fall in the prices of other export commodities, such as tobacco, wine and olice oil, as shown by the following table:

Products	Value in drachmæ per ton 1929	1930	Percentage of decrease
Leaf tobacco	78,880	68,750	12.8
Wine	4,312	3,960	8.–
Olive oil	20,492	13,750	32.9
Olives	12,942	11,180	13.6

The total exports of all the products included in the above tables during 1929 and 1930 were as follows:

	1929	1930	Percentage of decrease
Quantity (in tons)	319,703	244,998	23.4
Value (in drachmæ)	6,152,362,801	4,963,664,544	30.7

Exports of agricultural products thus decreased appreciably in 1930, as compared with 1929, being 23.4 per cent less in quantity and 30.7 per cent in value.

The fall in prices also affected the home markets. The following are the average retail prices per kilogramme of certain agricultural products in some of the towns of Greece in 1929-30.

Products	Athens		The Piræus		Salonica		Patras	
	1929	1930	1929	1930	1929	1930	1929	1930
Potatoes	5.08	4.69	5.45	5.08	4.30	2.50	5.08	3.91
Milk	9.06	8.98	9.38	9.38	9.38	7.81	9.38	9.38
Butter	89.84	68.75	85.94	59.38	82.81	53.13	90.63	62.50
White cheese	30.76	25.00	30.86	29.86	24.38	21.81	29.69	25.00
Oil	28.90	22.50	25.55	23.45	27.34	21.90	26.56	17.20
Beef	23.44	20.41	24.44	20.31	21.88	23.48	23.44	23.44
Mutton	35.94	29.69	35.94	29.69	27.34	25.00	31.25	34.38

It should be noted that the wholesale prices, which more especially affect the producers, have fallen much more considerably.

The enquiry carried out by the competent departments of the Ministry of Agriculture has disclosed the fact that, between the wholesale prices of certain agricultural products, especially fruit and vegetables, and the prices fetched by those products on the market, there are differences amounting to as much as 250 per cent.

The above-mentioned prices would, however, have fallen still more if the Government had not increased the import duties and thus protected the native products of the soil from the risk of competition from similar foreign products.

Various laws were passed and regulations issued providing for the following increases:

Wheat	from	4.30	metal	drachmæ	to	6.—	metal	drachmæ
Flour	,,	8.82	gold	,,	,,	10.70	gold	,,
Barley and oats	,,	4.—	,,	,,	,,	5.—	,,	,,
Maize	,,	2.50	,,	,,	,,	6.—	,,	,,
Potatoes	,,	1.—	,,	,,	,,	3.—	,,	,,
Cereal oils	,,	30.—	,,	,,	,,	40.—	,,	,,

The agricultural depression has, however, been rendered more acute by circumstances peculiar to our country, which are as follows:

It is a matter of common knowledge, that a large number of the refugees to whom Greece has given hospitality are farmers, whose settlement on the land the Government regarded as a duty. They have been established on land made available by the exchange of populations (the former Moslem properties) and by the expropriation of large Greek agricultural domains.

The number of refugee families established as at December 31st, 1930, was 132,776. The work of settling them was carried out by the Autonomous Refugee Office, which spent £10,422,931. Each of the refugees received, on an average, 40 stremmas of land, and the material necessary for farming it; he was also provided with strict necessities in the matter of housing and live-stock.

The land granted to the refugees for settlement in the country districts is inadequate, but it has not been possible to do more; all the former Moslem properties and all the large Greek landed estates not already distributed to native Greek farmers—who were settled only a very short time before the refugees—were made available for this purpose.

The income derived from such small properties is not, of course, very large, and is sometimes even inadequate to support the refugees, especially as they are obliged to redeem loans contracted by them to meet expenditure incurred for their settlement (debts to the Autonomous Refugee Office, which are transferred to the Greek Treasury and subsequently to the Agricultural Bank of Greece), and loans contracted each year with the banks to keep the farms going.

The income from the refugee holdings might suffice if these could be cultivated on "rational" lines; but this would necessitate adequate capital and other means of operation. These, however, are lacking at present—firstly, because the funds made available for the refugees at the outset were only sufficient for a very rudimentary form of farming; and, secondly, because they were for the most part swallowed up as a result of economic difficulties inherent in a new establishment and of losses due to unfavourable weather conditions—floods, drought, frosts, etc.—from which agriculture has suffered severely, especially during the last three years. According to official information collected by the Ministry of Agriculture, the losses suffered last year by agriculture from unfavourable weather conditions and consequent plant diseases (especially blight of cereals) are alone estimated at 1,886,243,000 drachmæ, or about 12 per cent of the total value of the annual agricultural output. More considerable still has been the damage caused to the crops during the current year by floods, and especially by frost, the amount of which it has not yet been possible to compute exactly. The losses caused by successive calamities have been very great and have seriously impaired the financial position of a large number of refugees and Greek farmers recently settled, whose situation was already fairly precarious owing to the smallness of their holdings. For this reason, the Government was obliged to assist, by means of grants, those of the farmers who had been hardest hit, and to give a guarantee to the Agricultural Bank of Greece in respect of the loans granted to the farmers over and above the normal limits of their credits, in order to enable them to resume the operation of their farms.

It is obvious that the rural refugees, who have had to contend with such unfavourable circumstances, have not been in a position to save anything wherewith to renew their worn-out material; still less have they been able to add anything to their working capital.

The average debt of the rural refugees, when the debts contracted for their settlement have been offset by the compensation due to them for the property which they were forced to abandon in Turkey, is computed at £56 10s., entailing an annual payment of £4 10s. or 1,687 drachmæ. In addition to this sum, the refugees settled in the country districts are, as has already been said, obliged to redeem the short-term loans granted

them each year to meet the expenditure entailed by the cultivation of their property, and to support them until the next harvest. These loans amount on an average to 3,000 drachmæ a year, as shown by the tables drawn up by the Agricultural Bank. The average annual charge per refugee family thus amounts to 4,687 drachmæ (without taking account of private debts, which are sometimes considerable). Against this charge we may place a gross income varying, according to the district and the nature of the principal crops grown, from 8,000 to 12,000 drachmæ a year for each refugee holding, with the exception of the refugees settled in the more favoured districts, in which superior tobacco can be grown, where the return may vary from 15,000 to 20,000 drachmæ a year. Even here, however, the sums have to be deducted which are required for the service of the loans secured upon the crops and contracted to meet expenditure in respect of the first treatment of the tobacco. These sums represent, on an average, about 6,000 drachmæ a year, which brings to about 10,500 drachmæ the charge entailed by the redemption of loans.

A glance at the above figures will show how little surplus remains for supporting the rural refugees and enabling them to renew their implements, live-stock, etc. It is evident the the holdings of the newly settled refugees could never really prosper without the " rational " cultivation of the land, which necessitates an amount of capital which they do not possess and cannot procure on the spot, owing to the small amount of capital at the disposal of the agricultural credit institutions.

A further obstacle to the " rational " cultivation of the refugees' land is the general position with regard to their distribution and equipment. The greater part of this land used to be cultivated in the most primitive manner, much of it being also used as grazing-land. The first necessary condition for the " rational " cultivation of the refugees' property is the carrying out of considerable reclamation works, including drainage and irrigation, the construction of stables, and generally the repair of buildings and plant.

This is the position of the rural refugees recently settled, and much the same applies to the numerous agricultural centres created by the Government for the establishment of former Greek agricultural workers, who cultivated on the *métayer* system the large rural properties belonging to the monasteries and other corporations. The condition of this land is much the same as that of the land assigned to the refugees, since the Greek labourers settled on the land only received an allotment of land from the Government. Moreover, there has not been time enough since they were settled to enable them to consolidate their finances and—more serious still—they have been very hard hit by calamities due to unfavourable weather conditions.

Considering the large number of these properties (232,512) and the area they cover (14,762,555 stremmas), the importance of the part played in the economic life of the country by these agricultural holdings, the return from which is insufficient to maintain their producing capacity intact, or even to support the farmers and their families, can be realised. The farmers—newly settled refugees and native Greeks—occupy approximately one-third of the agricultural holdings of Greece, or 39 per cent of the total cultivated area.

During such a period of economic depression as prevails at present, the economically weakest and least organised undertakings, like these new agricultural settlements, must be the hardest hit. Nevertheless, the position of the other farmers in Greece can scarcely be said to be more favourable.

The main type of property in Greece is the smallholding cultivated by the farmer himself and his familiy. The area of these farms is so small that the returns are scarcely sufficient to support the farmers' families, and there are some still smaller holdings which are totally inadequate to support those who cultivate them.

We do not know the exact percentage of the agricultural holdings coming under this last category, since no relevant statistical data are available; but it is considerable, especially in old Greece and the islands.

This position is rendered still worse economically by the parcelling up of the land into such small allotments as in some districts to amount to a veritable disintegration of the holdings. This is due to the custom whereby each child inherits, as far as possible, an equal share of each kind of land.

According to the last official agricultural census (1929), the total area of the productive land in Greece comprised 5,356,819 different allotments, which gives an average area of 7 stremmas per allotment. Pasture land and marshy meadows are included in this productive land (40 per cent of the total area); the average area of the allotments cultivated is therefore in actual fact much less than 7 stremmas.

According to the census, the area planted and cultivated amounts to 25 million stremmas and the number of agricultural holdings in Greece to about 650,000, which gives an average of roughly 38 stremmas for each holding. As apart from these private farms, there are also monastic and communal properties, whose area is generally larger than that of the private farms, the average area of the latter must be even less than 38 stremmas.

The annual average revenue of the country from agriculture is 16,000 million drachmæ, and this is divided among about 800,000 families. The resulting average amounts to about £53 per family, which clearly reflects the economic position of the farmers in Greece.

The economic difficulties to be contended with as a result of the fall in the prices of agricultural products and of the successive bad harvests due to unfavourable weather conditions have placed the small Greek landholders in a critical position. They have exhausted all their savings, and their property is mortgaged and runs the risk of being seized by creditors. In other words, they are unable to pay off the debts which they contracted, when the prices of agricultural products were much more remunerative than they are to-day.

The farmers of Greece are also bearing an excessive burden in respect of taxes on certain valuable crops which were introduced at a time when prices were high, and now absorb a considerable part of the gross receipts. Thus, the tobacco taxes amount to 19 to 20 per cent of the gross revenue, and the oil taxes to 14 to 16 per cent, according to the districts.

* * *

The Government has made, and is still making, systematic efforts to improve the situation; it is doing all in its power with the means at its disposal to consolidate the position of the farmers and to enable them to weather the crisis. The following are the most important measures taken by the Government:

In 1929, it established the Agricultural Bank of Greece, which is an autonomous organisation with special powers and a capital of 1,081,731,698 drachmæ, the property of the State. Apart from this capital, the Agricultural Bank of Greece has other funds appropriated for agricultural loans, which bring to 1,900 millions the total sum available for this purpose. Last year it granted the farmers credits amounting to 1,289,105,290 drachmæ, and its investments amounted, as at December 31st, 1930, to 856,471,482 drachmæ, distributed as follows:

	Drachmæ
Advances to agriculture, guaranteed by drafts	499,049,677
Short-term loans secured upon products.	342,607,705
Medium-term loans for the improvements of agricultural equipment	9,549,600
Long-term loans for land improvements	5,264,500
Total	856,471,482

The total charges borne under the various heads by the farmers of Greece amounted, as at December 31st, 1930, to 8,474,363,348 drachmæ, as shown by the following table:

	Drachmæ
Debts to credit institutions under Government control .	1,677,302,556
Debts for costs incurred for the settlement of refugees in the country districts, and for the land and dwellings assigned to them	3,757,581,000
Debts in respect of the value of the land assigned to Greek farmers established by the Government . .	804,372,018
Taxes owed to the Treasury	235,107,774
Private debts of the farmers (approximately)	2,000,000,000
Total	8,474,363,348

These charges represent about 50 per cent of the average annual revenue from agriculture. The figures given above for the loans granted to the farmers show the low percentage of medium- and long-term credits as compared with the total investments of the Bank, which proportion is by no means adequate to provide the credits urgently required by agriculture for the purposes enumerated above and to increase the gross return on the small agricultural holdings. These objects may be summarised as follows:

(*a*) Centralisation and re-distribution of the land;
(*b*) Improvements to plant;
(*c*) Land improvements;
(*d*) Increasing the working capital so as to permit the farmers to engage simultaneously in the cultivation of land, live-stock breeding, poultry breeding, sericulture, apiculture, domestic industries, etc.

The Agricultural Bank of Greece set up in 1929 the Corfu Autonomous Agricultural Credit Organisation, which carries out transactions for Corfu. There are no other special credit institutions apart from the two mentioned above. Nevertheless, the National Bank of Greece and, to a lesser extent, the Bank of Athens and the Bank of Ionia grant to farmers credits secured upon agricultural products.

The following are the investments of all the above-mentioned institutions as at December 31st, 1930:

	Drachmæ
Credits granted for the cultivation of the land	942,130,374
Credits secured upon the crops.	716,631,650
Medium- and long-term credits.	18,540,532
Total	1,677,308,556

Generally speaking, the capital at the disposal of these agricultural credit institutions is inadequate, even to meet all the requirements of Greek agriculture in medium-term credits. In a memorandum issued in 1925, the Assistant Governor of the National Bank of Greece, who originally organised the agricultural credit institutions in Greece, estimated these requirements at 2,500 to 3,000 million drachmæ.

In 1929—the year before the Agricultural Bank began to operate—the National Bank of Greece, which then carried out agricultural credit transactions, had granted loans for 1,613,444,642 drachmæ. In 1930, the Agriculture Bank of Greece accorded loans

for only 1,289,105,295 drachmæ, granting no credits to most of the refugee families settled as farmers, to whom the Autonomous Refugee Settlement Office, which was then in operation, granted credits.

The Agricultural Bank supplied capital to only 286,493 agricultural undertakings, which represents 44 per cent of their total number—*i.e.*, at a low estimate, 650,000.

It will be seen from the foregoing that the funds at the disposal of the Agricultural Bank of Greece are not sufficient completely to meet the requirements in short-term agricultural loans, and it is to this fact that the Bank's hesitation to grant medium- and long-term credits must be mainly attributed. Indeed, if the Bank had adopted any other policy, large amounts of capital would have been tied up for long periods, which would have made it difficult, if not impossible, to assist the farmers to meet their current requirements.

The Government has done all in its power to remedy this state of affairs, and out of its own inadequate resources has devoted a milliard drachmæ to the establishment of the Agricultural Bank. Any further extension of agricultural credit can only be obtained by means of foreign credits.

In order to improve the position of the farmers during the period of depression, the Government has concluded an agreement with the Agricultural Bank and guaranteed credits to be accorded by the Bank to farmers who had suffered loss from the floods, so as to enable them to resow their fields, even in cases where these credits exceeded the maximum originally allotted to each of them. It also guaranteed the sale on credit of seed-grain purchased in Italy and Cyprus to the farmers of the various districts in which crops had been entirely destroyed by blight.

The capital earmarked for these purposes exceeds 150 million drachmæ.

The Agricultural Bank also supplied capital to the Committee for the stocking of home-grown wheat. The latter was set up to protect the national growers, and purchases, at prices favourable to the producers, the surpluses of wheat placed by them on the market, the difference between the relatively high price of home-grown wheat and the price obtaining on the international market being borne by the consumer. The capital devoted by the Agricultural Bank to financing the transactions of this institution amounted to 110 million drachmæ, the latter being thus enabled to pay for the wheat offered by the home producer 1.32 drachma per kilogramme more than the world price.

The Bank also granted the farmers advances on barley, to enable them to maintain their prices at 1.55 to 1.70 drachma per kilogramme at a time when the current price of barley had fallen to 1.35 to 1.40 drachma per kilogramme.

It further purchased and marketed certain products such as carob-beans, the price of which had fallen very low, owing to the reduced demand on the foreign markets, which formerly absorbed these products. Speculation and the fact that the producers were in need of liquid money and were thus anxious to sell their crops as quickly as possible were also partly responsible for this slump.

The Bank undertook the marketing at home of various other products, by dealing direct with the consumers and setting up shops, so as to eliminate middlemen's profits in the interests both of producers and consumers.

Finally, it intervened between the Producer's Union and the Army Supply Department and obtained an undertaking from the latter that it would purchase from the former, at prices relatively favourable to the producers, any oats, bran and barley needed for feeding army horses. This avoids the necessity of importing these articles from abroad, as was done previously.

All these transactions have been carried out by the Agricultural Bank following upon an agreement concluded with the State, whereby the latter guaranteed the Bank against any loss which it might incur. Apart from the setting up of the Agricultural Bank and the

utilisation on a large scale of its services to assist the farmers, the Government has taken many other steps to achieve this purpose, the most important of which are the following:

As stated above, it increased the Customs duties on wheat flour, barley, oats, maize, potatoes and cereal oils.

It abrogated the export duties on olive oil and cheese.

It reduced the taxes on production by 25 per cent in the case of olive oil, 66 per cent in the case of bran and 20 per cent in the case of pigs and sheep.

It suspended for two years the collection of the tax on products of the soil, which particularly affects producers of cereals and vegetables, and thus secured for them a profit of 180 million drachmæ—that is to say, the sum to which the taxes would have amounted during a period of two years.

Unfortunately, the reduction in Government revenue due to the economic depression has made it impossible to reduce to any considerable extent the taxes on agriculture, and especially the tobacco tax, which is really excessive.

The Government has prohibited the mixing of cereal oils with olive oil, in order to prevent a reduction in the consumption of olive oil in the country and a consequent increase in imports of cereal oils and oil-seed. The custom of adulterating olive oil used to be very widespread, owing to the very low prices of cereal oils.

The Government granted a moratorium to agricultural workers, and the Law of January 4th, 1930, suspended forced sales of rural property for debts contracted by the farmers in connection with the cultivation of their land.

This step was prompted by social considerations, and was taken in spite of the abnormal position which it was likely to bring about in private business relations.

At the cost of immense sacrifices, the Government created a class of smallholders, by expropriating the big agricultural properties and distributing them to persons who would farm them on the *métayer* system, and to the agricultural labourers who formerly cultivated them. By making smallholders of the latter, the Government has created a large class whose existence helps to maintain the social equilibrium of the country. In these circumstances, it must necessarily see with anxiety the forced sale of many small agricultural properties at low prices, to meet obligations assumed at a time when agricultural products fetched high prices. The situation thus created may undo all the good done by the Government at such heavy cost.

Finally, the Government has considerably increased the appropriations for the Ministry of Agriculture, so as to enable the latter more effectively to carry out its task, and, in particular, to ensure better professional education for the farmers; to carry on a more effective campaign against plant diseases and, in general, against the enemies of agriculture which cause considerable damage each year; to extend the work of the special technical department recently set up a this Ministry for carrying out minor improvements to agricultural holdings, and, in particular, the drainage work carried out by the landholders themselves, organised in compulsory syndicates.

These, briefly, are the steps taken by the Government, either direct or through the Agricultural Bank, in favour of agriculture.

Taken separately, these measures are of definite value, and their results have been really satisfactory. But, since the main reason for the acuteness of the agricultural depression in Greece is to be sought in the economic instability of the greater part of the rural population owing to the small income it derives from its holdings, the efforts made to overcome the depression can only be successful if there is an increase in the average level of agricultural returns, and this can only be secured, if agriculture is supplied with adequate resources in the form of medium- and long-term credits. Failing such credits, the pre-

vailing agricultural depression will continue here even after it has been overcome in other countries, and will constitute a permanent social danger.

We fear that this danger will take the form of an influx into the towns of part of the rural population, and, in particular, of a proportion of the refugees settled in the country districts, owing to their being unable to support themselves by cultivating the land. If this happens, the agricultural workers who go to the towns and cannot find employment in industry—which has not reached a very high stage of development in Greece—would inevitably go to swell the ranks of those who depend for their livelihood on parasitic trades or casual labour. This class is already numerous and its existence precarious, and there is a risk that its members may one day join the extremist elements, especially if their position becomes worse owing to an increase in their numbers.

Greece urgently needs to consolidate her recent agricultural settlements, not only in order to improve her national production, but to preserve social peace. She can only do this if, side by side with the efforts already being made in this direction, she manages to procure the capital necessary for increasing her medium- and long-term agricultural credits and for increasing, by means of a judicious distribution of her credits, the individual return of the farmer, which is in so many cases inadequate.

HUNGARY.

Count LADISLAS SOMSSICH,
Chairman of the Hungarian National Agricultural Society.

Nowadays, farming everywhere is passing through a serious depression, doubly grave in the case of exporting countries, and especially so in Hungary, hedged round as she is by States which since the war have protected their agriculture by high tariffs.

Pre-war Hungary satisfied the entire needs, in agricultural produce, of the Austro-Hungarian Monarchy with its population of 52,605,000, selling 75.7 per cent of its crops there duty free (Austria and Hungary having formed a Customs union) and exporting the remaining 24.3 per cent to foreign countries.

The annexation, under the Treaty of Trianon, of two-thirds of her territory by neighbouring States, deprived Hungary of a large part of the market for her agricultural surplus. The Succession States protect their agriculture by high Customs duties, and so make it impossible for Hungary to export her surplus produce to these States, which formed its pre-war markets. Even when she succeeds in doing so, the consignments are sold, owing to the high import tariff, at prices which do not even cover her farmers' costs. This is an extremely serious position, for in an agricultural exporting country like Hungary the price of agricultural produce always depends on the price obtained for the export surpluses. As the States adjoining Hungary, which owe their existence or their territorial extension to the Peace Treaties, have made it a cardinal point of their economic policy to increase their own production, Hungary's efforts to export her agricultural surpluses to these States are thwarted, cereal imports being barred by Customs tariffs and live-stock imports by veterinary regulations.

In these circumstances, the unexportable surplus of agricultural produce depresses home prices, which are at present much below the level of world prices.

Production costs, meanwhile, have since the war risen by 50 per cent to 70 per cent in Hungary owing to dear credits, higher wages, the increased cost of manufactured goods and taxes, which are nowadays more than twice as heavy as before the war. The result is that, as proved by the Hungarian National Agricultural Society's survey, agricultural investments in 1927 earned only 1.24 per cent, as compared with 4 per cent to 5 per cent before the war.

SYMPTOMS OF DEPRESSION.

Proof of the Hungarian agricultural depression is furnished by imports, which fell from 1,189 million pengö in 1928 to 1,062 million pengö in 1929, a decrease of 127 million pengö.

In Hungary, 32.9 per cent of land is at the present moment encumbered with debt.

Farmers can only obtain the credit they require by putting out bills at high interest rates, and are thus unable to undertake permanent improvements. As shown by our 1927 survey, building costs only account for 0.65 pengö out of a total expenditure of

126.88 pengö per cadastral arpent. Maintenance of buildings amounts to 4.61, purchases of machinery and implements to 1.33, and upkeep of the latter to 5.73 pengö. The high interest rates prevent farmers from sinking money in improvements, their resources being only sufficient to keep their buildings and equipment in repair.

Causes of Depression.

The causes of the Hungarian agricultural depression are threefold:

1. General economic causes due to world market fluctuations: protective tariffs, dear credit on world markets, influence of world harvests on prices.
2. National economic causes: taxation, legislation and administrative measures for the improvement of production and marketing.
3. Causes connected with individual enterprises: income from farming varies according to the crops and also according to the money spent and the method employed.

Let us first take world economic causes.

Protective Duties.

Of the territory of pre-war Hungary, covering, with Croatia and Slavonia, 325,411 square kilometres, and without the latter 282,870 square kilometres, the Treaty of Trianon took from us 232,578 square kilometres, reducing Hungary to 92,833 square kilometres. It left us with only 28.5 per cent and transferred 71.5 per cent to the Succession States.

It should also be borne in mind that, as the Austro-Hungarian Monarchy formed a Customs union, we marketed our farm produce duty free over the vast area of 676,000 square kilometres, with a population of 52.6 millions.

The following table shows our pre-war exports of agricultural produce:

Hungarian Exports in 1913.

	Per cent
Marketed within the Austro-Hungarian Customs Union . .	75.7
Exported to other countries	24.3
Viz:	
	Per cent
Germany	6.4
Italy	2.1
France	1.1
England	3.4
Roumania.	1.7
Serbia	0.9
United States of America	0.6
Other countries	7.5
Total exports in 1913	100

After the war the situation changes as follows—*e.g.*, 1929:

HUNGARIAN EXPORTS IN 1929.

	Per cent
Austria	31.04
Czechoslovakia	16.21
Roumania	4.55
Yugoslavia	5.92
Poland	1.61
Total	59.33
Other countries	40.67

Viz:

	Per cent
Germany	11.51
Switzerland	3.96
Italy	6.86
France	1.19
England	3.37
United States of America	1.00
Other countries	12.78
Total exports in 1929	100

While we marketed 75.7 per cent of our exports within the Austro-Hungarian Customs union before the war, in 1929 we exported only 59.33 per cent to the Succession States, formed wholly or partly from the Monarchy, although their territory is double (1,251,290 square kilometres) that of the old Monarchy (676,000 square kilometres) and their population (84,783,000) considerably exceeds that of pre-war Austria-Hungary (52,605,000). This compels us, therefore, to export our agricultural surplus to other more distant countries where our farmers' profits are smaller, owing to the high and increasing cost of transport.

To illustrate this state of affairs, we will take the 1929 price of our main item of agricultural export—wheat—which, together with flour, accounted for 22.4 per cent of our total exports in that year. Owing to export difficulties and poor market prospects, wheat prices at Budapest were 7.65 pengö below those of Liverpool at the time of the 1929 harvest, and, despite its first-class quality, Hungarian wheat during 1929 was on the average 3.67 pengö cheaper than Liverpool wheat.

Similar difficulties affect our exports of live-stock, which are hampered by the health regulations issued by the neighbouring countries in respect of live animals and meat.

DEAR CREDIT.

The increase in interest rates tend to raise our production costs very considerably. Nowadays, in Hungary money is twice as dear as it was in 1913, when the rate was 4 per cent to 5 per cent. It is particularly unfortunate that our farmers cannot obtain sufficient long-term credit for permanent improvements, and have therefore to resort to expensive short-term borrowing, thus materially increasing their production costs.

Influence of World Production on Prices.

Hungary having to export her surplus agricultural produce, prices of farm produce there always depend on world market prices, which are in their turn affected by world harvests. As, however, it is more difficult for us than for other countries to sell abroad, home prices, as we have already mentioned, are even below world market prices. Since 1925 they have fallen by almost 50 per cent, while production costs have increased — an important factor in the present depression. Since then, the price of wheat in Hungary has fallen by 45 per cent, rye by 67 per cent, barley by 49 per cent, oats by 60 per cent, maize by 40 per cent, live-stock and wool by 50 per cent. On the other hand, the prices of manufactured articles used by farmers have risen considerably since 1913. The index number for manufactured goods in Hungary is at present 131, which is considerably above that for agricultural produce and live-stock (95).

While Hungary receives only 95 per cent of pre-war prices for her export surplus, she has to pay 131 per cent of pre-1914 prices for imports of manufactured goods; and this seriously affects the purchasing-power of our farmers.

National Economic Causes.

The Government is doing its best to revive agriculture, but it cannot counteract the general economic factors referred to nor its neighbours' protectionist policies.

Causes connected with Individual Enterprises.

As Hungary must reckon with the imminent possibility of the neighbouring States raising their tariffs, it is impossible to reorganise our farming so as to ensure the marketing of its surplus products abroad. Owing to her low average rainfall (600 to 700 mm.), Hungary is in the cereal zone and farmers must concentrate on wheat-growing. Stock-raising is only profitable in districts where the rainfall is heavier and fodder more abundant. The Hungarian farmer's income depends on the price of wheat and on the possibility of exporting at a price which recoups the cost of production. Otherwise, he cannot import the manufactured goods he requires from the neighbouring industrial countries. This would only be possible if he could carry on farming in the assurance that none of the neighbouring countries would suddenly shut him out from its market by raising the duties on agricultural produce.

INDIA.

Sir ATUL CHATTERJEE,

High Commissioner for India.

The most serious difficulties which confront Indian agriculture at present are those arising from the discrepancy between the prices of raw materials and manufactured goods. The general level of raw material prices is, it is true, higher than the pre-war level, but by a margin which is less than in the case of manufactures. It follows that India, which, in spite of her growing industrialisation, still exports chiefly raw materials and imports chiefly manufactured goods, must export more goods than pre-war, in order to provide the credits against which to buy the same quantities of foreign manufactures; or else must be content with fewer imports than pre-war, if exports are maintained at pre-war quantities. In other words, the productive effort required to buy manufactures in pre-war quantities must be greater than pre-war.

This discrepancy was at its worst in 1920-21. By 1925-26, it had contracted owing to a fall in the prices of manufactures and a rise in those of raw materials. There was a relapse in 1926-27 and a further contraction in 1927-28, maintained in 1928-29. The following figures, on which these conclusions are based, represent the index number of the prices of staple exports from India—almost entirely agricultural products—and of staple imports into India, chiefly manufactures or semi-manufactures, based on the 1913-14 prices = 100:

	1913-14	1919-20	1920-21	1921-22	1922-23	1923-24
Imports.	100	206	237	214	169	190
Exports.	100	158	140	127	140	145

	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30
Imports.	180	158	148	136	133	128
Exports.	154	152	132	130	127	118

By August 1929, both figures had become approximately identical at 130, or 30 per cent over pre-war prices, but in September of that year began the slump which continued with increasing severity until March 1930 and which has persisted up to the time of writing—namely, February 1931. The slump affected raw materials more seriously than manufactured goods. The discrepancy between the two is now apparent again. The raw material index number has fallen during 1930 to 118, or only 18 per cent over pre-war levels, while the index number of manufactured goods stood in that year at 128 or 10 points higher. This disparity has increased during the year 1930-31. The actual figures are not yet

available, but they will probably be found to involve a difference of 20 or even possibly 25 points. This difference represents a restriction of the purchasing-power of the agriculturist, who is the best customer of the industrialist, just as the industrialist and his employees are in their turn the best customers of the agriculturist, buying the surplus food grains and other raw materials which he produces.

It would appear that the natural economic laws are working towards equilibrium between the prices of agricultural and industrial output. The *rapprochement* of August 1929 appears to have been premature, and hence the slump which began during the following month. The real cause of disequilibrium appears to be the fact that the manufacturer can control his output while the agriculturist cannot. The agriculturist has, it is true, one factor of no little importance in his favour—namely, that each season he has a choice of crops to sow and that he is thus enabled to transfer his efforts from an unprofitable to a profitable crop. But this option is limited by characteristics of climate and soil. Within these limitations his expectation of a profit depends on his ability to produce the maximum crop possible. His profits occur when he can produce a good crop while the general yield is low and his losses occur when his own yield is low while that of his neighbours and competitors is heavy.

The manufacturer, on the other hand, while he is unable to vary the kind of goods he produces, is able to control output and thus to adapt it to public demand. But a restriction of the output of manufactured goods involves a restriction of the demand for the raw materials for such goods and therefore in many cases of the produce of the agriculturist. It may also involve a reduction of employment and therefore of the standard of living and consequently a reduced demand for the foodstuffs which the agriculturist supplies. In other words, rationalisation is easier and is capable of further extension in the case of the manufacturing industries than of agriculture and the most important question would appear to be that of furthering the rationalisation of agriculture.

This enquiry falls naturally into two parts:

(1) What natural obstacles to the rationalisation of agriculture exist at present, but can and should be removed?

(2) What constructive efforts towards the rationalisation of agriculture can be encouraged on the ground thus cleared?

(*a*) With regard to (1), there are several tendencies of comparatively recent date which are due to the rationalisation of trade and industry at a more rapid rate than agriculture, and which have an embarrassing effect on agriculture. Of these, the following examples may be given:

A. The tendency to form big manufacturing trusts or combines with a concerted policy in the purchase of their raw materials. Instances would be the match, tobacco, rayon and margarine trusts. The danger is that they may control the markets for their respective raw materials and thus squeeze the producer, who is in many cases an agriculturist. It is true, on the other hand, that the agriculturist can usually transfer his efforts to other crops and that the manufacturer must be able to count on continuous supplies which can only be secured by paying reasonable rates. Moreover, big-scale purchase frequently leads to pecuniary advances to stimulate production and thus to agricultural credit systems which relieve the producer. It may thus lead also to greater stabilisation of prices fixed before the harvest at levels remunerative to the grower. But, on the whole, the effect of the big manufacturing combine on the peasant producer of its raw materials requires careful watching.

Range of Prices of Staple Indian Commodities in the United Kingdom, Monthly, during 1929-1931.

Commodity	Unit	1929									1930		
		April 2nd	May 1st	June 1st	July 1st	Aug. 1st	Sept. 2nd	Oct. 1st	Nov. 1st	Dec. 1st	Jan. 2nd	Feb. 1st	March 1st
Shellac.	Shillings per cwt.	190s.	192s. 6d.	195s.	197s. 6d.	200s.	197s. 6d.	187s. 6d.	177s. 6d.	167s. 6d.	152s. 6d.	150s.	130s.
Rice.	,,	13s.	12s. 7½d.	14s.	14s.	14s. 3d.	14s. 3d.	14s. 9d.	14s. 6d.	14s.	14s. 3d.	14s. 3d.	13s. 9d.
Jute.	£ per ton	£ s. d. 33 0 0	£ s. d. 30 5 0	£ s. d. 29 15 0	£ s. d. 30 0 0	£ s. d. 32 2 6	£ s. d. 32 2 6	£ s. d. 29 15 0	£ s. d. 28 10 0	£ s. d. 26 7 8	£ s. d. 28 0 0	£ s. d. 27 .5 0	£ s. d. 24 10 0
Castor seed. . . .	,,	18 0 0	18 7 6	17 0 0	16 15 0	17 5 0	17 12 6	17 2 6	17 7 6	17 5 0	16 7 6	16 0 0	15 2 6
Linseed	,,	18 2 6	17 17 6	16 17 6	18 0 0	20 12 6	21 0 0	23 5 0	23 7 6	23 0 0	22 17 6	19 10 0	18 10 0
Malabar copra . .	,,	24 5 0	23 7 6	22 15 0	22 15 0	24 15	24 15 0	25 10 0	24 0 0	24 5 0	24 0 0	24 0 0	22 15 0
Ground-nuts . . .	,,	17 17 6	18 0 0	17 17 6	17 17 6	20 2 6	20 13 9	20 1 3	19 0 0	18 15 0	17 10 0	16 15 0	15 12 6
Cochin coco-nut oil.	,,	41 10 0	40 10 0	39 10 0	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.
Bombay cotton oil.	,,	28 10 0	26 10 0	26 15 0	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.
Ground-nut cake .	,,	11 15 0	10 15 0	10 5 0	10 10 0	10 5 0	11 5 0	11 10 0	10 5 0	10 0 0	9 15 0	8 10 0	7 10 0
Tea	Shillings per lb.	1s. 5.57d.	1s. 4.52d.	1s. 4.02d.	1s. 3.35d.	1s. 1.90d.	1s. 4.84d.	1s. 2.90d.	1s. 2.56d.	1s. 1.22d.	1s. 1.73d.	1s. 1.57d.	1s. 3.63d.
Cotton.	Pence per lb.	9.35d.	8.40d.	8.45d.	8.55d.	8.95d.	8.75d.	8.55d.	8.15d.	7.85d.	7.70d.	6.70d.	6.15d.
Tin	£ per ton	£ 219	£ 196	£ 197	£ 202	£ 213	£ 206	£ 200	£ 185	£ 174	£ 180	£ 174	£ 167
Lead	,,	26	24	23	23	22	23	23	22	21	21	21	19

RANGE OF PRICES OF STAPLE INDIAN COMMODITIES IN THE UNITED KINGDOM, MONTHLY, DURING 1929-1931 *(continued)*.

Commodity	Unit	1930									1931	
		April 1st	May 1st	June 2nd	July 1st	Aug. 1st	Sept. 1st	Oct. 1st	Nov. 1st	Dec. 1st	Jan. 1st	Feb. 2nd
Shellac	Shillings per cwt.	122*s.* 6*d.*	130*s.*	125*s.*	115*s.*	97*s.* 6*d.*	95*s.*	85*s.*	90*s.*	86*s.* 6*d.*	75*s.*	70*s.*
Rice	,,	13*s.*	13*s.*	13*s.*	12*s.* 10½*d.*	15*s.* 6*d.*	15*s.*	13*s.*	11*s.* 6*d.*	8*s.* 6*d.*	8*s.*	8*s.*
Jute	£ per ton	£ *s.* *d.* 24 5 0	£ *s.* *d.* 25 5 0	£ *s.* *d.* 23 10 0	£ *s.* *d.* 22 7 6	£ *s.* *d.* 19 17 6	£ *s.* *d.* 17 10 0	£ *s.* *d.* 16 15 0	£ *s.* *d.* 15 17 6	£ *s.* *d.* 16 5 0	£ *s.* *d.* 15 15 0	£ *s.* *d.* 14 10 0
Castor seed	,,	15 10 0	15 7 6	15 0 0	14 2 6	14 15 0	15 2 6	13 12 6	12 17 6	12 5 0	10 15 0	11 5 0
Linseed	,,	18 12 6	18 15 0	18 17 6	17 7 6	17 17 6	16 10 0	14 5 0	13 15 0	12 10 0	12 7 6	11 15 0
Malabar copra	,,	23 0 0	23 17 6	22 5 0	20 0 0	19 10 0	18 0 0	16 10 0	18 10 0	18 2 6	16 10 0	16 15 0
Ground nuts	,,	16 1 3	16 7 6	15 6 3	15 0 0	14 7 6	14 8 9	11 17 6	12 17 6	11 3 9	9 17 6	10 1 3
Cochin coco-nut oil	,,	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.
Bombay cotton oil	,,	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.	N. Q.
Ground-nut cake	,,	7 10 0	7 12 6	6 10 0	6 5 0	7 0 0	7 5 0	5 10 0	N. Q.	6 2 6	6 7 6	6 10 0
Tea	Shillings per lb.	1*s.* 3.24*d.*	1*s.* 2.85*d.*	1*s.* 0.99*d.*	1*s.* 0.77*d.*	1*s.* 1.13*d.*	1*s.* 4.75*d.*	1*s.* 4.70*d.*	1*s.* 2.61*d.*	1*s.* 2.41*d.*	1*s.* 2.34*d.*	1*s.* 1.39*d.*
Cotton	Pence per lb.	6.45*d.*	6.35*d.*	6.20*d.*	5.30*d.*	4.80*d.*	4.45*d.*	4.20*d.*	4.85*d.*	4.55*d.*	4.05*d.*	4.49*d.*
Tin	£ per ton	£ 166	£ 151	£ 139	£ 135	£ 135	£ 133	£ 125	£ 144	£ 144	£ 116	£ 113
Lead	,,	19	17	18	18	18	18	16	15	15	14	12

RANGE OF PRICES OF STAPLE INDIAN COMMODITIES IN

Commodity	Unit	1927-1928			1928-1929		
		Highest	Lowest	Difference	Highest	Lowest	Difference
Shellac	Shillings per cwt.	270*s.*	155*s.*	115*s.*	242*s.* 6*d.*	177*s.* 6*d.*	65*s.*
Rice	,,	16*s.*	13*s.* 9*d.*	2*s.* 3*d.*	14*s.* 9*d.*	12*s.* 7½*d.*	2*s.* 1½*d.*
		£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*
Jute	£ per ton	37 15 0	27 10 0	10 5 0	39 7 6	30 12 6	8 15 0
Castor seed	,,	19 3 9	16 12 6	2 11 3	19 8 9	16 17 6	2 11 3
Linseed	,,	18 12 6	17 0 0	1 12 6	19 7 6	17 5 0	2 2 6
Malabar copra . . .	,,	29 17 6	28 0 0	1 17 6	29 10 0	24 5 0	5 5 0
Ground-nuts. . . .	,,	24 0 0	20 5 0	3 15 0	21 17 6	17 15 0	4 2 6
Cochin coco-nut oil.	,,	49 5 0	46 10 0	2 15 0	48 0 0	41 10 0	6 10 0
Bombay cotton oil .	,,	35 0 0	32 0 0	3 0 0	32 15 0	28 10 0	4 5 0
Ground-nut cake .	,,	12 0 0	10 10 0	1 10 0	12 5 0	10 15 0	1 10 0
Northern average tea	Shillings, per lb.	1*s.* 11.58*d.*	1*s.* 3.36*d.*	8.22*d.*	1*s.* 6.27*d.*	1*s.* 2.17*d.*	4.10*d.*
Fine M.G. broach cotton	Pence per lb.	11.45*d.*	6.90*d.*	4.55*d.*	10.85*d.*	8.15*d.*	2.7*d.*
		£	£	£	£	£	£
Tin.	£ per ton	311	224	87	241	206	35
Lead	,,	27	19	8	29	20	9

THE UNITED KINGDOM DURING THE LAST FOUR YEARS.

1929-1930			1930-1931			Unit	Commodity
Highest	Lowest	Difference	Highest	Lowest	Difference		
205*s.*	117*s.*	88*s.*	132*s.* 6*d.*	70/-	62*s.* 6*d.*	Shillings per cwt.	Shellac . . . . .
14*s.* 9*d.*	10*s.* 7½*d.*	4*s.* 1½*d.*	15*s.* 6*d.*	7*s.* 10½*d.*	7*s.* 7½*d.*	,,	Rice . . . . .
£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*		
33 0 0	22 15 0	10 5 0	25 15 0	14 12 6	11 2 6	£ per ton	Jute . . . . .
18 15 0	15 0 0	3 15 0	15 17 6	10 10 0	5 7 6	,,	Castor seed . . . .
24 10 0	16 17 6	7 12 6	19 10 0	11 10 0	8 0 0	,,	Linseed. . . . .
25 15 0	22 5 0	3 10 0	23 17 6	15 17 6	8 0 0	,,	Malabar copra . . .
21 12 6	14 15 0	6 17 6	16 15 0	9 8 9	7 6 3	,,	Gronnd-nuts. . . .
41 10 0	35 0 0	6 10 0	N. Q.	N. Q.	N. Q.	,,	Cochin coco-nut oil.
28 10 0	26 0 0	2 10 0	N. Q.	N. Q.	N. Q.	,,	Bombay cotton oil .
12 0 0	6 15 0	5 5 0	8 10 0	5 10 0	3 0 0	,,	Ground nut cake. .
1*s.* 5.57*d.*	1*s.* 0.63*d.*	4.94*d.*	1*s.* 5.10*d.*	11*s.* 9*d.*	5*s.* 19*d.*	Shillings, per lb.	Northern average tea
9.35*d.*	5.85*d.*	3.5*d.*	6.54*d.*	3.90*d.*	2.64*d.*	Pence per lb.	Fine M.G. broach cotton . . . .
£	£	£	£	£	£		
219	159	60	116	110	56	£ per ton	Tin. . . . .
26	18	8	19	13	6	,,	Lead . . . . .

B. Secondly, the agriculturist frequently suffers from the dumping of foreign produce within his own territories at unremunerative rates. This leads to tariff reprisals and great uncertainty in the world's markets. A joint survey of export bounties and import tariffs on agricultural products, should be undertaken with a view to international co-operation and more stable conditions of trade.

C. Thirdly, agriculture suffers everywhere from price fluctuations, which are more serious than pre-war and which do not at present show signs of abating. The following statement compares the prices obtained in the markets of the United Kingdom during each of the past three years and indicate the highest and lowest quotations (collected from day-to-day records) of each year and the spread between them.

It will be seen from the statement on page 52 that fluctuations were generally less in 1928-29 than in 1927-28, but that there was a relapse in 1929-30 and to some extent also in 1930-31. The general tendency of all prices during the four years is downwards. Transfer to top of page 54. The statement on page 53 gives particulars of the slump from the point of view of Indian staple goods.

One primary cause of fluctuating prices appears to be the fact that the trade has no longer courage to hold stocks. In pre-war days, speculators and dealers held stocks freely. Production was largely for stocks and consumption was effected from stocks. Nowadays, stocks do not exist or stock-holding is a function thrown back on to Governments or trusts as in the case of Brazilian coffee, Egyptian cotton and Cuban sugar. Where stocks exist, their extent is at once known and accounted for in advance. In other words, producer and consumer are at closer grips than they used to be pre-war, and any sign of weakness on either side is at once observed by the other party, who takes full advantage of it.

It is difficult to see what the true corrective must be. Ultimately, the revival of confidence may encourage the holding of stocks. On the other hand, rationalisation induces the adaptation of supplies to demands and discourages the formation of stocks which involve tied-up capital and loss in storage. Improved intelligence systems are desirable, even if for a time they accentuate the difficulty through exposing even more widely and more accurately the excess or deficiency of forthcoming crops. Possibly large-scale purchasing operations may, in the end, prove to be the controlling factor.

In any case, it is certain that the fluctuations of price which are so common a feature of the world's markets to-day have a pernicious effect both on the producer and consumer. Their causes and effects should be studied in order that all possible safeguards may be taken to mitigate their worst effects until with returning confidence greater equilibrium can be secured.

D. Finally, agricultural production suffers from the spread which has been allowed to intervene between the prices obtained by producers and those paid by consumers, and particularly between retail and wholesale prices of the same article. If it is true, as the agriculturist claims, that he does not get a fair share of the retail price paid by the consumer, it will not improbably be found that the services of the transporter and of the wholesale distributor are paid for at economic rates, but that the retailer derives a profit rather above the economic value of the service which he renders. It is probable that a part of this profit must be devoted to advertisement and to the more attractive display of the goods retailed. But the producer may claim that the curtailment of some of these expenses and the grant to retail purchasers of the full benefit of reductions of wholesale prices might result in wider demands and the absorption of the whole crop offered, rather than a concentration on superior grades at fancy prices. The enquiries of the Food Council in the United Kingdom and the results of the enquiry recently instituted by the French Government, would furnish valuable data on which to come to

conclusions on the economic spread between the prices paid by the consumers and those obtained by producers for the same article.

(b) Constructive efforts necessary to the greater rationalisation of agriculture.— This part of the enquiry appears to be largely technical. It covers scientific methods of agriculture; scientific finance; the avoidance of waste in transit, storage and distribution; the adoption of co-operative methods and, in particular, of closer relations between producers' and consumers' organisations; agricultural wages and the cost of living.

IRISH FREE STATE.

JOHN P. COLBERT,
Chairman of the Agricultural Credit Corporation, Ltd.

Irish Free State agriculture has hitherto been fortunate enough to escape the full force of the present world economic depression. This is due to the strong resistance shown by meat prices, in which the Free State farmer is chiefly interested, to the prevailing trend in 1930. Cereals, in which the agricultural depression has been most pronounced, are not of major importance to Irish Free State producers as a whole.

Divergence between Cereal and Meat Prices.

In this respect the 1930 movements have been very remarkable, and the resultant position is shown in the following table, which compares the 1930 average prices in various categories with the corresponding averages in 1914, in 1920 (the year of highest prices) and in 1922-1924 (the period when prices grounded after the great recession of 1920-21):

Comparison of Average Wholesale Prices.

Price groups	1930 average + or — on average in 1914 Per cent	1920 Per cent	1922-24 Per cent
Vegetable food	+ 3	— 66	— 29
Animal food	+ 42	— 46	— 15
All foodstuffs	+ 19	— 59	— 24
Industrial raw materials . .	+ 10	— 63	— 29
All commodities	+ 14	— 61	— 27

(The above figures are based on the Sauerbeck-*Statist* index numbers. The vegetable food group includes wheat, flour, barley, oats, maize, potatoes and rice. The animal food group includes beef, mutton, pork, bacon and butter. The " All foodstuffs " figures are based on these two groups and also groceries.)

It will be seen that cereal prices in 1930 were only slightly above the 1914 level, whereas meat prices were 42 per cent higher. As compared with the " boom " year the fall in cereals has been 66 per cent as against only 46 per cent in meat. Since the post-war stabilisation period (1922-1924) the fall in meat has only been half that in cereals.

Correcting last year's changes in each case by the movement in the general level of prices, it will be found that vegetable food *values* declined in 1930 by 8 per cent, while the animal food group actually rose (in *value*) by 15 per cent.

In relation to the general price-level the animal food index stood at a higher level in 1930 than in any year since the commencement of the Sauerbeck-*Statist* calculations (1846), a feature which is all the more remarkable in view of the heavy fall in butter (included in this index) during 1930. On a similar calculation, the vegetable food index was lower in 1930 than in any preceding year, except 1864 and 1923 (although this group included potatoes).

Relative Importance of Live-stock Production in the Irish Free State.

The importance of this development to the Irish Free State farmer may be judged from the results of an enquiry into the agricultural output of the Free State conducted in 1927, which yielded the folloving figures for the different branches of production:

Estimated Value of Agricultural Output for Year 1926–27.

	Output £	Per cent of total
Cattle, sheep and pigs	25,741,000	40
Milk and butter.	13,693,000	21
Poultry and eggs	9,017,000	14
Crops.	8,264,000	13
Miscellaneous	8,042,000	12
	£64,757,000	100

From this it appears that live-stock production is easily the premier branch of agriculture in the Irish Free State. The preponderance of this branch is shown even more strikingly by the figures of external trade. In 1930 the total exports of cattle, sheep and pigs (alive and slaughtered, including meat products of these animals) amounted to £22,106,000, being actually greater than in 1929. This was as much as 50 per cent of the total exports from the Free State in 1930 (£44,554,000) and no less than 67 per cent of the total exports of agricultural products (£32,992,000).

The Irish Free State an Importer of Cereals.

The Free State is not self-supporting in cereals. Owing to the opening up of the great prairie countries, there has been a progressive decline in the area of ploughed land in the Free State since the middle of last century, except for a temporary expansion during the war years. The decline in area has, however, been counterbalanced by a very marked increase in crop yields, arising from the application of improved methods of cultivation, so that over the past half-century there has been no falling-off, on the whole, in total production. Thus in 1930 the estimated total produce of the grain, root and green crops in the Free State was equivalent to 1,266 thousand starch tons. This was considerably exceeded during the war years, but, on the other hand, was above the quinquennial averages over the period from 1875 to 1910.

The Free State produces sufficient root and green crops for home consumption, but has to import large quantities of cereals. In 1930, for example, the value of the total export of cereals produced was only £268,000, whereas net imports of cereals amounted to £8,258,000.

Conclusion as to Special Aspects of the Depression.

If, therefore, the Free State be regarded as a single farm, the special features of the present depression are *prima facie* of a favourable character. Live-stock and meat, which make up 67 per cent of the total agricultural export, were last year at a phenomenally high level in relation to prices in general. Cereals, on the other hand, of which the Free State is a purchaser on balance, were at a phenomenally low level.

Against this position must be set the slump in milk and butter. Last year's exports of cream, butter and milk returned only £3,797,000, as against £5,169,000 in the preceding year. It is true that last year's export of these commodities representedonly 11½ per cent of the total agricultural exports. Normally, however, the home consumption of butter

by the non-agricultural community is little below the export, being of much greater relative importance than the corresponding consumption of meat. Again, the unfavourable effects of the depression were accentuated last year by a purely local factor, in the shape of an abnormally wet season, which caused much flooding of land and damage to crops.

On the whole, it is true to say that the depression has so far affected the Irish Free State probably less than any other country in the world, owing to the special features mentioned. It may be that the current year will bring a change in this respect. There has already been a severe fall in live-stock prices in 1931. On the other hand, the level of butter prices promises to be higher in the coming export season, and even at the worst last year, dairying as a whole was not being produced at a loss in the Irish Free State.

The severity of the industrial depression in Great Britain is naturally of great concern to the Free State farmer, the British market being of far greater importance than the home market. On the other hand, the share of the Free State in the British import trade in agricultural products is small relatively to other countries. It has the advantage of superb qualities of soil and climate for cattle-raising, dairying, poultry-keeping and horse-breeding. It is close to the market. It has a selling advantage by reason of the fact that the balance of trade between the two countries is normally in favour of Great Britain. For these reasons, the Free State does not fear a reduction in the physical volume of agricultural exports, even if there is a contraction in the consuming power of Great Britain. Last year, for example, the volume of agricultural exports from the Free State was limited only by the volume of production. During recent years the Free State has made enormous strides in improving the quality of its products and naturally expects to produce increasing quantities in the years ahead.

General Effects of the Depression.

The general repercussions of the depression on Irish Free State agriculture are much more important than any special reactions. The scaling down of prices over the past decade has doubled the real burden of indebtedness of the farmers. In the years prior to 1920 holdings of land changed hands in Ireland more freely probably than in any preceding period in history, and these transactions were effected largely on borrowed money, thus leaving an abnormal volume of indebtedness to be carried over into the years of depression. After 1924, which was a disastrously wet year, causing heavy losses from disease in stock, farmers had again to borrow heavily. Again, there is a large burden of indebtedness on farmers in the Free State in the shape of State advances for the purchase of holdings, interest and amortisation on which constitute a fixed half-yearly charge. (This, however, is less than the rent charge under the old tenant systems and is terminable.) Another important source of indebtedness in recent years is afforded by legacies not covered by cash assets at the time of devolution of the title, which the inheritor of the land has to liquidate out of profits over a period of years. Finally, the farmers have to provide for a very substantial volume of indebtedness to the banks and shopkeepers, the period of which is to be measured in years.

As illustrating the increase in the real burden of debts due to the lower price-level, the following instances may be given: Where a farmer could liquidate a debt (or meet a fixed charge) by selling 5 store cattle in 1920, he required to sell 8 animals of the same class last year in order to pay the same debt or fixed charge. The produce of 5 cows would have paid off a debt in 1920, which it would have required the produce of 12 cows to clear in 1930. The position is even worse for the tillage farmer.

No doubt, the comparison with 1920 is an extreme case. Unfortunately, as indicated above, it is an actuality with a large number of farmers. Few farmers who borrowed

heavily in the boom years have been able to escape serious financial difficulties. Besides, all farmers who were unable to get out of debt during the price-recovery of 1924-25 or of 1928-29 will be seriously affected in this respect by the fresh decline in 1930. The total volume of farming indebtedness brought into 1930 cannot be put at less than £30,000,000 (excluding land purchase advances by the State).

There are evidences that for some farmers the lower price-level will mean insolvency. For a great many it will mean that amortisation in full of old indebtedness can be met only by gradual realisation of capital assets in the shape of live-stock. For still larger numbers who find themselves understocked it will mean that the annual reserves necessary to increase live-stock cannot be made, owing to the larger share of the physical product absorbed by liquidation of debt.

The Equation of Exchange.

Another serious repercussion of the depression lies in the fact that certain production costs and overhead charges have not been readjusted in accordance with the lower level of prices. The record for the Irish Free State since 1914 is shown in the following table (supplied by the Statistics Branch of the Department of Industry and Commerce).

INDEX NUMBERS OF CERTAIN AGRICULTURAL PRICES AND COSTS OF PRODUCTION.

Average in	Farmers' Selling Prices				Farmers' Buying Prices		Overhead Charges		Wage Rates
	Live-stock	Produce	Crops	Total [1]	Animal Feed and Fer-tilisers	Household and Family Requisites	Annuities or Rent	Local Taxation	
1914	100	100	100	100	100	100 [2]	100	100	100
1915	125	128	121	125	127	(*a*)	102	108	111
1916	147	146	150	147	176	(*a*)	102	114	120
1917	191	191	200	192	258	(*a*)	102	126	153
1918	212	252	179	218	298	(*a*)	103	144	191
1919	227	280	233	243	301	(*a*)	103	(*a*)	237
1920	264	288	280	274	303	(*a*)	103	(*a*)	273
1921	200	185	198	195	214	(*a*)	101	284	261
1922	155	154	140	152	162	188 [3]	94	134	233
1923	140	137	130	137	155	182	100	205	234
1924	138	156	188	152	156	186	101	205	218
1925	149	156	144	150	156	192	99	211	209
1926	139	132	118	133	136	185	100	214	209
1927	122	133	124	125	133	173	(*a*)	194	197
1928	127	137	130	131	146	174	(*a*)	195	196
1929	132	138	120	133	143	177	(*a*)	(*a*)	194
1930	129	107	104	119	116	169	(*a*)	(*a*)	(*a*)

[1] Weighted index combined from three preceding columns. The weights are, up to 1928, estimated quantities sold or consumed in 1912-13; since 1928, estimated quantities sold off farms in 1926-27.

[2] July 1914 = 100. Combined cost of living index numbers of food, clothing and fuel and light.

[3] June 1922.

(*a*) Not available.

The changes are more conveniently summarised in the following table, showing last year's position in comparison with 1914, with 1920 (the year of highest prices) and with the average for 1922-1924 (which may be described as the post-war stabilisation period).

Group	1914	1930 + or — in 1920	1922-24
	Per cent	Per cent	Per cent
Live-stock Prices	+ 29	— 51	— 10
Total Price Index	+ 19	— 57	— 19
Feed and Fertilisers.	+ 16	— 62	— 26
Household Requisites. . . .	+ 69	— 32 [1]	— 9
Local Taxation [2]	+ 95	— 31 [3]	+ 8
Wage Rates [4]	+ 94	— 29	— 15

The *prima facie* inference to be drawn from the above comparison must not be applied too literally to the Irish Free State. Over 70 per cent of the holdings in the Free State are small farms under 30 acres; and movements in local taxation and wage rates are not of great importance to the small farmer. Taking into account that land purchase annuities did not increase since the pre-war period, it is probable that farming in the small holdings was as profitable on the whole in 1930 as in 1914, or in 1922-1924. For the large farmer local taxation and wages are very important items of expenditure, and the equation of exchange has moved heavily against him.

It would not be correct to say that the maladjustment of costs was so pronounced last year as to make farming unprofitable in the Free State, with the possible exception of grain-growing. Thus, although the average price paid for milk at the creameries in 1930 was 32 per cent below the average in 1922-1924 and 63 per cent below the 1920 level, still the well-stocked dairy farmer was not working at a loss. The farmer relying mainly on cattle-raising was better off last year, on a comparison of costs and prices, than in the 1922-1924 period; the price of his product was actually higher, whereas the level of costs and charges was substantially lower.

Finally, it is useful to remember that both live-stock and dairy farmers were enjoying a fair measure of prosperity in 1924-25 and again in 1927-28. Moreover, during the past decade there has been a very material improvement in farming methods in the Free State. The possibilities of cheapening production by general adoption of these methods are very far from being exhausted, especially in dairy-farming. This, indeed, is one of the most hopeful aspects of the outlook for Irish Free State agriculture in the years ahead.

Special Note.

There are two features of the depression which call for special comment, as bearing on the broader study of the economic crisis. They are features which will remain unaffected by any local remedies in the shape of protective tariffs or restriction of production.

[1] Comparison with British cost-of-living index for 1920.
[2] Latest figure 1928.
[3] Comparison with 1921.
[4] Latest figure 1929.

The Lag in Retail Prices.

The first is the lag in retail prices. As shown above, in the case of the Irish Free State the combined retail price index for food, clothing, and fuel and light was last year 69 per cent above the 1914 level, whereas the index of producers' prices was only 19 per cent above 1914. A similar disparity is shown on the comparison with 1920 or 1922-1924. For clothing alone (including boots) the divergence is much more pronounced, the 1930 index for this group being 16 per cent *above* that for 1922-1924, and 111 per cent above that for 1914.

The farmer sells his own product at wholesale prices and has to pay retail prices for practically everything he buys. (The industrial wage-earner is, of course, also buying at the retail level of prices, but then there is also a lag in wage rates during a fall in the price level.) The consequence is that the farmer's power to consume is diminished by the lag in retail prices. This, reacting on industry, leads to a slowing down of production and a contraction of employment, which in turn narrows the consumptive demand for agricultural products.

The lag in retail prices is not, of course, the only motive force in this vicious circle of diminishing consumption and falling prices. Looked at from the perspective of the small farmer, however—and agricultural holdings generally are small everywhere—it assumes a commanding importance. The small farmer with even a moderately large family has to allocate so large a proportion of his gross revenue to clothing, boots, groceries and other articles of consumption, that any substantial drop in the prices of his own products immediately affects his power to consume.

This factor must be largely responsible for the present paradox, where, although there is an unused reserve of productive capacity in practically every branch of primary production and manufacture, and an accumulation of redundant stocks in most trades, yet the level of consumption all round is much below saturation point, while there is a fringe of population on the margin of bare subsistence.

Level of Price Stabilisation.

The second feature mentioned above concerns the level at which any general attempt at price stabilisation ought to aim. Reference is made earlier in this report to the diminished ability of the farmers to liquidate old debts (and meet fixed charges) resulting from the lower price level. The debtor interest is, of course, similarly affected in industry and commerce, but financial reconstruction, by writing down capital, is easier in the case of the industrialist. The farmer who gets into financial difficulties is in a peculiarly weak position, for the creditors' first line of attack is on his working capital—live-stock and crops.

The most serious aspect of this feature of the depression is its abiding character. Even if all production costs, overhead charges and retail prices become perfectly readjusted to the existing level of wholesale prices, the accretion to the real burden of old indebtedness will still remain.

Again, the lower price level also adds to the real burden of international, national and local debts, and will thereby operate to increase permanently the proportion of production costs applicable to taxation.

The downward movement in the price level since 1920 parallels closely with the period of deflation which followed 1870, a period during which there was also a strain on the gold supply. In particular, the collapse of 1930, which was not preceded by a trade boom, bears a striking resemblance to that of 1882. In the former period the price decline continued until the middle of the following decade. It is safe to say that a repetition of that movement at the present time would bring widespread financial disaster on the farming community, for the reason here mentioned.

Not only is it imperative to prevent a further subsidence of prices, but (assuming that monetary science can eventually perfect the mechanism) it is in the highest degree desirable that any measures designed to stabilise the general level of prices should aim at a higher level than that obtaining in 1930. Too many farmers (and not only farmers) have been brought to the border line of solvency by the rise in the purchasing power of money, and a stabilised price level substantially above that of 1930 would be required in order to redress the balance of real burden of old debts.

ITALY.

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When, after the disturbances of the period immediately following the war, peace and order were restored in Italy by the march on Rome and the inauguration of the Fascist regime in October 1922, and the country was accordingly enabled to devote the whole of its energies to the work of economic and political restoration, helped by the traditional hard-working qualities of the Italian people and the fostering care of a strong Government bent on placing the interests of the nation above the claims of class or party, the agriculturists—representing the backbone of the nation and recognised by the Fascist regime as such, morally and politically as well as economically—enjoyed a relatively favourable spell during which the prices of agricultural produce in general showed an upward trend.

But not all the elements of this prosperity were healthy. Its foundations were sapped by the persistent disturbances of the currency, which, even in the agricultural world—side by side with a steady and ordered increase of production—brought a speculative element into the situation, with a concomitant diminution of that economic caution which in normal times is one of the best characteristics of the farmer's outlook.

This period of prosperity reached its peak in the years 1925 and 1926, when the principal agricultural products fetched very high prices; but these prices were dependent upon the monetary crisis, which was at its height in just those years. In 1926, the lira appeared to be on the verge of a precipitate collapse, the quotation of the pound sterling in August rising above 150.

Happily, the direct intervention of the Head of the Government, his announcement at Pesaro of his resolute determination to protect the currency, and the drastic monetary policy which followed, saved Italy from economic disaster. First in fact and later in law (by the Decree-Law of December 21st, 1927), the lira was stabilised at the new parity of £3.666 to the old gold lira.

This indispensable step was intended to protect the savings of the country and to place its future economic development on solid foundations. It was equally necessary from the moral standpoint, if employers and employed were to be enabled to resume healthy economic activities based on laborious effort rather than on hazardous adventure; but it was clearly bound to involve a painful and long-drawn-out process of economic adjustment to the new monetary basis.

The years that followed were years of difficulty for the agriculturists as for others.

Various circumstances aggravated these difficulties. Three years of serious summer droughts had injurious effects, especially on the production of fodder crops. The exceptional abundance of certain products, in particular wine and oil (coinciding in the case of the latter with a similar abundance in other competing countries), depressed prices and increased the difficulties of marketing. The exceptional frosts in the winter of 1928-29 did much damage to the sheep-breeding industry of Central Italy, as well as (in part of Northern Italy) to the cultivation of the vine, one of the essential branches of Italian agriculture.

Vine-growers were also faced with an invasion of phylloxera and with a reduction in the individual consumption of wine, amounting to something like one-quarter of the pre-war total.

The difficulties were increased by the fact that the prices of means of production fell much less rapidly than the prices of agricultural produce.

Nevertheless, agriculture, encouraged and protected by the Government, which took measure after measure in its favour and incessantly proclaimed in the most decisive language the agrarian orientation of its economic policy, bravely continued the struggle.

The objects aimed at were, in the main, two. First, to increase the production of wheat, for the supply of which Italy is to a very large extent tributary to foreign countries; this was the so-called Grain Battle (Battaglia del Grano). Secondly, to restore to intensive cultivation land which is still cultivated only under primitive conditions owing to defective irrigation, lack of roads, or other material and social causes; this was the programme of Agricultural Development (Bonificazione integrale).

The agriculturists of Italy responded with extraordinary enthusiasm to the initiative taken by the Head of the Government in these two directions. The Grain Battle began in the harvest year 1925-26 with a series of measures calculated to stimulate the progressive spirit of the grain-growers and to assist them in the economic field; an increase in the Customs duties on grain was one of these measures. The programme of agricultural development culminated in the Law of December 24th, 1928, which laid down a scheme for financing public works over a period of fourteen years.

It is enough to follow the development of the production of wheat per unit of area, in spite of the obstacles to production due to unfavourable climatic vicissitudes during three of the years under consideration.

Year	Quintals per hectare
1909-1913 (average)	10.5
1926	12.2
1927	10.8
1928	12.5
1929	14.8
1930	11.9

As regards the agricultural development programme, suffice it to say that, between July 1st, 1929, and December 31st, 1930, the Italian Government authorised public works and private works subsidised by the State involving a total expenditure of 1,557 million lire.

* * *

It was at this point (1929-1930) that there began an abrupt decline in the prices of the principal agricultural products, which was not accompanied by any adequate equivalent decrease in the prices of means of production.

In the two years 1928 and 1929, when the general wholesale price index was 490-480 (1913 = 100), and consequently the gold price index at the new parity was 134-130, the prices of the principal agricultural products as a whole were not far off the proportion of 1: 4.5-5 of the pre-war price level.

Costs (and retail prices), on the other hand, were still very much higher.

The principal elements in the cost price of agricultural produce are wages and ground-rents.

But the level of agricultural wages was in general well over the proportion 1: 5 of the figure in the last few years before the war; and ground rents were also higher than is indicated by this proportion.

The increase in the relative wages charge was intensified in some districts, owing to the growth of the Italian population, by the need for finding employment for a larger number of labourers.

The disturbance of the economic balance thus occasioned tended to reduce heavily the profits earned.

Even in the case of agricultural properties farmed by the owner himself and not by a tenant farmer, so that there was no question of payment of rent, the place of the rent-charge was frequently taken by the particularly onerous charge of interest and redemption payments on debts contracted for the improvement or for the purchase of land. The enthusiasm by which agriculturists were inspired, and the favourable economic conditions, had led many of them to undertake land-development operations which exceeded their economic capacity and consequently involved recourse to credit. In many districts, moreover, there had been extensive changes in the ownership of land.

The effects of the economic disequilibrium and of the burden of taxation (the latter greatly increased as compared with pre-war years as an inevitable consequence of the war), though weighing heavily on certain branches of agriculture, was mitigated in some respects, first by the progress made in technical improvements, which to some extent offset the increase in wages, land values and taxation, and, secondly, by the wide prevalence of certain forms of agricultural remuneration by quotas or fixed quantities of produce, whereby the labourer's earnings are automatically adjusted to the prices of produce. Again, in the case of tenant farmers, the system of rents payable in kind instead of in money, together with the agreements concluded through the syndical associations for the reduction of money rents which the new conditions had rendered intolerable, contributed to ease the situation.

But, throughout the year 1930, the position of prices throughout the world changed rapidly.

On the principal markets of the world the general wholesale gold-price index fell from an average of 130-140, at which it stood in 1930, by gradual stages during the year to 100, and on occasions even below 100. In Italy it fell from 130.5 (average for the year 1929) to 100 (end of 1930).

As is now generally recognised, the world situation was aggravated beyond remedy, in the case of a number of the principal agricultural and industrial products, and particularly in the staple cereal products, by production in excess of consuming capacity. In the years which preceded, each nation has been endeavouring in various ways to arrest and dissemble this tendency.

No country bound to others by commercial relations could evade this situation—least of all Italy, which is closely tied to foreign markets owing to the need for importing fundamental products such as grain, meat, etc., and by the equally imperative need for exporting products such as vegetables, fruit, oil, silk, wine, the majority of these being products the demand for which is elastic, so that their prices are affected more heavily and more rapidly by any decline in the prosperity of the countries in which they are marketed.

The wholesale price index number for Italian agricultural produce, which in 1928 and 1929 remained for the most part above the general wholesale price index, now began to fall even more rapidly than the latter, and at the end of 1930 was below it.

The disproportion which had already made itself apparent between the prices of products and the prices of means of production became more marked, and is the cause of the present grave difficulties under which agriculturists are labouring.

The table below shows the extent of the fall in the prices of the principal agricultural products of Italy.

INDEX OF PRICES OF AGRICULTURAL PRODUCTS.
(Base 1913.)

Products	1926	1927	1928	1929	1930
Wheat	653	503	444	438	425
Unhulled rice	600	384	428	412	316
Maize	628	478	628	544	389
Hemp	664	483	579	500	360
Sugar-beet	676	500	625	554	462
Almonds	649	516	457	416	333
Cabbages	588	338	362	378	337
Cauliflowers	520	453	497	567	419
Garlic and onions	426	333	343	403	356
Oranges	1,169	1.137	800	824	611
Lemons	776	727	829	740	567
Apples and pears	515	470	474	465	409
Peaches	456	387	447	391	383
Hazel-nuts	931	690	534	611	569
Figs	478	415	386	335	265
Olive oil	690	635	520	411	339
Ordinary wine	577	633	577	373	260
Industrial milk	709	558	504	504	356
Butter	672	567	573	567	462
Emmenthal cheeses	745	538	501	533	510
Gorgonzola cheeses	664	545	548	535	433
Beef	613	495	474	514	464
Pork	504	459	522	515	372
Wool (Latium)	628	475	547	471	240
Tomato preserve	418	380	525	524	255
Silk cocoons	982	507	563	483	217

Note. — The prices of market-gardening products and fruits, other than the almonds quoted in Milan, are export prices. There are no systematic returns for the home market.
The figures for 1930 relate to the products exported down to the end of November.

On the other hand, the series of index numbers of hourly wages shown below is significant, even when it is borne in mind that payment by the hour is not the commonest form of wage-payments in Italian agriculture:

Year	Index
1926	706
1927	665
1928	624
1929	637
1930	612

It should also be remembered, in connection with the heavy indebtedness of the agriculturists, that bank advances to farmers, which before the war were to be had at something like 4 per cent, now involve a charge of 7 to 8 per cent, and that mortgage loans are only kept at the moderate rate of 4-5 per cent in cases where the State contributes from 2½ to 3½ per cent towards the interest payments under the special agricultural credit legislation.

By a recent special measure, the Government has facilitated the redemption of debts contracted at excessive rates for land development. These debts have been converted into 25-year mortgages with annual payments for interest and redemption which may not exceed 7½ per cent in all, the difference being borne by the State.

* * *

In interpreting the facts stated above, it must not be forgotten that, if the pre-war relation between the prices of products and the prices of means of production were exactly the same to-day, that would mean—having regard to the technical improvements made—that agriculturists were better off to-day than before the war. It must not be forgotten, however, that the number of Italians in the Kingdom of Italy was 35½ millions in 1913, but is now some 42 millions. Moreover, emigration (mainly of agriculturists), which in the last few years before the war averaged more than 600,000 persons annually, and in 1913 was as high as 872,000 persons, is now less than 200,000. Lastly, Italy, unlike her allies, derived no increased economic potentialities from the successful issue of the war, other than the changed spirit of her people and their greater determination to progress.

The depression is not equally acute in all parts. It is worst where the predominant form of agriculture is highly capitalised and intensive, with wage-earners and specialised crops which have been exceptionally affected by the fall in prices (rice, wine wool, silk cocoons). It is least where agriculture mainly takes the form of domestic production with labourers having an interest in the proceeds *(colonat partiaire*—system by which a portion of the produce is handed over as rent—and similar forms). But, whatever the form, Fascist Italy is everywhere facing the crisis with courage and determination.

By a generous policy of public works, in which the execution of the works involved by the agricultural development programme plays a large part, Italy is keeping unemployment within much lower limits than it has attained in other countries; but she cherishes no empty hope of a return of the highest prices fetched by agricultural produce before depression began.

She does not renounce the right to make use, within certain limits of the weapon of Customs duties, or any other means of arresting the decline of agricultural prices in the case of fundamental and irreplacable products, such as grain. Agriculture is slow-moving, and cannot be uprooted and restarted in short periods of time. It is out of the question to look on passively at its overthrow as a result of a worldwide over-production of cereals which there is every reason to suppose is only transient.

The Italian policy is directed less, however, towards keeping the prices of agricultural produce at a high level than towards reducing costs; and use is made, in this connection, of the instruments to hand in the shape of the syndical and corporative organisation which is peculiar to Italy.

The first step in the effort to reduce costs is to maintain and intensify technical advances and improve the organisation of agricultural activities, particularly in connection with marketing. A systematic attempt is also being made to adjust retail prices, wages and land values as rapidly as possible to the new general level of wholesale prices.

This is the main line of advance.

As the Head of the Government has recently asserted, there are no heroic means of extricating Italian agriculture from its present difficulties. Its recovery is closely dependent on the possibility of effectually reducing costs, and is intimately bound up with the recovery of world markets.

JAPAN

The principal agricultural product of Japan is rice, which is the basic foodstuff of the Japanese. Rice is cultivated in all parts of Japan properly so-called. The average annual production is about 58 million kokus [1]—*i.e.*, 105 million hectolitres.

1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
				in millions of hectolitres					
114	99	109	100	103	107	100	112	108	107

A Japanese consumes on an average 1.02 koku a year; so that the annual consumption of Japan properly so-called is about 60 million kokus. As the Japanese prefer home-grown rice, in normal times the importation of rice hardly exceeds that part of the quantity consumed which cannot be met by national production. Usually, rice growers can sell their produce at a price which enables them to pay their taxes and buy fertilisers and other necessary articles. The exports of rice are negligible owing to the high price of this commodity in Japan itself.

Next to rice, the cultivation of silkworms is a very important item in the Japanese economic situation. A third of the Japanese peasants—*i.e.*, about 1,800,000 families—is engaged in their cultivation, either as their principal or accessory occupation. Further, raw silk is an important export item and accounts for more than a third of the total exports of the country. The present depression in foreign markets, especially the United States which takes most of the silk exported from Japan, has a serious effect on the home silk market, and on the earnings of the peasants.

For some years, Japan has suffered from the economic depression consequent on commercial over-production, and this has been intensified by the world economic crisis. While the demand for rice and other agricultural products has considerably diminished, the 1930 rice crop has been an exceptionally good one, over 64 million kokus. Furthermore, the cultivation of this foodstuff has developed rapidly in Korea thanks to Government schemes to encourage agricultural production. The quality of the rice has been improved in order to suit Japanese tastes. Moreover, the natives of Korea, who are content to live on other foodstuffs themselves, attempt to export their rice at a lower price than that of the Japanese peasants, so that last year from 7 to 8 million kokus were exported from Korea to Japan. All these circumstances have brought about a fall in price of 40 per cent as compared with previous years, as shown in the following table:

INDEX FIGURES FOR THE PRICE OF RICE.

October 1900 = 100.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929 .	239	242	246	251	249	250	240	240	241	263	253	236
1930 .	229	231	231	229	231	231	245	254	240	160	150	—

[1] 1 koku = 180 litres.

In normal conditions, the price of rice is low at the time of the harvest; it then rises gradually and attains its maximum in summer. In order to avoid variations in price, the Government helps the peasants to get credits from the Communal Credit Society or other financial establishments, so that they may sell a part of their crops when stocks are low. Recently, the fall in price has not been followed by any rise. Consequently, the peasants are anxious to sell their produce as quickly as possible, and this still further accelerates the fall in prices. The Government has taken energetic measures to improve the situation, but so far has been unable to obtain the result desired.

The export of raw silk has suffered a marked decrease. The principal reason is the depression in the United States. The withdrawal of the prohibition to export gold has affected the rate of exchange and made exportation more difficult. The following table shows the extent of the decrease:

EXPORTATION OF RAW SILK.

	Millions of yen		Millions of yen
1921	417	1926	734
1922	670	1927	742
1923	566	1928	732
1924	685	1929	781
1925	879	1930 (up to November)	381

As a result of the decrease in exports, the stock of raw silk on the home market has increased, and its price gone down to a lower level than in 1900.

INDEX FIGURES FOR THE PRICE OF RAW SILK.

October 1900 = 100.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929 .	173	175	178	178	171	168	163	166	169	164	155	149
1930 .	150	149	148	144	130	108	90	90	85	73	74	—

The foregoing considerations largely apply to other agricultural products such as corn, vegetables, fruit and forest produce. The peasants have hardly any opportunity to make up for their losses by profits from other products.

The price of manufactured goods bought by the peasants in exchange for their produce has also fallen, but usually to a lesser degree. The peasants are therefore obliged to limit their purchases, and this results in a contraction of the markets available for manufactured products. This is one of the principal causes of the industrial crisis in the country.

Such is the agricultural crisis in Japan, which may be summarised as follows:

1. The price of rice has considerably fallen because (*a*) of increased production at home and in Korea, and (*b*) of the decreased consumption in the towns as a result of the economic depression.

2. It is hardly possible to dispose of the ever-increasing stocks of rice by exporting it, as the foreign markets are practically closed to Japanese rice on account of its high price.

3. The raw silk industry is seriously affected by the world economic depression, the effect of which is to decrease the number of orders for raw silk coming from abroad. The exportation of raw silk is down to hardly more than half the normal quantity.

As the home markets cannot absorb the big stocks of raw silk thus accumulated, the price has fallen to an unprecedented level.

4. The peasants' income from agriculture has decreased more than the decrease in the price of manufactured goods; this means a diminution of the purchasing power of the country districts and thus aggravates the economic depression in the towns.

5. The world economic depression is an indirect cause of the fall in the price of rice. Other factors should also be taken into consideration, such as over-production, the imports from Korea, etc.

On the other hand, the world economic depression is the main cause of the crisis in the raw silk industry.

6. Although the general and particular causes of the present crisis may be distinguished as above, they interact upon each other so that any remedy applied exclusively to one only is bound to prove ineffective.

LATVIA

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Agriculture occupies a most important position in the national economy of Latvia. Agriculture accounts for the greater part of the national revenue. The value of agricultural products exported has frequently exceeded 50 per cent of the value of all exports. Even at the present time, in spite of the gradual increase in the exports of timber and worked wood, the value of agricultural exports represents 35 per cent of the total exports. Latvia exports butter, bacon and flax, and imports sugar, rye and wheat. The grain imports have, however, almost ceased since last year; sugar is also now partly produced in the country.

Of the population of Latvia 63 per cent live in the country and 68 out of every 100 workers are engaged in agriculture. Latvia has an area of 65,790 square kilometres consisting of 28 per cent arable land, 31 per cent meadows and pasturage, 28 per cent forests and 13 per cent barren land. Latvia has 1,900,000 inhabitants, of whom 378,000 live in the capital, Riga, which is Latvia's principal port on the Baltic. The foreign trade balance is 635 million lats.

As in other agricultural countries, agriculture is at present passing through a period of grave depression in Latvia. This depression is due to the fact that there has been a serious fall in the prices of agricultural products both on the home and foreign markets. On the other hand, the cost of production, in particular wages, and also the retail prices of manufactured goods, interest on loans, and taxes have not decreased or have only slightly decreased. As a result, there is a great difference between the farmers' income on the one hand and the cost of production on the other. This position is elucidated by the following index figures of receipts and costs of production as compared with the respective figures for 1913, which are taken as 100:

	October 1st, 1930	July 1st, 1930	May 1st, 1930	January 1st, 1930
Receipts.	112.1	107.4	113.5	129.6
Expenditure. . .	165.5	166.8	184.5	185.3

Such a large margin between receipts and expenditure obviously indicates a very serious depression.

The following table shows the principal sources of revenue of Latvian agriculture, in accordance with the figures of the Agricultural Accounting Bureau:

Products	Revenue				
	Percentage of the total revenue	Index figures			
		Oct. 1st, 1930	July 1st, 1930	May 1st, 1930	Jan. 1st, 1930
Butter	35.6	91.0	96.0	99.0	110.0
Beef	6.4	106.0	96.0	105.0	112.0
Pork	15.0	111.0	117.0	125.0	166.0
Rye	8.0	162.0	78.0	99.0	114.0
Wheat	5.0	159.0	156.0	159.0	161.0
Barley	2.2	96.0	108.0	111.0	115.0
Oats	1.0	104.0	102.0	113.0	119.0
Potatoes	2.3	122.0	145.0	158.0	144.0
Flax and linseed	3.0	131.0	176.0	179.0	182.0
Products of aviculture	1.5	165.0	136.0	112.0	190.0
Weighted index numbers of revenue		112.1	107.4	113.5	129.6

The same table shows how, and to what extent, the drop in the prices of agricultural products took place. The rise in the price of rye on October 1st, 1930, is due to the fact that last autumn the Latvian Government purchased rye at a fixed price—*i.e.*, 24 lats per quintal, the lat being equal to 1 gold franc. The position is the same for flax, the price of which has suffered a heavy drop on the world market in the same way as that of rye. Flax is purchased by the Government Flax Monopoly at a price fixed by law.

The depression is especially felt by Latvian farmers, as the country was ravaged during the war. When the war which had raged on the present territory of Latvia was over, and the Red troops and other invaders had been expelled, it was found that 25 per cent of all the farms were more or less devastated (11 per cent of the buildings entirely destroyed and 14 per cent partly destroyed).

Latvian farmers suffered from the depression not only last year but much earlier. In fact, difficulties have been felt for several years. Nevertheless, certain branches of agriculture have made rapid progress, as shown by the following figures:

	Area under cultivation Hectares (000's omitted)			Crop Tons (000's omitted)			Yield per hectare	
	1909-1913	1920 [1]	1930	1909-1913	1920	1930	1909-1913	1930
Rye	350.7	196.7	266.9	325.4	119.1	365.2	9.3	13.7
Wheat	32.6	15.7	72.3	38.4	10.6	110.5	11.0	15.5 [2]
Barley	191.0	123.8	177.0	172.8	66.5	187.3	9.0	10.6
Oats	305.9	215.6	319.8	279.0	113.0	341.6	9.1	10.7
Meslin	—	46.3	64.7	—	29.0	83.2	—	12.9
Peas	23.3	20.1	41.6	17.9	13.3	40.2	7.7	9.7
Potatoes	79.6	49.2	93.6	638.5	374.8	1,104.0	80.2	118.0
Flax	69.6	30.5	51.2	30.2	9.6	19.2 [3]	4.3	3.8 [3]

[1] The Latvian Republic was proclaimed in November 1918, and the Peace Treaty with Russia was signed in August 1920.

[2] Winter wheat — 17.0, summer wheat — 10.9. [3] Fibre.

While this favourable development was taking place, the Latvian State introduced a scheme of agrarian reform creating more than 60,000 new farms with an area of about 20 hectares each and dividing up about 2,500 villages into more than 45,000 individual farms. All the newly created farms and those devastated during the war had to be provided with new buildings, live-stock and agricultural material, in addition to carrying out the current agricultural work. Throughout the country a great deal of improvement work has been done. The farmers were thereby obliged to contract considerable debts, amounting in all to about 250 million lats.

Since the great agrarian reform, small and medium farms have predominated in Latvian agriculture. The division of the farms according to size is shown in the following table:

Area	Percentage
Less than 0.5 hectare	2.81
From 0.5 to 3 hectares	10.75
3 to 5 hectares	6.29
5 to 10 hectares	18.85
10 to 20 hectares	30.53
20 to 30 hectares	13.12
30 to 50 hectares	9.44
50 to 100 hectares	7.26
Above 100 hectares	0.95

In addition to grain-growing, cattle-breeding and the manufacture of dairy produce have considerably increased, as shown by the following figures relating to cattle and to the production and exportation of butter:

CATTLE (THOUSANDS OF HEAD).

	1913	1920	1930
Horses	320.0	261.0	361.9
Large cattle	912.0	768.0	1,026.3
Sheep	996.0	978.0	872.9
Pigs	557.0	481.0	522.7

The rapid growth in the butter exports is particularly characteristic of the development of the dairy industry, as shown by the following figures. The number of co-operative dairies has also rapidly increased. In 1920, there were fewer than 20, while at present there are more than 500. Of the dairies 90 per cent are co-operative, and they receive milk from 40 per cent of all the milch cows.

BUTTER EXPORTS.

	Kilogrammes	Value in lats
1913	597,234	1,500,000
1920	—	-
1921	15,000	42,000
1926	10,134,712	37,450,132
1929	15,066,391	59,200,000
1930	18,074,157	57,230,000

Latvia not only produces more butter than the home market can absorb, but also exports other agricultural products such as flax and bacon, and, to a smaller extent, clover-seed and linseed. During the three years preceding 1928, Latvia exported flax and linseed to the value of about 300 million lats.

In 1927, more than 60,000 pigs were slaughtered for the exportation of bacon. But there was soon a drop in the price of bacon on the world market and exports decreased. They are at present increasing, though very slowly, and yield only a small profit to the farmer; the price of bacon has dropped 45 per cent since the beginning of 1930.

The price of butter has also dropped. In 1929, nearly 4 lats per kilogramme were paid for the butter exported; in 1930, the price fell to an average of 3.20 lats per kilogramme. This enormous difference is causing heavy losses, since, if the 18 million kilogrammes exported in 1930 had been sold at the 1929 price, this quantity would have produced 72 million lats, whereas it was in fact sold for 57 million lats. The deficit of 15 million lats in the receipts of the dairy industry places the producers in a catastrophic position. The drop is in reality more disastrous than is shown by the above figures, as the price has recently suffered a fresh drop.

	Price per kg. in lats
January 1929	4.33
January 1930	3.60
December 1930	2.90

It will be seen that in the last two years the price of butter has dropped 1.43 lat, which represents 50 per cent of the present price or a loss of 30 per cent on the prices of January 1929.

While Latvia is essentially an agricultural country and an exporter of agricultural produce, she was obliged, even before 1930, to import fairly considerable quantities of rye and wheat. But these imports have now almost ceased, as the last rye harvest was so abundant as to represent more than one year's consumption. The demand for rye in Latvia is 300,000 tons, while the crop was 360,000 tons. The wheat crop in 1930 also exceeded the usual demand. On account, however, of the preference of certain consumers for foreign wheat, which yields whiter flour, a certain quantity of wheat will have to be imported.

While it was impossible to stop the superfluous imports of rye and wheat on account of insufficient protection, the Latvian farmers suffered great losses through the absence of markets for their own grain. The gap thereby created in the budget of the Latvian farmers was, in fact, one of the causes for the increase in the depression.

Another cause was the drop in prices of Latvian export products, such as flax, butter and bacon, on the world market. The price of flax has now dropped to below the level of 1913. Latvia alone is incapable of struggling against the collapse in the prices of agricultural products on the world market, and the co-operation of many, if not of all, Governments and nations is required.

Although this drop in prices is the principal cause of the present agricultural depression, there are, in addition to this general factor, other causes which are particularly characteristic for Latvia. The results of the war devastations have already been mentioned. In addition, there was the rainy summer of 1928, with its disastrous floods which destroyed almost half the crops. The farmers were obliged to reduce their live-stock and to contract new debts.

The absence of protection for the cultivation of grain has also favoured the depression.

Finally, one of the causes of the agricultural depression is that the farmer only obtains a small part of the sum paid for his products by the consumer. Middlemen's

profits are at present in Latvia, as in other countries, disproportionately high. The transport costs and other expenses for preparing the crop for sale and placing it at the disposal of the consumer are also too high. It is an undoubted evil that the organisation is inadequate both in the country itself and in international trade.

A decrease in the cost of production would no doubt relieve the depression. Such an organisation would necessarily mean a reduction in the rate of interest and in wages, which are among the highest costs of production. It would also involve a reduction in taxation, which in Latvia, as elsewhere, is much higher than formerly. It should also include the more extensive use of agricultural machinery and fertilisers and the carrying out of improvement work on a large scale.

These considerations inevitably lead to the important question of credit—that is to say, cheap and, at the same time, sufficiently extensive credit. In Latvia, apart from the co-operative dairy societies and co-operative consumers' societies, there are credit and savings banks in almost every commune. In addition, loans are granted to farmers by the State Land Bank and by the Bank of Latvia (Latvijas Banka), but these credits are insufficient to meet all justified requirements, as capital has accumulated too slowly in the country on account of the agricultural depression. It is precisely this absence of cheap agricultural credits which forms the principal obstacle to relieving and overcoming the agricultural depression, or which, at any rate, prevents an improvement in the position during the years which must still pass before the farmers, overwhelmed by hard work and sacrifices, will have the satisfaction of seeing the end of the world agricultural depression, and also of that in their own country.

LITHUANIA

General economic conditions have changed only slightly during the last quarter. The prolonged world economic depression and the favourable grain crop of last year is showing its effects on the agricultural market, and consequently the farmers can only dispose of their surplus grain with great difficulty and at very low prices, while it is almost impossible to sell flax, the only source of income in some districts. Not only does the world's depression but also the economic policy of neighbouring countries act negatively on the Lithuanian agricultural market. For example, large quantities of Russian flax are stored in Riga and are being sold regardless of the cost of production. The present market prices of flax (£27 to £30 per ton) are such that Lithuanian farmers, although they do not over-value their work, do not consider it worth while to prepare flax for marketing, storing it up rather at home in a raw condition. Factories for the preparation of the raw material for manufacturing and export purposes have either closed down altogether or have diminished their output to a minimum, considering it unprofitable to compete with Russian flax.

The same is true of grain. For example, in the Scandinavian and Baltic markets Lithuania had to compete not so much with American rye as with Polish and German, where the export premiums enable merchants to export rye at lower rates. Lithuanian wheat, barley and certain other agricultural products, as well as animals, had a large and ready market in Germany. Lately, because of a higher Customs duty, trade in that direction has become unprofitable. Lithuania is therefore forced to find markets elsewhere. This involves certain adjustments as well as additional expense, which, together with the cost of transport, will lower the prices still more.

For these and other reasons, the prices of grain and flax dropped to 50 to 60 per cent as compared with post-war prices and to 25 to 40 per cent compared with pre-war prices. On the other hand, the unusually low prices for grain caused the farmers to turn to stock-raising and dairying. The prices here had dropped too, but not so low as those for grain. For example, if the 1924-1926 prices are equal to 100, then the index numbers show these changes:

Year	Cereals	Animals	Products of animal origin
1924-1926	100	100	100
1927	102	92	99
1928	115	89	94
1929 (January)	101	83	105
1930 (January)	75	93	102
1930 (July)	64	90	84
1930 (December)	51	85	93

The changes in prices and the over-production of grain during past years resulted in the spread of stock-raising and dairying, the exports of which partly made up for the reduced export of flax and forest produce.

Thus the effects of the world economic depression are only felt partially and mostly by the farmers, who are forced to adopt new forms of agriculture and to seek other sources

of income. It is true that the manufacturing industries worked slower and produced very little for export purposes, sales being restricted mostly to the home market, yet no marked signs of depression appeared in this branch. Unemployment during the last year has not increased at any time, despite the fact that emigration has decreased by more than half (emigration in 1929, 16,000; in 1930, only 6,400).

On account of changes in market conditions as well as enterprises and propaganda by the Government, the entire aspect of agriculture has changed.

Reports from various districts state invariably that even the most conservative farmers are beginning to raise more and better animals, making better provision toward their keep, and are even getting accustomed to low prices for grain. These changes are more readily adopted by the more enterprising farmers, especially those farming single estates, and farmers living in villages are at a disadvantage. They, moreover, benefit through sales of wheat and rye made to " Lietukis ", a Government sponsored co-operative union, because of its better technical organisation to furnish a specified grade of seed. They can also secure credit at lower interest rates, an advantage at this critical moment when they have to bear the expense of acquiring a good breed of animals, etc. Reports from various districts of smaller and less active farmers, who are numerous in Lithuania, state that many are in debt and that conditions generally are bad. Long-term credit granted by Zemės Bankas and for short-term credit granted by Lietuvos Bankas is welcomed by the farmers. Interest rates on loans secured from small banks or private individuals are so high that farmers hardly earn enough to meet payments of interest on these loans. All these reports emphasise the grave necessity of lowering the interest rates on credits granted to farmers.

At present, the over-supply of grain is not so great as it was in October 1930, although for certain grains it is still excessive. This is especially the case for wheat and rye—the former still about 40,000 tons and the latter about 50,000 tons (at the end of October: wheat, 55,000 tons; rye, 85,000 tons). Many complaints are made of the very low prices of rye and the inability of the farmer to utilise this grain as fodder.

Compared with the surplus of other grains, that of barley is not very large (about 15,000 tons), and the farmers have no trouble in disposing of it, because they use it as feed for animals. This is not so true of oats, which can be fed to horses only, and the profit here is small because of low prices and small demand. The surplus of oats is still 25,000 tons.

Peas, vetch and like products are exported in small amounts because of low prices, and their surplus amounts to 7,000 tons only, against 9,000 tons by the end of October. They are used for fodder and, if market prices do not rise, it is probable that none of them will be marketed.

In general, 70 to 85 per cent of the entire stocks of grain are still held by the farmers. At the end of January 1931 merchants as well as farmers still held large stocks of linseed, although the export season had already ended. A surplus stock of linseed amounting to 8,000 tons, or 50 per cent was still with the farmers.

Flax, most of which is unprepared, is still held by the farmers (almost 20,000 tons).

MEXICO.

AGRICULTURAL PRODUCTION IN MEXICO.

Mexico has a total area of 196,915,300 hectares. The table given below shows approximately how this area is distributed, with actual and possible percentages which will give us a rough preliminary idea of the producing capacity of the country:

Allocation of the area	Present		Possible	
	Millions of hectares	%	Millions of hectares	%
Under cultivation . . .	7	3.5	30	15
Pasture land	80	40	70	35
Forest	60	30	50	25
Other	53	26.5	50	25
Total	200	100	200	100

These figures are merely the result of an approximate estimate, since we have no exact figures; it was only last year that the first agricultural and live-stock census was taken in Mexico, and it will not be possible to know the results of that census for six months. Out of the 7 million hectares which constitute the area at present cultivated, we can estimate that about 20 per cent is land well irrigated and bringing in a considerable profit. The remaining 80 per cent is under crops which depend on the weather—that is to say, they may be affected by rain and by frosts, which have a considerable effect on the harvest, particularly in the central plateau, according to whether they occur earlier or later.

We give below a statistical table showing for the period of five years, 1925 to 1929, the figures of production for thirty-two commodities, compiled yearly by the Economy and Statistics Department of the General Directorate of Agriculture and Stock-raising.

In view of the limited space at our disposal, we will not give detailed statistics for fruit, but will merely mention that there are 37 million trees in the country with a production of 1,313,963 tons of fruit, the most important being the following:

Fruit	Number of trees	Production in tons
Lemons	517,634	17,434
Mangoes	847,140	137,858
Oranges.	1,359,075	169,964
Walnuts	175,783	12,060
Roatán bananas . . .	3,768,474 [1]	210,117
Bananas (other kinds).	3,845,404 [1]	120,098
Cochineal figs.	8,757,034	176,763

[1] Stems.

We think it is of interest to complete the data in the above table by giving some idea of the general conditions of production during the years 1925 to 1929. First of all, we can state that none of these five years could be regarded as a good one; 1925, 1927 and 1928 may be regarded as ordinary years, and 1926 and 1929 as bad years. With the exception of 1927, when the rainfall was normal, the other years were characterised by drought or by an uneven distribution of rainfall, particularly in 1929, when agriculture suffered considerably, especially in the case of crops dependent on weather conditions. We must further take account of the damage caused by floods in 1925, 1926 and 1928, and by the plague of locusts in 1925 and 1926 in the south and south-eastern States, and also the damage due to certain political disturbances in 1927 and 1928 in certain central States, all of which circumstances led to a decrease in the area cultivated.

Mainly on account of the great drought in August and September, which caused considerable loss in most branches of cultivation, 1930 was also a bad year.

We will now rapidly review the main products of the country, dividing them into three categories: products solely for internal trade; products partly for internal trade and partly for export; and products for export, drawing attention to their most important economic characteristics.

Products for Internal Trade.

Foodstuffs.

Maize. — The predominating characteristic of this product is that it occupies more than half (55.36 per cent) of the cultivated area of the Republic and that three-quarters of the area sown with maize consists of land in which the harvest depends on the weather, and therefore is liable to be affected every year by uneven distribution of rain or by damage caused by early frosts which, particularly in the central plateau, considerably reduce the harvest and necessitate large imports to make good the shortage of this cereal for consumption, since it constitutes the staple article of food of the majority of the Mexican people. It would be desirable to encourage maize-growing in the zones of early production (the coasts), and to facilitate the transport of the same to the centres of consumption, charging as low transport rates as possible.

Wheat. — This comes third as regards the area cultivated. The production of the country is not sufficient to meet the requirements of consumption. Among the main reasons which have prevented a wider extension of wheat cultivation we may mention the instability of the import tariffs, and the commercial control exercised by the millers, which has caused serious injury to producers. A better organisation of the latter, stable tariffs and the introduction of improved varieties of hard wheat will contribute to encourage greater production to meet the requirements of consumption.

Potatoes. — It should be noted that there has been an increase of production, the result being a decrease in imports and a slight increase in exports. It is probable, however, that the latter will fall off as a result of the increase in the import duty imposed by the American Government. It should also be mentioned that the quality of the crop has improved on the introduction of improved varieties of potatoes.

Forage.

Lucern. — It is interesting to note the increase in the area under lucern, since this is the forage which is most suitable for mixed farms (agriculture and stock-raising) and will enable them to produce all the butter, milk and milk products, better quality meat, etc., necessary for the supply of the country.

Industrial Products.

Sugar-cane. — Difficult conditions at present exist; these are tending to become worse with the increase in the areas sown and the improvement in the methods of cultivation, which result in increased harvests, and therefore a greater total tonnage. This means an increased production of sugar and alcohol. In recent years there has been constantly increasing over-production, since consumption has not increased in the same proportion owing to the high prices which have been maintained artificially by industrial and trading circles and which have made it possible for them to export at a loss, this being made necessary by the competition of sugar from Cuba, the Philippines, Java, etc. To these causes, we should add the increase of the American tariff, particularly if we take account of the reduction of 20 per cent granted to Cuba. An economic re-adjustment will therefore have to be made which will certainly injuriously affect this branch of cultivation.

Sesame, Pea-nuts and Linseed. — We group together these plants which produce oil-seeds, to show the favourable results which will follow on an increase in areas sown, if we take account of the probable changes which will be made in the import tariff in order to encourage this branch of production.

Products partly for Internal Trade and partly for Export.

Foodstuffs.

Rice. — This product is harvested on the west coast mainly in the State of Sonora, and it has played a leading part in recent years among products for export. Its importance is brought out by the quantities of rice shipped to the United States of America. Unfortunately, the increase in the American Customs tariff will seriously injure this branch

of agriculture, and the consequences will have to be closely studied so as to enable satisfactory arrangements to be made for this important branch of production.

It is further interesting to note that the rice produced in the State of Morelos, which is estimated at about 16 million kilogrammes, is almost entirely due to *ejidatarios* [1] previously organised by the National Bank of Agricultural Credit, which finances them and markets their harvest, stabilising the conditions of the internal market in the interests of the producers.

Kidney-beans. — This commodity comes second so far as concerns the area it occupies, and it finds a ready market both in Europe and in the United States of America and Cuba. The market is limited only by losses of harvest, since this is essentially a crop dependent on weather conditions and, so far as the United States of America is concerned, by the alterations in the Customs tariffs which have practically put an end to the export of the " black-eye " beans, and which will cause fresh reductions in the export of other varieties. These reductions fortunately will not do serious damage, in view of the demand for this vegetable in other consuming centres.

Industrial Plants.

Cotton. — Cotton comes fourth in respect of the area cultivated during the last five years, and is an important source of revenue in the five cotton-producing zones. These zones in order of importance, are the following: Valley of Mexicali (northern district of the territory of Lower California), the Lagoons district (States of Coahuila and Durango), Valley of Matamoros (State of Tamaulipas), Valley of Juárez and district of Conchos (State of Chihuahua), Valley of Yaqui (State of Sonora), and also certain isolated districts on both coasts, in the northern tableland and on the Plain of Metztitlan, Hgo.

An examination of the figures for the foreign trade during the century will show that Mexico, formerly an importer of cotton, has become an exporter, a change which has become more marked during the last five years.

Products for Export.

Foodstuffs.

Coffee. — Coffee comes eighth as regards the area cultivated. This area has largely increased in the last ten years, and, above all, in the last five years. The export of coffee increased continuously from the end of the last century till it reached its maximum in 1910. It decreased in later years, though it afterwards once more rose, and in 1928 and 1929 reached, in round figures, 31.6 and 30.3 million kilogrammes. Unfortunately, Mexico was unable to escape the world crisis from which coffee is suffering, and has only been able to meet the depression by protectionist measures. These have been taken both by the Governments of the States in which coffee is produced and by the Federal Government —that is to say, by reduction of taxation and of the export duty.

Chick-peas. — Chick-peas come sixth as regards area cultivated during the last five years, and are important so far as export is concerned, particularly for the west coast (States of Sinaloa and Sonora). The increase in exports during the last then years has been particularly large.

[1] Peasants who have been granted land.

Vegetables. — We include under this heading tomatoes, peas, green pepper, onions and string-beans (ejotes), which are mainly produced on the western coast, and the export of which has been considerable, mainly for the purpose of supplying the markets of the United States of America. Although it has been proved that the export of vegetables to the markets of the United States takes place at seasons when these products do not compete with products of that country, the American Government decided on an increase in the tariffs applicable thereto. This constitutes a serious menace for these products, and therefore for the agriculture of the western coast. We need only add that the average value of vegetables exported yearly during the last five years amounts to about 20 *million pesos.*

Bananas. — Among the fruit that we produce, the banana at present reaches the highest figure for exports. The exports, which were 2½ million pesos for 1925, amounted to 9½ million pesos in 1928. It should be further added that the potential production of this fruit in the country is very great, and we only need a better organisation in order further to develop production and export.

Industrial Plants.

Agave. — Ninety-three per cent of the agave production of the country comes from the State of Yucatan, which is followed by the State of Campeche with 5 per cent. The rest is divided amongst other States, which are in order of importance: Tamaulipas, Sinaloa, and Chiapas. The figures for export of this fibre since the beginning of the present century speak for themselves: indeed, agave comes first among products exported; in the last five years the lowest figure was for 1925: 31.4 millions, and the highest in 1928: 36.1 millions.

Live-stock.

We give below a comparative table showing the number and value of the various categories of live-stock in the year 1926 based on statistical data compiled by the General Directorate of Agriculture and Stock-raising.

Comparative Table, showing the Number and Value of the Various Kinds of Live-stock with the Corresponding Percentages.

Live-stock	Number of head	%	Value in pesos	%
Cattle	5,584,892	29.12	262,162,210	57.85
Mules	686,213	3.58	57,457,961	12.68
Horses	1,035,782	5.40	44,000,048	9.71
Swine	2,902,949	15.13	42,765,361	9.43
Goats	5,423,959	28.28	19,289,047	4.26
Asses	850,041	4.43	14,658,048	3.23
Sheep	2,697,668	14.06	12,849,336	2.84
Total .	19,181,504	100	453,182,011	100

Conclusions.

We have given above a general idea of *agricultural production* in Mexico, which, taken as a whole, is not as important as it should be in view of the resources and possibilities of the country. We think, however, that it is desirable to add a few words, touching on the most important points of the reconstruction programme of recent Governments.

(a) *Better Distribution of Land.* — For this purpose agrarian laws have been promulgated which, taken together with the laws concerning irrigation and colonisation, will give the peasants and cultivators in general an opportunity, the former to own their own plots of land and the latter to acquire small holdings. They will thus cease to be dependent on the large landowners and to be their serfs.

(b) *Increase in the Area irrigated.* — Various schemes are being carried out. Among these schemes we would quote the following:

Schemes	Area in hectares		Category of land improved
	Wholly	Partly	
Don Martin N.L.	65,000		Uncultivated.
Río Yaqui, Son.	100,000		Uncultivated.
Río Conchos, Chih.	55,000	11,000	Already irrigated.
		44,000	Uncultivated.
Pte. Calles, Ags.	10,000		Dependent on weather.
Río Mante, Tams..	17,000	1,500	Already irrigated.
		1,500	Dependent on weather.
		14,000	Uncultivated.
La Palma, Tama.	3,000		Dependent on weather.
Ciénega de Flores N.L. . . .	12,000		Dependent on weather.
Mezquital, Hgo.	7,000		A large part has already been irrigated.
Corrales, Mich. y Jal..	57,000		Dependent on weather.
Total	326.000		

This total represents 23.2 per cent of the area which we have regarded as "irrigated and bringing in a considerable profit". Thus, 223,000 hectares will be brought under cultivation and 84,500 hectares of land which have been dependent on weather conditions will be regularly irrigated.

(c) *Agricultural Credits.* — Congress has approved the new law on agricultural credits, the object of which is to unify the machinery for credit which, for the last five years, has been provided by the National Bank of Agricultural Credit and the peasant land banks (Bancas ejidales); in future, assistance will be given exclusively to peasants (ejidatarios) who have been granted land and to small farmers.

(d) *Legislation.* — Under this heading we particularly refer to the legislation which is being promulgated with respect to labour and agricultural contracts, measures connected with tariffs, etc.

(e) *Agricultural Schools and Propaganda.* — With a view to supplementing the agricultural policy, a National School of Agriculture has been set up at Chapingo, Mexico, which trains agricultural engineers, and there are eight *central agricultural schools* for peasants; furthermore, a body of district agricultural experts assists the farmer in solving the problems with which he is faced. Mention should also be made of the activities of the Secretariat of Education, which has set up a large number of rural schools for farmers' sons, and of the "cultural missions" which work among the peasants' families and teach them how to improve their conditions of life.

The programmes which are contemplated are on a very large scale, and the field of action is a very wide one; it will only be possible to judge the results in a few years' time.

Harvests in the Republic of Mexico during the Years 1925 to 1929.

Crops and their products	Hectares (ooo's omitted)					
	1925	1926	1927	1928	1929	Average 1925-1929
1. Garlic	0.8	0.8	0.8	0.9	1.0[1]	0.9
2. Sesame	21.4	23.6	24.6	25.0	24.6[1]	23.8
3. Lucern (green)	43.3	48.2	48.1	47.4	50.2[1]	47.4
4. Cotton	171.9	248.2	132.0	203.2	159.1	182.9
5. Rice (unhusked)	50.4	52.9	50.1	45.4	36.6[1]	47.1
6. Pea-nuts	14.1	15.3	13.7	10.7	8.2[1]	12.4
7. Cocoa	8.5	8.4	8.1	8.1	8.2[1]	8.3
8. Coffee	85.8	87.2	87.2	88.5	88.9[1]	87.5
9. Sweet potatoes	10.5	11.6	11.5	8.8	6.5[1]	9.8
10. Sugar-cane	87.2	89.2	91.7	81.9	86.6[1]	87.3
11. Barley	175.0	181.2	175.7	180.6	160.1[1]	174.5
12. Onions	4.4	4.4	4.5	4.2	3.7[1]	4.3
13. Peas	2.8	4.1	4.5	5.6	9.6[1]	5.3
14. Dry pepper	16.1	16.2	15.8	14.1	12.7[1]	15.0
15. Green pepper	9.2	8.9	10.0	10.9	8.1[1]	9.4
16. String-beans (ejotes)	—	—	—	1.2	1.1[1]	1.2
17. Strawberries	—	0.2	0.2	0.2	0.2[1]	0.2
18. Kidney-beans	989.9	1,053.9	993.2	887.5	732.0[1]	931.3
19. Chick-peas	111.2	132.9	122.0	118.1	108.9	118.6
20. Beans	45.2	48.7	51.5	49.6	47.9[1]	48.6
21. Agaves	127.5	115.0	119.0	120.1	109.2[1]	118.2
22. Jicamas	—	1.1	1.1	1.0	1.0[1]	1.1
23. Tomatoes	21.8	25.7	30.2	29.3	29.1	27.2
24. Lentils	1.7	1.7	1.7	1.7	1.4[1]	1.6
25. Linseed	2.6	2.5	3.1	2.3	2.4[1]	2.6
26. Maize	3,049.2	3,280.3	3,231.4	3,112.3	2,925.0[1]	3,119.6
27. Melons	—	1.8	2.1	1.7	1.9[1]	1.9
28. Potatoes	12.8	14.5	17.5	15.1	13.5[1]	14.7
29. Water-melons	—	3.1	3.1	3.2	3.0[1]	3.1
30. Tobacco	16.0	15.7	16.7	17.8	16.9[1]	16.6
31. Wheat	457.3	520.6	530.7	519.1	523.4	510.2
32. Vanilla	3.2	3.2	3.2	3.3	3.1[1]	3.2

[1] Provisional figures.

HARVESTS IN THE REPUBLIC OF MEXICO DURING THE YEARS 1925 TO 1929 *(continued)*.

Crops and their products	Production in tons					
	1925	1926	1927	1928	1929	Average 1925-1929
1. Garlic	3,128	2,992	2,988	3,195	2,884[1]	3,037
2. Sesame	10,045	11,169	12,235	14,973	10,813[1]	11,847
3. Lucern (green)	1,620,729	1,768,920	1,702,889	1,769,022	1,850,299[1]	1,742,372
4. Cotton	43,467	78,016	38,862	60,376	36,712	51,487
5. Rice (unhusked)	86,126	91,356	82,909	83,153	68,135[1]	82,336
6. Pea-nuts	7,825	8,563	8,118	7,650	5,583[1]	7,548
7. Cocoa	1,453	1,417	1,436	1,402	1,358[1]	1,413
8. Coffee	39,856	40,608	42,417	41,986	38,330[1]	40,639
9. Sweet potatoes	35,785	37,615	39,939	38,639	27,474[1]	35,890
10. Sugar-cane	4,089,635	4,503,102	4,310,264	3,863,872	3,934,442[1]	4,140,263
11. Barley	82,769	93,659	97,683	91,320	53,270[1]	83,740
12. Onions	13,918	14,155	16,074	14,311	12,102[1]	14,112
13. Peas	4,287	6,832	7,526	9,425	17,124[1]	9,030
14. Dry pepper	8,546	7,289	7,678	7,101	5,010[1]	7,125
15. Green pepper	17,270	16,719	20,282	20,431	16,142[1]	18,177
16. String-beans (ejotes)	—	—	—	1,952	1,646[1]	1,799
17. Strawberries	—	422	445	460	488[1]	454
18. Kidney-beans	196,208	213,668	195,379	176,134	94,805[1]	175,239
19. Chick-peas	61,727	81,953	80,537	64,316	69,134	71,533
20. Beans	14,552	17,311	18,845	15,677	13,246[1]	15,926
21. Agaves	137,037	117,294	132,802	139,232	128,221[1]	130,917
22. Jícamas	—	9,031	8,823	8,292	7,700[1]	8,462
23. Tomatoes	59,977	67,918	83,552	88,831	94,823	79,020
24. Lentils	542	669	645	531	423[1]	562
25. Linseed	1,055	1,068	1,949	989	792[1]	1,171
26. Maize	2,013,669	2,199,214	2,078,817	2,172,845	1,514,701[1]	1,995,849
27. Melons	—	5,477	6,392	4,786	5,637[1]	5,573
28. Potatoes	37,784	43,113	53,341	54,172	39,403[1]	45,563
29. Water-melons	—	23,364	23,105	24,530	21,515[1]	23,129
30. Tobacco	9,334	9,022	10,054	12,607	12,930[1]	10,789
31. Wheat	250,741	281,215	323,607	300,211	308,447	292,844
32. Vanilla	138	142	129	136	120	135

[1] Provisional figures.

NETHERLANDS.

Dr. J. J. L. VAN RIJN,
Member of the Agricultural Economic Committee of the International Institute of Agriculture.

If we wish to understand the nature of the agricultural crisis in the Netherlands, we must bear in mind the fact that agricultural products can be freely imported without any Customs restrictions and that those products are not protected either by export bounties or any other measures. Consequently, the prices obtainable by Netherlands growers for their products are those ruling in the world market. For instance, the price of wheat at Rotterdam depends entirely on the price of wheat in Argentina or other exporting countries. The wheat cultivation in that country is unimportant in comparison with the cultivation of other cereals. In 1928, out of a total of 438,000 hectares, there were not more than 60,000 hectares under wheat, while 196,000 hectares were under rye and 152,000 hectares under oats. The price of wheat affects only a section of the farmers. Further, a great many have mixed farms—that is to say, they are engaged in both stock-breeding and the growing of cereals. The number hit by the fall in the price of wheat is smaller than might be supposed if the area under corn is alone taken into account.

However, the price of several other products has also fallen greatly. It was almost impossible to sell the potatoes of the 1929 crop (this represents an area of 180,000 hectares) and also onions (approximately 5,000 hectares in 1929), while the price of sugar is so low that sugar-beet cultivation (55,000 hectares in 1929) is being carried on at a loss. All owners of farms consisting entirely, or largely, of arable land are now, generally speaking, in a very critical position.

Up to 1929, farmers who depend chiefly on stock-breeding and dairy-farming suffered little from the fall in prices, mainly because they were able to buy part of the fodder for their cattle on favourable terms. The hay crop was not so good in 1929, and the advantage referred to has been partly offset.

The fact that 1,280,000 hectares are permanently under grass and that the arable area is only 900,000 hectares shows the importance of stock-breeding.

Horticulture plays an important part in the economic life of the country districts of the Netherlands, and horticulturists, having been engaged for many years in cultivating specialised products of high value, were able for a long time to overcome the difficulties that were met with in all foreign markets. On account of the fall in prices, however, the years 1929 and 1930 were bad one for most horticultural products.

I have already pointed out that wheat is comparatively unimportant. Our national policy, now as in the past, consists, on the ones hand, in producing those commodities for which conditions in our country are most favourable and such of these products as will, through intensive cultivation and constant selection, give a high yield per unit of area, and, on the other hand, in purchasing abroad what can be obtained at a reasonable price. We are therefore primarily dependent on the possibility of exporting our products, and any hindrance to international trade increases the difficulties of our gardens and farmers. In 1928, the value of our exports of farm produce was 741,000,000 florins—that is to say,

more than one-third the value of the total exports. We have to export approximately 40 per cent of our total production. The very high import tariffs of several importing countries, and other hindrances to international trade, place serious difficulties in the way of producers in the Netherlands.

Although most farmers and horticulturists have improved their methods and thus brought the cost price down to a relatively low level, it is still in many cases well above the selling price. Since wages are very high in the Netherlands, it is very doubtful whether the cost price can be greatly reduced.

The publications of the agricultural accounts supervisory offices show that, in 1927-28, the undertakings in 18 out of 45 agricultural districts worked at a loss, while in several other districts the profits were so small as not to represent a fair return for the labour and the risk. The receipts and expenditure accounts include rent or, in the case of owner-farmers, a corresponding sum.

In 1928-29, in several districts very satisfactory results were obtained, as the crops were good and prices remunerative.

Since then, there has been a considerable fall in prices, and as expenditure has not been reduced, except in the case of certain chemical manures and oil-cake, the crisis has become very acute.

The index numbers of the chief agricultural products, showing the percentage of prices in April 1930 as compared with the average prices in 1924-1929, will give a good idea of how prices have fallen.

These numbers are as follows: wheat, 80; oats, 56; green peas, 49; flax, 69; potatoes, 46; potato starch, 56; sugar, 58; while the average figure of the index numbers for all agricultural products is 58.

The position in regard to stock-breeding products is a little better. The index number for beef for April 1930 is 100; for pork, 92; for butter, 79; for cheese, 88; and for eggs, 89; while the average figure for stock-breeding products is calculated at 89. However, the prices of stock-breeding and dairy-farming products have fallen considerably again recently. If the results I have indicated for the year 1927-1928 are compared with the most recent index numbers, it is obvious that the present position is very serious and that there are good reasons for the despairing complaints of many Dutch farmers.

Another sign of the agricultural crisis is the fall in land values. The Agricultural Society in Friesland recently instituted an enquiry into the prices obtained for farms at public sales in the last few months. The value of arable land on May 1st, 1930, was found to be between 20 and 25 per cent lower than the value of the same land on May 1st, 1929. In the case of pasture-land, the fall in value is estimated at between 15 and 20 per cent.

In March 1930, there was a discussion in the Chamber of Deputies on the critical position of agriculture in the Netherlands at the present time, and it was recognised by the majority of the members that the gravity of the crisis was greatly increased by the continual rises in Customs tariffs and by dumping in several countries, as well as by veterinary and phytopathological prohibitions. As a result of this discussion, the Minister of the Interior and of Agriculture appointed a special committee to enquire into the position and, if need be, to propose as soon as possible measures that might lessen the difficulties.

As a result of the discussions and proposals of this Commission, Parliament has passed laws with a view to remedying the agricultural crisis; it has, however, confined itself to three products: potato starch, beet sugar and wheat.

The potato starch industry is localised in the north and north-east of the country; the great majority of the factories are owned by agricultural co-operatives, which belong to a central organisation which is entrusted with the sale of the products. A considerable

stock of potato starch has accumulated chiefly owing to the abundant potato crops in 1928 and 1929. The total output of potato starch which, in 1927, was only 1,209,000 quintals rose in 1929 to 2,250,000 quintals. At the same time the price index number (1910-14 = 100), which was 147 on July 1st, 1927, fell to 69 on September 1st, 1930. A law was promulgated authorising the Government to grant potato starch manufacturers credits up to 4,500,000 florins at a rate of interest of 2 per cent.

In order to protect the beet sugar industry the law of August 1st imposed an import duty of 2.40 florins per quintal on refined sugar to make up for the handicap placed on the national industry by the excise duty on sugar. As this measure has not been as beneficial to growers as was expected, a new law has been passed guaranteeing beet sugar producers a minimum price for their product.

As regards wheat, the position has become so grave that the Government has been obliged to intervene to prevent disaster. Owing to the wheat growers' constant losses there was a serious risk that wheat growing would be discontinued, and at the present time the total output represents only about 20 per cent of the country's requirements; the maintenance of the output at the present level at least is essential in the national interest. With a view to increasing the price of home-grown wheat Parliament has passed a law making it compulsory to use up to a maximum of 25 per cent, home-grown wheat for the manufacture of bread.

In conclusion, I would like to say that, in my opinion, the best means of effectively remedying the agricultural crisis is to reduce production, beginning with those countries where the cost of production is highest and natural conditions are least favourable.

NETHERLANDS INDIES

Dr. J. J. L. van Rijn.

The fall in the prices of the principal export products of tropical agriculture, which, for the most part, began in 1927, has now become a veritable slump.

The figures for the whole of 1930 are not yet available, but, up to the month of September, they give a clear idea of the situation and its consequences from the point of view of the economic position during 1930.

In Java, the wholesale price-index numbers of the principal products, calculated on the 1913 basis, are as follows (1913 = 100):

	Average				1930		
	1926	1927	1928	1929	July	August	September
Rubber	80	64	38	35	19	16	14
Tea	207	186	162	147	118	115	113
Coffee	158	135	144	145	75	69	63
Sugar	151	138	116	108	72	72	70
Copra	100	94	89	78	68	63	56
Kapok	212	182	150	138	90	87	78
Tapioca	124	115	107	122	91	89	83

The low level of prices has affected exports; in certain cases, there was a falling off in production (plantation rubber and tea); in other cases, production was no longer remunerative (native rubber); in others again, there was no longer a sufficient outlet for the product (sugar). The production of coffee and copra was smaller owing to the drought during the previous year. Nevertheless, all these factors did not greatly affect the disposal of the products. As compared with the first nine months of 1929, during which the total exports were 7,581,737 metric tons, the exports for the same period of 1930 amounted to 7,357,578 tons—that is to say, a decline of only 224,159 tons, equivalent to 3 per cent.

The value of exports fell off to a much larger extent.

	January to end of September	
	1929	1930
	In florins (000's omitted)	
Rubber	174,777	139,176
Tea	63,177	52,403
Coffee	58,238	28,137
Sugar	232,852	180,837
Tobacco	68,412	77,072
Total value of exports	1,091,146	915,879

This gives a difference in all of 17,267,000 florins—*i.e.*, 17 per cent. The cost of living did not fall to the same extent as the prices of export products.

The cost-of-living index numbers are based on retail prices (1913 = 100):

	1928	1929	1930 August	1930 September	1930 October
European:					
Foodstuffs	167	166	160	160	160
Other articles	135	136	136	135	135
All articles	161	161	155	155	155
Native:					
Foodstuffs	148	157	150	149	147
Other articles	145	169	169	169	157
All articles	148	158	152	150	148

Fortunately, the Java rice crop was normal, whereas, in the previous year, it had suffered severely from the drought. Less rice and other foodstuffs were imported: as compared with the 521,173 tons of rice imported during the first nine months of 1929, only 499,206 tons were imported during the same period of 1930. The importation of soya beans also declined slightly.

The depression has had a much greater effect on other imported articles and consequently on the total imports. For the period under review, the total quantity fell from 2,505,042 to 2,239,135—a decline of 265,907 tons—*i.e.*, 10 per cent. The products of western industry were primarily affected.

	January-September		Decline
	1929	1930	
	Value in florins (000's omitted)		
Imports from:			%
Textile products group	213,673	157,216	26
Metals	88,742	65,111	27
Machinery, tools and implements	88,206	62,795	29

Naturally, the decline in the income of the population and the reduction in the movement of trade have affected transport undertakings. In Java, the chief of these undertakings is the State Railways, and in Sumatra the Deli Railway Company.

The receipts in florins (000's omitted) from January to the end of September are as follows:

	Java		Sumatra	
	1929	1930	1929	1930
Passengers	14,739	12,921	1,604	1,324
Goods	38,551	30,492	5,127	4,960
Total	53,290	43,413	6,731	6,284
Percentage of decline	19		7	

The unfavourable situation of the export crops has checked the activities of the planters. No new clearings have been begun, and efforts have been made to reduce expenditure. There has thus been less need in the *Buitengewesten* for workers from Java.

From January to the end of September 1929, 53,817 workers left Java and, in 1930, only 28,012.

With some few exceptions, the salaries of European employees and the wages of native workers have not so far (end of September 1930) been reduced, although young enterprises, which are not yet highly productive, have restricted their activities as far as possible, and, in some cases, have dismissed employees. During the last few months, the number of these dismissals has increased considerably. The rubber plantations were thoroughly re-organised during the previous crisis, with a view to reducing the cost of production, and it is difficult to effect further economies in this direction. Some small undertakings, whose cost of production was high, have been closed, but this has not affected the general situation.

In the majority of the other undertakings, it is hardly possible to reduce the staff. Chemical fertilisers are of practically no importance, except for the cultivation of sugar, although they are employed to some extent for rubber and tobacco. The falling-off in the price of nitrogenous fertilisers occurred before the big drop in tropical products and, for this reason, it no longer affects the cost of production. The same applies to the introduction of new varieties of sugar cane and the general use in the rubber plantations of grafts yielding a large crop. These methods are widely employed and are exercising a great influence on production, although this influence is less pronounced than in the case of sugar cultivation.

As regards equipment and financial position, the majority of the undertakings, especially those under Dutch management, are favourably situated.

The large revenue obtained some years ago has, to a large extent, been employed for the special amortisation of the value of the plantations and factories, the modernisation of the plant and the improvement of the transport system of the undertakings. For these reasons, and also because the cost of the new plant had already been paid off to a large extent, the cost of production was low before the collapse in prices occurred.

This policy of " hidden reserves ", accompanied by a cautious policy in regard to risks, gives these undertakings great stability, so that they will at once be able to take advantage of better markets as soon as the general situation improves.

Native agriculture is in a very different position owing to the difference in methods of cultivation.

In Java and Madura, the cultivation of foodstuffs for local consumption is of great importance. The agricultural population is less concerned with finding a market for its products. In Java, native agriculture consists of small undertakings. Few wage-earning workers are employed, and even then, they are paid partly in kind. Nevertheless, the population feels the effects on the crisis, because it obtains less for its export products. However, the success of the rice crop and other foodstuffs has been of great assistance.

The crisis is chiefly felt by native labourers and by traders and small industrialists.

In places other than Java and Madura, which are more dependent on the growing of export products, the crisis is felt chiefly in districts devoted principally to the cultivation of rubber or coffee, especially in view of the fact that the low price of coffee has coincided with a bad harvest. However, in coffee-growing districts the cultivation of rice is of some importance and greater interest is taken in it than was the case some years ago. Rice-growing enables growers to be self-supporting as far as their own food is concerned. In copra-producing districts, the fall of prices in the copra market has been, to some extent, counterbalanced by the increase in the export of new crops. The position is less favourable in districts mainly dependent on the cultivation of rubber, although considerable savings were effected when crops were abundant and rice-growing can be extended.

In conclusion, it may be said that, although the plantations and native agriculture

are seriously affected by the crisis, their organisation and economic basis will enable them to hold out for a long time against this crisis without any risk.

This is proved by the situation of the banks and native credit institutions. Fortunately, the cautious financial policy followed during previous years has made the position of these institutions an extremely sound one.

NEW ZEALAND

During the ten years preceding 1930, pastoral and dairy products accounted for over 90 per cent of the total exports and about 55 per cent of the total output of the country. Basing the figures on 1928 as being a typical year of the pre-depression period, the export of wool was the largest at £16.6 millions, or 28 per cent of the total exports. Butter export exceeded that of frozen meat for the first time for many years and equalled £11.3 millions which, together with the cheese export of £6.6 millions, brings the dairy industry's contribution towards total exports to 32 per cent. Frozen meat exports regularly supply about 20 per cent of the total and hides and skins about 7 per cent.

The greater part of the country is far more suitable for grazing purposes than for any other; it is eminently suited for sheep-breeding. For that reason, agricultural crops are of far less importance than pastoral pursuits. A certain amount of wheat and other cereals are grown for home consumption, and green and root crops are grown over considerable areas for fodder purposes. The wheat grown has a noticeably high yield per acre. Grass-seed and peas are the only crops which have a regular margin sufficient for export. The export of fruit is increasing and now equals over £650,000, mainly as a result of considerable development in the export of apples, but the whole export of agricultural as distinguished from pastoral produce is little over £1 million.

The following table of the main exports of New Zealand's agricultural industry for an average of the period 1927-1929 and for 1930, shows the relative degrees to which the different products have been affected by the depression.

EXPORTS OF MAIN PRODUCTS OF AGRICULTURAL INDUSTRY.

Quantities and Values: Average of 1927-1929 and 1930.

		Average of 1927-1929	1930
Butter . .	Quantity (cwt. 000's)	1,519.6	1,884.2
	Value (£000's) . . .	11,815.3	11,854.0
Cheese . .	Quantity (cwt. 000's)	1,612.9	1,812.9
	Value (£000's)	6,431.3	6,438.4
Wool . . .		663.8	581.2
		227,910.3	201,867.3
	Value (£000's)	14,999.9	7,664.3
Lamb. . .	Quantity (cwt. 000's)	1,801.0	2,145.6
	Value (£000's)	6,480.6	7,200.8
Mutton . .	Quantity (cwt. 000's)	980.4	1,259.9
	Value (£000's)	1,600.0	2,365.7
Sheepskins	Quantity (in thousands)	10,244.0	11,019.5
	Value (£000's)	1,762.2	1,516.7
Apples . .	Quantity (lb. 000's) . .	32,717.1	51,452.1
	Value (£000's)	432.2	641.3

It is clear that wool has been hardest hit by the depression, the value of the export having fallen by 49 per cent and the quantity exported by only 13 per cent between 1930 and the previous three years' average. London prices of all types of New Zealand wool at the beginning of February 1931 were over 60 per cent lower than those ruling in February 1929 and nearly 50 per cent lower than those at the same date last year.

Sheepskins have also suffered badly, the number exported showing an increase of 7 per cent and the value a decrease of 14 per cent.

The fall in wool values in 1930 meant that, for the first time, another product took the place of wool as the most important export.

The value of the butter exported showed a slight increase over the previous period, but the fall in its price of 32 per cent during the past eighteen months, prevented this increase from being as great as the increase in quantity exported.

Both mutton and lamb show increases in quantity and value exported, but the greatest advance is in the case of apples, where the quantity exported has increased by 57 per cent and the value by 48 per cent over the previous three-year average. The loss of £7.5 millions on the export of wool and sheepskins in 1930 has, therefore, to some extent been compensated for by the increases in the total value of the frozen meat, apples and butter exported.

NORWAY.

M. HAAKON FIVE,
Governor of the County of North Tröndelag.

During the last three years before the war, the net yield for farms in *Østlandet*, the greatest farming district in Norway, was on an average 8.76 kr. per decare. The interest on the agricultural capital was 5.49 per cent.

The following are the figures from the year 1914-15 to 1928-29.

Year	Net yield Per decare kr.	Interest on the capital per cent
1914-15	12.03	6.17
1915-16	17.14	7.79
1916-17	41.23	19.45
1917-18	62.50	26.67
1918-19	65.96	23.28
1919-20	37.83	11.11
1920-21	28.94	8.06
1921-22	10.60	3.02
1922-23	5.72	1.68
1923-24	16.96	4.72
1924-25	19.93	5.39
1925-26	3.42	1.01
1926-27	0.20	0.22
1927-28	3.20	1.02
1928-29	7.75	2.19

(See also table on opposite page.)

1. The period is characterised by very sharp price fluctuations, sharper on agricultural products than on agricultural raw materials and working expenses.

2. The net yield per decare rose vary rapidly in the years 1914-15 to 1918-19. The highest price level for agricultural products was reached in the years 1918-19 and 1919-20. The net yield fell with the sinking prices in the years 1919-20, rose with the rising prices in 1923-24 and 1924-25, fell again with sinking prices in the years 1925-26 and 1926-27. For 1927-28 and 1928-29, the net yield again rose.

3. The working expenses, which amount to 45.4 per cent of the total expenses, rose more slowly than the agricultural products and fell more slowly also. For 1928-29, the index for working expenses in relation to dairy products, the leading agricultural products, is 199 to 176 on the 1914-15 basis. On the same basis, all agricultural products shown on the table, except potatoes, show lower figures than would have been the case if the figures for agricultural products had followed the figures for working expenses.

4. The prices for concentrated feed (oil-cake, mill products, etc.) are higher than the prices for pork and eggs; lower than the prices for meat and dairy products. The prices for artificial manure are much lower than the prices for agricultural products. For 1928-29,

Prices in Oslo and Working Expenses per Decare.

Index: Average for Five Years, 1909-1914 = 100.

Year	Agricultural products						Raw materials for agriculture			Kr.	Index in relation to dairy products, basis 1914-15
	Cereals	Potatoes	Meat	Pork	Eggs	Dairy products	Mixed feed (oil-cakes, mill products, etc.)	Maize	Artificial manure		
1914-15	146	128	110	107	115	117	120	127	101	16.40	117
1915-16	193	168	159	159	143	155	152	168	148	22.69	162
1916-17	213	191	292	247	216	207	175	179	181	21.86	156
1917-18	392	240	292	337	271	318	230	252	200	29.74	212
1918-19	419	316	547	447	405	369	316	335	202	43.07	307
1919-20	405	271	536	407	456	392	272	289	249	49.27	351
1920-21	393	367	431	361	444	439	319	347	336	54.29	387
1921-22	342	436	347	309	398	382	251	262	260	50.07	357
1922-23	233	224	277	251	279	289	217	213	202	40.39	289
1923-24	260	274	297	223	276	282	224	241	186	40.04	286
1924-25	310	492	375	306	273	326	275	297	204	40.20	287
1925-26	259	361	343	276	229	260	222	230	183	40.80	291
1926-27	195	179	231	162	174	195	162	151	134	35.36	252
1927-28	185	312	197	135	162	188	162	145	111	30.25	216
1928-29	182	231	183	157	150	176	167	164	104	27.87	199
1928-29 [1]	248	217	187	182	195	199					

[1] If the prices for agricultural products had gone up on the same scale as the working expenses from 1914-15 to 1928-29, the index for 1928-29 would have been as the figures on this line show.

For 1928-29, the working expenses amount to 45.4 per cent of the total expenses. The dairy products produced 36.6 per cent of the total income.

the expenses for concentrated feed amount to 21 per cent of the total expenses; the expenses for artificial manure amount to 4 per cent.

5. From an agricultural point of view, it seems that the failure to adjust prices of agricultural products to working expenses is the most prominent fact in the present situation.

For the year 1928-29, the income for animal products was 45.19 kr. per decare; the income from all plant products was 17.29 kr. per decare. Income from cereals gave 6.29 kr. per decare. Animal products produced 65.4 of the income, all plant products 25, cereals 9.1. The expenses on concentrated feed amounted to 12.86 kr. per decare, more than twice the income from cereals.

Nearly all the feed mentioned is imported. The cereals mentioned are used in the household or sold for use in the country. Norwegian farmers are more interested in low prices for feed than in high prices for sale of their cereals. In other parts of the country, this fact is far more striking than for the Østlandet district from which the figures have taken.

For the years June 20th, 1927 to June 20th, 1928, 90.7 per cent of the meat consumed in Norway was produced in the country; 9.3 per cent was imported. 92.9 per cent of the pork was home produced; 7.1 per cent was imported. As regards eggs, there was practically a balance between home production and consumption. As regards dairy products, there was practically a balance—some export of condensed milk, some import of butter and cheese.

All the cereals produced in Norway are used for home consumption, mostly for feed. The import of cereals for human consumption amounted to about 350,000 tons, the import of oil-cakes, maize and other kinds of concentrated feed for animals amounted to about 300,000 tons.

There has been a heavy growth in the production of agricultural products in the last ten years. The chief cause for this growth is the large area of new land broken up in these years. The new land taken under cultivation in the last ten years amounts to about 600,000 decares—an increase of approximately 10 per cent in the area of cultivated land. The State supports the cultivation of new land by cheap loans and by direct grants.

The production of agricultural products has grown more rapidly than the population, and for dairy products, eggs and pork the self-supporting limit has been reached. For cereals grown in the country, the State gives some support to the prices by establishing a buying office in connection with an import monopoly. Most of the other agricultural products are protected by the tariff.

The present situation with balance between production and consumption for more agricultural products has raised new problems for Norwegian agriculture. The tariff no longer gives any protection at all for most products. This new question is under consideration by different organisations. The lines of future policy are not clear, but the international market conditions will hereafter undoubtedly be of greater importance for the Norwegian farmer than before.

It is not only present agricultural difficulties which hamper the Norwegian farmer. The general economic depreciation lays a great weight on his shoulders. The high taxation is a particularly heavy burden. The income tax for the rural municipalities, which is the principal tax for the farmer, takes at present more than 10 per cent of his whole income—more than twice as much as before the war.

The present difficulties will probably stimulate Norwegian farmers to give more attention to various forms of rationalisation of agriculture. More attention is being given to the results obtained at the agricultural experimental stations, to a greater use of effective machinery and of artificial manure, to more effective buying and selling organisations, mainly on a co-operative basis, and to the international conditions relating to agriculture.

PERSIA.

The agricultural situation in Persia in 1930 as compared with previous years was marked by a decline in the prices of most commodities. Some products suffered from the world depression, while others, not important for international trade but principally consumed on the home market, suffered a serious drop, which in some cases attained and even exceeded 50 per cent.

This drop in prices affected the production of cereals, in particular wheat.

As a result of the 1924 famine, which was only overcome by great efforts and heavy expenditure, the price of wheat per Kharvar (300 kg.) was raised by 2 tomans to 22 tomans, which at the current rate of exchange amounted to £1. 13s. 0d. per quintal; this price was maintained until 1929, when the Government wheat monoply was abolished throughout the country. As the Teheran wheat market was free, large quantities of wheat were transported from the different provinces to the capital, while the big Government stocks weighed heavily on the market; prices consequently fell rapidly to about 10 tomans per Kharvar—11/- per quintal at the current rate of exchange.

In order to remedy this situation to some extent and to reduce stocks, the Government issued a special law cancelling the export prohibition on cereals. In recent months fairly large quantities of wheat have been exported, especially from the western districts, but at very low prices.

(Persia has a silver currency standard; as silver has greatly fallen in value, without agricultural products having risen in proportion, the receipts in question have a higher purchasing power than would be indicated by their conversion into gold currency.)

On account of this drop in prices and of the consequent losses suffered by the producers, there has been a decrease in the land under wheat, and people are beginning to leave the country districts; moreover, in view of the appearance of *eurygaster integriceps* in certain districts it is expected that the 1931 crop will be smaller. This will probably cause a certain increase in prices in spite of the heavy stocks on the market.

Opium.

Opium is one of the principal Persian agricultural products and articles of export. The Persian Government, in its desire gradually to decrease the cultivation of this plant, has introduced a very strict monoply in order to supervise cultivation, trade and export; prices have fallen considerably and cultivation is therefore declining sharply. But the difficult question arises whether this crop can be replaced by some other product of equal importance for the country's prosperity and with the same agricultural qualities, that is to say by a crop adaptable to the dry climate of the country and possessing a high value together with small bulk.

The principal opium—producing districts are therefore undergoing a very severe crisis.

Dried Fruits.

Before the war dried fruits occupied a very important position in Persian agriculture and trade, especially in the northern provinces. The principal customer was Russia; India ranked second. Since the war this trade has very largely recovered and in 1926

the exports amounted to 79 million Krans. In more recent years there has been a comparative decline in exports.

In the last two or three years fairly large stocks were accumulated, particularly in Azerbaijan, but these have been to a great extent exported, especially to Mesopotamia.

Cocoons.

The Persian cocoon is produced principally in the Caspian provinces. This important agricultural and industrial branch greatly decreased during the war, when the seeds were no longer obtainable from abroad, and it became impossible to dispose of the crop. The peasants and landowners therefore gradually abandoned this important source of revenue and endeavoured instead to extend the cultivation of tea. Since the end of the war sericiculture has regained its position in these districts. On account of their geographical position the only practicable export route is *via* Russia. Persian cocoons are purchased either by Russia or by other European countries which are able to arrange for transit through the Union of Soviet Socialist Republics. On account of the increased demand in 1930 prices rose to a higher level than those quoted at Milan. In order to put a stop to speculation the Government was obliged to step in and fix a price limit.

The cocoon producers mostly profited by the position thus created, though some merchants suffered considerable losses.

Great efforts are being made to develop sericiculture and local winding in order to export raw silk or silk fabrics.

Carpets.

The Persian carpet industry, which is almost exclusively a rural one, has been severely affected by the world depression, in the first place through the decreased purchasing power of the principal countries, in particular the United States of America, and in the second place through the accumulation of large stocks in the main centres in Europe and still more in America. On several occasions recently a slight revival in trade has been observed, but it has been of short duration.

POLAND.

M. AUGUSTE POPLAVSKI,

Chairman of the Crédit Foncier, former Under-Secretary of State.

It is scarcely necessary to enumerate here all the principal factors of the present agricultural depression throughout the world, but among others reference should be made to the disproportionate extension of areas under cultivation, especially in North and South America, over-production of cereals, the immense stocks left over from the exceptionally good harvests of the last two years, and the discrepancy between the increasing output of bread cereals and the diminishing consumption due to the increased demand for other foodstuffs.

The effects of these clearly established facts in the different producing countries vary according to the conditions of their agricultural output and their capacity to resist outside influences. This resistance can, of course, be strengthened by the adoption of a suitable agricultural and Customs policy or weakened by inadequate protection, and is all the more effective when the rural population has financial resources derived from its own savings as well as from credits placed at its disposal.

Of the conditions determining the severity of the agricultural depression must be mentioned, in the first place, the position with regard to the trade in agricultural products within the country, the facilities for trade with foreign countries, the possibility of transit across neighbouring countries and the organisation of means of transport. Lastly, it should not be forgotten that, in countries where production is predominantly agricultural, the economic body is particularly sensitive to the evil results of failure to market produce of the soil on favourable terms.

These few introductory observations seemed necessary before discussing the effects on Poland of the agricultural depression obtaining throughout the world.

Poland is predominantly agricultural. Her arable land covers an area of 18,127,580 hectares—that is to say, 49 per cent of the total area of the country, and her rural population makes up 64 per cent of the total population. The value of her vegetable products was estimated for the four years 1922-1925 at an average of 4,889 million gold francs and her animal products at 1,813 million gold francs.

The part played by agricultural products in Poland's total trade balance is very considerable, as the following table will show:

TOTAL EXPORTS AND EXPORTS OF AGRICULTURAL PRODUCTS
(in millions of zloty).

	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30
Total exports	2,139	2,130	2,483	2,499	2,604	2,746
Percentage . .	100.0	100.0	100.0	100.0	100.0	100
Exports of agricultural products	1,005	1,254	1,310	1,503	1,482	1,547
Percentage . .	49.3	58.9	52.8	60.0	57.0	56,3
Vegetable products.	162	332	194	201	278	327
Percentage . .	7.6	15.6	7.8	8.0	10.7	11,9
Animal products . . .	367	392	426	559	577	599
Percentage . .	17.0	18.4	17.2	22.4	22.8	21,8
Industry working for agriculture	226	203	227	170	181	259
Percentage . .	10.5	9.5	9.1	6.4	7.0	5,8
Timber	303	326	463	573	448	365
Percentage . .	14.2	15.4	18.7	23.3	16.5	13,3
Exports of non-agricultural products. .	1,084	876	1,173	996	1,122	1,199
Percentage . .	50.7	41.1	47.2	40.0	43.0	43,7

Polish agriculture was very hard hit during the world war, much of the land being devastated by the belligerant armies, which destroyed 1,651,892 buildings, 70 per cent of which were agricultural buildings. It was the agricultural population which suffered most of the losses due to the war, which are estimated at 13,500,000,000 gold francs, and were further increased in 1920 during the Soviet invasion.

The reconstruction of the devastated areas was effected with surprising rapidity in Poland. The peasants as well as the great landed proprietors were able to obtain the necessary funds to replenish their live-stock, reconstruct the necessary buildings and bring into cultivation the 3½ million hectares of land which had been allowed to lie fallow during the hostilities. This tremendous effort was made without any assistance in the form of reparations and payments with very small Government grants; almost entirely, that is to say, out of the resources of the population itself. These resources became, however, rapidly exhausted; the farmers had lost their working capital and were forced to depend on inadequate and often usurious loans; hence the financial weakening of the farmers and their sensitiveness to economic fluctuations abroad. It was impossible to remedy this state of affairs by granting the farmers long-term credits, as these were not available owing to the general impoverishment of the country and the collapse of the Polish currency, which was not finally checked until 1926.

It will be readily understood that in these circumstances the mortgage banks were unable to place their securities or find the money required to re-establish the credit disorganised during the war and successive inflation periods. At the present time, the long-term agricultural loans scarcely exceed 42 million dollars, whereas before the war they amounted to 410.4 million dollars.

The shortage of capital has placed the farmers at the mercy of usurers and forced them to sell their produce immediately after the harvest regardless of the disastrous

consequences of the excessive supply and consequent fall in prices. This shortage of money has more than any other internal factor helped to aggravate the disastrous consequences of the agricultural depression in Poland.

Among other causes may be mentioned the high price of various industrial articles needed by agriculture and the discrepancy between the prices of these articles and those fetched by agricultural products. This discrepancy is the result of the policy of protecting Polish industry, which had also suffered great losses during the hostilities and the German occupation and whose reconstruction seemed urgently necessary on economic and social grounds.

The following are the general index numbers of wholesale prices and those of agricultural and industrial products, calculated on the basis of 100, for 1927, the year following the final stabilisation of the zloty:

Year	General index	Agricultural products	Industrial products
1922	71.3	58.2	82.4
1923	81.5	55.9	106.8
1924	102.6	86.3	114.9
1925	105.6	99.3	110.4
1926	88.7	81.7	93.7
1927	100.0	100.0	100.0
1928	101.0	97.2	104.2
1929	95.7	85.7	103.3
1930: January	88.2	74.8	99.1
February	84.9	69.3	98.2
March	85.0	70.1	97.5
April	85.0	71.3	96.5
May	83.3	68.3	96.3
June	83.1	68.9	95.2
July	83.8	71.3	94.2
August	81.8	68.2	93.2
September	79.6	65.5	91.8
October	78.4	64.3	90.6
November	78.6	66.2	88.9
December	76.6	63.2	87.8

These figures explain the unfavourable position of Polish agriculture as compared with that of industry prior to 1927, and the aggravation of the present depression since last year.

Poland's commercial relations with the principal neighbouring countries are not such as to improve the position of her agriculture or to mitigate the evils due to the above-mentioned factors. They are often hampered by indirect protectionism in the most varied forms, such as restriction of the amount of foreign cereals allowed to be ground, the requirement of marks of origin and other marks, and disguised discrimination and restriction in the form of the arbitrary application of veterinary measures. Their stability is sometimes compromised by the fact that certain States apply a sliding scale of Customs duties. It is a matter of common knowledge that, against the sound advice of the Economic Conference in 1927, most of the industrial countries showing a deficit in agricultural products are constantly intensifying their agricultural protection, which was already excessive, and have resorted to " dumping " the foodstuffs produced by them. All this has helped to restrict markets and place further obstacles in the way of the free marketing of the surplus production of the agricultural countries.

Poland has not been able to settle her commercial relations with her two principal neighbours, Germany and Russia, in recent years. From 1925 until March 1930—that is to say, for nearly five years — Poland had been unable to conclude a commercial agreement with Germany, and the prolonged absence of an economic settlement between the two countries greatly reduced the possibility of placing Polish agricultural products in the nearest markets and, in addition, prevented their transit by rail to Western Europe. It is difficult to say whether this state of affairs will be remedied by the commercial agreement recently concluded, as the recent formidable increase in the German Customs duties on the principal agricultural products has had the effect of neutralising nearly all the advantages which Polish agriculture hoped to derive from the conclusion of the agreement. Even apart from this, the agreement by no means secures for Polish agricultural products free entry into Germany; imports of pigs and pork are strictly rationed and the import of other animals and meat products prohibited.

Nor are our commercial relations with Russia satisfactorily settled. Trade with Russia is becoming more and more uncertain, the export of Soviet products — which are a State monopoly — being sometimes reduced and sometimes increased for political reasons irrespective of economic considerations or necessities.

The present agricultural depression in Poland is further aggravated by the state of her trade in cereals and other products of the soil, which is less well organised than elsewhere and much power in privately owned working capital. Consequently, the agricultural syndicates and other commercial firms have to depend on inadequate credits granted at exorbitant rates. Their commercial operations thus become unduly costly and therefore necessarily restricted and the farmers are often forced to sell their produce to middlemen far below what would be regarded as a fair price in view of the price paid by the consumer. The margin between these two prices is too wide, far wider indeed than it would be if the producers' co-operatives and the consumers could deal direct with one another.

Another thing which greatly hampers trade in and marketing of agricultural products abroad is the shortage of warehouses, grain elevators and cold-storage apparatus.

It is owing to all these factors that the difference between the prices of agricultural produce in Poland and those on the principal world markets is often much greater than can possibly be justified.

The following tables showing the prices of cereals will give an idea of this abnormal tate of affairs:

AVERAGE PRICES OF WHEAT IN DOLLARS PER 100 KILOS

	Warsaw	Berlin	Prague	Paris	Liverpool	Chicago
1922–23	3.85	4.11	4.94	5.95	5.35	4.26
1923–24	3.77	3.80	5.10	5.03	4.70	4.10
1924–25	6.73	5.71	6.85	6.49	6.87	5.83
1925–26	4.69	5.89	5.94	5.94	6.46	6.05
1926–27	5.93	6.52	7.15	6.63	6.14	5.25
1927–28	6.04	6.02	6.76	6.38	5.81	5.07
1928–29	5.37	5.21	5.48	6.07	5.22	4.36
1929–30	4.58	6.05	5.30	5.46	4.78	4.27
1930–31: August	3.71	5.96	4.92	6.55	4.17	3.34
September	3.45	5.73	4.50	6.71	3.70	3.14
October	3.15	5.40	4.09	6.61	3.34	2.94
November	3.04	5.93	4.37	6.48	2.85	2.78
December	3.08	5.91	4.42	6.57	2.80	2.90

Average Prices of Rye in Dollars per 100 Kilos.

	Warsaw	Berlin	Prague	Paris	Chicago
1922–23	2.47	3.51	3.41	4.21	3.12
1923–24	2.03	3.21	4.02	3.95	2.68
1924–25	5.15	5.17	6.13	5.40	4.82
1925–26	3.11	3.91	4.07	3.94	3.68
1926–27	4.65	5.72	6.16	5.45	4.12
1927–28	4.91	5.96	6.72	5.30	4.46
1928–29	3.87	4.89	5.02	5.03	4.05
1929–30	2.46	4.07	3.37	—	3.61
1930–31: August	2.20	4.00	2.79	—	2.57
September	2.11	4.22	2.65	—	2.48
October	2.12	3.52	2.58	—	2.04
November	2.13	3.61	2.81	—	1.95
December	2.14	3.70	2.82	—	—

Average Prices of Barley in Dollars per 100 Kilos.

	Warsaw	Berlin	Prague	Liverpool
1922–23	2.23	3.41	3.95	4.87
1923–24	2.20	3.60	4.53	4.22
1924–25	5.46	5.54	7.77	5.38
1925–26	3.22	4.79	4.97	5.45
1926–27	4.34	5.59	5.40	5.30
1927–28	5.01	5.97	6.37	—
1928–29	4.10	5.50	5.21	—
1929–30	2.99	4.60	4.15	—
1930–31: August	3.01	4.97	4.09	—
September	3.00	5.07	4.08	—
October	2.87	4.77	4.15	—
November	2.78	4.76	4.15	—
December	2.84	4.99	4.43	—

Average Prices of Oats in Dollars per 100 Kilos.

	Warsaw	Berlin	Prague	Paris	Liverpool	Chicago
1922–23	2.59	3.40	3.99	4.40	4.63	2.87
1923–24	2.23	2.96	3.39	3.42	4.84	—
1924–25	4.62	4.61	5.19	4.64	4.95	—
1925–26	3.25	4.31	4.36	3.90	4.52	2.82
1926–27	3.99	4.92	4.77	4.03	4.45	3.65
1927–28	4.68	5.42	5.43	4.56	5.15	4.12
1928–29	3.93	4.77	4.96	4.75	4.76	3.75
1929–30	2.42	3.74	3.34	3.17	3.46	3.16
1930–31: August	2.57	4.52	3.21	—	3.10	2.82
September	2.40	3.97	2.97	—	3.09	2.72
October	2.38	3.57	3.09	—	3.00	2.55
November	2.44	3.44	3.07	—	2.59	2.32
December	2.60	3.40	2.98	—	2.59	2.35

I have confined myself to giving the prices of cereals as the present depression especially affects these. The depression is having a disastrous effect on the whole of Polish agriculture, since the four cereals mentioned are of capital importance in our agriculture.

Rye in particular is the product on which most of the Polish undertakings depend and is the principal cereal consumed by the rural population. The output of rye, which varies between 52 and 70 million quintals, exceeds in good years the requirements of the home market. The surplus is not easy to export. The consumption of rye is limited to a few northern European countries and there is consequently keen competition between the exporting countries. The large stocks, due as much to excessive supply as to export difficulties, weigh heavily upon the Polish market and depress prices below the cost price of production. That is what happened after the exceptionally good harvest in 1928, followed by the fine output in 1929.

The above-mentioned figures give an exact idea of the tremendous drop in the price of rye and of the increased margin between home prices and world prices. It has been so difficult to find purchasers that the present prices of rye cover only about 60 per cent of the costs of production. It is true that the position has been recently relieved by the ready assistance given by the Polish Government in February 1930. Delays of payment were accorded in respect of some 200,000,000 zloty due by the farmers for taxation and for the purchase of fertilisers and other necessary articles. The shortage of available capital has, however, compelled the Polish Government to reduce to a minimum the only really effective remedy: long-term loans to take the place of the present usurious loans, and so reduce the costs of production.

The present depression in Poland is not confined to agriculture, but is felt in other branches of production. Agriculture plays such an important part in the economic life of Poland that the effects of its depression cannot but be generally felt. The farmer who is deprived of his profits tends to restrict his own requirements and those of his business to a minimum. He only does what is strictly necessary and no longer devotes himself to the intense cultivation of his land. All this cannot but reduce purchasing power and restrict the home market.

The considerable decrease in the imports of various foreign commodities into Poland is without any doubt one of the consequences of the agricultural depression, as the interdependence of the various economic interests in all countries is an incontestable fact. The following figures speak for themselves:

IMPORTS IN THOUSANDS OF ZLOTY.

1929	3,110,982	1930	2,245,973
1929: August	226,535	1930: August	188,491
September	247,457	September	190,443
October	257,247	October	202,201
November	243,448	November	163,846
December	214,381	December	158,907

There can be no doubt that in the long run the love of the soil and tenacity of the Polish peasant will surmount all obstacles and enable him to overcome the crisis, but that can only be effected at the expense of the community as a whole. The agricultural depression in Poland could certainly be remedied by removing various obstacles to the marketing of agricultural products abroad and also by organising an international agricultural loan.

ROUMANIA.

Professor JON RADUCANU,
Minister.

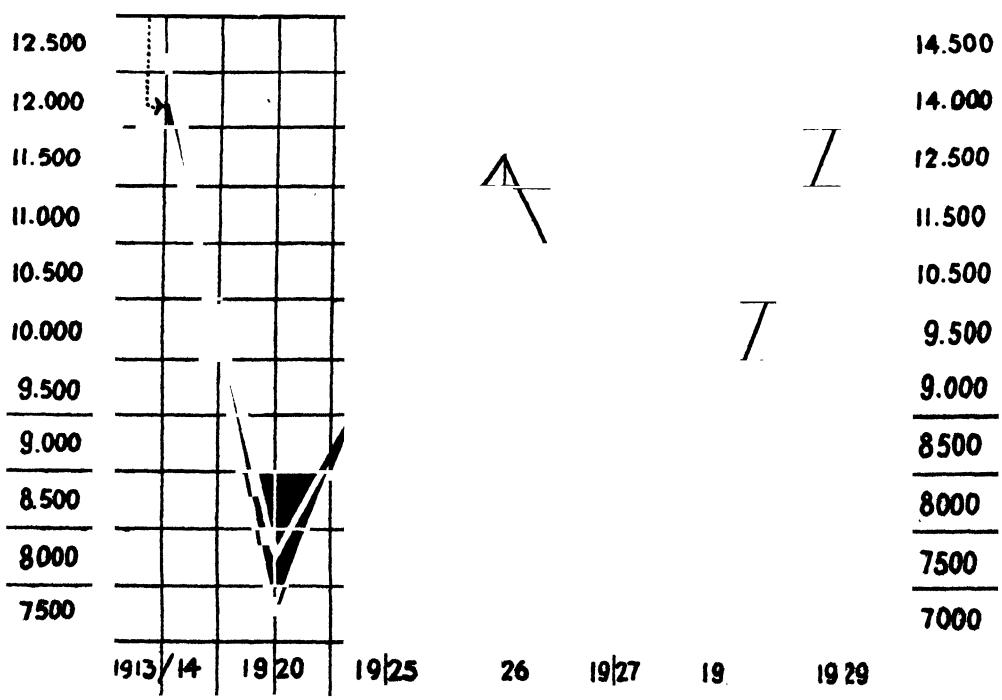
In 1929 the area devoted to the cultivation of cereals (wheat, rye, barley, oats and maize) was 11,111,174 hectares, the average for the period 1924-1928 being 10,494,946 hectares.

The production was:

In 1913-14 . .	14,061,737 tons	
In 1929. . . .	13,537,740 tons	— *i.e.*, 523,997 tons less than the amount produced in 1913-14
In 1923-1927 .	9,086,465 tons	— *i.e.*, 4,975,272 tons less than the amount produced in 1913-14

As compared with the average for the years 1923-1927, the year 1929 shows an increase of 149 per cent, as the crop was exceptionally heavy.

The following graph shows the area under cultivation and the amount produced:



To be proportional to the increase in the area of the country (209 per cent) and in the area under cultivation in all the provinces now included in Roumania, the area sown with cereals should have represented 208 per cent as compared with the area sown in pre-war Roumania, and the production should have been 233 per cent.

In 1929 the area under cultivation increased only by 196 per cent and production amounted only to 226 per cent, as compared with the average for the years 1924-1928, which was 150 per cent.

The area cultivated in Roumania in 1929 is 640,412 hectares (12 per cent) less than in 1913, and the production is 522,997 tons (4 per cent) less; but production for the five-year period 1924-1928 is 4,975,272 tons (35 per cent) less. This difference is explained by the exceptional production in 1929, particularly in the case of maize and barley.

The decrease in agricultural production in Roumania is due to two causes: (*a*) the disorganisation of production and the destruction of agricultural undertakings as a result of the war, half the country having been a theatre of military operations; (*b*) the agrarian reform, through the expropriation of large landowners for the benefit of small peasant owners whose methods, resources and professional skill are inferior.

Between 1919 and 1921, by means of agrarian reform, Roumania solved her most difficult social problem without any disturbance. Through this reform, which is based on the principle of the social function of property, Roumania effected a great peaceful revolution.

Before the agrarian reform, large estates—*i.e.*, estates of more than 100 hectares, represented 8,108,487 hectares (43 per cent) and small estates—*i.e.*, of less than 100 hectares, represented 12,025,814 hectares (57 per cent).

After the agrarian reform, large estates represented 2,100,750 hectares (10.4 per cent) and small estates 18,033,911 hectares (89.6 per cent).

The average yield per hectare in the present territory of Roumania was:

In 1913.	12 quintals
In 1923-1927	12.2 quintals
In 1929.	12.2 quintals

The area under cereals in 1930 has diminished but very slightly compared with the previous year, although the effects of the agricultural depression are making themselves felt to the full.

In 1929, 11,111,174 hectares (wheat, rye, barley, oats and maize) were placed under cultivation, and in 1930 11,070,000 hectares. This difference of 40,000 hectares represents only 3 per cent, which justifies us in regarding it as a normal variation from one year to another and not as a restriction due to the agricultural depression, as one might have been tempted to do.

The fact that the area under cultivation has remained approximately constant is due to the system of peasant holdings in which the profits are calculated otherwise than on the large estates as certain factors (labour, for instance) are not reckoned in the cost of production.

Big properties, which still make up a considerable percentage of the whole (big properties 11 per cent; medium properties and small peasant holdings 89 per cent), are specially sensitive to the effects of the depression and will probably be first to suffer its consequences.

A comparison between the area of the big properties cultivated in 1931 and that of the small-holdings will enable us to verify these predictions.

From the point of view of world production, the fact that the area under cultivation in the exporting countries is more or less constant may make it more difficult to find a solution of the crisis.

As regards Roumanian production, however, which has suffered, not only from the general depression, but also from difficulties arising from the carrying out of the land reform, especially the reduction in the area cultivated and the fall in yield, the capacity of resistance of the small-holder is an advantage which has to be preserved.

* * *

Taking the five principal cereals, the 1930 crops amounted to 11,028,200 tons:

	Tons
Wheat	3,300,000
Rye	503,500
Barley	2,245,000
Oats	1,031,800
Maize	3,947,900
Total	11,028,200

This crop is 2,400,000 tons less than the previous year. (The maize crop was poor in 1930, whereas in 1929, it was exceptionally abundant—6,100,000 tons.) The amount available for export is estimated at 3,200,000 tons:

	Tons
Wheat	600,000
Rye	31,000
Barley	1,500,000
Oats	50,000
Maize	1,000,000

These quantities must be exported before the end of the agricultural year—that is, by June 1931.

It should be pointed out that the present plight of the farmers is to be attributed, in the first instance, not so much to the drop in production as to the disastrous fall in prices during 1930. The fall in prices was a calamity both for the Roumanian farmer and for the farmers of other exporting countries, in spite of the attempts made by each one of these countries to combat the depression; and, if we remember that cereals cost the consumer three or four times as much as the price obtained by the producer, we begin to realise the inefficacy of the protective measures taken by importing countries.

The world area under cereal cultivation was, in hectares:

	Wheat	Rye	Maize	Barley	Oats
1913	109,400,000	44,600,000	71,700,000	34,400,000	57,800,000
1929	124,100,000	44,300,000	76,800,000	34,400,000	59,400,000
Total 1913			317,900,000		
Total 1929			339,000,000		

World Production in Tons:

	Wheat	Rye	Barley	Oats	Maize	Total
1913	102,860,000	45,040,000	32,020,000	65,550,000	104,530,000	350,000,000
1928	125,520,000	43,760,000	40,400,000	73,160,000	107,910,000	390,750,000

The total increase in the world area sown is 21,100,000 hectares.

The increase in world production is 40,750,000 tons.

The yield per hectare has increased from 12.5 hectolitres to 12.6 hectolitres.

Roumania is now feeling all the consequences of the world crisis due to over-production, although her sown area is less than in 1919.

Agriculture is suffering from the world crisis, as Roumania is chiefly an exporter of agricultural products, particularly cereals.

In the ten years before the war, Roumania exported on an average 50 per cent of her cereal production, and in this respect was second only to the Argentine (57 per cent), whereas European Russia exported 16.50 per cent, Canada 16.25 per cent and the United States 4.75 per cent of their production.

Since the war, Roumania has been far below the percentage just mentioned. In 1929, exports (1,593,729 tons) represented 11.8 per cent of the amount produced (13,537,740 tons), the remainder of the agricultural production being taken for home consumption.

Roumanian producers are suffering all the more acutely from the agricultural crisis, in that they did not even benefit by any intensification of production during the period of economic prosperity which preceded the crisis. On the contrary, the prices received by Roumanian farmers at that time were forced down below world prices for the benefit of the State and of the home consumer as a result of the policy by which prices were reduced by the application of Customs export duties. Progressive reductions were subsequently made in these duties. For instance, in the period 1921-22, under the system of export restrictions, they amounted to 25 per cent of the value of the cereals, whereas they have now fallen to 100 lei (2s. 5d.) per ton in the case of wheat and to 140 lei (3s. 5d.) in the case of maize and oats. Barley is now entirely free of all duties.

For budgetary reasons, the system of export duties could not be entirely abolished. In the case of wheat the greater part of which is required for home consumption, certain measures have been adopted to protect home prices from the influence of world prices, the object being to bring home prices up to a level that will remunerate producers.

The agricultural crisis is having disastrous effects on the economic life of Roumania.

The annual income of Roumania has been estimated as follows:

	Lei	£
In 1926.	168,219,000,000	(194,390,000)
In 1927.	159,909,000,000	(184,009,500)
In 1928.	185,743,000,000	(213,590,500)

Of the total national income, the proportion represented by agriculture is:

	Lei	£	
In 1926.	110,551,000,000	(135,426,200)	(65.72%)
In 1927.	99,005,000,000	(121,280,000)	(61.91%)
In 1928.	117,798,000,000	(144,305,000)	(63.45%)

The proportion derived solely from the cultivation of cereals is:

	Lei	£	
In 1926.	69,526,000,000	(85,046,850)	(41.33%)
In 1927.	61,723,000,000	(75,600,675)	(38.60%)
In 1928.	81,458,000,000	(99,788,500)	(43.85%)

The average national income may be estimated at:

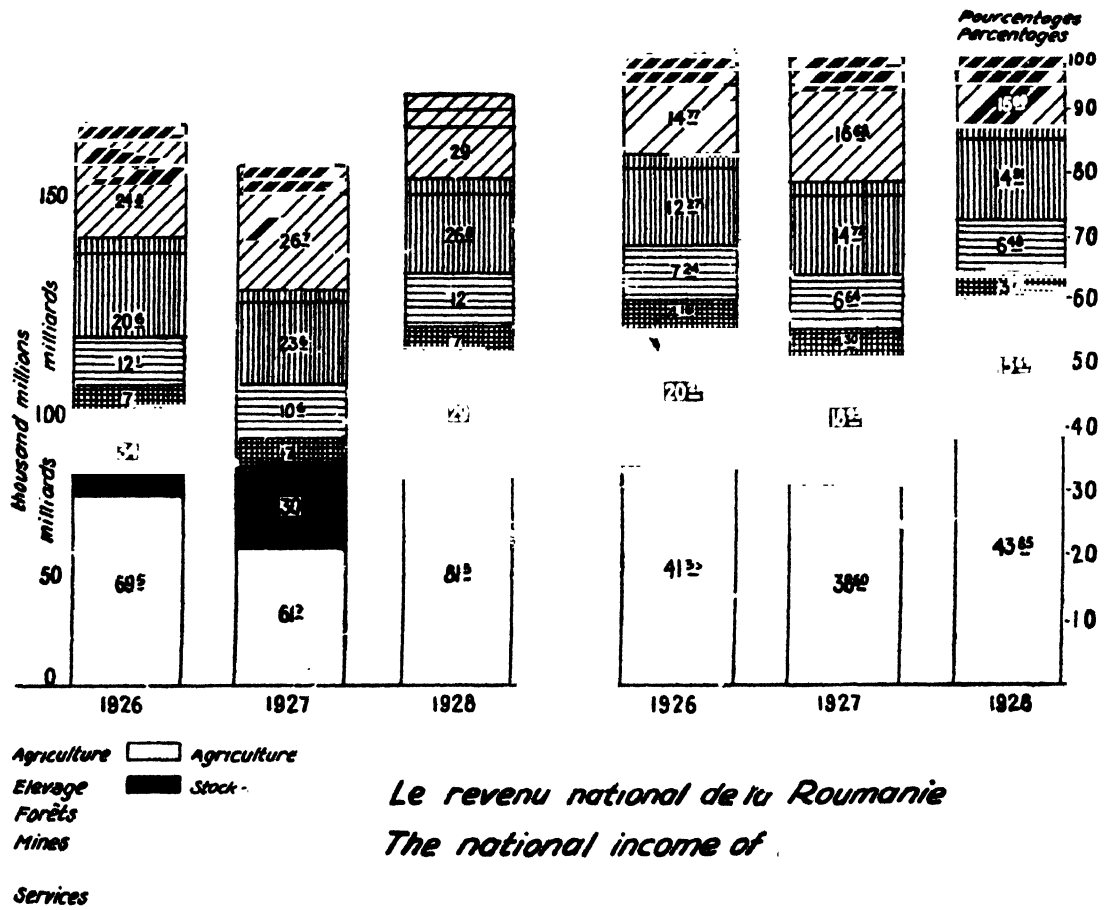
171,000,000,000 lei (£198,000,000)

of which agriculture provides 64 per cent:

110,000,000,000 lei (£126,750,000)

and cereals provide 41.40 per cent:

70,900,000,000 lei (£868,52,500).



Le revenu national de la Roumanie

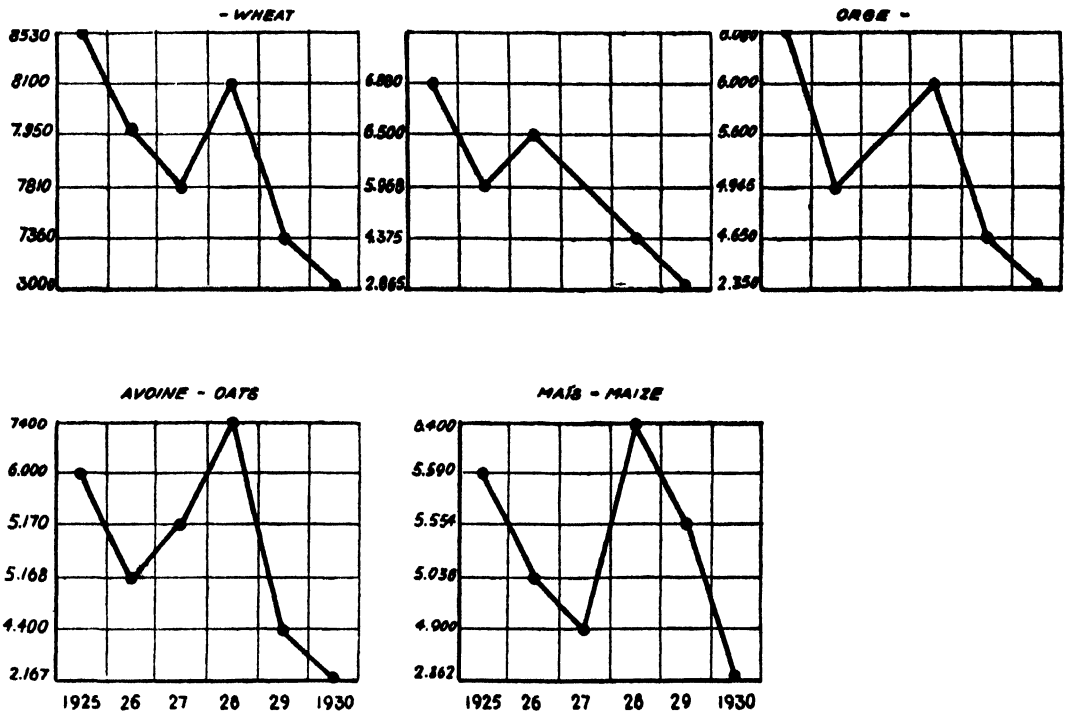
The national income of

The average price of cereals has varied as follows:

(In lei per ton.)

	Wheat	Rye	Barley	Oats	Maize
1925 .	8,530	6,880	6.080	6,000	5,590
1926 .	7,950	5,988	4,945	5,168	5,038
1927 .	7,810	6,500	5,600	5,170	4,900
1928 .	8,100	—	6,000	7,400	6,400
1929 .	7,360	4,375	4,650	4,400	5,554
1930 .	3,000	2,865	2,350		2,162

LES VARIATIONS DES PRIX DES CÉRÉALES EN ROUMANIE DE 1925 à 1930
IN THE PRICES OF CEREALS IN ROUMANIA 1925-1930



In 1930, the monetary value of cereals fell by more than 50 per cent as compared with the previous year.

The 50 per cent fall in cereal prices implies that the national income from agriculture will fall to 35,450,000,000 lei (= £43,426,260) without counting the decrease in the income derived from other branches of agriculture. The national income thus falls to 135,600,000,000 lei (= £166,110,100)—*i.e.*, a decrease of one-fifth (21.10 per cent).

This is all the more prejudicial to Roumanian national economy, because a large part of the cereals produced is exported at the lower price-level now current, whereas the prices of imported goods have not fallen to the same extent.

The transfer of property does not merely take place as between one class of producers and another within the country. The deficit becomes apparent in the national balance of payments.

The income derived from agriculture varies as between large and small estates. The latter benefit by the fact that cost prices are not increased by certain charges inseparable from the capitalist working of large estates. On the other hand, the small owner is burdened by interest at usurious rates.

Under present conditions agricultural undertakings, both large and small, are working at a loss. Production costs per hectare are calculated at:

Lei		d.	
4,840	(5 18	4½)	in the case of wheat;
4,620	(5 14	0)	in the case of barley;
3,800	(4 14	1)	in the case of maize.

At present the producer receives at most:

Lei	£	s.	d.	
3,000	(3	13	3)	per ton for wheat;
1,500	(1	16	7½)	per ton for barley;
1,800	(2	4	6)	per ton for maize.

The gross receipts from a hectare, considered to have an average yield of 12 quintals, are:

Lei	£	s.	d.	
3,600	(4	7	0)	for wheat;
1,440	(1	15	3)	for barley;
2,160	(2	12	9)	for maize.

The large producer therefore loses on an average:

Lei	£	s.	d.	
1,240	(1	11	4½)	per hectare of wheat;
3,180	(3	17	9)	per hectare of barley;
2,000	(2	9	0)	per hectare of maize.

The small producer, even with the advantage of lower working costs, loses at least half the amounts shown by the above figures.

It we base our calculations on a price of 1,850 lei per ton—the average from August 1930 to March 1931—the net value of the 1930 harvest should represent for the Roumanian producers, at most, 20,880,000,000 lei (£25,588,000). If the crops could have been marketed at the price ruling in July 1929 (4,706 lei per ton), the same quantity of cereals would have represented a value of 53,151,000,000 lei (£65,160,000). Even at the price ruling in July 1930 (2,530 lei per ton), 28,576,000,000 (£35,020,000) would have been fetched—in other words, the 1930 crops were under-priced by 60 per cent in relation to the July 1929 price, and 19 per cent in relation to the July 1930 price, and the purchasing power of our producers fell in the same proportion.

It has been pointed out that the income from agriculture represents about 64 per cent of the national income, and the effects of the economic depression in Roumania are in no degree mitigated as the prices of industrial products have not followed the same descending curve.

If the crops had been marketed in Berlin at the price ruling there in December 1930, Roumania's 1930 harvest should have fetched 90,500,000,000 lei (£110,900,000), and, after deduction of costs, the Roumanian producers would have received 64,000,000,000 lei whereas, at the present price on the Roumanian market, they will not obtain more than 20,880,000,000 lei.

If this state of affairs continues, it will mean the economic ruin of the agricultural countries, which have already been very hard hit.

It should be noted that the heaviest burden on Roumanian agricultural undertakings is the rate of interest that has to be paid. The official discount rate is 9 per cent. Farmers obtain credit at 18 per cent to 50 per cent. The small farmers generally pay the highest interest. No official calculation of the debts on rural property has yet been made. Estimates on this subject are very approximative.

The Government is making active efforts to solve the problem of agricultural credit.

The agricultural crisis in Roumania is intimately connected with the world agricultural crisis, and its solution is urgent if we are to avoid a collapse of the whole structure of capitalist economy.

Solutions no longer depend on individual Governments. They must be sought and applied by means of a general agreement between all consuming and producing countries.

The Eastern European countries and the oversea countries are making efforts to mitigate the agricultural crisis, while awaiting the results of a European or world agreement.

Roumania is following a policy of free trade and of specialisation in the branches of production best suited to her geographical conditions, but she is behind other producing countries such as Yugoslavia, Bulgaria, Poland, the United States of America and Canada as regards the steps taken to keep up prices on the home market.

The Roumanian Parliament is now considering a Bill relating to the marketing of agricultural produce. The following are some of the main points:

(*a*) The total abolition of export duties (1,000 lei per wagon-load of wheat and 1,400 lei per wagon-load of maize or oats; the duties on barley were done away with in June 1930);

(*b*) The establishment of an office for the supervision of the milling industry, with power to standardise qualities of flour, supervise bakeries and issue technical regulations for them;

(*c*) The syndicalisation of systematised mills and mixed mills, with a view to rationalising production;

(*d*) The marketing at home and abroad, of the production resulting from the industrialisation of the systematised mills (that is to say, those of on output capacity of more than three wagon-loads a day);

(*e*) The introduction of a duty of 0.50 lei per kilogramme on flour supplied for home consumption (exports are not subject to this duty);

(*f*) The formation of a national company for the home grain trade, in which the State will hold 95 per cent and the co-operative societies 5 per cent; the object of the company will be:

(1) To supply all public institutions;
(2) To form national reserves; and
(3) To undertake all transactions relating to grain;

This company will thus be in a position to maintain the level of grain prices, and may for this purpose, with the permission of the Government, require all mills to obtain their supplies from it;

(*g*) The syndicalisation of grain-exporters with a view to centralising and rationalising their operations.

It may be pointed out that Roumania has always taken the initiative in joint action by the countries of the Danube to concentrate their exports. Although no practical results have yet been reached, Roumania continues at all international meetings to insist on the agricultural problem being kept in the foreground.

There can be no doubt that even the industrial countries are making efforts to arrive at a solution of the European agricultural crisis; though, up to the present, these efforts have been confined to discussions and hypothetical arguments, while the position with regard to imports of agricultural produce is growing worse daily.

That is why the agricultural countries have decided themselves to seek an independent solution of their particular economic problems, until such time as the international bodies find a general and practical solution of the crisis.

SOUTH AFRICA

South Africa's main agricultural production is of wool, hides and skins, and maize, and she has, therefore, valuable animal products, as well as important crop production.

As almost the whole of the Union wool clip is shipped overseas, the export returns reflect practically the total production of the country. In 1928 exports of wool equalled nearly £16 millions or 50 per cent of the total value of exports of agricultural and pastoral produce, and 20 per cent of the total agricultural production. The importance of the hides and skins industry is shown by the export figure of over £4 million in 1928, which is nearly 12 per cent of total agricultural exports.

The export of maize in 1928 equalled £3½ millions but the total production amounted to approximately £9 millions or about 11 per cent of the agricultural production of the Union. The production of maize is of the first importance in the Union, primarily because it is the staple food of the larger part of the population, but also because of its economic value as a stock feed and for world export.

Other important crop products are fruit, sugar, hay and fodder, and wattle bark, which together account for about £4 millions or 12 per cent of agricultural exports.

South Africa's three main products account for about 74 per cent of her agricultural exports, and the fact that all three happen to be products which have suffered from the drastic fall in prices is sufficient explanation of difficulties which farmers are facing in that country. The quantity of wool exported in the 1929-30 season was greater by 24,000,000 lb. than in the previous season, but the value had fallen from £16,418,000 to £11,298,384—a fall of over 30 per cent. A Wool Council was set up in January 1930 with the object of research and economic investigation, and also to consider the state of the export market and the possibility of co-operation with Australia. A levy of 1/– a bale on the wool exported was imposed, in order to finance scientific research on behalf of the industry. In August a vote of confidence in the Council was passed by the farmers, and their full co-operation may be expected for any scheme which the Council puts forward to help the industry.

A further disaster was the fall of 18 per cent during the past year in the value of maize exported. In the season 1928-29, this equalled £2,862,000 and a year later was only £2,337,000, the price falling from 13/7*d*. per 200 lb. in January 1929 to 6/5*d*. in June 1930, a fall of over 50 per cent. This has been mainly attributed to the heavy Argentine crop, the abnormal Danubian crop and the generally high yields of other cereals in north European importing countries, such as Germany. Strenuous efforts are to be made to reduce the cost of producing maize; the present combination of low yields and low prices makes its production quite unremunerative, and there is great need of research in this direction.

There has been also a severe decline in the value of hides and skins exported; in 1928-29 this value amounted to over £4 millions and a year later only equalled £2,600,000. The Hides and Skins Advisory Board is at present engaged in investigating the export position and the general quality of the goods produced.

An additional, though smaller, loss has resulted from the decreased export value of hay and animal fodder.

The position in the remaining 25 per cent of South Africa's agricultural export is not so gloomy. There has been a remarkable increase in the output of butter and

cheese, and as a result of the work of the Dairy Industry Control Board the export of these products in 1929-30 equalled £317,465 and £74,373 respectively. These are increases of 900 per cent and 200 per cent and this is the first year since 1921 that there has been any considerable export of butter and cheese.

The export of fruit also increased by 40 per cent and the value of sugar exported was approximately 9 per cent greater than in the previous season, and now equals over £1 million, despite the great drop in the world price of sugar.

These increases in the value of South Africa's smaller exports are, however, no compensation for the loss of approximately £8 millions on the export of her principal agricultural products. South African farmers are hoping to overcome their enormous difficulties eventually by research and investigation and organisation. The various Agricultural Councils and Divisions of the Department of Agriculture are assisting them to carry out the research into breeds, crops, soils, etc. which they so much desire. Through co-operative societies, it is hoped to provide that basis of organisation which South African agriculture so badly needs. A proof of the faith which the farmers have in co-operation is given by the increase of 3,000 in the membership of co-operative societies during the early stages of the depression from July 1929 to June 1930. At that date the membership stood at 63,000.

A further hopeful sign is the willingness on the part of the farmers to accept any legislation which may be imposed for the general improvement of their industries. But until some improvement in the prices of primary products occurs, no more immediate alleviation of the difficulties from which farmers are suffering can be expected in South Africa than in any other agricultural community.

SPAIN.

M. CANOVAS DEL CASTILLO,
Chief Secretary of the Farmers' Association of Spain.

In Spain, agriculture is passing through a period of acute depression due to the more rapid increase in the cost of means of production and the cost of living to the farmer than in the prices of agricultural produce.

The decline in the prices of agricultural produce is due to natural economic causes such as over-production, and also to the various forms of Government intervention which tend to keep down the prices of certain agricultural products indispensable as food.

As taxpayers, the farmers are liable not only to general taxation but also to numerous provincial and communal charges, while, as the biggest class in Spain, they also contribute largely to the indirect taxes.

1. The principal Spanish products are cereals (especially wheat), which make up nearly half the total value of the national production.

Of the cereals produced, about half is *wheat*. The output of cereals has—more as a result of intensive cultivation than of any increase in the area cultivated—attained such proportions that not only are the requirements of the home marked covered but there is a surplus.

Nevertheless, the interventionist policy of the Government, designed to keep down the price of wheat in order to prevent an increase in those of flour and bread, has caused farmers gradually to abandon a crop on which they can scarcely make any profit for other products the demand for which still exceeds the supply.

The farmers have always maintained that the standard of living, which has risen considerably in the big towns, is not now such as to give the Government any grounds for great anxiety. Indeed, the purchasing power of dwellers in the big towns is greater, thanks to increased incomes, salaries and wages, and a rise of a few centimes in the price of bread would not be very terrible for the urban population, who spend far more on housing, lighting, clothes, boots, luxuries and amusements than on food.

A rise of about 10 pesetas per quintal in the price of wheat, which is essential if the producer is to obtain some return on his capital outlay and his labour, would entail an increase of less than 18 pesetas a year in the cost of living per head of population, or less than 0.05 peseta a day, if we estimate the quantity of wheat consumed at 500 grammes a day per head.

To illustrate the utter lack of justification for Government intervention in regard to the price of bread, we may mention that while in the rural districts the prices of wheat and flour and that of bread do bear some relation to one another, in the big towns, where fancy bread is consumed, the difference is so considerable as to make this intervention still less justifiable.

It is unfair that the Government should adopt a policy involving the reduction or total suppression of Customs duties on agricultural produce, whereas the duties on manufactured goods are permanent and continue fully to serve their purpose.

The very low duty on *maize* is prejudicial to the cultivation of cereals in Spain. Maize is a substitute for wheat, and can easily be used as a substitute for other cereals,

and this unduly affects the amounts of the various other cereals consumed. One argument advanced in justification of the low duty is that maize is used as fodder for live-stock.

Spain can produce all the maize she requires, and need not import any from abroad, owing to the large tracts of arid land now being irrigated and the considerable further tracts which it would be possible to irrigate. In the south of Spain, the cultivation of maize on dry soil has greatly increased, thanks to the system of periodic sowings (which yields very good crops), and to the utilisation of fallow land in spring and summer.

In spite of the increase in the amount of beer brewed, the output of *barley*, like that of *oats*, is declining owing to the substitution of motor for animal traction.

2. *Our wine-growing concerns*, which are suffering from over-production, have to try to dispose of 3-4 million hectolitres abroad. The lack of foreign orders affects prices at home, which are not even sufficient to cover costs of production. The provincial and municipal taxes, by increasing the prices charged to consumers of wine in the big towns and the villages, restrict consumption and make it impossible to dispose of a sufficient proportion of the surplus.

A solution of this problem is being sought at the present time in the direction of such amendments to the laws on alcohol as would entail spirits of wine being used for drinking only and give such spirits the preference over industrial alcohols. A more liberal system with regard to the distillation of wine and marc is also desired.

3. As regards *olive oil*, Spain comes first on the list of the producing countries of the world, with 60 per cent of the total output.

The olive oil industry is passing through a period of acute depression, as to the surpluses of previous years was added the abundant crop of 1929, which, moreover, coincided with very good crops in other Mediterranean countries.

This problem can and must be solved on international lines by the producing countries themselves, which could, by reserving the home market for olive oils and protecting these by Customs tariffs against oleaginous grains used in the manufacture of other vegetable oils, help to market the present surpluses.

There is another aspect of this question: the oil-refining industry, which has grown so tremendously, now uses a large quantity of inferior oils, which could not previously be sold for consumption owing to their colour or excessively strong flavour. These so-called refined oils are called by names which lead to confusion, inasmuch as they give the impression that they are finer and choicer than they really are, although they have only been rectified and cannot be compared for quality or nutritive value with fine natural olive oil obtained direct from the olive without any treatment other than grinding, pressing and clarification. The use of these oils, the taste of which is not easily distinguishable from that of other refined vegetable oils, restricts the sale and consumption of fine oils which cannot be surpassed from the point of view of nourishment. This is another argument for the conclusion of an agreement between olive-oil producing countries and for the stricter classification and denomination of the oils.

4. Spanish exports consist for the most part of products of the soil, and especially fruit, fresh, dried and preserved vegetables. The principal fruits are oranges, table grapes, raisins, dried figs, melons, bananas, and pomegranates; the principal vegetables are onions and potatoes; and the principal industrial plants saffron, esparto grass and Guinea pepper prepared from capsicum. Olives prepared in various ways are exported in large quantities.

Rice is the only important cereal from the point of view of exports.

Our agricultural exports are beginning to suffer from foreign production, although, thanks to our geographical position and climate, several of our products have nothing to fear from this foreign competition owing to their excellent quality.

5. *Live-stock.* — Spain produces many varieties of excellent wool, but this has become difficult to market owing to the competition of the natural and artificial silk and other textile industries, with the result that considerable stocks from 1929 have not yet been sold off.

The amount of *milk* produced has greatly increased, and the prices obtained have often been such as to yield very little profit. For this reason, an attempt has been made to develop the condensed milk, cheese and butter industry.

The development of our *poultry-farming industry* is in full swing. An attempt is now being made to fight foreign competition, and it should be possible, by adopting protective measures, to replace the large quantity of imported eggs by home produce, which, though still inadequate, is likely to increase very considerably.

Conclusion.

The agricultural depression is particularly serious because the rural population represents 70 per cent of the able-bodied population of the country and consumes 80 per cent of the industrial output. The future and prosperity of Spanish industry and commerce depend on the prosperity of the agricultural classes, and for this reason an agrarian policy must be adopted, calculated to reduce charges, facilitate transport, find fresh markets by means of commercial treaties, spread modern methods of cultivation, stimulate agricultural co-operation, and mutual insurance against risks and encourage credit. A whole programme of enhancing the amenities of country life must be carried out in order to attract people to the country and stop land-workers, who are unable—as things are at present—to obtain a reasonable return on their labour and their capital outlay, from seeking more remunerative work in the big towns, thereby provoking crises in the urban centres, while at the same time complaints are received from many places of a shortage of agricultural labour.

The day will come when farmers will combine, not only on national, but on international lines, to make the Governments and the public understand that agricultural wealth is the first necessary condition of general prosperity, and that all should make common cause, since humanity as a whole, is dependent on agriculture.

The farmers' awakening must not be too long delayed, if they are not to be ruined.

SWEDEN.

M. INSULANDER,
Director-General of the Agricultural Administration.

To obtain an idea of the present economic situation of Swedish agriculture, it is necessary to be acquainted with the agricultural conditions of the country and its development in recent years.

It may be said without exaggeration that Sweden is a country of forests and mountains. Well over three-quarters of the area are composed of wooded land and pastures with other land unsuitable for agricultural cultivation. The lands under cultivation and the meadows represent only a small proportion of the total area. Owing to the extreme varieties of soil and climate, the conditions and relative importance of agriculture differ much in the different provinces. Southern Sweden, which enjoys a temperate climate, and consists of plains with rich soil, broken here and there by mountains, the plateau of Southern Sweden and Central Sweden are regions tolerably well suited for agriculture: but the plateau of Northern Sweden, which covers more than two-thirds of the total area of the country and is in part in the Arctic zone, is less suitable for agriculture than for forestry and mining.

In spite of these varying conditions, agriculture plays an important part in the economic and social life of Sweden. More than one-third of the inhabitants derive their living from it. Sweden is both an agricultural and an industrial country.

There are also certain common features to be noted in the agriculture of the different parts of the country, in spite of the variety of natural conditions. Everywhere, small holdings are the prevailing type of land tenure. At the last agricultural census in 1927 only 1.8 per cent of the total number of agricultural holdings consisted of over 50 hectares of land under cultivation, whilst 77.7 per cent were of less than 10 hectares in extent. The tendency is more and more to split up the large undertakings into smaller holdings.

For this reason, and also because of the climate and the distribution of the vegetation —in particular the abundance of pasture—the agriculturists in the plains and in the various regions have directed their attention mainly to live-stock—that is to say, to the production of meat, milk, butter, cheese and eggs, with those crops which are essential to such a system of farming—viz., barley, oats, meslin, green-fodder crops and pasture vegetation generally. In recent years, there has been an increase in live-stock production, not only an increase in the numbers of stock, but also an improvement in the individual productivity of the stock; the number of cows, for example, rose between 1927 and 1930 by 10.1 per cent, and the number of swine by 28.2 per cent.

There is also a marked increase in the cultivation of green-fodder crops, both absolute and in relation to the increase in the total area of land under cultivation. This applies particularly to pasture vegetation and green crops, which, in 1913, accounted for 37.8 per cent of the total area under cultivation and have increased from year to year; in 1930, they represented 42.8 per cent of the total area under cultivation, or an absolute increase of 211,806 hectares. At the same time, there has been a considerable extension and improvement of the pastures.

Nevertheless, the harvest drawn from the pastures and green crops was not very large during the years 1911 to 1925. The yield per hectare was small. Between 1926 and 1930

the increase in the area under cultivation was accompanied by improved yields per hectare and in the aggregate.

Although animal production is the essential feature of Swedish agriculture, the cultivation of cereals has a considerable place, particularly in the large plains in the south of the country, together with malt, oats for oatmeal, edible peas, and, in the most southern districts, the sugar beet. The change which has taken place in recent years in the cultivation of wheat and rye is of great interest. Some ten years ago, rye was a much more important crop than wheat; but the cultivation of wheat has largely increased and is to-day almost equal to that of rye. Rye averaged 9.6 per cent of the total area under cultivation in the years 1916 to 1920; but, in the years 1926 to 1930, it accounted only for 7.4 per cent. The corresponding figures in the case of wheat are 3.7 and 6 per cent.

The reason for this change is to be found mainly in the alteration which has taken place in the conditions of living, particularly of the labourers, but also in the continuous improvement in the varieties of wheat, which have made its cultivation possible in regions from which it had hitherto been excluded. The farmers have also been abandoning the cultivation of winter wheat for spring wheat; this is one of the most remarkable developments of recent years, and it may have important consequences in the future in respect of the Swedish demand for American hard wheat for mixing with the softer Swedish winter wheat.

The large increase in the area under wheat has led to an increase in the total harvest. The yield per hectare has also increased largely in recent years. The production of winter wheat doubled during the last five years as compared with the years 1906 to 1910, and the production of spring wheat increased six times over. In spite of an improved yield per hectare rye has been unable to retain its former position, and the total production has considerably decreased.

Another point is of great importance in connection with the rôle of Sweden in the international market as an exporter and importer of agricultural products. While very large quantities of wheat, rye, and oats for meal are imported every year, the trade figures show that the export of animal products, especially butter, pork and eggs, is relatively considerable. The fluctuations of the export figures from year to year are large. The reason is that the commodities exported are not produced directly for export, as in Denmark and other essentially agricultural countries, but for home consumption—a normal feature in countries which are at once agricultural and industrial. It is only the surplus over and above home consumption which is exported—mainly to England and Germany.

As regards imports (mainly wheat and oats), it might be supposed that Sweden with her production would be a long way from being in a position to meet her own requirements. This is not, however, the case. It would seem that a large proportion of the oats imported is unnecessary. The home-grown oats might easily compete with the foreign oats, whether as fodder or for the manufacture of oatmeal. Although the cultivation of oats has fallen in recent years, the production should still be sufficient for the national requirements. The extent of the imports of foreign oats is due to the extremely low prices at which certain countries are prepared to sell this cereal. As regards wheat, the import is a question of quality. The greatest amount comes from America, from which Sweden draws the hard wheat which, when mixed with Swedish winter wheat, gives a flour that is better suited for making bread than the flour derived from Swedish wheat alone, the nutritive value of which is not affected. The import of American wheat might be considerably reduced by adopting and improving modern methods of harvesting and by cultivating spring wheat.

The agricultural conditions of the country have been indicated above, together with the exploitation of them by the agriculturists and the results obtained. The quantitative results have improved from year to year: but the same cannot be said of the economic

results. As in a number of other countries, agriculture in Sweden is suffering from the universal disturbance, and last year still further aggravated the situation. It is not possible to give exact figures to show the different phases of the depression. For that, it would be necessary to examine the books of all the agricultural undertakings in the country, or, at any rate, the books of a large number of important undertakings working under different conditions and in different parts of the country.

For the last ten years (and in southern Sweden since before the war) the State has subsidised accounting offices. The activities of these offices do not, up to the present, cover more than a few hundreds of agricultural undertakings, in the case of which the results obtained are worked out by the Royal Agricultural Administration. The system is far from complete—there are some properties which do not submit their accounts every year—and the conclusions to be drawn from it cannot be entirely exact.

The accounts for a single year are obviously insufficient to make it possible to define the economic situation of agriculture or to throw light on the possibilities of dealing with deflation. For that, it would be necessary to have the results over a number of years.

Nevertheless, from the accounts of the agricultural undertakings in southern Sweden for the year 1912-13, it is possible to make fairly interesting estimates as to their probable earnings in following years on the basis of their gross income and operating costs in the above year. This will be found in Table I.

On the assumption that the operation of the individual properties was equally active in each of the years after 1912-13, and taking into account the fluctuations in agricultural prices and the variations in the return, the probable income and expenditure of the following years are estimated on the same basis. (The calculation relates to vegetable production only; there are no figures for animal production in the different years.) The difference between the gross income and the cost of operation gives the presumable net income. The net index number of the latter is based on the net income for 1912-13, and is adjusted to the fluctuations of prices as shown in the general index numbers of agricultural income and expenditure drawn up by the Royal Agricultural Administration (see Tables II, 1 and 3, III and IV), and to the variations in the net income earned (see Table II, 2—Harvest Units).

Making all reservations as to the results thus obtained, which are obviously only rough approximations, it is possible to follow the development of agriculture during the period under consideration.

It appears from Table I that, after the years 1915-1921, which were favourable for the properties under consideration, there was a series of unfavourable years from 1921 to 1925 with tolerably low earnings of net income. The years 1917-1919 were exceptional owing to peculiar circumstances. The year 1925-26 was relatively satisfactory and the harvest abundant; but the situation again worsened. In spite of the unfavourable prices, the result of the year 1929-30 was better than might have been expected. Its net index number justifies the conclusion that the earnings of the undertakings under consideration almost reached the pre-war figure. This favourable result is explained by the exceptionally good harvest of 1929, the best for the last ten years. The net returns in 1929-30 on the capital invested in agricultural undertakings represent a certain interest on the capital, though by no means a satisfactory figure. The result of 1930-31 will be less satisfactory owing to the poor harvest of 1930 and the accentuation in the fall of prices.

It has already been said that the properties under consideration do not represent the whole of Swedish agriculture. These results cannot therefore be regarded as generally applicable. The undertakings in question are situated in those parts of the country which are most favourable for agriculture, and it may be assumed that the returns of other undertakings throughout the country have not, generally speaking, been any better, but rather the reverse.

If agriculture were not indebted, the position would not be as serious as it is. No official calculation has been made of the indebtedness of Swedish agriculture; but farmers have been compelled to run into debt in order to find the money necessary for the purchase of their land, for material, for equipment and for the products necessary for operation, together with improvements, etc. As they have been unable to obtain credit except at high rate of interest, they now find their situation very difficult.

It may be concluded from what has been said that one of the main reasons for the unfavourable prospects of Swedish agriculture is the disproportion between the prices of agricultural products and the products necessary for operation of the undertakings. Study of Tables II-IV confirms this conclusion. The tables give the index numbers of prices compiled by the Royal Agricultural Administration for certain staple products, together with the general index numbers of the same products in relation to the income and expenditure in connection with these products in the budgets of the agriculturists. It will be seen that the prices of agricultural products, and the prices of the products necessary for the operation of the undertakings, have fallen continuously since 1924-25, the fall being much greater in the case of the former. In 1929-30, they were 32 per cent higher than the 1913 prices, whereas the prices of articles of agricultural consumption were 56 per cent higher than the 1913 prices. During the second half of 1930, the disproportion was still further accentuated.

The index number of wages attracts attention owing to its height. The charge for wages which amounts to some 40 per cent of the aggregate operating costs has an important influence on the return on the capital invested in agriculture. And yet agricultural wages are anything but excessive, whether absolutely or in relation to industrial wages. In relation, however, to the prices of agricultural products they are too high. The prices of material for upkeep of buildings and transport charges have also largely increased.

In relation to these charges, the prices of products are fairly low in comparison with the pre-war prices. The largest drop has been in the case of vegetable products. During the last two years, the prices of cereals other than wheat and rye, the prices of which are to-day fixed at a minimum figure, are down to the average 1913 figures, or are in the case of oats, even lower.

Similarly, the fall in the prices of animal products is considerable. It is sufficient to mention the heavy fall in 1930 in the prices of butter and pork (swine for slaughter).

The reasons for these falls of prices and for the agricultural depression which has resulted are clearly not easy to define. Agriculture is not the only sufferer from unfavourable conditions: the majority of industries are contending with great difficulties also. As always in such cases, a great number of circumstances, national and international, have contributed to the depression. But the marked fall in agricultural prices must be due to something else. Some experts consider it is due to over-production. The areas under cultivation, and in particular the areas under wheat, have grown considerably since the war, when it was difficult to import grain to cover national requirements. Animal production, which also showed an increase, has not decreased since then but rather the reverse. This is the case especially in the overseas countries, where increase in production is due to operation with better technical equipment than was available before the war. The consequences for Europe are considerable, owing to the greater rapidity and decreased cost of transport. In 1930, Russia appeared on the market dumping large quantities, especially of wheat. As there has been no concomitant increase of consumption, even on the smallest scale, the result of the increase of production has been a surplus of agricultural products, making heavy falls of prices inevitable.

What has been called over-production is over-production from the standpoint of marketing the products on the existing markets. But from the international standpoint it is rather a case of under-consumption. There is reason to believe that, in the future,

there is a possibility of finding new markets in the majority of Asiatic countries for certain agricultural products, thus diminishing the present surplus in the American and European markets. The movement for the opening up of these markets has already made itself felt; but the new markets will probably not be able to absorb anything but wheat; the prospects of Sweden, whose surplus, as has been stated, consists of animal products, will hardly be improved.

As however there is a certain correlation between the prices of the various agricultural products, there is some hope of an improvement even in the prices of animal products. An increase in the price of wheat would lead to an increase in the area under cereal cultivation in the wheat-growing countries and to a corresponding decline in the production of live-stock. Moreover, improvements in the conditions of the home and foreign markets of other branches of industry and their corollary in the shape of increased purchasing power must clearly have a great effect on the marketing and prices of agricultural products. In this connection, improvement in the organisation of the marketing of national products and measures for combating over-production in particular parts of the world are also of great importance.

Theoretically, there is another means of doing away with the surplus of agricultural products which at present gluts the market—namely, the restriction of producing capacity by limiting the area cultivated and the number of head of live-stock. Such action would assuredly attain the end in view more rapidly than any extension of markets. It would be a case of better adjustment of production to consumption, and prices would be bound to rise in consequence. It would seem, however, that any practical application of such measures would encounter grave, if not insuperable, difficulties. Efforts have been made along these lines in America with negative results. In any case, the initiative in this connection is clearly not with Sweden or with countries similarly situated but with the big agricultural countries.

Measures of all kinds have been taken in the majority of countries to remedy the agricultural crisis and protect the national production.

Sweden also has made efforts in recent years in this connection. What Sweden requires is the protection of the national production of wheat and the encouragement of the export of the national surplus composed mainly of animal products. For the protection of grain there have long been Customs duties on wheat and rye: they now amount to 3.70 crowns per 100 kilogrammes. They have been found insufficient under present circumstances, but have not been increased. However, a Decree of June 13th, 1930, has made it compulsory to add a minimum percentage of home-grown products in the milling of imported products. This percentage is fixed for definite periods; it is at present 60 to 85 per cent for wheat and 85 to 95 per cent for rye. Imported wheat flour and rye flour have to be mixed with Swedish flour in the same percentages. Minimum prices have also been adopted in agreement with the majority of the mills. These prices vary from one season to the other, increasing progressively from the autumn to the spring. It is thus endeavoured to distribute the supply of grain more equally throughout the year and to avoid the falls in prices which are often very heavy in the autumn.

A Decree of April 13th, 1928, provided that the exporters of wheat and rye were to be given certificates allowing them to import free of duty quantities equivalent to the amount of their exports: but the Decree of June 13th, 1930, referred to above, suspends the operation of these certificates.

No other special action has been taken to encourage exports, whether in the form of bounties or in any other form. But special attention has been given to supervisory action to improve the quality of products. Official certificates of fine quality have been established in the case of butter, pork and eggs which comply with certain stipulated standards.

There are relatively low Customs duties in addition on certain animal products such as butter, cheese, etc. The obligation to mark imported meat, butter and eggs may also be regarded as a measure to protect national production.

Lastly, amongst measures taken to encourage production should be mentioned the support given by the State in the form of direct subsidies to growers of sugar beet.

Table I.

GROSS INCOME, OPERATING COST AND NET INCOME OF LAND UNDER CULTIVATION IN SOUTH SWEDEN.

Year	Gross income	Operating cost	Net income	Gross income as calculated on the basis of the 1912-13 harvest	Net income as calculated	Net index No. as calculated (100 = 1912-13)
	(In crowns per hectare)					
1912-13 . . .	479	384	95	479	95	100
1914-15 . . .	580	426	154	516	90	95
1915-16 . . .	714	511	203	693	182	192
1916-17 . . .	790	641	159	830	189	199
—	—	—	—	—	—	—
1919-20 . . .	1,533	1,194	339	1,472	278	293
1920-21 . . .	1,293	1,148	145	1,306	158	166
1921-22 . . .	857	822	35	840	18	19
1922-23 . . .	733	687	46	733	46	48
1923-24 . . .	714	653	61	700	47	49
1924-25 . . .	771	660	111	702	42	44
1925-26 . . .	733	641	92	799	158	166
1926-27 . . .	675	622	53	716	94	99
1927-28 . . .	685	641	44	712	71	75
1928-29 . . .	675	630	45	702	72	76
1929-30 . . .	632	599	33	695	96	101

Table II.

INDEX NUMBERS OF PRICES OF CERTAIN AGRICULTURAL PRODUCTS.

The index numbers given below are based on the average prices of the year 1913 (which is taken as 100). The prices corresponding to the index numbers are the average prices for each of the years June-May from 1914 to 1930.

1. VEGETABLE PRODUCTS.

Average prices for 1913 of the following products (in crowns per 100 kilogrammes): wheat 14.37, rye 12.85, barley 11.32, oats 10.82, peas 17.03, sugar beet 2.34.

Year	Winter wheat	Winter rye	Malt	Oats	Edible peas	Sugar beet
January-May						
1914	95	106	95	105	89	101
Years June-May						
1914-15 . . .	164	180	196	187	231	100
1915-16 . . .	168	178	189	166	216	101
1916-17 . . .	161	169	188	176	262	116
1917-18 . . .	201	222	216	200	268	179
1918-19 . . .	271	304	298	277	323	287
1919-20 . . .	275	300	265	292	217	346
1920-21 . . .	287	262	267	244	178	325
1921-22 . . .	172	177	164	155	140	231
1922-23 . . .	142	132	121	133	148	157
1923-24 . . .	129	120	141	142	140	146
1924-25 . . .	179	200	177	146	152	120
1925-26 . . .	157	137	142	139	140	— [1]
1926-27 . . .	153	164	142	129	190	123 [2]
1927-28 . . .	156	175	185	152	238	116
1928-29 . . .	136	154	148	142	192	97
1929-30 . . .	127	114	111	101	94	85
June-December						
1930	131	123	100	87	92	85 [3]

[1] Very little cultivation in spring of 1926.
[2] First half of 1927.
[3] Provisional figure.

2. Total Earnings.

(100 = 1906-1910.)

Year	Winter wheat	Winter rye	Barley	Oats	Peas	Sugar beet	Harvest units (100 = 1912-13 100 = 7,937,369)
Years June-May							
1914-15 . .	129	108	81	66	58	101	89
1915-16 . .	139	95	92	103	88	87	97
1916-17 . .	129	85	92	102	96	98	105
1917-18 . .	89	53	76	73	66	87	75
1918-19 . .	118	76	77	67	150	85	75
1919-20 . .	120	89	85	89	166	98	96
1920-21 . .	138	89	75	84	168	109	101
1921-22 . .	167	106	80	90	157	155	98
1922-23 . .	124	88	81	93	146	48	100
1923-24 . .	149	93	77	87	175	109	98
1924-25 . .	82	41	89	85	176	96	91
1925-26 . .	181	106	97	97	169	142	109
1926-27 . .	157	91	100	104	160	15	106
1927-28 . .	203	61	62	87	72	104	104
1928-29 . .	257	69	65	99	97	115	104
1929-30 . .	249	65	77	105	115	82	110
Autumn 1930	278	73	74	94	136	127	—

Table II *(continued)*.

3. ANIMAL PRODUCTS, HAY AND STRAW.

Average prices for 1913 of the following products in crowns per 100 kilogrammes (live weight in the case of animals): hay 5.38, straw 2.66, cattle for slaughter 54.40, calves 76.30, sheep for slaughter 58.70, swine for slaughter 82.60, horses for slaughter 130.37, eggs (per score) 1.59, butter 2.12.

Year	Hay	Straw	Cattle for slaughter	Calves	Sheep for slaughter	Swine for slaughter	Horses for slaughter	Butter	Eggs
January-May									
1914	103	101	98	99	102	89	94	95	95
Years June-May									
1914-15. . . .	134	118	114	102	103	114	103	121	120
1915-16. . . .	170	136	175	129	145	187	183	138	131
1916-17. . . .	175[1]	138[1]	200	145	177	201	203	148	176
1917-18. . . .	—	—	356	252	323	212	345	211	302
1918-19. . . .	594	—	539	442	559	407	579	295	493
1919-20. . . .	318	210	326	402	339	373	314	279	378
1920-21. . . .	219	217	238	307	254	262	169	231	331
1921-22. . . .	197	165	148	196	151	182	103	159	239
1922-23. . . .	172	127	136	168	146	154	113	145	180
1923-24. . . .	168	125	145	159	133	112	135	143	173
1924-25. . . .	167	170	140	155	147	145	137	160	165
1925-26. . . .	142	134	140	151	160	156	158	150	171
1926-27. . . .	133	125	120	135	149	122	136	133	145
1927-28. . . .	119	119	115	137	140	113	110	140	150
1928-29. . . .	130	113	114	135	140	135	113	142	156
1929-30. . . .	113	113	112	132	150	138	123	125	141
June-December									
1930	106	113	112	115	127	100	126	107	146

[1] Second half of 1916.

Table III.

INDEX NUMBERS OF PRICES OF CERTAIN ARTICLES OF AGRICULTURAL CONSUMPTION AND WAGES.

The index numbers given below are based on the average prices for the year 1913 (which is taken as 100). The prices corresponding to the index numbers are the average prices for each of the years June-May from 1914 to 1930.

Averages prices in 1913 of the following articles:

	Crowns
Oilcake	14.04 per 100 kilogrammes.
Maize.	10.50 ,, ,, ,,
Wheat bran . . .	8.98 ,, ,, ,,
Hyperphosphates	7.00 ,, ,, ,,
Potash salts . . .	32.00 ,, ,, ,,
Nitrate of soda. .	21.60 ,, ,, ,,
Lime	69.00 per hectolitre.

Year	Oilcake	Maize	Wheat bran	Hyper-phosphates	Potash salts	Nitrate of soda	Lime
January-May 1914 . . .	95	98	108	98	100	87	100
Years June-May							
1914-15 . .	124	140	157	106	102	99	100
1915-16 . .	151	184	190	177	118	137	115
1916-17 . .	189 [1]	204	189	235	131	160	154
1917-18 . .	— [2]	— [2]	— [2]	328	144	278 [4]	263
1918-19 . .	— [2]	338 [3]	— [2]	546	213	290	345
1919-20 . .	354	308	290	479	268	225	387
1920-21 . .	211	242	226	393	232	191	363
1921-22 . .	164	160	162	218	173	151	307
1922-23 . .	144	143	132	172	141	114	251
1923-24 . .	136	145	128	146	130	106 [5]	210
1924-25 . .	151	156	156	129	116	110	213
1925-26 . .	134	147	147	129	115	111	226
1926-27 . .	126	125	134	128	117	117	222
1927-28 . .	145	150	159	126	117	111	203
1928-29 . .	149	159	157	120	113	95	209
1929-30 . .	118	128	115	115	107	86	198
June-December 1930 [6] . .	95	105	99	118	105	84	186

[1] Second half of 1916.
[2] No prices quoted.
[3] First half of 1919.
[4] First half of 1918.
[5] First half of 1924.
[6] Provisional figures.

Average prices in 1913 of seeds of:

	Crowns per kilogramme
Timothy	1.10
Turnip .	1.10

Average wages in 1913 of:

	Crowns
Day-labourers (male)	2.97 per day.
Day-labourers (female)	1.77 » »
Farm-labourers, paid mainly in kind.	329.00 » year.

Year	Seeds		Machinery	Wages		
	Timothy	Turnip		Day labourers (male)	Day labourers (female)	Farm labourers
January-May 1914	77	73	100	102	102	100
Years June-May						
1914-15 . . .	102	82	103	104	104	102
1915-16 . . .	127	159	111	116	116	105
1916-17 . . .	132	218	152	148	142	119
1917-18 . . .	273	209 [1]	252	201	197	139
1918-19 . . .	409	727 [2]	337	265	249	196
1919-20 . . .	364	482	348	303	295	251
1920-21 . . .	330	277	347	272	284	318
1921-22 . . .	296	284	292	199	222	245
1922-23 . . .	243	273	213	165	189	198
1923-24 . . .	232	261	202	161	184	187
1924-25 . . .	205	277	194	161	184	190
1925-26 . . .	169	259	180	160	183	191
1926-27 . . .	150	218	180	159	183	190
1927-28 . . .	177	246	177	159	183	190
1928-29 . . .	207	264	175	159	184	191
1929-30 . . .	185	300	175	159	185	192
June-December 1930 [3] . . .	164	309	175	159	185	192

[1] Second half of 1917.
[2] First half of 1919.
[3] Provisional figures.

Table IV.

GENERAL INDEX NUMBERS OF PRICES OF AGRICULTURAL PRODUCTS AND ARTICLES OF AGRICULTURAL CONSUMPTION.

(100 = average prices of 1913.)

	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23
INCOME:									
Cereals	176	173	169	210	287	285	269	170	135
Other vegetable products	117	110	139	185	313	291	285	213	157
Dairy products	111	134	152	211	304	315	263	186	159
Other animal products .	113	173	194	260	469	357	258	172	149
Cartage	—	—	—	—	401	317	329	143	154
Total	121	149	165	223	354	320	270	179	153

Table IV *(continued).*

	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23
EXPENDITURE:									
Wages	103	110	130	164	221	273	309	235	191
Seeds	102	129	138	272	420	360	298	258	217
High-quality fodder	141	174	201	—[1]	358[2]	319	233	169	140
Chemical fertilisers	102	142	175	244	352	321	287	194	160
Heat and light	116	154	230	404	415	394	383	210	191
Upkeep of buildings, etc.	110	130	193	277	333	352	338	208	201
Machinery	106	149	254	382	366	379	346	191	185
Transport charges	100	100	115	159	300	416	432	332	262
Miscellaneous for stables, sheds, etc.	115	143	192	258	314	310	294	205	172
Other expenditure	—	—	128	165	214	219	240	214	193
Total	111	133	167	223	288	311	299	214	179

[1] No prices quoted.
[2] First half of 1919.

	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30	June-Dec. 1930[1]
INCOME:								
Cereals	129	183	148	153	165	145	117	119
Other vegetable products	165	155	145	143	150	128	109	103
Dairy products	160	166	156	144	147	148	136	123
Other animal products	132	145	152	125	119	129	134	110
Cartage	163	152	156	151	151	149	154	154
Total	149	161	153	141	143	141	132	121
EXPENDITURE:								
Wages	182	183	183	182	182	182	183	183
Seeds	204	190	175	161	176	186	178	168
High-quality fodder	134	155	143	130	170	159	120	98
Chemical fertilisers	143	133	132	131	127	119	112	110
Heat and light	182	171	163	164	155	149	147	140
Upkeep of buildings, etc.	199	194	193	194	190	181	179	181
Machinery	182	169	153	147	143	142	139	139
Transport charges	238	235	235	235	229	222	222	220
Miscellaneous for stables, sheds, etc.	170	176	162	154	153	151	144	138
Other expenditure	187	183	181	180	180	179	178	177
Total	170	172	167	162	167	164	156	151

[1] Provisional figures.

SWITZERLAND.

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I.

At the meeting of the Economic Conference held in 1927 at Geneva, the close relationship existing between the agricultural situation and the economic position of the world was emphasised. Even then, the position of agriculture was certainly much worse than before the war. As the result of an investigation which it made in a very large number of countries, the Secretariat of the International Agricultural Commission estimated that, to meet their costs of operation, farmers had to sell on an average a quantity of products 10 per cent greater than before the war. This percentage was still higher for articles necessary for their own domestic consumption, for, in order to buy them, they had to sell a quantity of products 25 per cent greater than before the war.

Since then, the prices of agricultural products have fallen still lower. The Secretariat of the Swiss Peasants Union has ascertained, by means of a very simple calculation, that world agriculture would have had a revenue of 30 milliards of gold francs more from production in 1930 if it had received for its products the prices paid in 1927. This fresh fall in prices necessarily led to a constant and enormously rapid increase of the agricultural distress and depression. When the farmer's income decreases he usually cuts down his expenditure in all directions. He ceases to build, buys fewer implements and machines, postpones repairs to better times and reduces his consumption. Above all, he avoids as far as possible buying articles of consumption supplied by industry and trade. Since at present perhaps 60 to 70 per cent of the population interested in world trade are farmers, the decreased purchasing power of farmers must necessarily react adversely on other economic activities.

I believe that the economic agricultural crisis is the primary and most important cause of the world economic crisis. The crisis first began in the exporting agricultural countries. It spread to the industries of the manufacturing exporting States and gradually the feeling of crisis gained ground and intensified the evil. No stocks were created, means of production were not renewed, orders were cut down everywhere and the crisis took on vast proportions.

The consequences of the war had naturally an influence on this condition of affairs, but it is surprising that the farther away we are from the war the more acute becomes the crisis. Moreover, political events in China, India and in South America have aggravated the situation. These events, however, are not the cause but the consequence of economic difficulties. It is possible that the scarcity of gold has also had its effect, but

this factor can certainly not have been the decisive one. This increasing scarcity of gold has been compensated by the use of the gold exchange-standard as a monetary basis, by increasing the rapidity of circulation of money, by developing payments by other means than cash and by eliminating gold coin from currency dealings.

In industry, too rapid rationalisation has, without doubt, increased unemployment. As labour became dearer and hours of work became shorter, the employer tried to economise on labour. At the same time, owing to the rationalisation of undertakings and the development of mechanisation, production has rapidly increased; in numerous branches it has exceeded the demand.

Further, during recent years there have been no great discoveries as the result of which new outlets might be expected. It is true to say that, in recent times, nothing has been recorded that may be compared with the impulse given to economic life by electrification, the great discoveries in technical chemistry and other achievements.

Movements of capital due to the war have also proved an aggravating circumstance. While there is a plethora of capital in the United States of America, European countries are compelled to pay interest, amortisation charges and the like. The direct or indirect result of this is a dearth of capital in a considerable number of European States.

Whatever may be the effects of these various factors they are far less important than those due to the decreased purchasing power of the peasant population.

II.

At the present time an economic crisis in any industry takes the form in the ultimate analysis of inadequate or unremunerative sales, and of a disproportion between the prices of products and their cost to the producer. The economic crisis from which agriculture is suffering to-day produces these results. On the one hand, sales are insufficient, and wheat stocks, for example, are increasing from year to year and, on the other hand, the prices obtained for agricultural products are much lower than the cost of production.

Why does agricultural production cost more than before the war ? Wages, salaries and the profits of middlemen increased very greatly during the war. After the war, workmen in industry and in trades, owing to their organisations, were able not only to retain a large part of their increased wages, but also to reduce hours of work. Commercial middlemen, whose number has increased more rapidly than the volume of trade, obtain a larger share for their costs and profits out of a turnover which is lower than before the war. In many countries, also, the rate of interest is higher. Taxes have increased everywhere, and this situation is aggravated in a number of States by international obligations. These various factors have prevented agricultural production costs from following the decline in the prices of commodities. Thus, in spite of technical progress and rationalisation of agricultural undertakings, the cost of agricultural production is higher than before the war.

Unfortunately, an appreciable decrease in costs in the next few years can hardly be anticipated. The wages of agricultural workers are not decreasing. We should think ourselves fortunate if, by rationalisation, we can neutralise any future increase in the costs of production.

Why have the prices of agricultural products fallen so markedly below the costs of production ? The cause of this lies in changes affecting both supply and demand which have been observed for some time past.

The opinion is often expressed that the purchasing power of the consumer has been reduced as far as agricultural products are concerned. If, here and there, this may be the case, it must be noted that, generally speaking, the conditions of life of the urban populations are rather better than they were before the war. In any case, the necessary money is not lacking for the consumption of the same quantity of bread, meat and milk as before the war. *It is not that the power to purchase articles of food has decreased but that requirements have changed.* Many people learnt during the war that they could get on perfectly well by eating and drinking less, and that they were often better for the change. Consumers economise on food and drink in order to be able to spend more on their comfort, their clothes satisfying their intellectual and social needs, and on sport and pleasure. Sport and fashion, too, have encouraged savings in the food budget. Among the well-to-do classes new theories of hygienists have contributed in many cases to a restriction in the consumption of meat (vegetarian diet). Another factor which has played an important part in the decrease in demand is that the increase in the population has slowed down. Owing to the decrease in the number of births consequent upon the war, there are at present far fewer young people than would normally be the case—a point of special importance in this connection as young people are large consumers of foodstuffs.

Since the world economic crisis has become specially acute, *unemployment* has also increased and the purchasing power of the classes affected has been reduced. This decrease, however, is less the cause of the crisis than its result. It is of no importance as far as the problem of cereals is concerned because, as is shown by experience, a nation consumes less cereals the better off it is. Thus, the consumption of cereals has decreased by 15 per cent in the United States of America since the war, and the same result may be noted in other advanced countries. In many cases, also, meat and milk are being replaced by chocolate, confectionery and pastry. Owing to the introduction of prohibition in certain countries the consumption of spirits has decreased so that less cereals and potatoes are used for their manufacture.

It is due to the combined operation of all these circumstances that, in spite of prices relatively advantageous to the buyer, consumption has not followed the same upward movement as production.

A great increase in production has been recorded since the war. Canada, the Argentine and Australia sowed, in 1930, 14 million hectares of wheat more than in 1909, an increase of 110 per cent. The introduction of dry farming, which enables the rainfall of two years to be used for one harvest, has made it possible to extend cultivation to new areas. The increase in the wheat yield resulting from the employment of new selections of grain is estimated at 25 per cent. Further production has benefited by a series of good years. Tractors have done away with a great number of draught animals, and wheat is sown to-day in areas formerly under oats or grass. The use of the reaper-and-thresher has particularly favoured this development. Mechanisation applied to extensive cultivation of cereals has brought about a decrease in the costs of production in certain districts. This result, however, has only been achieved over a certain limited area. It constitutes none the less a stimulus for those concerned to extend the areas cultivated. Thus production has increased primarily in overseas countries.

In the wheat-growing countries of Eastern Europe agrarian reform had, at the beginning, the effect of decreasing exportation. The transition period is now over and these countries have large amounts available for exportation. Russia, indeed, appears to be recovering, and on large estates where extensive cultivation is being carried out with the help of machinery a fair measure of success is apparently being achieved. However this may be, Russia has again become an exporting country and, in good harvest years, her exportable quotas will increase very greatly.

In old and industrial countries intensive cultivation has led to an increase in the quantity of raw products. This is the result primarily of new selections of grain, of nitrogen fertilisers, of improved implements and machines, and of the progress made in the campaign against diseases of plants. The favourable results of the development of research and experiments may be observed everywhere, and also of the activity of the agricultural societies. In Italy, the " corn campaign " has resulted in a striking increase in the production of cereals.

In the States of Eastern Europe, where the distress of the farmers is particularly great, it should be noticed that the sale of cereals is forced upon them to a certain extent. They restrict as much as possible their own consumption in order to be able to sell more. Thus, the low price of cereals helps to reduce the consumption of the best consumer of agricultural products—that is, the peasant family itself.

The present situation is due to insufficient consumption on the one hand and to an undue extension of production on the other. This state of affairs, which appeared first of all in connection with cereals, has reached the animal products market. As it is not possible to increase the number of animals as quickly as the amount of crops, the increase in production has been slower. But, in this sphere too, and, in particular, as far as dairy produce is concerned, there is already overproduction. The same is true of the production of sugar, cotton, silk, rice, etc. Therefore we must say that a world agricultural crisis exists at present. We shall now examine the conditions affecting Swiss agriculture in particular.

III.

The end of the nineteenth century and the beginning of the twentieth was a bad period for Swiss agriculture. The *net yield—i.e.*, the interest on the capital actually sunk in agriculture—amounted to about 2 per cent. Thanks, however, to improved organisation among the farmers, technical progress and a larger measure of Government support, the position of agriculture gradually improved, so that before the war the net yield was in the neighbourhood of 4 per cent. During the war, it went to 8.5 per cent, but has since fallen again. The following are the figures since 1920:

	Per cent		Per cent
1920	5.85	1925	2.33
1921	0.89	1926	1.70
1922	—1.15	1927	1.99
1923	4.06	1928	2.63
1924	2.68	1929	3.62

Swiss agriculture was certainly in a very bad way when the authorities intervened: there followed a slow but appreciable improvement. Since 1926, profits have steadily risen, and in 1929, they again rose to 3.62 per cent, that is the average of the period 1906-1913. The year 1930 will, it is true, show a further decrease.

These figures would give an inaccurate idea of the position of agriculture, if we did not at the same time take account of the fact that out of this net yield the peasant has to pay his debts. The following figures show what interest on his net capital remains to him after he has paid his debts:

	Per cent
1901-1905	2.46
1906-1913	3.61
1914-1919	11.85
1920-1922	— 0.41 (loss)
1923-1928	0.61
1929	1.53

It may be said that during the last ten years *the net capital of the Swiss farmer has scarcely borne any interest.* It is only in 1929 that the revenue of the net capital has returned to a level similar to that of the period 1901-1905; but it has not yet reached the figures of 1906-1913.

The movements of the *gross yield* and *working expenses* were as follows for the period under review:

	Gross yield per hectare Francs	Working expenses per hectare Francs	Net yield per hectare Francs
1901-1905 . . .	590	449	141
1906-1913 . . .	723	534	189
1914-1919 . . .	1,291	781	510
1919	1,695	1,172	523
1920-1922 . . .	1,381	1,278	103
1923-1928 . . .	1,271	1,096	175
1929 . . .	1,303	1,048	205

The agricultural depression is clearly due less to a decline in the gross yield than to the fact that working expenses are only slightly less than at the end of the war. The index number of the prices of all agricultural produce (weighted average) was 147 in 1929 and 141 in 1930 (1914 = 100), whereas the working expenses increased from 534 francs per hectare during the period 1906-1913 to 1,906 francs in 1923-1928 and to 1,048 francs in 1929—approximately double. This disparity is the explanation of the agricultural depression in Switzerland.

If the Government and the agricultural organisations had not taken steps to prevent a fall in prices, Swiss agriculture would have been absolutely ruined, as the hope of an appreciable reduction in costs of production has not been realised.

Swiss industry rapidly overcame the post-war depression. The index number of industrial shares, which was 121 in 1924, was 234 in 1928. *The wages of industrial workers* more than doubled and do not seem likely to fall; indeed, to judge from the index number (1913 = 100), there is still a slight upward tendency. The index number for skilled, semi-skilled and unskilled workers was 206 in 1928; as the *cost of living* index number was only 158 in 1930, the position of industrial workers has thus considerably improved as compared with the pre-war period, in spite of the reduction in working hours. An increase in the prices of agricultural produce could perfectly well be borne by the Swiss consumers.

The "*margin of net yield*" shows by what percentages the prices of agricultural produce would have to be multiplied in order to yield a profit to the farmers. The figures are as follows:

	Per cent
1906–1913.	— 2.65
1923-27.	— 8.67
1927	— 12.73
1928	— 8.37
1929	— 2.19

A general increase of 8.4 per cent in 1928 and of 22 per cent in 1929 in the prices of agricultural produce would have been sufficient to enable the Swiss peasant once more to work at a profit. It should be pointed out, however, that prices have changed since 1928. Thus, the farmers obtained:

	In 1928 Francs	In 1930 (end of December) Francs
Milk for cheese	25.10	21.30
Heifers per 100 kilos, alive	190.00	209.00
Young cows, per 100 kilos, alive	179.00	200.80
Old cows for butchers' meat, 100 kilos, alive	100.00	124.70
Fat bullocks, best quality, per 100 kilos, alive	168.00	183.50
Fat cows, best quality, per 100 kilos, alive	135.00	159.00
Fat calves, best quality, per kilo, alive	2.39	2.68
Fat pigs, sold in joints to the butcher, per kilo, alive	1.86	2.06
Spring honey, wholesale, per kilo	4.79	4.66
Wheat, per 100 kilos	42.18	40.68
Potatoes, f.o.r. to the dealer, per 100 kilos	13.75	12.56
Pure apple-juice, in large quantities, per hectolitre	27.90	36.00
Logs of resinous wood, less than 30 cm. in diameter	38.36	34.18

The price of live-stock has increased, but that of milk has fallen 16 per cent—more than an offset. On the other hand, there has been a fall in prices of raw materials imported from abroad (fertilisers and fodder).

Most agricultural products are appreciably dearer in Switzerland than abroad. Although, in spite of this fact, the prices obtainable are inadequate, it would be a great mistake to assume that Swiss agriculture is technically or economically behind the times or badly organised. Of course, there is room for improvement in many respects (as, for instance, in the matter of foddering), but peasant holdings have made at least as much progress in Switzerland as in other countries, and in many cases are more advanced. *The dearness of agricultural produce in Switzerland is the result of the high standard of living, good wages and the high profits made in non-agricultural occupations.*

In Switzerland, as elsewhere, a flourishing export industry, especially when it depends upon highly skilled labour, can only be profitable to agriculture at home if the latter secures compensation for any increased costs of production in the form of Customs protection. Otherwise, agriculture may well be supplanted by the exporting industries. *If Switzerland were to apply the principles of free trade to her agriculture, there is no doubt that her peasant population would disappear.* It is only with the help of protective measures that agriculture has been able to keep its head above water, and even somewhat to improve its position during the last few years. Apart from the encouragement of technical improvements, which we do not discuss here, the following are the principal *measures* which have been adopted:

1. *Cereals.* — Final gross yield (produce marketed and produce consumed in the farmer's household) about 60 million francs. The Government undertakes to take delivery of all bread cereals offered to it at a guaranteed price of 38-45 francs per 100 kilos of wheat.

2. *Potatoes.* — Final gross yiels approximately 50 million francs. Sliding scale of duties of 2-4 francs per 100 kilos of potatoes. Subsidies by the Alcohol Monopoly for the transport of edible potatoes. Purchase and storage of edible potatoes by the Monopoly in autumn.

3. *Sugar-beet.* — Final gross yield about 2 million francs. There is one sugar factory in Switzerland, where unrefined sugar, imported on payment of small duties, is refined.

4. *Tobacco.* — Final gross yield approximately 0.6 million francs. Although the duty on tobacco is very high, it has been necessary to take other special steps to facilitate sales and restrict output.

5. *Wine-growing.* — Final gross yield about 65 million francs. Customs duty of 24 francs per 100 kilos gross = about 30 francs per hectolitre. Means of preventing the unsold surplus of cheap Swiss wines being mixed with imported foreign table wines are being considered (imports 1.2-1.5 million hectolitres; output 0.5-0.7 million hectolitres).

6. *Fruit-growing.* — Final gross yield about 100 million francs. Customs protection (inadequate). The Swiss Alcohol Monopoly is obliged to pay a fixed price for alcohol, so that the producer obtains at least 5 francs per metric quintal on fruit for cider. Special steps to encourage the production and consumption of fruit.

7. *Market garden produce.* — Final gross yield about 30 million francs. Customs protection (inadequate).

8. *Cattle-breeding.* — Grosss yield approximately 6 million francs. Transport facilities. Government grants for cattle-breeding stations abroad. Prohibition to import pedigree stock.

9. *Cattle-fattening.* — Final gross yield about 300 million francs. Moderate Customs duty. Import prohibition for reasons of public health, but cancellation of this measure in the interests of the consumers, until the Swiss cattle market is in a position to cover home requirements. Institution of markets for butchers' meat live-stock.

10. *Horses.* — Final gross yield about 26 million francs. Customs duty and rationing for reasons of public health.

11. *Pigs.* — Final gross yield, about 200 million francs. High protective duty. Imports restricted for reasons of public health.

12. *Sheep.* — Final gross yield about 7 million francs. Temporary import restrictions for reasons of public health. Except, however, in the autumn months, when the flocks are driven down from the mountains, imports are usually allowed in spite of the danger of epizootics.

13. *Farm-yard produce.* — Final gross yield about 80 million francs. Customs duty. Regulations concerning the stamping of eggs are in preparation.

14. *Apiculture.* — Final gross yield about 11 million francs. High Customs duty on honey.

15. *Dairy produce.* — Final gross yield about 550 million francs. Sales organisation of milk producers. The producers' federations undertake to sell cheese at a fixed price to the cheesemongers when milk is purchased. A certain number of cheese dairies are now making butter in order to relieve the cheese market. This, however, makes necessary an increase in the duties on butter or the grants for butter-making.

The case of Switzerland goes to show that, in spite of measures to protect home production, a country may remain a good customer for other countries. In 1929, for instance, Switzerland imported 674 million francs' worth of foodstuffs in all—that is to say, 168 francs' worth per head of the population—to which must be added more than 80 million francs for fodder, straw, litter and seeds.

Measures designed to make each country commercially flourishing are far more important than free trade. Prosperous countries welcome foreign commodities, whereas, when agriculture and commerce are ruined by free trade, the importer suffers with the rest. *In any case, Swiss agriculture cannot give up the measures taken to protect it;* indeed, they will in various ways have to be strengthened.

In spite of these protective measures, the consuming capacity of the Swiss people is so great that foreign agriculture also finds good markets in Switzerland. Imports must be confined to what we are ourselves unable to produce in sufficient quantities, and it must be seen that our own production is not ruined by foreign competition.

UNITED STATES OF AMERICA.

Mr. LOYD V. STEERE,
Agricultural Commissioner.

Although immersed with the other nations in the general world agricultural depression prevailing since 1920, the United States has been contending with conditions whose basic origin, and with developments and tendencies whose character, have differed materially from those faced by most other large agricultural countries. The ten years since 1920 have been for American agriculture essentially years of deflation and readjustment from a condition of over-expansion and related mal-adjustment caused by war-time demands. American agriculture during this period, first of all, has been having to reduce productive capacity to the smaller post-war consumptive requirements, and, secondly, to readjust its operations to meet new conditions due partly to changes in prices and shifts in consumer demand, and partly to technical progress in farming. These changes have involved extensive shifts in kinds of farm products produced, actual abandonment of much marginal and sub-marginal land brought into or kept in cultivation under war-time conditions, a tremendous deflation of land values in all parts of the country, large volume of forced sales and bankruptcies among farmers, heavily increased farm indebtedness, a pronounced decline in the rural population of the country, and the acceptance for many years by farmers of prices and incomes favourably low in comparison with those in other lines of activity. Most of these phenomena are evidence of critical conditions in agriculture and of great hardship among our farmers, yet at the same time suggest basic re-adjustments in the industry which, in the course of time, are expected to bring fundamental improvement in the position of farmers.

As a matter of fact, the position of agriculture in the United States of America has improved gradually since 1920 until 1930, though, as an industry, agriculture is still at a relative disadvantage, economically, with other branches of the national economy. The relationship between prices received and prices paid by farmers has been improving since 1920, though very slowly and with considerable fluctuation from year to year until the drastic fall during 1930. Farm incomes and returns earned on the value of farm properties in recent seasons have, on the whole, averaged higher than a few years back and have become more stable. The rate of depreciation in farm-land values has been growing slower, there has been evidence of progress in adjustment of production to market requirements, and the movement of rural population to the cities also has been declining. Farm mortgage indebtedness is still rising, but the number of farm bankruptcies has been decreasing.

The sharp, general decline in agricultural prices during the winter of 1929-30 and throughout 1930 has effectively checked improvement, at least for the time being, and even promises to result in a serious setback to farming in many parts of the country. Indexes of prices paid by farmers show that costs of commodities bought for use in farm production and maintenance of the family have been very stable in the four years prior to 1930, while at the same time prices received by farmers have been rising. In 1930, however, the relationship between the prices farmers receive and pay has again become as unfavourable as in 1921, after having averaged higher in 1928 and 1929 than in any year since the development of the agricultural crisis, with the exception of 1925, when unusually good prices obtained for several important products. There are substantial grounds for belief that the extremely unfavourable level of farm prices prevailing at

the close of 1930 will not endure long, and that the favourable tendency of farm prices will be resumed as farming readjustment progresses, but the fact remains that prices received by farmers in the United States are exceedingly low in relation to the prices they must pay, and seem likely to continue out of proportion for some time to come. The development of prices received and paid by farmers since the war has been asfollows (August 1909-July 1914 = 100):

Year and month	Farm prices of products	Prices paid by farmers for commodities bought [1]	Ratio of prices received to prices paid
1919	209	205	102
1920	205	206	99
1921	116	156	75
1922	124	152	81
1923	135	153	88
1924	134	154	87
1925	147	159	92
1926	136	156	87
1927	131	154	85
1928	139	156	90
1929	138	155	89
December 1930	117 [2]	150 [2]	78 [2]
1923	137	(154)	89
1924	139	(157)	89
1925	143	(157)	91
1926	127	155	82
1927	137	153	90
1928	134	155	86
1929	135	155	87
1930	97 [2]	147 [2]	66 [2]

[1] Retail prices paid for commodities used in living and production.
[2] Preliminary.

The actual return earned on the current value of agricultural property in the United States since the war has been as follows:

Year ending June	On total current value	On operator's net capital	Income per farm available for:	
			Capital, labour and management	Labour and management [1]
	Per cent	Per cent	Dollars	Dollars
1920	6.3	5.7	1,246	918
1921	5	—4.2	684	397
1922	1.2	—2.3	514	271
1923	3.2	1.2	682	441
1924	3.5	1.6	766	534
1925	4.5	3.2	854	624
1926	5.2	4.4	922	691
1927	4.3	2.9	862	636
1928	4.7	3.6	896	668
1929	4.7	3.7	901	669

[1] After allowing 4½ per cent on operator's net capital investment.

It is evident that returns improved steadily from 1921 to 1926, dropped again in 1927, and subsequently rose rather slowly; 1930, however, will unquestionably bring a sharp drop again. The returns for the crop-year ending June 1929 were the most favourable of any since 1920, with the exception of 1925-26, when unusually good prices prevailed; nevertheless, it is apparent that farmers' rewards for their labour, managerial efforts and the use of their capital are still inadequate, particularly when it is considered that recent years have witnessed marked increases in efficiency in farm production. Industrial wages in the United States of America in 1929 averaged 236, in 1930 around 275 (1910-1914 = 100) and only once in the past ten years have they fallen below 200, when they averaged 197 in 1922.

The effects of these continued low incomes have been reflected in a general decline in land values and a corresponding shrinkage in the value of the capital invested in agriculture. The shrinkage in the value of farm capital, together with continued low income, has also resulted in a large increase in the number of farm bankruptcies, though this effect has obviously lagged behind the other two developments, as is apparent in the following data:

Year[1]	Index of United States farm real estate value per acre	Current value of all capital used in farm production	Bankruptcies among farmers
	1912-1914 = 100	000,000,000's of dollars	Number
1919	140	—	1,207
1920	170	79.3	997
1921	157	73.0	1,363
1922	139	63.7	3,236
1923	135	62.5	5,940
1924	130	57.7 [2]	7,772
1925	127	56.9 [2]	7,872
1926	124	54.9 [2]	7,769
1927	119	54.7 [2]	6,296
1928	117	54.9 [2]	5,679
1929	116	54.1 [2]	4,939
1930	115	—	4,467

United States of America Bureau of Agricultural Economics.

If allowance is made for the fall in value of the dollar, farm land prices are now actually about 20 per cent below 1914 values. While land values have continued to fall until the present time, the decline is apparently about at an end. The small increase in the value of capital used in agriculture in the past two years is chiefly due to higher values of live-stock, but probably also reflects some new investment in means of production at least in certain parts of the country, as the rise is due to increases in the capital investment of actual operator's of farms. This development appears indicative of improvement in the possibilities of agriculture.

[1] As of March 1st for farm real estate value; January 1st for current value of capital.
[2] Revised.

Farm business mortalities are still comparatively large in number, and the figures do not show the large number who lose their property without formal court procedure. It is believed that the worst period of liquidation has been passed, but it is likely that the unfavourable developments in 1930 will be reflected in an increase in farm failures. Sales of farm land are now few in number and much land is held by mortgages under conditions likely to make it a problem for some time to come. Many of the failures now occurring, however, doubtless represent the passing of submarginal establishments whose removal will be greatly to the benefit of farming generally.

War and post-war conditions have added considerably to the debt burden of American agriculture as a whole, particularly with respect to obligations incurred at inflated prices and of necessity carried over into the period of deflated prices. Total farm mortgage indebtedness has increased noticeably since 1920, as the following estimates show:

January 1st, 1920	7,857,700,000
January 1st, 1925	9,360,620,000
January 1st, 1928	9,468,526,000

An important share of this large increase is attributable to the shifting of short-term indebtedness to mortgage loans, yet it is evident that the liquidation of farm indebtedness through foreclosures, bankruptcies and voluntary surrender of property to creditors, as well as by payment of debts when due, has failed by a considerable margin to balance out against new obligations of the usual mortgage type. In addition to mortgage indebtedness must also be considered personal and collateral loans by farmers, which have been roughly estimated at $3,000,000,000, and merchant and other credit of an amount perhaps equally as large. There is little basis for assuming that such obligations have been reduced in recent years; in fact, trade expansion and the growth of instalment buying in the United States of America support the belief that indebtedness of this character may have risen up to 1930. The recent sharpening of the crisis together with an unprecedented drought in 1930 have undoubtedly tended to increase indebtedness also. The needs for mortgage credit in the United States of America are being met with reasonable satisfaction, but there is room for improvement in short-term credit facilities. Country banks are serving farmers well in many parts of the country, but in others more extensive and effective organisation of credit facilities is needed. Merchant credit is used to an undesirable extent. It is probable that considerable improvement of short-term credit facilities will result from the growing activities of the Federal Farm Board and the Federal Intermediate Credits Banks.

* * *

A striking decline in farm population in the United States of America since the war has been another phenomenon of the depression in agriculture. The actual movement from the farms to the cities has averaged about 2,000,000 annually for the past eight years, with only a million to 1,400,000 return flow, so that a strong city-ward tendency has existed. The effects of this movement are shown in the following tabulation:

FARM POPULATION IN THE UNITED STATES OF AMERICA.

Year	Number on farms [1] (as of January 1st)	Net movement from farms to cities [2]	Net loss in farm population [3]
1920	31,000,000		
1921	30,600,000		
1922	30,200,000	1,120,000	400,000 annually
1923	29,800,000	—	
1924	29,400,000	679,000	
1925	28,982,000	834,000	441,000
1926	28,541,000	1,020,000	649,000
1927	27,892,000	604,000	193,000
1928	27,699,000	598,000	208,000
1929	27,491,000	619,000	269,000
1930	27,222,000		

[1] Estimated, except for 1920 and 1925, which enumerated in United States census (see footnote [3]).
[2] Estimated, births and deaths not considered.
[3] Estimated, births and deaths considered. Annual loss 1920-1924 calculated as 1/5 of loss between 1920 and 1925 (31,000,000-29,000,000).

This migration from the farms will doubtless continue, but probably at a slower rate than in recent years, as its economic causes seem to be losing their momentum. The extraordinary displacement of farm labour by machinery since the war may go on, but there will probably be less pressure to leave the country because of unprofitable farms.

No picture of the present agricultural situation in the United States of America is complete without consideration of the tremendous developments in the substitution of power machinery for human and animal power in farming since the war. This change is nothing less than a technical revolution that is affecting agriculture to its very foundations. The value of machinery per farm worker in the United States (in terms of 1913 dollars) was $200 in 1925 compared with only $36 in 1870, and the change since 1925 has been more rapid than ever before. Use of mechanical power is extending rapidly from heavier operations, such as plowing, into harvesting and the cultivation of row crops. All parts of the country are being affected, but the western, grain-growing regions to the greatest extent. In 1926, the State of Kansas had 8,275 combine harvesters; in 1928, 20,000. The combine first appeared in North Dakota in 1925, yet there were 1,000 such machines in use there in 1928.

It is estimated that in 1929 one-half of the American hard winter wheat crop and one-fifth of the hard spring wheat crop were harvested by combines. Their use will doubtless expand further. The number of other types of labour-saving machinery is also growing with great rapidity. The following figures on the development of tractive power since 1920 are most significant:

NUMBER OF TRACTORS, HORSES AND MULES ON UNITED STATES FARMS.

	Tractors	Horses and mules
1920	246,000	25,200,000
1925	506,000	22,082,000
1929	852,000 [1]	19,295,000 [1]
1930	1,000,000 [2]	18,762,000 [2]

[1] Revised
[2] Preliminary

The growth in use of power machinery on the farm is reflected not only in decreased requirements for human and animal labour, as indicated by the receding figures on human and draft-animal population on the farms, but is also having numerous other far-reaching effects. Some of the most important are: the expansion of farming in the arid Great Plains region and its decline in the east, the liberation for other purposes of millions of acres previously required for production of feed for horses, the development of new methods of farming and of marketing farm products, a tendency toward larger-sized farms, and many great changes in the social aspects of rural life. The net effect of the whole tendency toward power farming is difficult to measure in concrete terms, but it is known that farm output per man has been heavily increased, and that costs of producing and harvesting many products have been materially lowered where conditions are favourable.

* * *

Because of its importance as an exporter of agricultural products, the United States of America is often regarded as having a very favourable balance of trade on this score. This was the case before the war, but American imports of products like coffee, sugar, vegetable oils and a host of others have risen by such proportions as to make the trade balance unfavourable for products of agriculture, even though exports have also risen somewhat. There is good reason to believe that this relationship will continue.

AGRICULTURAL EXPORTS AND IMPORTS OF THE UNITED STATES OF AMERICA 1919-1930.

(Millions of dollars)

Year ended June 30th	Total exports	Total imports	Excess of exports(+) Excess of imports (–)
1909-1913 (average)	1,014	813	202
1919	3,686	1,929	1,756
1920	3,990	3,409	581
1921	2,698	2,060	639
1922	1,959	1,372	588
1923	1,848	2,076	— 229
1924	1,930	1,875	45
1925	2,345	2,057	288
1926	1,967	2,528	— 561
1927	1,980	2,280	— 300
1928	1,889	2,193	— 304
1929	1,912	2,178	— 267
1930	1,550 [1]	1,892	— 342

[1] Re-exports estimated at $55,000,000.

The total value of agricultural exports from the United States of America in the eight years prior to 1930 has been remarkably stable, at slightly below $2,000,000,000 annually. Disregarding one year, 1925, the fluctuation was never more 5 per cent. Imports fluctuated to a greater extent, but showed a slightly upward trend, disregarding 1925, which has been an abnormal year.

Notwithstanding the relatively stable level of the value of our farm products exports, there has been great variation in the trend of quantitative exports of different products

since the war. Our exports of grains and grain products, live-stock and meat products and dairy products, all of which were greatly stimulated by war-time conditions, are showing a steady decline and promise to continue this tendency. Our exports of raw cotton, greatly curtailed by the war, have since recovered materially, but are now hovering around pre-war levels. Fruit and various other smaller products, on the other hand, have exhibited a steady upward movement.

The volume of exports of all farm products has fluctuated extensively from year to year, but is only about maintaining itself, with the general level in recent years averaging around 15 per cent above pre-war. With some of our most important products showing a steadily declining tendency, there is not much basis for anticipating increased agricultural exports from the United States of America in years to come, even though individual years may see larger shipments.

INDEX NUMBERS OF UNITED STATES AGRICULTURAL EXPORTS, 1919–1930.

(1910-1914 = 100)

Year ended June 30th	All commodities	Cotton fibre	Grains and products	Cattle and meat products	Dairy products	Fruits
1919 . .	145	63	272	287	1,287	111
1920 . .	134	80	218	185	1,275	122
1921 . .	127	64	329	154	524	108
1922 . .	137	76	317	153	571	105
1923 . .	112	59	246	169	406	121
1924 . .	104	67	143	179	451	214
1925 . .	126	95	225	140	396	184
1926 . .	106	93	117	114	327	211
1927 . .	136	131	188	98	288	301
1928 . .	112	92	188	98	263	258
1929 . .	117	99	174	102	243	372
1930 . .	97	82	130	104	221	216

United States Bureau of Agriculture Economics.

CAUSES OF THE PERSISTENCE OF FARM DEPRESSION IN THE UNITED STATES OF AMERICA.

The sudden and drastic fall in the price level of agricultural products in 1920 was the immediate cause of the precipitation of American agriculture into the crisis from which it has not yet recovered, and which now seems certain to be intensified by the recurrence of a similar price phenomenon. The crisis has persisted since 1920 because prices of farm products have remained low in relation to expenses which farmers are forced to meet, and will persist as long as this condition prevails. Prices of farm products remain low partly because of inherent characteristics of the farming industry and partly because of technical and economic developments since the war which have prevented a more rapid recovery. Briefly, the principal factors in the situation are:

1. Continued high production of many farm products;
2. Changes in demand for farm products;

3. Shifts and adjustments in agricultural production;
4. Failure of farm expenses and living costs to decline as much as prices of farm products;
5. Failure of marketing, processing and distributing costs to decline.

Continued high production is without doubt the principal reason for the persistance of unsatisfactory farming conditions in the United States. The natural and other resources of the country were such as to permit rapid expansion of the agricultural plant under the stimulous of war-time demand, but the foundation of the farm around the family unit has meant stubborn resistance to contraction or reduction of productive capacity. To the unsuccessful farmer, reduction means sacrifice of home and capital; to the successful one, slow and reluctant readjustment to new conditions. The finding of satisfactory alternatives or the making of other basic changes is usually a matter of years for the farmer.

The problem of bringing our agricultural production more into balance with market possibilities has been complicated during this period, moreover, by greatly improved production methods and practices. Machine methods in cotton and wheat production, for example, are making possible an expansion to lands in the Great Plains States not previously cultivated, and materially increasing the acreage of these crops in those sections during the past few years. This tendency has more than offset declines in other parts of the country.

The figures show that farm production in the United States of America on the whole is now moving along at well above the post-war average, but that the output of grains, in which depression has been most acute, is tending to decline.

INDEXES OF THE VOLUME OF NET AGRICULTURAL PRODUCTION.

(1919-1927 = 100.)

Year	Grains	Fruits and vege-tables	Truck crops	Meat animals	Dairy products	Poultry products	Cotton and cotton seeds	Total
1919 . .	101	82	71	96	81	85	91	91
1920 . .	116	102	86	92	80	84	105	97
1921 . .	100	76	74	91	91	95	64	87
1922 . .	100	109	101	97	95	98	77	96
1923 . .	97	108	99	107	103	107	80	101
1924 . .	100	106	111	108	109	100	108	106
1925 . .	95	98	115	102	110	104	128	106
1926 . .	93	116	114	103	114	111	143	111
1927 . .	97	104	129	103	116	116	103	106
1928 . .	106	122	124	105	117	112	114	111
1929 . .	92	98	139	105	117	107	119	107

Separate figures on the individual grains clearly reflect the war rise and subsequent fall of our wheat acreage, followed again by the stimulous to wheat planting given by the development of power farming. A decline in corn and oats acreage has also been offset by increased areas under barley. The detailed figures are:

HARVESTED ACREAGE OF GRAINS.

(Millions of acres)

Year	Wheat	Rye	Corn	Oats	Barley	Total
1910-1914 (averages).	49	2.3	105	38	7.6	202
1915	60	3.1	106	41	7.1	217
1919	73	7.7	98	38	6.5	223
1921	64	4.5	104	45	7.4	225
1923	60	5.2	104	41	7.8	218
1925	52	4.0	101	45	8.0	210
1927	59	3.6	98	42	9.5	212
1929	61	3.2	98	40	13.2	215
1930	50	3.7	101	42	12.4	218

Changes in demand for our farm products are also playing a part in the continued unfavourable situation of American agriculture. The decline of some six million head in horses and mules on farms and in cities has materially reduced demand for feed crops, hay requirements being estimated as reduced by about 11,000,000 tons and oats requirements by 250,000,000 to 300,000,000 bushels. The 15 to 20 per cent fall in *per capita* consumption of flour since pre-war has unquestionably added much to the problem of marketing our wheat crops, although the shift toward greater consumption of fruits, vegetables and dairy and poultry products has enabled a healthy and profitable expansion in those branches of farming. The growth in consumption of vegetable fats and oils, largely produced outside the United States, has had a marked effect on demand for our animal fats, particularly lard. The growth of artificial silk production has curtailed the consumption of cotton. At the same time, increased foreign production of numerous products such as cotton, wheat, pork products, etc., all directly competitive with American products, has contributed greatly in reducing foreign demand for the quantities of these products formerly sold abroad, and thereby added to the pressure on our home markets.

Shifts and adjustments in production. — Unorganised competition among the numerous and widely scattered individual producers of farm products is constantly tending to create maladjustments in production. This tendency has been particularly pronounced in the United States of America since the war, probably because of the pressure to find alternative crops exerted by unfavourable farm prices. There has undoubtedly been too much tendency to base planting or breeding upon prices prevailing at the time, without proper regard for the possibility of successful production or of profitable sale when produced.

The United States of America has experienced violent shifts in the production and prices of such products as tobacco, cotton, hogs, and various fruits and vegetables since the war, largely because of co-incident but unorganised individual reaction to prices. Shifts of this character have hampered farm recovery to no little extent.

The expansion of cotton and grain production into the Great Plains regions as a result of the growth of power farming is also a development of this character. The increased output and lower prices it has meant for these products have borne with great weight upon the less-favoured regions of the east and contributed to the decline of farming in many sections.

The failure of farm expenses and living costs to decline as much as prices of farm products needs no demonstration as a cause of the continued disadvantage of our farmers. It is sufficient to show the items which are contributing most to sustained high costs for the

farmer, and at the same time to point out that American tariffs on industrial goods are generally more effective than those on farm products.

INDEXES OF PRICES PAID BY FARMERS IN THE UNITED STATES OF AMERICA.

(1910-1914 = 100.)

Year	Commodities bought for use in production	Wages paid to hired labour	Taxes on farm property [1]	Commodities bought for family maintenance	All commodities bought
	(1)	(2)	(3)	(4)	(1 + 4)
1919	192	206	130	214	205
1921	142	150	217	165	156
1923	142	166	246	161	153
1925	149	168	250	165	159
1927	144	170	258	161	154
1928	146	169	263	162	156
1929	146	170	267	160	155
1930	141[2]	152[2]	—	156[2]	150[2]

[1] 1914 = 100.
[2] Preliminary.

Prices of commodities bought by the farmer for use in production have advanced relatively less than other expenses, but have averaged higher than prices received for farm products. The costs of feed and fertiliser have averaged below prices received for farm products, but costs of machinery, seed and building materials have been high and raise considerably the costs of all commodities used in production. Other expenses are all much above prices being received by the farmer, particularly taxes, which go mainly to pay salaries and wages, and therefore reflect the high wage level in the United States of America.

The development of prices received by American farmers for the principal groups of products since the war has been as follows:

INDEXES OF PRICES RECEIVED BY FARMERS IN THE UNITED STATES OF AMERICA.

(August 1909 - July 1914 = 100.)

Year	Grains	Fruits and vege-tables	Meat animals	Dairy products	Poultry products	Cotton and cotton seed	All groups	Ratio to prices paid [1]
1919	231	89	206	173	206	247	209	102
1921	112	148	108	148	161	101	116	75
1923	114	136	106	148	145	216	135	88
1925	156	160	139	137	161	177	147	92
1927	128	155	139	138	141	128	131	85
1928	130	146	150	140	150	152	139	90
1929	121	136	156	140	159	145	138	89
1930	100	158	134	123	126	102	117	78

[1] Ratio to last column of table above.

That high marketing, processing and distributing costs are also a factor in the unsatisfactory condition of agriculture in the United States of America seems apparent from the wider spread that has developed between the farm price and retail price of foods. Farm prices of foods in 1929 averaged 51 per cent higher than before the war, yet retail prices were 74 per cent higher. If farmers received as large a share of the retail price as they did before the war, the general level of farm prices would approach the level of the prices of other items in the cost of living, the index of which stood at 171 in 1929.

Whether any substantial improvement in the position of our agriculture should be looked for as a result of concentration of attention on this problem, however, is a question that cannot be answered with assurance on the basis of experience to date, but hopes should not be placed too high. Increased costs of marketing, processing and distributing are due largely to higher wages to labour used in these processes, to high transportation costs, and to high rents for business establishments. High wages are so firmly established as concomitant to American business policy that material change on that score does not seem in prospect. The increasingly complex character of modern life and economic activity in the United States of America is adding to, rather than diminishing, the demands on our processing and distributing systems. Better and better quality, greater regularity and dependability of supply, speed of delivery, and greater convenience in form for handling and use, are requirements, the meeting of which can be solved only by increased emphasis on the converting and distributing processes. Much attention is being devoted to the problem of distribution, and there is evidence that efficiency is increasing in this field. Retail distribution of foods has never been as efficient as since the development of the great chain store systems so widespread in the United States of America.

URUGUAY.

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FOREIGN TRADE.

The foreign trade of Uruguay springs almost entirely from agricultural and animal production and its dependent industries.

The following table shows this clearly:

PROPORTIONAL EXPORT VALUES BY CATEGORIES, 1925-1929.

Category	1925	1926	1927	1928	1929
Cattle-raising and dependent industries	88.81	91.36	88.38	81.47	84.53
Agriculture and dependent industries .	8.60	6.05	6.67	13.66	9.94
Mining industries	1.88	2.37	4.91	4.50	5.33
Various	0.67	0.19	0.01	0.35	0.22
Provisions for shipping	0.04	0.03	0.03	0.02	0.18
Total	100.00	100.00	100.00	100.00	100.00

Satisfactory progress in the index figures for agriculture is shown from 1924 onwards in the proportions corresponding to each category of exports. This indicates an appreciable increase, and proves that agriculture is growing steadily and progressively.

IMPORT AND EXPORT VALUES, 1925 TO FIRST QUARTER OF 1930.

Year	Imports: assessed at Customs valuation	Exports: assessed at market value	Total
	Peso	Peso	Peso
1925	73,357,377	98,853,683	172,211,060
1926	74,111,631	94,303,586	168,415,217
1927	81,829,873	96,418,695	178,248,568
1928	93,729,483	101,203,145	194,932,628
1929	94,720,353	92,736,286	187,476,639
1930 [1] (first quarter)	44,023,094	64,578,609	108,601,703

[1] Provisional figures.

The figures shown in the above table represent the export and import values for the period 1925-1930.

Although the greater part of the exports is represented by cattle-raising products and their derivatives, this does not mean that Uruguay is still in the "pastoral" stage. This phase of her economic evolution is over. The manufacturing industries of the country are in full swing, and its aptitude and capacity for manufacture is considerable. Although this is not yet shown in its export figures, the goods manufactured amply meet the needs of the home market, and imports of goods of this class are no longer necessary.

REAL VALUES OF ARTICLES EXPORTED, 1925 TO 1929.

	1925	1926	1927	1928	1929
	Peso	Peso	Peso	Peso	Peso
Cattle-raising products:					
Cattle	1,971,322	3,725,742	6,674,865	5,813,991	3,265,904
Meat and extracts thereof	38,466,922	38,305,909	28,113,488	26,194,987	29,834,131
Fats	2,729,075	3,353,158	3,426,185	3,134,493	2,695,993
Wools	28,991,619	28,200,443	32,636,577	30,796,829	28,626,583
Hides and skins (dried, salted, etc.)	14,762,196	11,514,475	12,574,175	14,498,930	11,797,355
Hair	270,781	218,789	336,778	343,484	339,822
Bones	318,814	392,304	408,942	427,171	558,462
Other products	3,942	3,154	931	—	—
Residues	239,953	444,093	1,043,012	1,237,653	1,124,308
Total for cattle-raising products.	87,754,624	86,158,067	85,214,953	82,447,538	78,242,828
Agricultural products:					
Flour, Pastes, etc.	1,752,677	1,102,902	1,438,615	1,400,600	918,591
Grain and seed	6,584,627	4,300,782	4,845,087	12,090,514	8,166,389
Fruit and vegetables	111,721	191,269	45,280	96,258	34,505
Fodder	170,277	107,514	101,962	238,660	88,923
Other products.	288	73	—	—	—
Total for agricultural products	8,619,590	5,702,540	6,430,944	13,826,032	9,208,408
Mineral products:					
Stone	503,944	656,099	717,081	794,419	703,811
Earths	1,020,172	1,284,492	1,943,314	2,172,983	2,357,443
Total for mineral products	1,524,116	1,940,541	2,660,395	2,967,402	3,061,254

REAL VALUES OF ARTICLES EXPORTED, 1925 TO 1929 *(continued)*.

	1925	1926	1927	1928	1929
	Peso	Peso	Peso	Peso	Peso
Products of hunting and fisheries:					
Hunting	254,706	192,735	350,599	370,626	317,618
Fisheries	76,551	101,850	176,175	134,294	197,797
Total for products of hunting and fisheries	331,257	294,585	526,774	504,920	515,415
Other products and articles:					
Various	460,898	175,503	231,410	357,971	192,508
Provisions . . .	36,724	32,204	30,139	13,982	162,493
Mineral coal. . .				1,373,380	1,085,300
Grand total of exports	98,727,209	94,303,490	96,418,695	101,203,145	92,756,286

AGRICULTURE.

Of the 18,692,000 hectares which form the territorial area of Uruguay, discounting 10 per cent estimated to be taken up by towns, rivers, streams, roads, mountains, etc., more than 16,000,000 hectares are suitable for agriculture and cattle-raising, though actually only 1,300,000 hectares are under cultivation.

Owing to its geological, topographical and climatic conditions, Uruguay is highly suitable for agricultural development. The area at present under cultivation (1,300,000 hectares, or 7 per cent of the whole) represents only a part of the available land suitable for agriculture; this may be estimated at 9,000,000 hectares.

This estimate, though not founded on a scientific survey, has a reliable basis in the observations and studies of agronomists, reports by regional agronomists and experts, and the valuation made of each property when assessed for taxation. The possibilities of agricultural development are therefore extensive, and the country offers a great future to men of enterprise and to European immigrants; for, over and above offering considerable tracts of land suitable for agriculture and yielding quick returns, the working of its soil gives assured profits and high revenue, thanks to the assistance of the cattle-raising industry, a powerful factor in production. Uruguay's great possibilities in the cattle-raising industry do not prevent its becoming also, in the near future, an important agricultural country. This tendency is steadily reinforced by numerous economic and social factors, such as the adoption of the most up-to-date systems of cultivation, the selection of seeds, and the use of agricultural machinery for field work.

Agricultural Production.

When the needs of the home market have been met, agriculture produces a surpl for export, which is gradually increasing in volume. This surplus also gives rise to impc tant dependent industries, such as the manufacture of flour and farinaceous paste preserves, fruits, oils, wines, spirits, etc.

Cultivation is on the increase, thanks to the stimulation and encouragement, bo technical and economic, which it receives from the State, the excellence of the so transport facilities, and the ever-increasing demand from both home and forei markets.

Cultivation of Cereals and Oleaginous Plants.

A comparison of the agricultural results of recent with earlier years reveals a appreciable increase. This indicates a genuine, though as yet only incipient, advanc as is witnessed by the results for the last five years; for such sweeping movements · those of economic expansion can only be regarded as established and lasting wh evidence is afforded by the results of several successive years, as in the present case.

AREA UNDER CEREALS AND OLEAGINOUS PLANTS ON THE FIVE YEARS 1925-1929 (INCLUSIVE).

Year	Hectares
1929–30	829,621
1928–29	806,050
1927–28	804,092
1926–27	691,467
1925–26	691,559

The actual figures for this increase do not, however, show the true economic significance of the agricultural development which is taking place in the country. It will not be long before Uruguay can take its fit place among the countries of the world, not only for the number of hectares under cereals, but also in their yield per hectare. The average yield of wheat has increased considerably in the last five years, thanks to the progressive influence on agricultural production of technical methods, the ideas of agricultural science, and the quality of the mechanically selected pedigree seed used.

ESTIMATED VALUE OF THE CEREAL HARVEST. — PERIOD 1923-1929.

No.	Crop	1923	1924	1925	1926	1927	1928	1929
		Peso	Peso	Peso	Peso	Peso	Peso	Peso
1	Wheat	9,563,066	17,142,006	16,395,652	16,122,942	14,155,068	17,808,949	14,332,537
2	Maize	6,933,620	5,480,234	5,951,896	3,924,251	5,085,994	8,005,522	2,676,487
3	Flax .	1,666,704	2,635,955	3,305,094	3,087,147	2,916,690	2,933,883	3,701,668
4	Oats .	885,638	1,326,688	1,572,520	1,175,761	973,729	1,601,115	947,133
5	Barley	37,124	74,884	82,102	73,899	77,755	91,582	—
6	Alpist	20,028	148,455	176,022	56,749	19,691	14,040	—
7	Total	19,106,181	26,808,223	27,483,287	24,440,751	23,228,928	30,445,091	21,657,825

The value of all these products has increased appreciably in recent years, and has swelled the revenue obtained from agriculture. The progress of agriculture has increased

the volume of railway traffic and the effective use of motors and lorries, while the use of agricultural machinery is steadily growing, from tractors ploughing large areas to sowing-, mowing-, harvesting- and treshing-machines, which prepare the grain for transport. The expansion of our agricultural activity is determined by a conjunction of numerous factors; these become more effective with the growth of industry under a system of pure protection and the incorporation of its products in our national economy.

Cultivation of Fruit Trees.

This industry has grown more than any other as a result of the development of farming during recent years, thanks to the soil and climatic conditions all over the country, which favour large harvests. Of late years, orchards have been planted on scientific lines, and their produce is in great demand on the home market, while there is also a large field open for export and manufacturing purposes. The export of tangerines, oranges and lemons for the London market has recently been started, with excellent results. The experiments made in England with Uruguayan oranges and tangerines have proved as follows:

> "African and Jaffa oranges, South-Africa tangerines, and Uruguayan oranges and tangerines were picked over and pressed; the last-named when peeled, were heavier than their rivals, and the tangerines gave 16 per cent and the oranges 14 per cent more juice, proving that the Uruguyan product is the best in quality and keeps fresh longer after removal from the refrigerators."

Numerous kinds of fruit trees are cultivated on a large scale; their growth is strong and they bear fruit in the short period of two to three years. The most important species of tree are peach, orange, tangerine, apple, pear, plum, lemon, quince, apricot, cherry, mazard cherry, vine, olive; others of less importance are also grown. In the north an excellent type of citrus (lemon-tree) is being specially developed, and is producing good and abundant harvests. The figures of the 1924 census, completed in 1927 with those of the sales movements of fruit-trees, show the proportions which fruit-growing has attained.

CENSUS OF THE FRUIT-GROWING INDUSTRY, 1927.

Species	Hectares
Peach	7,409
Orange	2,937
Pear	717
Apple	468
Other fruit-trees	2,266
Total number of hectares	13,797

Fodder.

The cultivation of fodder is developing splendidly in view of the fundamental part it plays in cattle-raising.

The census of 1908 showed an area of 127,000 hectares under fodder, but between that year and 1927 the area increased to five times this amount. Oats and alfalfa grass are the most cultivated forms, but oats are the more widespread, and are largely used for green fodder, for pasture, for fattening stock, and for rearing pedigree animals.

Crops.

The area under cultivation is divided as set out in the following table:

Crop.	1927	1928	1929
	Hectares	Hectares	Hectares
Wheat	465,804	439,226	443,915
Maize	200,092	231,407	176,732
Flax	71,021	77,796	117,638
Oats	65,005	53,533	83,232
Barley	2,662	3,065	6,157
Canary-grass seed	330	917	1,859
Rye	28	106	306
Alfalfa grass	5,749	4,372	5,035
Forage oats	500,000	500,000	500,000
Tobacco	292	369	317
Vines	10,176	10,009	11,948
Peanuts	884	777	713
Rice	500	1,000	1,000
Beet	600	800	800
Potatoes	3,141	4,890	3,905
Sorghum	487	75	166
Porotos	5,290	5,839	5,352
Garden vegetables	6,500	5,825	6,319
Fruit-trees	13,797	11,885	12,755
Other crops	10,000	10,000	10,000
Sweet potatoes	6,700	7,825	6,325
	1,369,062	1,370,616	1,394,474

Estimate of Agricultural Wealth.

A valuation of the agricultural wealth of the country can be obtained from the statistics of the value of and, agricultural machinery and implements, animals used for labour, and the revenue from agricultural industry and produce.

ESTIMATE OF THE AGRICULTURAL WEALTH OF URUGUAY FOR 1928.

Land	Agricultural produce	Machinery and implements	Animals used for labour	Poultry and swine	Total
Peso	Peso	Peso	Peso	Peso	Peso
74,850,000	36,971,000	8,936,000	1,736,000	3,272,000	125,765,000

Tendency towards the Development of Small Farms (Granjas).

There lately has been a tendency in Uruguayan agriculture for producers to adopt the small-farm *(granja)* system, which is thought more financially profitable, more rational and more scientific than the system of large farms *(chacras)* run on extensive lines.

This tendency is encouraged by the State, by agricultural experts and rural institutions, through frequent model-farm exhibitions, propaganda by publications and lectures, agricultural credit in various forms, special measures of protection, etc.

The tendency to adopt the small-farm system exists in the cattle-raising industry itself, since this system is thought to give better means of protection against adverse natural and economic conditions. The farmer can, therefore, without breaking up his property into small sections or modifying his main activity—the rearing or fattening of cattle—introduce variety into his operations and increase his revenue.

This tendency towards small farms is definite in all branches of rural industry. This more perfect system is aimed at everywhere, because it fits in better with the conditions of our agricultural labour. Large farms *(chacras)*, dairy-farms *(tambos)* and vineyards are definitely tending to be turned into small farms *(granjas)*, while cattle-ranches are seeking further bases of support and protection by setting up auxiliary and complementary industries.

Cattle-Raising.

Potentialities of the Cattle-Raising Industry. — Wealth in Cattle per Square Kilometre. — Proportion per Head of Cattle and Sheep to the Population, set out by Countries. — Improvement of Stock. — Estimate of Wealth in Cattle. — Classification of Establishments in the Republic run by Proprietors, Lessees, and Partners, according to the Nationalities of These, as shown by the Agricultural Census of 1924. — Value of Cattle sold in the Montevideo Market between 1905 and 1927 (inclusive).

Cattle-raising has been the foremost and fundamental industry of the Republic, and remains its principal source of revenue, privileged by special material factors such as the nature of the soil, with its abundant natural pastures, the mild climate, and the wonderful natural irrigation system.

The cattle-raising industry began here with the ranch of native (" creole ") cattle and the importation, started in 1859 by some ranchers, of bulls and rams for breeding purposes to improve the stock in their cattle-yards and sheepfolds. The industry has made rapid progress; the primitive ranches have disappeared, and modern ranches have taken their place, with complete and well-organised equipment, a stock of imported animals, and buildings ample for all requirements.

Many factors have contributed to this progress in cattle-raising:

1. The natural surroundings in which cattle-raising has developed, and an abundant natural supply of fertile pastures, which encourage extensive development and bear highly remunerative economic results. Among cattle-raising countries Uruguay produces and exports first-quality meat at the lowest cost of production.

2. The steady introduction from abroad of selected animals for breeding, mostly of the highest quality, and their use for economic purposes, account being

taken of the characteristics of the native cattle. This essential work has been carried out by the ranchers with State encouragement.

3. The outlay of considerable capital in acquiring cattle for breeding; the formation of great national flocks; the division of these into enclosures; the construction of cattle-dips; the use of oats for pasture; the introduction of troughs, etc.

4. The stimulus received from the constant and determined efforts of the Rural Association of Uruguay with its exhibitions and the competition which it has run since 1871; the rural Societies in the various departments; and the generous financial support and technical co-operation afforded by the State.

The progress made along all these lines necessitates constant encouragement of the quality and quantity of our production, as regards tending constant cross-breeding to improve the stock of cattle and sheep, the influence of the meat industry (primarily the salting industry), later the co-operation of factories producing meat extracts and preserves and, since 1905, the influence of refrigerators, which established a growing demand for consumption. This progress also means a parallel development of trade, beneficial to our national economy, for the cattle-raising industry contributes more than any other to the growth of our internal revenue and of public and private funds, to the export figures, and to the rise in land values.

Potentialities of our Cattle-Raising Industry.

In proportion to its area and population, Uruguay is the foremost cattle-raising country of the world, and, with the Argentine, the best adapted, in its natural conditions, for the production and export of good-quality meat in enormous quantities at the lowest cost of production; 15 to 18 per cent of the world's total meat export is produced by Uruguay.

WEALTH IN CATTLE PER SQUARE KILOMETRE.

Country	Horned cattle	Sheep
Uruguay	45.1	120.4
Argentine	12.5	12.0
Brazil	4.1	0.9
United States of America	6.5	4.4
Canada	13.1	3.5
Australia	1.7	11.7
New Zealand	13.0	91.4
Union of South Africa	1.7	5.6

The number of head of horned cattle and sheep per head of population is the highest among the principal meat-exporting countries, excepting New Zealand and Australia (for sheep only).

NUMBER OF HEAD OF HORNED CATTLE AND SHEEP PER HEAD OF POPULATION, SET OUT BY COUNTRIES. [1]

Country	Year	Number of head of horned cattle (in thousands)	Number of head of horned cattle per head of population	Number of head of sheep (in thousands)	Number of head of sheep per head of population
Argentine. . .	1923	37,065	3.3	36,209	3.2
Uruguay . . .	1927	8,432	4.7	22,500 [2]	12.7
Brazil	1921	34,271	— 0.8	7,933	— 0.1
Australia . . .	1925	13,305	2.2	88,979	15.3
New Zealand .	1925	3,503	2.5	24,547	17.5
Union of South Africa . . .	1924	9,606	1.2	32,000	4.2
Canada. . . .	1925	9,307	— 0.8	2,755	— 0.2
United States of America . .	1925	59,829	— 0.4	40,748	— 0.3

[1] Official figures of the International Institute of Agriculture at Rome and the Agricultural Economy Office of the Department of Agriculture in the United States.

[2] The number of cattle and sheep per head of population for 1927 is an estimate.

The prospects of extending the cattle-raising industry in Uruguay without involving a rapid rise in costs are steady and certain. They are based on many factors, among others the progress made in the improvement of breeds, the increase in the area under oats, the production of more meat as a result of the extension of the small-ranch system as is happening in the United States of America, the development of transport, the better organisation of the commercial side, co-operative societies, etc.

Many thousand head of cattle are now grazing on the vast natural pastures of Uruguay. The 1924 census shows the following distribution according to species:

Species	1924 Census	1916 Census
Horned Cattle	8,431,613	7,802,442
Sheep	22,500,341	11,472,852
Swine	251,253	303,958
Horses.	504,000	554,871
Mules and donkeys	18,576	17,537
Goats	18,888	12,218

Improvement of Stock.

The progress achieved in the improvement of Uruguayan stock by cross-breeding, selection and other advanced scientific methods is nothing short of extraordinary; no animal of the native breed has been sent to the Tablada of Montevideo since 1912.

In 1908, native horned cattle represented 32 per cent of the total; in 1916, this proportion had dropped to 4 per cent, and in the 1924 census no cattle of the native breed appeared.

Similar progress has been made in cross-breeding among sheep.

Year	Per cent
Census 1908	5.2
,, 1916	0.5
,, 1924	—
,, 1930[1]	—

The number of pedigree animals, classified by species, registered by the Rural Association of Uruguay to December 31st, 1928, illustrates the firm basis on which this rapid progress is established. It is as follows:

Horned cattle	35,910
Sheep	8,433
Horses	212
Swine	232

Actually, the number is much greater than that set out above, since a great many ranchers neglect to register their stock in the pedigree tables, when the animals are grazing at large.

Estimate of Wealth of the Cattle-Raising Industry.

The following is an inventory of the value of the cattle-raising industry according to an estimate of the stock existing in 1927:

WEALTH OF THE CATTLE-RAISING INDUSTRY FOR THE YEAR 1927.

	Peso
Land	1,010,696,000
Cattle	377,000,000
Fixtures	60,000,000
Total	1,447,696,000

Horned Cattle. — This category is the principal source of our financial wealth. The 8,431,000 head which it represents were valued in 1927 at 225,653,000 gold peso.

Meat Production. — The most favoured breeds are Herefords and Durhams; next to these comes the Polled Angus breed. The Hereford breed predominates, representing two-thirds of the total number of cattle, since it adapts itself better to the climate, while in endurance and early maturity—valuable qualities in view of the extensive lines on which cattle-raising is carried on in Uruguay—it equals the Durham. The native breed, descended from the Spanish species, has been useful as a basis for crossing, and has now reached a greatly improved standard. All stockyards now have Hereford or Durham blood in varying degrees. These are both suitable for cold storage, and may be classified as 40 per cent suitable for chilled meat and the remainder for frozen meat. Both breeds have become admirably acclimatised and reproduce their characteristics, thanks to our mild climate and the abundant pasture.

The net production of meat is 58 to 60 per cent for pure-bred cattle and 52 per cent for good hybrids.

[1] The figures for the 1930 census are now almost entirely available.

A large number of establishments have specialised in the breeding of improved milch kine, and make dairy-farming their principal industry. The number of milch kine registered by the census was 565,854. This included numerous herds of the Normandy and Dutch breeds, and though no special type of milch kine exists as yet, the Normandy breed has already proved its excellent adaptability; and as its best blood is firmly established in the herds, it can be foreseen that it will predominate throughout.

Sheep. — Uruguayan sheep show a very considerable improvement in both quality and quantity, and are only surpassed in numbers by those of Australia, the United States, the Argentine, New Zealand and the Union of South Africa. The total value of our sheep flocks for 1927 was estimated at Peso 90,994,000. The native sheep with its scanty yield of wool and meat has disappeared through crossing with imported breeds. The improvement began with the introduction of the merino breed, but since 1918 the meat-yielding breeds have shown a clear predominance; this illustrates the policy of our ranchers, which aims at obtaining heavy types of wether to satisfy the demand for frozen meat. In accordance with the requirements of the European market, the Lincoln and other large English breeds have been given preference over the merino breeds. The evolution which was undoubtedly brought about by the present demands of the markets, by economic causes, by the trend of Uruguayan industry, and by the desire to produce meat on a larger scale, The stock of sheep in 1927 numbered 22,500,000, classified by breeds as follows:

Breed	Percentage
Merino	31.89
Lincoln	46.27
Romney Marsh	20.03
Yorkshire and like breeds	1.49
Native	0.32
Total	100.00

Swine. — According to the 1924 census, the stock of swine amounted to 251,000 head, valued at Peso 2,500,000. The predominant breeds were the Berkshire, Middle White Yorkshire, Large White Yorkshire, and Duroc-Jersey.

Horses. — The stock of horses numbers 504,000 animals, valued at Peso 6,000,000. The predominating breeds are half-bred racehorses, percheron, shire, boulonnais and hackney, but a great number are horses of the native breed, whose quietness, strength and endurance are irreplaceable.

Mules and Donkeys. — These number 18,576 animals, valued in 1927 at Peso 400,000.

Goats. — There are 18,888 animals in existence, almost entirely of the native breed, and spread over the whole country without being banded into flocks. Their total value is Peso 108,000.

CLASSIFICATION OF THE ESTABLISHMENTS IN THE REPUBLIC RUN BY PROPRIETORS, LESSEES AND PARTNERS ACCORDING TO THE NATIONALITY OF THESE, AS REGISTERED IN THE AGRICULTURAL CENSUS OF 1924.

	Proprietors	Lessees	Partners
Uruguayans	28,345	18,957	5,254
Foreigners	5,967	3,507	
Total	34,312	22,464	6,152

The number of agricultural and cattle-raising concerns registered in the agricultural census of 1924 was 62,928, of which 28,546 were cattle-raising and 34,382 agricultural.

Industry in Uruguay.

The Country's Principal Manufactures: Their Importance.

The country is being visibly transformed, and the development of its manufacturing and mining industries, as regards both quality and quantity, is really important. The state of the country has changed radically since the industrial census of 1908, and the figures of that census are to-day valuable merely for purposes of comparison. The great Exhibition of National Industries recently held was a real revelation of the high level of progress reached in the industrialisation of our raw materials and of the abundant riches the country can offer.

According to the most recent statistics, the industrial concerns in Uruguay number 7,500, employing 71,299 workers, and possessing a total working capital of Peso 204,295,677. These figures do not include small domestic industries.

The table given below illustrates the industrial expansion of the country since the war.

Year	Number of industrial concerns
1922	4,575
1926	6,329
1928	7,500

The economic and social importance of the manufacturing industries in Uruguay is obvious, and the encouragement given by the State will be a powerful factor in its future development. This aid takes such forms as adequate industrial credits granted on easy terms by the Bank of the Republic, a pure protectionist system, exemption from taxes over a fixed period, and the holding of a periodical industrial census to determine the best means of protecting industry and directing it on the right lines, besides other legislative and stimulative measures based on its practical needs.

The provisional figures which the Statistical Section of the National Labour Office has published to indicate the most important aspects of the industrial census show only 4,869 concerns to date. Their aggregate working capital, costs of production and sale prices of goods produced are as follows:

	Peso
Working capital	204,295,677
Costs of production	111,005,000
Sale prices of goods produced	198.251.459

Costs of production can be split up as follows:

Labour (salaries and wages)	36,702,000
Raw material worked in factories	54,345,481
Packing	4,031,829
Rent	3,203,058
Fuel, motive power and lubricants	6,904,000
Taxes	3,147,773
Pensions and insurance	2,700,000

The year 1929 will show higher figures for this last item, due to the extension of the pension system entailed by recent legislation.

The personnel engaged in industry, numbering 71,299, is divided as follows:

By sex.	
Men	62,070
Women	9,229
By age.	
Under 14 years	740
15-18 years	6,303
Over 18 years	64,256

Without enumerating all the manufacturing industries of the country, we may single out a few which have the advantage of obtaining their materials locally, and others which, though lacking this advantage, have also developed considerably. In the first class we have the bootmaking industry, whose products have to-day completely displaced the imported article; the textile industry, which likewise benefits by the abundance of raw material and the large demand of the home market and the milling industry, which takes a prominent place and whose exports now reach high figures. The furniture industry is well developed, as also are the saw-mills, turneries, etc., which have been working for many years.

The important iron and bronze foundries, machine-shops, boiler-shops, repair-shops for industrial machinery and ships' engines, and metallurgic industries on both large and small scales, are also well developed, and represent values running into millions.

There are more than fifty large tobacco factories working foreign raw material. Paper-making is an industry in which the most modern and improved machinery is used. Brewing and the making of wines and other drinks reach an important figure, as do the manufacture of oils and spirits, sugar-refining, etc. All these represent millions of capital invested in industry.

Almost all known industries exist in some form in Uruguay, most of them with a satisfactory rate of production. Mention must be made of large works producing soap, scent, matches, mosaics, glass, crystal, bottles, starch, electric lighting apparatus, straw, osiers, bristles, cork, wickerwork, chemicals, cardboard, trunks, suit-cases, weighing-scales, iron boxes, metal beds, nails, iron ranges, preserves, fruits, confectionery, looking-glasses, bricks, gold and silver work, toys, clogs, etc.

Meat Industry: Refrigerating, Salting and Preserving Works.

This industry deserves separate mention, for it is the most important in Uruguay. Its development is closely linked with the improvement in methods of preserving meat. Each step forward in this respect has had its effect on the wealth of the cattle industry, which has developed from the original hide industry through that of fat and its derivatives, later to dried meat, then to meat extracts, preserves, concentrated forms, etc., culminating in the introduction of refrigerators. This most recent development has transformed the whole economic structure of the country, and the products of the industrial process it represents are valued at Peso 30,000,000.

YUGOSLAVIA.

Dr. V. STOYKOVITCH
Director of Agrarian Policy at the Ministry of Agriculture.

Agriculture, which is the principal source of the economic and financial power of Yugoslavia, has, since the end of the world war, been struggling with three serious difficulties. They are as follows: (1) the reconstitution of the means of production (agricultural implements and machinery) and of the cattle destroyed during the war; (2) the adaptation and readjustment of agricultural production to the present conditions of the market; (3) the intensification of agricultural production with a view to increasing its yield per unit of the surface cultivated.

1. Yugoslav agriculture is far from possessing a sufficient quantity of agricultural implements and machinery. Manual labour, which is expensive, is predominant in Yugoslavia, a circumstance which places her in an inferior position to deal with countries in which mechanical labour is more developed.

Further, our agriculture has not at present the quantity of cattle of different sorts which it possessed before the world war. The comparative figures showing the pre-war as compared with the present situation clearly prove this fact.

Owing to three consecutive years of drought (1920, 1921 and 1922), owing to the enormous decrease in the prices of agricultural produce in 1925, owing to two consecutive years of drought in 1926 and 1927 and a new decrease in the price of cereals in 1929 and in 1930 agricultural conditions have become extremely difficult for the farmer, who has had to rely almost entirely on himself to repair the losses suffered during the war, to increase his means of production and renew his stock of cattle.

2. The political, economic and financial changes which occurred after the war eliminated a great number of markets which were previously open to agricultural produce from Yugoslavia and created new markets whose needs and requirements were entirely different. Moreover, these markets are subject to constant changes, owing to the continuous modifications of the Customs duties applied to agricultural products by the different importing countries, owing to the frequent over-production of certain agricultural products and, finally, owing to the short duration of commercial treaties.

All these changes, involving frequent adaptations and adjustments of agricultural production, make it necessary for the farmers to seek new outlets and involve a reform of the systems of cultivation and a search for new markets which entail, not only considerable expenditure and a need for new investments, but also a great deal of discouragement and vexation and considerable delays in the development and progress of agriculture.

3. The creation of the new State of Yugoslavia, its organisation, debts and expenditure, have burdened the farmers with considerable charges which have continually increased from year to year. On the other hand, the material and social needs of the rural population are becoming more and more extensive owing to the frequent mixing of population as a result of the development of means of communication.

Owing to the low yield per hectare, which in the case of wheat attains an average for five years (1924-1928) of only 11.2 quintals and in the case of maize an average of

only 14.3 quintals, and owing to the predominance of small rural properties, which has been rendered more marked by application of agrarian reforms, the intensification of the system of cultivation with a view to increasing the yield per hectare and a cheaper production becomes for us an increasingly urgent necessity.

The agricultural crisis which prevailed in Yugoslavia, perhaps in a more serious form than elsewhere, has had the effect, not of facilitating the solution of these problems, which are vital to the prosperity of a essentially agricultural country, but of retarding that solution and of bringing about a new indebtedness which weighs heavily on the rural classes and which will result not in progress, but rather in arrest or even in retrogression, so far as the development of our agricultural and rural life is concerned.

The agricultural crisis made itself felt in Yugoslavia more especially at the moment when the policy of deflation was inaugurated and the new Customs tariff introduced. These two elements have contributed to render the crisis even more severe. Since that time, the difference between the price of agricultural and manufactured products has become more marked and the agricultural crisis has become continually more serious.

A Yugoslav economist interested in agriculture, M. Pochtitch, has studied the relation between the prices of different articles bought and sold by the farmer before and after the war—that is to say, in 1913 and in June 1929—in different parts of the country. He has discovered that the prices of the principal articles of agricultural production in terms of gold were in June 1929 at pre-war parity and that the decrease in the prices of agricultural products in the autumn of 1929 has destroyed this parity, so that the present prices of agricultural products are inferior to their pre-war level.

As to manufactured products which the farmer buys, expressed in terms of gold, he discovered that they were much higher in June 1929 than before the war. For example, the price of horse-shoes per 100 was in June at 172 per cent and the price of sulphate of copper was at 128 per cent. Coffee was at 186 per cent, ploughs at 134 per cent, vehicles at 162 per cent, scythes at 193 per cent, clothing at 331 per cent, woollen cloth at 293 per cent, woollen stockings at 264 per cent, hats at 288 per cent, shoes at 327 per cent, as compared with pre-war prices.

These enormous differences between the prices at which the farmer sells his produce and those at which he buys manufactured products render the profits of agriculture extremely small.

This conclusion exactly coincides with that which the same author has drawn from the studies which he has made on the profits derived from certain agricultural products in 1928—namely, wheat, maize and wine—in a large number of typical farms. The average cost of production both per hectare and per quintal of wheat, maize and grapes [1] has been much higher than the gross prices obtained. The losses have amounted to from 1 to 132 dinars [2] per quintal of wheat, 3 to 351 dinars per quintal of maize, and 59 to 162 dinars per hectolitre of wine. No farm investigated by the writer showed a profit.

This was the position in 1928.

In 1929 and 1930, it became still worse. The prices of agricultural products and especially of wheat and maize fell to such an extent that the decline greatly exceeded the slight reduction in the cost of production.

There is also an extremely severe crisis in the hop market, in spite of the fact that during 1929, 2,904 hectares have been withdrawn from the cultivation of hops, or almost one-third of the areas planted. About 50 per cent of the hops have not been harvested this year because the prices could not cover even the cost of gathering the crop.

[1] Dr. S. POCHTITCH: "Cost of Production and Profit-earning Capacity of Wheat, Maize and Vine-growing, in 1928". (Bulletin of the Ministry of Agriculture, No. 28, 1929.)

[2] 100 dinars = 9.13 Swiss francs.

The following tables show the price movements (minimum and maximum) of wheat and maize in 1929 and 1930, in comparison with 1925, on the Novi Sad Exchange, the principal grain market in the country.

Minimum and Maximum Wheat Prices in Dinars per Quintal.

	1925		1929		1930	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
January . ..	402.50	500.00	234.00	247.50	195.00	217.50
February .	445.00	455.00	242.50	250.00	207.50	220.00
March. . .	455.00	460.00	245.00	252.50	190.00	212.50
April . . .	455.00	475.00	240.00	247.50	192.50	205.00
May . . .	475.00	490.00	205.00	245.00	192.50	210.00
June . . .	442.50	462.50	205.00	212.50	190.00	212.50
July . . .	285.00	320.00	207.50	217.50	185.00	190.00
August . .	265.00	275.00	195.00	230.00	167.50	177.50
September .	242.00	250.00	190.00	212.50	145.00	167.50
October . .	220.00	252.50	187.50	207.50	140.00	157.00
November .	245.50	275.00	177.50	205.00	125.00	152.50
December .	260.00	295.00	192.50	212.50	130.00	155.00

Minimum and Maximum Maize Prices in Dinars per Quintal.

	1925		1929		1930	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
January . . .	190.00	240.00	245.00	260.00	100.00	107.50
February .	197.50	200.00	257.50	265.00	100.00	107.50
March. . .	172.50	222.50	260.00	275.00	80.00	102.50
April . . .	162.50	200.00	257.50	270.00	95.00	105.00
May . . .	172.50	217.50	215.00	260.00	90.00	97.50
June . . .	167.50	210.00	207.50	230.00	94.00	97.50
July . . .	165.00	207.50	202.50	217.50	100.00	135.00
August . .	170.00	205.00	185.00	210.00	120.00	137.00
September .	162.50	185.00	147.50	190.00	100.00	122.50
October . .	175.00	185.00	102.50	112.50	70.00	75.00
November .	160.00	182.50	100.00	110.00	60.00	75.00
December .	160.00	165.00	100.00	107.50	72.50	85.00

These tables clearly show the heavy drop that took place in the prices of wheat and maize in 1929 and 1930 as compared with 1925.

The wheat crop in 1930 was 15.44 per cent less, and the maize crop 16.47 per cent less than in 1929. There was reason to hope that the decrease in the crops of these two cereals in 1930 would help to improve prices or at any rate to maintain them on the 1929 level. These expectations have not been fulfilled and the prices of maize and wheat have declined considerably in comparison with 1929. This proves that prices are but little affected by the crop obtained in one State but follow international prices, which depend on world production.

As a result of their large production, the exporting countries hastened to dispose of their cereals and competition served to depress prices still further.

The depression has especially affected cereals, which are grown in Yugoslavia on about 5,000,000 hectares—*i.e.*, 83 per cent of the arable land, or about 45 per cent of the cultivated area of the country.[1]

Maize and wheat rank first in the cultivation of cereals; in round figures, the surface under wheat amounts to 1,900,000 hectares and that under maize to 2,250,000 hectares.

Under these circumstances, and in view of the fact that grain exports in normal years represent about one-third, in terms of value, of the total exports, the drop in prices has a considerable effect on the general situation of the country.

Not only have the prices of cereals declined heavily in 1930 as compared with 1929, but the drop in prices has affected almost all branches of agricultural production, as shown by the index numbers of wholesale prices prepared by the Department for Economic Studies of the National Bank of Yugoslavia.

Price Indices of Vegetable and Animal Products in 1929 and 1930.

(Basis 1926 = 100.)

	Vegetable products		Animal products	
	1929	1930	1929	1930
January	137.50	104.50	102.50	98.20
February	133.10	100.70	109.00	97.10
March	137.60	95.90	109.00	102.50
April	135.70	95.30	110.20	99.20
May	127.60	94.00	110.00	99.90
June	117.50	91.50	109.50	93.70
July	109.80	96.70	113.30	97.70
August	106.30	93.90	113.70	96.70
September	102.90	78.00	107.20	95.60
October	106.60	77.30	106.60	93.30
November	106.00	71.40	99.20	95.10
December	102.30	72.50	95.80	86.40
Index number for the year	118.60	89.30	107.20	96.30

[1] The total arable land in Yugoslavia amounts roughly to 6,000,000 hectares. The total cultivated area amounts roughly to 11,000,000 hectares.

As vegetable and animal products (not including forest products) represent, on an average, about 56 per cent of the exports (during the period from 1925 to 1929), the drop in the prices of agricultural products has considerably reduced the value of our exports.

Our exports in 1930 only amounted to 6,780 million dinars, or 1,142 million dinars less than in 1929; while the imports amounted to 6,960 million dinars, or 635 million dinars less than in 1929. Our trade balance showed a deficit of 180 million dinars in 1930, as compared with a surplus of 327 million dinars in 1929. This situation is principally due to the low prices of agricultural products, both vegetable and animal.

The drop in agricultural prices has had a considerable influence on the ability of agriculture to yield an economic return and consequently on the purchasing power of the farmers.

As already stated, our imports for 1930 have greatly decreased in comparison with 1929.

A drop in imports in countries which are still insufficiently developed is a sign of a decrease in the purchasing power of the consuming masses which, in our country, consist principally of peasants (representing about 80 per cent of the total population).

The decline in the farmers' purchasing power has gone so far as to reduce purchases of means of agricultural production. In 1930, much fewer agricultural implements and machines were imported than in the previous year. In the same manner, the consumption of artificial fertilisers and products used for combating diseases of plants has been reduced. According to the statements of our superphosphates factories it was only possible in 1930 to sell in the country about half the quantity of superphosphates sold in 1929. The peasant has been forced greatly to curtail his expenditure and has economised even on the purchase of materials which would have helped him to increase the yield and to decrease the cost of production. Such action, which is contrary to the interests of the peasants, proves in what a difficult position they are placed by the drop in agricultural prices.

Agricultural prices in 1930 will compel our farmers not only to do without many things which are indispensable for their social development and to lower their standard of life still further, but to contract new debts in order to meet their public and private obligations. In some parts of the country, the peasants are already incurring debts to pay taxes, a state of affairs which has rarely happened in the past.

It is evident that the decline in the purchasing power of the farmers has affected not only agriculture but all branches of production and trade.

The economic section of the National Bank, which acts as a kind of observatory following and recording all changes in the economic life of the country, has shown (Bulletin No. 3 of 1930) that, in spite of the constantly declining prices of industrial goods, home consumption has been restricted to such an extent that some industrial undertakings have been obliged to reduce or even to suspend their operations.

In 1930, the agricultural depression has become much more acute in all branches of agricultural production and has had even worse effects on the economic life of the country than in 1929.

Measures taken by the Government to improve the Position of Agriculture.

The Yugoslav Government is fully aware of the fact that the prosperity of the whole country depends on agriculture. Realising the unsatisfactory economic situation of the farmers owing to the fall in the price of agricultural products, it has taken certain steps to remedy this state of affairs so far as possible.

We shall not refer here to agricultural training or scientific and technical investigations and experiments which are and should be encouraged in all countries. We would, however,

point out that it is more necessary than ever at a time like the present when the profits from farming are falling and the standard of life of the rural populations is being lowered:

(1) To bring to the knowledge of farmers as speedily as possible the progress and discoveries of science and modern technique;

(2) To bring agricultural experts into close and constant touch with farmers so as to ensure the exchange of knowledge and experience; and

(3) To set up a permanent system of agricultural training for all farm workers: men, women and children.

Efforts are being made in all three directions, and the means by which farmers may be better informed are being increased in order that, fully aware of the causes of the agricultural depression, they may be able, if not to overcome it, at least to mitigate its worst effects. Certainly, there is still much to be done, particularly in Yugoslavia, where the peasant has lived for centuries in very special conditions which are far more difficult than those in the countries of Western Europe.

In 1929, a chartered Agrarian Central Bank was set up with a capital of 700 million dinars. Its function is to grant loans to farmers and farmers' organisations. From its foundation down to the end of 1930, this bank had distributed 788 million dinars—335 millions in loans to agricultural co-operative organisations and 453 million in mortgage loans.

During 1930, this bank obtained credits amounting to 600 million dinars from the important national credit institutions (National Bank, Postal Savings Bank, State Mortgage Credit) at favourable rates of interest in order to increase its resources for the granting of credits.

Apart from the chartered Agrarian Bank, credit is supplied to farmers and farmers' organisations by the agricultural co-operative organisations from their own funds, and in particular from savings deposited with them, which amounted to about 1.5 milliard dinars.

In spite of their efforts to meet the demand for agricultural credit, however, the institutions which supply such credit have not sufficient capital at their disposal, and they are not in a position to grant loans at rates corresponding to the present return from agriculture. Above all, they are not able to give sufficient assistance to farmers to enable them to convert the debts contracted by them at very high rates of interest during the period of inflation and of high prices for agricultural products.

The Government recently decided not to accept the dividend due to the State on the capital it subscribed to the chartered Agrarian Bank. The object of this action was to facilitate the lowering of interest on loans granted by the bank. Other measures for reducing the rate of interest on loans to farmers are being studied and will shortly be applied.

The best solution of the question of agricultural credit and the reduction of interest—a matter of great importance to all the agricultural countries—would be for the central agricultural credit institutions of those countries to obtain foreign capital at a reasonable rate of interest. Accordingly those countries, including Yugoslavia, anticipate excellent results from the international organisation of agricultural credit, a question so frequently raised in international conferences, and particularly in the League of Nations.

In 1929 and 1930, a great many useful laws and regulations were signed and promulgated in Yugoslavia with a view to helping farmers to turn their efforts in connection with the production and sale of agricultural commodities to greater advantage. We give below some of the more important:

(1) *Law on the Control of Agricultural Products for Export.* — The object of this law is to improve the quality of the agricultural products exported abroad and gradually

to introduce standardisation of those products in order to render their sale easier and more profitable; (2) a *Law for the Improvement of Cattle-breeding* encourages various types of breeding societies, this being one of the best means of improving the various species and breeds of domestic animals; (3) a *Law on the Protection of Plants against Disease and Harmful Insects* provides for more effective action under this head, both by individual farmers and by organisations; (4) the *Wine Law* imposes severe penalties for adulteration; it is intended to ensure a wholesome and hygienic product both for consumption within the country and for export; (5) the *Law on Public Warehouses* facilitates the warehousing of agricultural products, the use of warrants for these products, and the construction of wheat silos; (6) the *Law on the Settlement of Agrarian Relations in the Province of Dalmatia* abolished the feudal and semi-feudal conditions in that area. As a result, about 66,000 hectares of land will be restored to the farmers. This measure will improve the position of Dalmatian farmers. The question of agrarian reform in other provinces is about to be settled in a manner equally favourable to the farmers.

With a view to improving the marketing of agricultural products, a chartered company for exporting agricultural products was set up in 1930 under a special law. It was hoped in this way to centralise and co-ordinate the activities of exporters and agricultural co-operative organisations and prevent sellers from competing with each other. Above all, it was hoped to get rid of a great many unnecessary middlemen (natives and foreigners) engaged in the export trade, and thus to make the price at which producers sell their goods correspond as closely as possible to the actual international price.

This company was founded with a capital of 30 million dinars, divided into 30,000 shares of 1,000 dinars each. Most of this capital was subscribed by the State; exporters and agricultural co-operative organisations contributed on a smaller scale. In addition, it is able, by means of a special fund of 20 million dinars, to enter the market for the purpose of maintaining the prices of agricultural products and improving export trade. Further, important credits are guaranteed to this company by the national credit institutions (particularly the National Bank and the chartered Agrarian Bank), so that it may have the necessary funds.

The principal task of the company is to export agricultural products on commission, particularly cereals, for the account of exporters and agricultural co-operative organisations, and to endeavour to place them at the most favourable prices. It may only make direct purchases in certain special cases and when the economic interests of the country make such action necessary (for the maintenance of prices, for example).

The exporters and co-operative organisations offer their cereals to the company, which is familiar with the position on the market and undertakes the marketing operations. The exporters or agricultural co-operative organisations forward their cereals to it by boat or wagon in the various centres in the country. The company accepts the risk of transport and delivery, and sells the goods through its agents and commission merchants on all the important foreign markets. Thus middlemen are, if not excluded, at any rate considerably reduced in number, and the costs of marketing are lowered correspondingly.

The company is at present dealing with the marketing of cereals, which are very seriously affected by the crisis. For some time it has also been making preparations to export wine. It does not possess a monopoly for the sale of cereals. Traders are free to export as they think fit. Owing to the considerable resources at its disposal, however, and to the many privileges which it enjoys, the company has handled the bulk of the export trade in cereals (more than 70 per cent).

It is true that this company is not able to increase the price of cereals above the international level, which is continually falling. If it can prevent the home price of cereals from falling to the same extent as the price on the international markets—and it has already proved on several occasions that it is in a position to do so—and if it is able

to ensure the peasant a price for his products corresponding to the international price—to which end its efforts are constantly directed—its usefulness cannot be questioned. It is as yet too soon to judge of its influence on the home price of cereals, as it has only been at work for nine months.

Faced with an agricultural situation which is becoming more and more serious, the Government has recently taken action, and has even modified existing legislation, with a view to bringing about a reduction in the cost of agricultural production and an increase in the price of agricultural products.

(1) The land tax on revenue from land has been reduced from 12 to 10 per cent. This measure will relieve farmers to the extent of more than 100 million dinars per year. Other taxes have been totally removed or considerably reduced for the benefit of the farmers.

(2) The import duty on a large number of implements, machines and other means of agricultural production which are not produced or are not produced in a sufficient quantity has been removed, with a view to reducing the price.

(3) The export duty on oilseeds and wool, the only products on which these duties were still imposed, has been removed. The duty reduced prices considerably, and consequently the farmers' profits.

(4) The transport rates for the export of cereals by rail and water have been reduced by from 20 to 45 per cent. The rates for other commodities (dried meat, bran, artificial fertilisers, means of protection against diseases of plants, etc.) have been reduced considerably.

The Yugoslav Government has endeavoured, by means of the various measures taken to mitigate the agricultural depression, to help the farmers to reduce the costs of production and to increase the price of agricultural products. It is difficult to bring about a reduction in the cost of production, as the price of the necessary implements and of manufactured articles shows little sign of falling, owing to the powerful industrial and workers' organisations. Moreover, in a new country like Yugoslavia which is in process of being organised and developed, it is extremely difficult to reduce taxation, and the rate of interest on capital invested in agriculture is still very high. In spite of the setting-up of the marketing organisation and of the other measures which have been taken, it is even more difficult to bring about an increase in the price of agricultural products; prices are continually falling owing to over-production.

Owing to the difficulties encounted by them in disposing of their agricultural products, particularly cereals, and the continual fall in prices, the agricultural countries have been compelled to combine in an endeavour to deal with the situation by collective action. That is the reason for the conferences held by the agricultural countries of Central and Eastern Europe—two at Warsaw, two at Bucharest, and one at Belgrade—within two and a-half months alone.

So far as the joint organisation of the sale of agricultural products is concerned, the Conference of Exporting Institutes of the Agricultural Countries at Belgrade adopted a number of proposals relating to the rationalisation of the sale of wheat, maize and rye. It provided for the setting-up of an organisation in each of the participating countries (Bulgaria, Hungary, Poland and Yugoslavia) for the purpose of controlling the amount offered for export and guaranteeing that the commodities of the country to which the organisation belongs will only be sold abroad at prices and conditions fixed by a central office. The central office, the headquarters and sphere of action of which will be established by common agreement, will be directed by representatives from each national organisation. It will have to fix the prices and conditions of sale.

National organisations should be set up by March 31st, 1931, at the latest, and the co-operation of the States mentioned above should begin on July 1st, 1931. The first year of work will extend down to the end of the 1931-32 season, namely, June 30th, 1932.

These are the resolutions which the delegates of the Belgrade Conference were asked to submit to their Governments. Bulgaria has already set up a national organisation for the sale of cereals on a basis very similar to that explained above. Roumania is about to set up a similar organisation. Even if effect is given to these resolutions they cannot obviously be expected to have much influence in improving the prices of agricultural products so long as these continue to fall. The organisation of the marketing of the agricultural products of the most important European exporting countries can contribute towards preventing the reduction of international prices due to the appearance of unexpected and unregulated supplies, but it cannot raise prices, which are at present very low.

After studying carefully their agricultural position and, in particular, the conditions under which their agricultural products are marketed, the agricultural countries found that the most certain method of improving the economic situation of the farmers would be to increase agricultural prices. Following the example of many countries which import agricultural products, and being unable to employ any better method for dealing speedily with the present situation, they asked that products of European origin should have preference over oversea products on the European markets. Thus, by this artificial method, they hope most easily and speedily to bring about an improvement in agricultural prices.

The agricultural countries also showed during these conferences that they attach great importance to the granting of agricultural credit through international collaboration and to the organisation of the joint marketing of agricultural products, which will prevent these countries from competing against each other on foreign markets.

Their recommendations have been submitted to the League of Nations and they continue to hope for a favourable solution.

One of these recommendations, which relates to the question of preferential treatment, was discussed at the last Assembly of the League of Nations and at the Second Conference with a View to Concerted Economic Action. The agricultural countries have modified considerably their original proposals for the application of the system of preference; they have accepted all the conditions laid down in order that, once the system is introduced, it will not be an obstacle to international trade, and they have even agreed to grant concessions in return for any advantages accorded to them. Nevertheless, this system has not been received favourably by the European States, though the export of their industrial products to the agricultural countries is of great importance to those States.

The system of preference suggested by the agricultural countries of Central and Eastern Europe as one of the means of increasing the prices of their agricultural products and thereby the purchasing power of their populations as consumers of industrial products, offers a satisfactory basis for agreements between European countries with a different economic structure, and would at any rate facilitate and extend trade between those countries.

Even though the preferential system has not been received favourably, the agricultural countries continue to await a more acceptable proposal from the countries which import cereals. They are convinced that collective agreements or arrangements between countries importing and exporting cereals are at present more urgently needed than ever, and that the League of Nations should contribute towards bringing them about. They see in such action one of the international measures for improving not only the position of agriculture, but the position of industry in a great many countries.

Although agricultural credit is a secondary question in comparison with the necessity for an increase in prices, which is more urgent and imperative, it is of the greatest importance to the agricultural countries that it should be settled on an international basis. It is true that the solution of this question cannot do much to improve the situation in those countries unless the rate of interest is in keeping with the yield from agriculture; but it can do a good deal to alleviate the situation. We do not know what will become of this question. It is to be hoped that it will have a happier fate than the preferential system.

Annex

Agricultural Delegation of the Economic Committee:

M. A. DI NOLA, Chairman of the Economic Committee, Director-General of the Italian Land Credit Institute.	*Italy.*
Dr. Richard SCHÜLLER, Vice-Chairman of the Economic Committee, Director of the Economic Section, Department of Foreign Affairs.	*Austria.*
M. P. ELBEL, Director of Commercial-Agreements at the Ministry of Commerce.	*France.*
Dr. E. TRENDELENBURG, Secretary of State at the Reich Ministry of Economic Affairs, replaced by Dr. H. E. POSSE, Ministerial Councillor.	*Germany.*
Sir Sydney CHAPMAN, K.C.B., C.B.E., Chief Economic Adviser to the British Government.	*Great Britain.*
M. N. ITO, Councillor of Embassy, Assistant Director of the Japanese Imperial Bureau to the League of Nations.	*Japan.*
M. F. DOLEZAL, Under-Secretary of State at the Ministry of Commerce and Industry.	*Poland.*

Delegation of the International Institute of Agriculture:

Professor A. BRIZI, Secretary-General of the International Institute of Agriculture.
Prince Rufo RUFFO, Delegate to the Permanent Committee of the International Institute of Agriculture.
M. Georges WAGNIÈRE, Minister Plenipotentiary of Switzerland to His Majesty the King of Italy.

Agricultural Experts of the League of Nations:

M. Carlos BREBBIA, Member of the Economic Agricultural Committee to the International Institute of Agriculture.	*Argentine.*
Mr. MACDOUGALL, Member of the Economic Agricultural Committee to the International Institute of Agriculture.	*Australia.*
Dr. Engelbert DOLLFUSS, Director of the Bureau of the Chamber of Agriculture of Lower Austria.	*Austria.*
M. J. VAN DER VAEREN, Director-General at the Ministry of Agriculture, Professor at the University of Louvain.	*Belgium.*
Dr. A. RIDDELL, Canadian Advisory Officer accredited to the League of Nations.	*Canada.*
Dr. Bohumir HANOSEK, Chief Councillor of Section at the Ministry of Agriculture.	*Czechoslovakia.*
M. Einar COHN, Chief of Bureau, Statistical Department.	*Denmark.*

M. E. HYNNINEN, Former Minister, Managing Director of the Central Federation of Agricultural Co-operative Societies.	*Finland.*
M. Jules GAUTIER, President of the National Confederation of Agricultural Associations.	*France.*
Dr. A. HERMES, Former Minister, President of the Union of German Peasants' Association.	*Germany.*
Mr. R. R. ENFIELD, Ministry of Agriculture.	*Great Britain.*
Count Ladislas SOMSSICH, Member of the Upper Chamber, President of the Hungarian National Agricultural Society.	*Hungary.*
Sir Atul CHATTERJEE, High Commissioner for India.	*India.*
Mr. John COLBERT, President of the Agricultural Credit Corporation.	*Irish Free State.*
M. Arrigo SERPIERI, Professor of Rural Economy, Under-Secretary of State.	*Italy.*
M. K. ULMANIS, Deputy, Former President of the Council.	*Latvia.*
Dr. J. J. L. VAN RIJN, Member of the Economic Agricultural Committee at the International Institute of Agriculture.	*Netherlands.*
M. Haakon FIVE, Prefect at Steinkier.	*Norway.*
M. Casimir FUDAKOWSKI, President of the Union of Agricultural Associations of Poland, replaced by M. August POPLAWSKI, Senator, President of the Land Bank, President of the Polish Agricultural Society.	*Poland.*
M. J. RADUCANU, Professor, Minister.	*Roumania.*
M. J. CANOVAS DEL CASTILLO, Secretary-General of the Association of Spanish Agriculturists.	*Spain.*
M. E. INSULANDER, Director-General of the Agricultural Administration.	*Sweden.*
Professor LAUR, Director of the Swiss Peasants' Union	*Switzerland.*
Mr. Loyd V. STEERE, Agricultural Commissioner.	*United States.*
Dr. V. STOYKOVITCH, Director of Agrarian Policy at the Ministry of Agriculture.	*Yugoslavia.*

M. Georg SCHMIDT, Secretary-General of the International Federation of Land Workers.