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'THE PINCH OF PLENTY'

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his own ingenuity has unloosed, lest it should first bankrupt and finally overwhelm him.

By the end of the year 1931 the infant of Specialised Production, begotten of the Industrial Revolution and of International Division of Labour, nursed by Free Trade, and nourished by Scientific Application, had turned out to be a ravening monster bent on devouring his owners—or a sinister genie of the bottle, unaccountably raised and of very problematical extinction! How is the monster to be chained, or the genie to be safely lodged in the bottle again? These are the questions over which the brains of the whole world are to-day being cudgelled.

Thus the great Industrial Revolution, which carried agriculture in its wake, and which was until quite recently hailed as a boon and a blessing to man as against the curse under which he had so long laboured, has proved on maturity to be nothing else than that same curse viewed from another angle, with almost the same crushing incidence upon him. One set of problems has been exchanged for another, and no one yet knows which is the worse. For the pinch of poverty through former ages, the entire world in 1930–31 was called on to undergo a new and stranger pinch—the

pinch of plenty ; and the latter is the more difficult to shake off. During 1931 vast stocks of wheat were burned, or rotted in their containers ; over a million sacks of the best coffee were either burned in a Brazilian valley or pulverised into fuel for locomotives ; soldiers were called out in the U.S.A. to prevent oil from being pumped from wells ; rubber-plantations were patrolled to prevent natives from collecting the rubber oozing from the trees ; standing cotton was ploughed in without being picked ; sugar-producers all over the world combined in a five-year plan to restrict current output in order to unload vast stocks, while similar international agreements were made by the producers of copper, tin, zinc, and aluminium ; a new method of producing nitrates sent Chile, the former producer, bankrupt. There never had been such an *embarras de richesses*.

On the other hand, drastic measures of " economy " were not only preached and extolled in all countries, but they were even decreed and enforced with the direst penalties for disobedience. As production of all foodstuffs and raw materials was curtailed, and as stocks became more of an encumbrance, so consumption was com-

pulsorily cut down, by way of restricted purchasing-power and diminished expenditure. The world, indeed, was in an "economic dilemma"[1] without a clear notion how to escape it. Add to this the fact that, in the winter of 1931–32, there were roughly twenty to twenty-five millions of former wage-earners unemployed; that every nation strove to export, and none to import; that vast industrial and agricultural undertakings also went "out of work" and their plant lay idle, rusted, or wasted away; that prices, whether of goods, of services, or of stocks and shares, all came tumbling down; and that the consequent political unrest banished the angel of Security—then, indeed, we have an accurate but dismal picture of the world from which, so it was said, the curse of Adam had been finally expunged—the "modern world."

But—and it is a big "but"—too close an examination of the darker side should not blind anyone to the brighter aspects. If the pinch in 1931 was the pinch of plenty, then human endeavour should clearly be directed to securing the plenty, *which was only too painfully evident*, without the pinch. And

[1] *The World's Economic Dilemma*, by Ernest Minor Patterson, McGraw-Hill, 1931.

the prerequisite for that endeavour, equally clearly, lies in the unravelling of causes, in the analysis of their effects, and only then in a redistribution of effort, to prevent the recurrence of both the causes and the effects.

We live to-day in a world so criss-crossed with intricate economic relationships that we are almost necessarily ignorant of the intermediary channels by which our daily wants are supplied. We take immediate things as if they were finalities, without knowing *how* and *why* we can claim them at all. Between the time we rise in the morning and the time we leave the house we have touched, tasted, or handled the products of the entire world —have tied the knots in any number of loose strands which stretch all round the globe. The reader may say at this point: "Of course, it's just division of labour—national and international specialisation, you know—scratching each other's backs—British labour on British steelware for Argentinian labour on Argentinian chilled beef, Brazilian labour on Brazilian coffee, Danish labour on Danish bacon, etcetera."

True; but how has this complicated mechanism come about? In what direction is it moving? Is it economical, or wasteful? Who finances the business, and what *inter-*

national money makes a world market possible? Do world prices keep steady, and what happens if they don't? Do Governments make things better if they put an oar in, or is it better to leave trading concerns to paddle alone? On what terms do manufactures from one country buy food or materials from another, and do those terms alter? What international machinery exists for organising production, exchange, and consumption? Can there ever be real overproduction? Wouldn't it be better if all the nations were contentedly self-sufficient for their necessities, and merely traded in luxuries, instead of this wretched dependence on so vulnerable an international mechanism? In brief, has the economic advance of the last hundred and fifty years led us away from a kind of serfdom to the land merely in order to threaten a worse alternative?

That adequate answers to the above questions must be provided, this book makes an attempt to show. But two things must be borne in mind throughout. First, the world economic crisis which has become more and more severe since 1929 had its earliest symptoms in those countries which provide the industrial world with foodstuffs and raw materials; therefore in the economic cir-

cumstances of those countries will be found some valuable clue to the real nature of economic crises themselves, and perhaps some hope of their eventual alleviation. Secondly, these foodstuffs and raw materials enjoy (or suffer !) a world market which only a very few forms of industrial products possess ; therefore any and every form of dislocation practised upon that world market, and all kinds of *partial* measures, must from the outset obstruct the clear working of that world market's machinery, and so jeopardise an economic system raised on that world market as a basis.

It cannot be a minor service to tell the world that it is *one* world in the matter of resources and supplies, and not as many separate worlds as there are nations. The world crisis which broke on us in the autumn of 1929 proved that in economic matters, at any rate, the whole *is* greater than the sum of its parts ; and that the economic health of the whole demands a healthy co-operation of the parts.

CHAPTER I

AGRICULTURE AND ECONOMIC DEVELOPMENT

In the year 1798 the Rev. T. R. Malthus startled not only his readers but the Prime Minister of Britain (Pitt), and the thinking world of that day, by his *Essay on the Principle of Population*. By 1817 the Essay had run into five editions, a Factory Act had been dropped owing to its influence, Poor Relief was being scaled down, and the principle it enunciated was continually being raised in the House of Commons. The cause of this influence was that its author uttered a solemn warning to mankind of the dangers of over-population at a time when all Europe was at war, when commerce was paralysed, and when machines were first beginning to oust human hands from employment. "With every mouth God sends a pair of hands" was an unfortunate truth when hands remained idle and the mouth lacked food. So the unemployed fell back on the rates, which rose to astronomical heights; and when William Godwin published facile

visions of a Government-less Utopia, Malthus, stung by such seeming short-sightedness, sternly reproved him by warning humanity against easing the lot of the workers and thus unbridling their restrained reproductive powers. Malthus' theory was threefold :

(1) Population is necessarily limited by the means of subsistence.
(2) Population always increases where the means of subsistence increase.
(3) The checks which repress the superior power of population, and keep its effects on a level with the means of subsistence, are all resolvable into moral restraint, vice, and misery.[1]

Now contrast with this theory the following facts :

(1) In 1931, as compared with 1801, the estimated population of the world had risen from about 1,000 millions to about 2,000 millions.
(2) This increase had been relatively greater among "Western" nations, as a result of the Industrial Revolution.
(3) Standards of living in these "Western" nations had risen (considering hours of

[1] As given in a footnote in the Fifth Edition, Ch. II.

work, holidays, health, housing, etc.) by anything from four to six times in that 130 years, and especially since about 1860.

(4) Population in these "Western" nations, on the other hand, had not gone on increasing with the rapidity with which it had begun; and this slackening down began about 1870–75. In Britain, indeed, the birth-rate fell as quickly as the death-rate had fallen earlier, and a completely *stable* population was forecast for 1941. The same stability was foreseen in Germany, and had long been the case in France.

(5) In 1931, despite a world War, vast stocks of every kind of primary commodity lay idle, rotting, or awaiting destruction. Prices were in most cases much lower than before that War, and in all cases about 50 per cent. lower than those ruling only two years previously (1929).

(6) Land was offered "rent-free" in Britain and Germany, while tariffs were put on, or increased, in order to preserve the lives of farmers in "Western" countries.

(7) There were 20–25,000,000 industrial workers unemployed in the winter of 1931–32 throughout the world.

(8) Almost every country producing raw materials or foodstuffs for export was absolutely bankrupt or insolvent in 1931.

Evidently Malthus should have observed the caution : " Study not prophecies till they become histories." Within about a century the fear of dearth had been translated into the dread of abundance ; producers everywhere combined in order to substitute " too little " for the " too much " which was swamping them ; and the general inadequacy of selling-prices to cover costs caused widespread restriction of possible production in all primary goods. Moreover, the earlier fear of failing sustenance for ever-increasing industrial populations had now become the reverse—the fear of failing employment amid a surfeit of food one could not buy.

Malthus' strictures on raising standards had earned for the early science of Economics the name of " the dismal science." For it was associated with a profound pessimism, or at least scepticism, with regard to the possibilities of human progress and material welfare ; it was talked about in much the same vein as that used by Johnson's friend, Edwards, when he once said : " I have

tried in my time to be a philosopher ; but, I don't know how, cheerfulness was always breaking in." In the case of economic development, however, the cheerfulness which broke in on the older conceptions arose from the very opposite results to those anticipated by the economists of that age. One factor which they steadfastly refused to countenance, in their passion for *laissez-faire*, was any form of State-intervention with the so-called "inexorable workings of economic law."

But political action, with the best of motives, is very apt, in a good democracy, to step in and undermine the foundations of a superstructure of economic theory—however guardedly it has been raised. For instance, *if* men seek their own interests with the degree of enlightenment which Adam Smith required, and *if* entirely free competition prevails, and *if* capital and labour are completely mobile, and *if* all other things remain equal—then doubtless any economic undertaking would be located, in place and in time, where capital, labour, and natural resources are each most economically available in the most economical proportions. And the precise distribution of economic forces giving the maximum of material

well-being would determine the allocation of production over the entire globe.

Unfortunately, to the extent that the States of the modern world still try to be "sovereign," that social exigencies, political differences, and economic sectionalism obstruct the free interaction of economic forces or tendencies, so the delicate superstructure of economic theory, and the upper stories of economic analysis, are rendered insecure in any practical sense. The solution of economic problems, especially if they lie in the no-man's-land of international economics, is generally arrived at on social or political—seldom on purely economic—grounds.

Thus, John Stuart Mill's classical exposition of the theory of international trade formed a kind of "Thirty-nine Articles" for nineteenth-century Britain; but after the Great War of the next century it had degenerated to a kind of score for economic five-finger exercises. Not that any of Mill's conclusions were now invalid, *given their premisses*—but those premisses simply no more obtained; they were only of interest to an economic theorist with a flair for abstract analysis. *Laissez-faire* had disappeared; so had free trade; so had the fluidity both of

capital and labour; there were no more *entrepreneurs*, and no more "pure" self-interest; and there was everywhere an anarchic jumble of state-measures, all conflicting. Even industry and finance had, in their foremost branches, become a menacing kind of international monster—threatening even states themselves; while trade unions, and political action directed to economic ends, bade fair to undermine the already tottering foundations of the entire *laissez-faire* economic system.

Now, all human activity either depends on, or is directed to, the production of certain commodities called basic or primary commodities. On the basis of these commodities the great technical progress of the Industrial Revolution has worked itself out. They are all raw materials in the sense that the great majority of them have to undergo further forms of manufacturing process before they are ready or fit for human uses—whether as foodstuffs or as the foundation of manufactures. Thus, cotton is a raw material to the cotton-spinner only after it has passed through the operative processes of picking, grading, ginning, packing; he then turns it into yarn by a highly developed system of manufacture, using the latest products of the

Machine Age. But cotton yarn, a finished product of the spinner, is still only the raw material for the weaver, who subjects it to another process of manufacture before it becomes "grey cloth." And this grey cloth, the finished product of the weaver, is the raw material of the dyer, bleacher, and finisher. Again, the merchant who runs various cloths for stock, and the wholesale house to which he sells in some distant market use the finished cloth as their "raw material," though they do not subject it to further manufacturing processes, apart from packing it or labelling it. Finally, the big retail store buys it from the wholesaler (often direct from the merchant), adds its services to all the others, and so the raw cotton, just plucked from the boll, finds its way to the ultimate consumer, in lengths or in garments.

What happens with cotton happens also with wheat, rice, rubber, sugar, tea, coffee, cocoa, raw silk, meat, wool, leather, timber, ores, and oil—though not many of these primary commodities are subjected to as multifarious manufacturing (or preparatory) processes as cotton. The world's supplies of these basic materials are raised from world resources by means of international specialisation—one country producing, let us say,

wheat, sugar, and cotton (U.S.A.), and offering them to the world's markets in exchange for, let us say, gold, high-quality leather goods, or even shares in companies (Germany or Britain). This *mundane* division of labour is a direct descendant of the old *national* division of labour, the classic example of which was given in 1776 by Adam Smith in his *Wealth of Nations* when he described how many more pins per diem could be made in a factory if one worker concentrated on the body of the pin, another on the head, and a third on the point.[1] The line of descent is well worth following, for reasons which will emerge later.

Adam Smith stressed the fact that division of labour is everywhere limited by the extent of the market for which the goods are destined.[2] When men lived in farms or tiny clusters of smallholdings each farm or hamlet was its own market, and it did not pay a cobbler or a smith to start a factory ; yet even at this stage there was rudimentary division of labour, in that both the sexes and the social classes had complementary spheres of economic activity. Markets proper began with townships. Where many kinds and

[1] *Wealth of Nations*, Bk. I, Ch. 1
[2] *Ib.*, Bk. I, Ch. 3.

classes of men live together it definitely pays to specialise on certain forms of production ; to the town-market came the farm produce, and articles made by the town-artisans went back to the country in exchange for the means of subsistence. Thus, markets extended until each district round the market town became, from ancient times to the Middle Ages, a self-sufficient unit. Money itself, the means of extending the area of exchange, was first of limited purchasing-power—limited to its particular baron's jurisdiction ; and not until feudal systems were overcome by the centralised administrations of kings could markets become truly national. International exchange was limited to luxury items for the favoured classes, or to surplus produce which could be effectively administered or supervised by companies protected by royal charters. Even when national surpluses increased and foreign trade thereby grew, there was cause for misgivings. Monarchs and their advisers feared imports which, they thought, only "conveyed the King's coin out of the realm," and thus lessened his war-chest and his economic power.

But English writers of the sixteenth and seventeenth centuries pointed out that, even

if the values of imports exceeded those of exports, the apparent debit balance was often redressed by "invisible items"—services rendered to foreigners, for which the foreigners must give a credit, in cash or kind. Such were the freights due to English shipowners; commissions due to merchants; interest due to the English lenders of money abroad; and, no less, the repatriation of English funds lying in foreign centres. Moreover, the point was made that by selling abroad our surpluses of specialised production we could obtain higher prices than if we were to restrict those surpluses to the home market, which would thereby become swamped; and thus we would have a claim on the produce of others' labour which would amount to more in goods than if we were to make all our own consumable articles.

Once the specialisation system, based on division of labour to supply a wide market, was entered upon, the conclusion became inevitable that capital, land, and labour should always be employed on those forms of production and in those localities which were more favourable to the *entrepreneur*. Thus, Adam Smith says:

"All . . . find it for their interest to employ their whole industry in a way in which they have

some advantage over their neighbours, and to purchase with a part of its produce, or, what is the same thing, with the price of a part of it, whatever else they have occasion for. What is prudence in the conduct of every private family can scarce be folly in that of a great kingdom. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage. The general industry of the country . . . will not thereby be diminished . . . but only left to find out the way in which it can be employed with the greatest advantage. It is certainly not employed to the greatest advantage, when it is thus directed towards an object which it can buy cheaper than it can make." [1]

The eighteenth century had given to England the command of the seas, of a world-wide empire, and therewith the most favourable position in creating world markets and a world trade. When to these advantages were added the inventions and the reorganisation of the Industrial Revolution, it is not hard to see the reason for the combined attacks on the old system of purely *national* economy, tariffs, licences, restrictions, and

[1] *Wealth of Nations*, Bk. IV, Ch. 2.

standards. No one wants a monopoly restricted when he has just secured it; and England possessed, from 1770 down to 1870, that rare and coveted thing—a seller's monopoly—a monopoly not only in the production but also in the processes of all the new methods and machinery of production. And yet, even during the French Revolutionary and Napoleonic Wars from 1792 to 1815, she was also in a position to export wheat and corn to the Continent. England was a "balanced economy" in those days; and Napoleon put an embargo on her exports of corn as well as on her exports of machinery. The full force of the Industrial Revolution had not then declared itself; and wheat and machinery, side by side, sold at high prices in all markets. From 1815 onwards England slowly, but with cumulative momentum, turned round to become a completely industrialised nation; and within a century she was dependent for, roughly, four-fifths of her supplies of food and of raw materials for those vital export industries on imports. Within the same hundred years there arose nation after nation, copying industrial technique, applying new agricultural methods, developing new natural resources on loans from older countries, opening roads, rail-

ways, canals, mines, and factories. Across the Atlantic there sprang up an economic power rivalling the older European systems, and the world's economic axis threatened to shift across to America, especially after 1914. So that, when the world of 1914 looked back on the world of 1815 the differences were so striking and so momentous that the one was unrecognisable as the heir to the other.

There is a greater gulf fixed between the modern world and the world of a century ago than between the world of 1815 and the Roman Empire. In 1815, as in the Roman world, foreign trade was subordinate to national production and consumption. Foreign trade and foreign specialisation on certain articles only took place then to a limited extent over and above the local or national satisfaction of primary needs. Egypt and Africa, indeed, at the end of the Roman epoch were supplying practically all the wants of the Italian peninsula, so that Pliny could say: "It was the large uncultivated estates of Italy which caused Rome to perish."[1] But it remains true that, from the fall of Rome until the end of the Napoleonic Wars, the slowly developing nations of Europe and of the New World

[1] "*Latifundia Italiam perdidere.*"

beyond the seas were, in their primary needs, self-sufficient. Foreign trade became more and more extensive, but always in spices, cloth, precious metals, and other comparative luxuries which were easily transportable by the limited means of transport available. The different national economies were not so very diverse in 1815. They were based on a national balance between the produce of the countryside and the products of the towns; while foreign commerce supplied the slowly growing needs of the upper classes whose fortunes were (or had been) based on one or the other of these two primary national forms of economic activity.

Contrast this with the world of 1913, just before the Great War. Within that extraordinary epoch, the Nineteenth Century—that is, between 1789 and 1913—the economic foundations of the whole world had been shaken, shifted, and reconstructed afresh. Whole nations depended for the major portion of their food and raw materials on the produce of other nations. In exchange they offered specialised products of "manufacture"—products of specialised skill and exactitude; or, as in the case of the most advanced industrialised nations—Britain, Germany, and the U.S.A.—they

paid for their imports of food or materials with "services" such as banking, loans and credits, transport, insurance, and merchanting. In 1913 the scales had moved in the other direction. Foreign commerce now formed the pivot upon which the economic welfare both of industrial and of agricultural nations turned. Bad harvests sent up the cost of living in the industrial nations, and caused a fall in their exports to the countries which produced foodstuffs. A financial crisis or a war in another continent (as in 1863–66 in U.S.A.) caused widespread unemployment and a shortage of raw materials elsewhere (as in Lancashire, which suffered the serious "cotton famine" of that period). The accumulated capital of earlier national commerce was now administered by banks and concerns with world-wide connections to develop the resources of lands beyond the seas; and the produce of these countries paid not only the interest and sinking funds of these "loans," but also enabled those lands to sell their increasing output to the industrial nations at considerable profit, owing to the enormous advances, both in population and in standards of living in those countries which were in the van of industrialisation.

This enormous expansion of production, this world-wide development of natural resources in "new" countries, this increasing interdependence of the world for supplies or for development-capital rested wholly upon three requirements. These three factors were as three driving wheels—if one gave way, the whole system of world economic activity suffered a shock, a crisis. If ever one should completely break, the machine would come crashing down. If one of them only "warped" more quickly than the others, the machine would take on a perilous angle, out of plumb.

The first was Technical Progress in the development and exploitation of natural resources. It was from this wheel that the whole nineteenth-century economic system of the world had first moved. The second was Population—the growing consumption-side of the world throughout that epoch. The third was International Organisation. This last is a poor expression for what it comprises; but, although there was very little actual conscious international organisation throughout the nineteenth century, yet there was an international norm of political and economic relationships which was upset every so often by wars, "scrambles" for new lands, tariffs,

new monetary laws, and the creation of new political entities (Germany and Italy).

The first two driving wheels moved together ; technical improvements ran parallel with increasing world population, and so the continually rising Demand led to continually advancing Supply, while the increasing Supply stimulated a rising Demand. There were more mouths to feed ; more food was produced in more economical ways by the pairs of hands which accompanied the new mouths ; and new discoveries saved the labour of those hands, while providing ever-expanding qualities and varieties of consumable goods or of machinery for further production. If only the conscious human element—the wheel of international organisation—had moved in harmony with the other two, the system would have had no major shocks. As it was, however, nations went to war, national decisions were made which altered the direction of world trade without reference to that trade itself, and the world itself altered in political shape. The result was that every now and then the mundane economic system got a bad shock ; not so drastic as might be expected—for the world was then developing ; it was always "going on" ; and it could stand these

nineteenth-century crises fairly easily, for it could pick up again quickly at a new and higher level of well-being. Again, the nineteenth century was a century of comparative peace. From 1815 to 1913 there were only seven wars; only sixteen countries were involved in these sixteen war years; each war was distinctly a localised one; and, *altogether*, the losses in man-power as a percentage of the world's population at each date were far less than the percentage of world losses in the Great War. Commerce was barely interrupted by these wars—and then most of all by a civil war, in U.S.A. There was a longer period of free trade—of "natural commerce"—than at any other time in history; and so international economic development, free exchange of goods, specialisation on certain forms of production, and the main lines of the modern economic world were easily pursued. All of these main lines of economic development can be summed under six heads.

The first three follow the three driving wheels—Technique, Population, and National Activities.

Technique was based on the accumulated capital of former *national* commerce. It was advanced and extended by investment in the

new, wider *international* commerce ; it made handsome profits, which were merely, at first, reinvested in new methods or further developments. The rise in standards of living, both of workers and employers, did not take place until the second half of the nineteenth century.

Population throughout the world increased by about a hundred per cent. between 1815 and 1914, but its greatest increase in Western countries was between 1815 and 1875 ; thereafter its tempo of increase slowed down.

Nations developed between 1815 and 1914 a new form of political organisation—parliamentary representation of all citizens—together with special departments to deal with social, economic, and international questions. The onus of watching over the welfare of their citizens was definitely laid on the governments, who introduced social reforms at the expense of the rapidly increasing capital and incomes of the manufacturing or trading classes. Commercial treaties and agreements were made with other nations, but no international co-operation on a wider scale took place—unless it was to annex or parcel-up some "undeveloped" territory, as happened in the cases of Africa and China. Of international

co-operation in monetary matters, for instance, there was not a vestige. Slowly gold came to be accepted as the standard of all values, but its own command over all other commodities of world trade fluctuated widely throughout the century, and, again, nothing was done internationally to remedy its shortcomings, as they were noticed by Adam Smith in the previous century :

" But as a measure of quantity, such as the natural foot, fathom, or handful, which is continually varying in its own quantity, can never be an accurate measure of the quantity of other things ; so a commodity which is itself continually varying in its own value, can never be an accurate measure of the value of other commodities." [1]

National development in banking, credit, forms of enterprise, tariffs, bounties, laws relating to factories, hours, and even wages —all these were made with regard solely to the *national* interests as the latter were understood (or rather misunderstood !) by governments. So that national action in the social or economic sphere, intended for " home consumption," inevitably had repercussions upon the system of world economy, and this system suffered in two ways : positively and

[1] *Wealth of Nations*, Bk. I, Ch. 5.

negatively—positively by these immediate repercussions, and negatively by the absence of *international* action to alleviate the ensuing crises. In an epoch when *laissez-faire* was the household god of the nations it was useless to expect anything else than a kind of reverence for economic "laws" in the sphere of international economics; and though nation after nation put on tariffs, altered currency laws, gave bounties to export, and multiplied the restrictions of social legislation, none of them seemed to realise that they were offering only lip-service abroad to these dread economic "laws," while at the same time they were rendering their working at home impossible.

The second three headings of economic development in the nineteenth century are all concerned with the organisation of world trade: they are—Finance, Marketing, and Transport.

The progress in the technique of international banking, investment, and insurance, together with the development of Limited Liability and of Stock Exchanges, made it possible to utilise the industrial capital of the Western nations in developing the backward regions of the world. Bills of exchange could be freely discounted, shipments of

goods facilitated, capital-improvements laid down, transport financed. Exchange-rates became steadier, and prices levelled out, far more than in the previous centuries.

Secondly, the marketing of all world trade commodities was organised for the first time. Commodity-exchanges for all basic products sprang up in all countries ; and the leading world exchanges (*e.g.* in wheat, copper, cotton) determined the world prices. Information of market conditions became diffused over a wider circle. "Dealing in futures" helped to level out the course of prices over the year. And the industries dependent upon these basic commodities began for the first time to be organised in relation to the new commodity-exchanges.

Finally, conditioning both the foregoing developments, the revolution in transport and communications—by land, sea, cable, and air—made the trading world a unit for both producing and consuming purposes. Not only did news and goods come quicker to their recipients, but differences in price and in quality were levelled out, owing to the increased range of selection available and the rapidity of supply.

Thus the nineteenth century became the century of fluid capital, of relatively mobile

labour (emigration), of keen competition to develop natural resources, and of increasing capital and standards of living. The world was rationalised for production in a hundred years, without organised effort on the part of nations or governments—rationalised by Free Trade, competition among firms of *entrepreneurs*, and by capital-exports for rising populations. The rates at which various countries became industrialised (in the West) or " developed " varied according to their command over capital, technique, labour, and natural resources. Beginning with Britain in 1815, the order was something after this fashion : U.S.A. and France, then North-West Europe, then Germany and Italy, then Central and South America, then Russia, and, finally, the British Empire and the Asian and African countries. So that the picture of the economically unified world of 1913 came about piecemeal, like a jig-saw puzzle slowly fitted together. The year 1914 saw that picture overturned, and the pieces scattered.

CHAPTER II

AGRICULTURAL PROBLEMS

THE words "world agriculture" cover the production of the following basic products: wheat and cereals like wheat, rice, maize, sugar, cotton, wool, meat, leather, tea, coffee, cocoa, dairy-products, raw silk, timber, tobacco, rubber, wine, fruit, nitrates, ground-nuts, and fodder of all kinds. It will not be possible in this book to deal with all these at any length; but they will be dealt with at various points, and in various connections. Their production is, in most cases, scattered over a very wide area, and they all enter into world trade, with world prices. The list shows how extensive the phrase "world agriculture" becomes; and if to this be added all the other primary or basic commodities—ores, oil, chemicals, coal, and other minerals—it will be appreciated that the "basis" of world industry and commerce is very extensive. How, then, does world agriculture rank as a form of production? How does it differ from manu-

facturing industry? Is there anything in the very nature of agricultural production which would explain why economic crises always show symptoms first in countries whose national economy is overwhelmingly agricultural or "primary"? Why are the producers of primary products always so hard hit when prices fall?

Agriculture, indeed, by its very nature is fundamentally different from manufacturing industry. In the first place, tenancy is far more common in agriculture than in industry. Hardly anyone hires out or leases factory-plant. But the rent of land is a common element in all tenants' outgoings—a rent which is generally composed of interest upon landlords' capital sunk in the land as well as of net economic rent—the payment for the advantages inherent in a particular piece of land. Then again, if the owner farms his own land and works with his own capital, he cannot hope to "turn his capital over" more than about once per annum—sometimes, if he can crop a field twice, once and a fraction; whereas it is a common feature in industry to turn one's whole capital over many times in a year, owing to the rapidity of processes, production, sale, and returns. This means that an industrialist can better

afford to make fresh capital improvements. Again, capital is more easily raised for industry, through banks or stock exchanges, than for agriculture, although there are now land banks, mortgage banks, and co-operatives which make the provision of funds for the farmer easier than it was last century. Again, production in industry is continuous throughout the year; in agriculture it is spasmodic to the highest degree, and generally all concentrated on "seasons"; so that all the farmer's output deluges the markets at once, unless co-operation in marketing has claimed his attention. Again, if prices fall, industry can either cease operations, or go on short time, or change to the manufacture of some other more suitable product; none of these things can be done in agriculture once the fields have been sown, or the plantations cultivated. Again, when prices fall the raw materials of industry at least become cheaper; but these are the very end-products of agriculture itself; and the utmost benefit the farmer can hope for is that he can economise to a slight extent in fodder for cattle—generally some other farmer's end-product at that! Again, the demand for agricultural products is "inelastic"—*i.e.* a great difference in their

price makes very little difference to the quantities needed; whereas industry serves, mostly, an "elastic" demand—a small difference in price makes a great difference to the quantities needed; so that a fall in prices is worse for the farmer, who can only sell the same amount, than for the industrialist, who may, at any rate, secure wider markets at lower prices. Again, the marketing of primary products is not so highly organised as that of manufactured goods; and co-operation in agriculture—the nearest analogue to industrial rationalisation—is nowhere so far advanced as the latter, and nowhere has it yet gone properly on to the international plane. The producers of the world's primary supplies are everywhere difficult to organise, conservative to a degree, and sceptical of technical improvements. Again, climate, weather, and pests affect agricultural production, but leave industrial production almost untouched. Again, the grading and precise production "to order" of industry can never be so complete in agriculture, although grading is progressing there. Finally, there is little deterioration in industrial products, even when they are kept long in stock; there is not so wide a market for any given manufactures as

for agricultural products, the market for which compels price-movements to prevail universally ; and industrial products have relatively small bulk to their value, while agricultural products have large bulk to their value, so that transport and other costs form a greater percentage of the cost-per-unit of agricultural products, and this puts them at the mercy of intermediaries.

Finally, there is that aggravating element, the long-run fluctuation in the purchasing-power of money itself. For example, since currencies were stabilised or revalorised after the War on a gold basis, the purchasing-power of an ounce of gold, and therefore of the credit-units raised on gold as a basis, has steadily advanced with falling gold-prices.[1] Sir Josiah Stamp has pointed out that the worst effects of such a continuous decline in the world's gold price-level must fall on countries and enterprises where :

(*a*) there is heavy fixed indebtedness in terms of gold-basis money, spread over a long period ; and

(*b*) there are rigid costs of production—wages, rents, interest, transport, etc.

[1] See Hutton, *Nations and the Economic Crisis*, in this Series, Chs. II and III.

These countries are mainly those exporting agricultural produce. Failing an international mechanism for altering all long-term contracts *pari passu* with the downward trend in prices, it is clear that agriculturalists in such debtor countries must feel the burden of their debt-services more and more heavily. But for industrialists, the world-prices of their necessary raw materials are at least falling quicker than the selling-prices of their own manufactures—for particular national markets are not subject to the same depressing tendencies as the world market for foodstuffs and raw materials. This means that manufacturers, in all lands, can cut part of their costs; but agriculturalists cannot—unless they use the products of other agriculturalists for raw materials, as do, for example, Danish pig-breeders who buy cheap fodder and grains to "convert" into bacon. Thus, the agriculturalist bears the brunt of a fall in world-prices, simply because:

(*a*) his products are direct products from natural resources, subject to rigid costs and to inelastic demand;
(*b*) these products sell on a world-wide, competitive market;

(*c*) his fixed indebtedness is heavy, and his turnover is slower than in any other enterprise.

Thus agricultural prices always fall more steeply than industrial prices ; and this causes a lag in agricultural purchasing-power, since it takes much longer for the agriculturalist to regain his former level of effective demand for industrial goods. Thus the vicious circle of lagging world-demand sets in : agricultural prices fall more steeply than industrial, agricultural demand for industrial products declines, industrial prices fall less rapidly but unemployment sets in, and industrial demand for agricultural products then declines. Consequently the next returns to agriculture are worse, agricultural demand again slackens and prices fall further.

The agricultural lag is a very important factor. If a farmer's returns at the end of one season are poor, he gets into difficulties because he has to pay back loans from the banks which he took at rates which anticipated good returns ; he has to pay manufacturers for farm materials already used in producing this now disappointing harvest ; and he has to incur further loans and purchases in order to produce the next crop, for

which he will not receive any return until it is harvested, and for which the rate of return is very problematical. Agricultural credit is not considered as satisfactory as industrial credit, and banks charge high rates for short-term loans. When one harvest has brought in poor returns, often because it was a good harvest, it is the more difficult for the farmer to obtain generous credit terms from the banks. He has a very lean time, and unless returns from the following harvest are particularly profitable he is unlikely to make good ; yet the chance of returns being profitable is considerably damaged by the fact that there will probably already be stocks on the world's market which will keep prices down.

It cannot be too strongly stressed that the monetary factor assumes greater importance in the case of agriculture than in industry. The very points of difference which we have noticed above—slow turnover, size of debts, high first charges on the revenue, abnormal sensitivity to world price-movements and to crop conditions, difficulty of obtaining adequate capital at reasonable rates, difficulty of utilising capital to its full capacity, inelastic demand for agricultural produce—all these mean that the agricultural producer

needs two kinds of stability. First, he needs stability in the purchasing-power of money ; for if the purchasing-power of money sensibly increases (prices fall), then his high first charges upon revenue become more difficult for him to settle—he has to give more products at lower prices to pay off a fixed debt in so many pounds or dollars per annum. This means that production has to be extended or intensified when prices are already falling ! Secondly, he needs stability in the conditions of production. Very largely this follows from his first need ; for if prices are stable over a reasonable number of years, the margin at which it just pays to cultivate will also remain stable, and then only Nature or Technique can upset the supply side of the price-equation.

Thus, given stability in the price-level of agricultural products on the world market, and given also a reasonable stability in natural and national conditions of production, we might expect world agriculture to be carried on by just the " right " number of farmers and planters in all countries. The " right " number is then determined by John Stuart Mill's *Theory of Comparative Costs*—that goods tend always to be produced in just those places where costs are

equal to, or less than those under which the "marginal" producer labours; and to be produced to just such an extent as would equalise those costs. If costs are higher than this "natural" level, the cultivators will be driven out by competition for the world-price. The "marginal farmer"—the farmer whom it just pays to produce his contribution for the world's demand at the ruling price—would fix the level of costs above which it would not pay to produce the particular product anywhere.

But over any given term of years prices are most unstable;[1] nor do national conditions of production remain the same in all places. Banking practice and currency laws alter: so does the supply of gold as a basis for the values in the gold-standard world, so do the habits of the people in paying by coin, notes, or cheques; and all these have an effect on the long-run movement in agricultural prices—which may be drastic. Again, Nature plays scurvy tricks—flooding one year, and parching the next—so that supply alters, and this affects the short-run move-

[1] Thus Sir Josiah Stamp has stressed, in the case of agriculture, the importance of the long-term, secular price-movement of thirty to forty years, as opposed to the short-term movement of five to eight years whose effects are most felt in industry.

ment of prices. Population movements and changes in diet or fashion also decrease or increase demand. Of national factors there is no end, and they are all liable to affect the world-price at any moment: prohibitions, tariffs, bounties, transport-freights, taxes, laws of property, hygiene requirements: all these affect both demand or supply, and therefore price. The state of manufacturing industry reacts through profits, wages, interest-rates, and capital supplies, on agricultural prices.

Again, the progress of scientific technique in agricultural production tends always to facilitate the increase of supplies; this, with a prevalent inelastic demand, or at the best with a demand which only slowly increases, bears continuously and heavily upon prices. If one adds to all the foregoing factors the uncertainty of the Natural element, it will be seen how manifold are the tendencies towards instability in world agricultural prices—that is, towards the most unfavourable element in the long list of evil contingencies, all of which the agriculturalist, somehow or other, seeks to calculate and forestall.

The level of costs in agriculture is more fixed and determinate than that in industry;

credit accommodation and mortgages have to be repaid to date, regardless of fluctuations in money values, and regardless of returns. It is not as easy to change from one agricultural product to another as it is to change from one industrial product to another. Agricultural returns are insecure enough anyhow, subject to unaccountable climatic conditions, pests and rot ; and the nineteenth century made the farmer bear the additional risk of international competition. When each country supplied chiefly its home market, if crops were poor judicious importation might be approved, and high prices made up for low yields—as in the United Kingdom after the Napoleonic Wars ; but when large quantities were continually arriving from overseas the price was *always* tending to fall, and the home farmer had no chance of making up for one year in another. The introduction overseas of winter crops completely upset the farmers in Europe. When wheat was harvested once a year and that supply had to last until the next harvest, a bad harvest might mean famine to part of the population, but it meant high prices to the farmer. But when wheat could arrive from overseas any and every month in the year, and when com-

modity, exchanges had perfected "forward dealings" and had thus levelled out prices over the year, a bad harvest in one country meant almost ruin to its farmers; a bad harvest in several countries, causing a world shortage, meant good profits; and good harvests everywhere meant low returns. The higher the price, the more the cultivation of land could be extended to take in poorer lands, or the more it could be intensified on old lands by means of fertilisers; the lower the price, the more difficult it was for farmers to cover their costs, and the greater became the improvements in agricultural technique. Thus, by a succession of high and low price-levels, agriculture was not only extended and intensified, but striking technical progress was achieved.

Thus, the farmer during the last century was being carried along by forces outside agriculture to an increase of total production, higher yields, better breeding and more efficient implements. He grumbled at high costs; if he was a European farmer he fought for tariff protection; and he tried to preserve a purely national outlook, giving first place to agriculture. (The latter proved successful in Germany, France, and Italy.) His reasoning was supported by the experi-

ence of the Napoleonic Wars when fear of starvation, high prices and high rents raised the prestige of the farmers and led them to hope that this good time would continue. But against them was the relentless advance of the Industrial Revolution, which brought in its train free trade or decreasing tariffs, social reforms, and a growing demand for food which could not be met by home supplies. Willy-nilly the farmer was dragged along in the wake of machines, fertilisers, railways, steamships, bank credits, "co-op.s," all of which seemed thrust upon him, and always (in his eyes) at the wrong time. He was, after the usual period of suspicion, ready enough to take advantage of new machinery and of better transport when it was a question of his being in a monopoly position to supply increasing markets; but when he was forced to lay out more and more capital to compete with supplies coming from the United States, and later from Canada, the Argentine, New Zealand, and Australia; and when at the same time world-prices were falling, it is understandable that to the farmer in "old" countries Protection seemed merely common sense.

Governments were thus compelled to consider "open" markets for industry, and at

the same time to "protect" the farmer in case they should need him again for another war—always a potent factor in the policies of nationalist countries.

For instance, Britain had to have cotton and wool for her industries; the one she cannot grow at all, the other she can only produce in relatively small quantities. It is extremely improbable that even in the most favourable circumstances she could grow enough to feed her population, so she must import food—in fact, about 70 to 80 per cent. of her total needs—and to pay for this she must either export her industrial goods or increase her services—her "invisible exports"—to foreign countries. Overseas countries, however, can only demand goods or services if they are able to export their primary products. International exchange of goods thus becomes very complicated, and the question of most favourable production-areas for various commodities has to be seriously considered. Yet what every country tried to do in the latter years of the nineteenth century and up till the present was to be independent, industrially and agriculturally. The United States almost succeeded. (The Soviet Union has by now been forced to make a similar moderately

successful attempt.) But this is only possible where the area is large enough, the climate varied, the population proportioned between industry and agriculture, and also where there is sufficient natural mineral wealth. In most European countries after the Industrial Revolution, owing to industrial specialisation, these requirements could not possibly be met.

CHAPTER III

THE NINETEENTH CENTURY

BEARING in mind these fundamental difficulties which beset the world's agriculturalists, let us turn back to the economic developments of the nineteenth century and see how agriculture fared in that epoch of Industrial Revolution. The case of Britain will be given more detailed treatment, since Britain led the Industrial Revolution and British agriculture was therefore the first to feel its international effects.

During the nineteenth century methods of agriculture were revolutionised by the new science of breeding and seed-selection, by the use of machinery, and by chemical fertilisers; long-distance markets were made accessible by railways and steamships; markets for more varied food supplies were widened by the demands of the new town population; and agriculturalists found it necessary to put capital into the land, to demand in their turn the services of the new bank credits, and to have a knowledge of markets and marketing to meet the com-

petitive forces which were altering the production-areas of the agricultural world.

The nineteenth century, like any other century in history, can be divided into periods of war and peace, of high and low prices, of industrial slump and boom. Generally these divisions coincide, but in many cases they overlap and there are conflicting factors which make it inaccurate to say that war, monopoly, and high prices—or peace, competition, and low prices—are inevitable concomitants. Nevertheless, in broad outline that is true. Throughout the last century there runs a darker strand of financial developments, with intermittent crises, sometimes local as in the case of " Black Friday " in the United States, and sometimes spreading from country to country, as in the " railway speculation " crisis of 1847, and the speculation crisis of 1857.

Agriculture cannot escape these monetary influences. Farmers find that their costs of production depend on industry, their selling prices on competition, their markets on industrial prosperity, and their ability to keep pace in the world of " new capitalism " on bank credits and on investments of fresh capital.

The various wars, tariff policies, and

fluctuations of industrial demand during the nineteenth century acted as checks on agriculture, but the main trend was that of increasing production and of new transport facilities. Ultimately competition in the extending world market became all-important, and to that extent the farmer who produced for his own home market was quite right when he assumed that letting in foreign food supplies would diminish his hopes of profit. But what he did not realise, and what he did not want to realise, was that European countries, as an entire region, were changing from mainly agricultural to mainly industrial areas ; that the new highly capitalised manufacturing industries could not depend solely on home markets ; that foreign markets for manufactures were mostly agricultural countries ; and that these overseas agricultural markets could not buy if they were not allowed to export their own surplus products, which often, for reasons of acreage, climate, and soil, they were better able to produce than the older "developed" countries in Europe. What was required was an international instead of a national balance of industry and agriculture. But this balance was never left to "come by itself."

1789–1815.—In the nineteenth century the system of agriculture changed from that of small farmers supplying mainly home markets to organised production on a large scale for world markets. Political nationalism grew alongside industrial, and more especially there arose an agricultural nationalism, based on the notion of "the balanced State." The interdependence of industry and the land was at first hardly realised by manufacturers, and was stubbornly ignored by landowners and farmers. In the eighteenth century the farmer supplied his family, the local markets, and sometimes a small quantity was exported. Towards the end of the century in some cases the population had outgrown home supplies, and it became a matter for serious discussion (by Malthus and his critics) whether the world's food supplies could keep pace with the birth-rate. Wheat was exported chiefly from Prussia; butter from Holland; flax and hemp from Russia; and wool from Ireland, Spain, Portugal, and Saxony. Colonial produce—tea, coffee, cocoa, and sugar—came to Europe from the English, French, Spanish, and Dutch Indies; cotton from India and the West Indies; and cotton and tobacco from the Southern United States.

All nations raised their own meat, and meat was only a weekly dish for the mass of their populations.

Until the revolution of 1789 France was the richest and most powerful State, her sugar colonies the envy of other European countries. Germany, Austria-Hungary, and Italy, each a collection of small States, were honeycombed with tariff areas; Russia with a backward serf-peasant population had cultivated but a part of her rich soil; and the future primary producing countries of the world, North and South America, Australia, New Zealand, Africa, and India were still comparatively undeveloped.

The countries of Europe—except Britain, Holland, and Scandinavia—each tried to remain self-sufficing, a "political necessity" according to their rulers; but it was only partly fear of starvation, and more the desire to continue scarcity prices obtained during wars which urged farmer and landlord to fight for tariff protection in the very teeth of the trend towards a new world balance between industry and agriculture.

In 1790 the United States exported foodstuffs chiefly to the West Indies, where the profitable growing of sugar-cane left neither time nor room for growing cereals. Only

small quantities of fish and cereals were sent from America to the Mediterranean countries (although exports to Portugal increased tenfold when the armies in the Peninsular War had to be fed). Then the Southern States of North America began to export cotton, and by 1860 more than thirty times as much cotton was shipped to Europe as had been exported at the beginning of the century. Wool, produced mainly in the country of manufacture, though England and the Netherlands imported from Spain in the eighteenth century, had been the staple product of the textile trade in Europe ; in England in 1800 the proportions were wool two-fifths, linen two-fifths, cotton one-fifth ; but the introduction of machinery and changes in fashion brought about by the growth of towns (more frequent washing !) gave cotton the first place. By the time of the American Civil War in the 'sixties the interruption of supplies of raw cotton was a matter of extreme anxiety to Lancashire manufacturers, who could no longer obtain nearly enough from India and the Indies, their earlier sources of supply.

During the eighteenth and up to the middle of the nineteenth century, England, where already it had been found difficult

to feed the growing population by home supplies, endeavoured to increase her output by making use of better implements, fertilisers, and generally by organising farming. Enclosure of smallholdings into large estates proceeded rapidly, and while this inflicted hardships on a large part of the rural population, it enabled farming to become more a matter of science and less one of chance, and to develop on the capital of the rich landowners. The Board of Agriculture set up in 1793 spread information and encouraged improvements, and the farmer or landlord saw good reason to lay out capital during the war period as profits went higher and higher. The average price of corn in England for the years 1800–1815 was 94*s.* 6*d.* a quarter, whereas in 1780 it had been 39*s.*

1815–1852.—In 1815 the Continental countries of Europe were too impoverished by war and war-debts to buy manufactured goods from England, whose organised industry was already ahead of other countries; and in any case they wanted raw materials to build up their own backward and shattered industries themselves. This they sought to do by reforming the hampering internal tariff systems in the multifarious German and Italian States, and by imposing high external

tariffs. England, also fearful of competition, for a time forbade the export of machinery. France retaliated by high tariffs to protect shipping, agricultural produce, raw materials, and finished goods, including a tax of 100 per cent. on the import of machinery. A certain amount of smuggling was carried on between the two countries, but the growth of French industry and the improvement of agricultural implements was effectively checked, and trade between England and France dwindled to microscopic figures. England found her best markets in her Colonies, in South America, which had been thrown open to her by the revolt of the Spanish Colonies towards the end of the war, and in the United States which, even after the Declaration of Independence, preferred to obtain manufactured goods from England, chiefly by loans in London.

In short, the exchange-flow of goods was choked, the aim of each country was to monopolise its home market both as regards food and manufactured goods, to keep up prices to a scarcity value, and to check overseas supplies. In fact, exports of foodstuffs from the United States were less in 1840 than in 1800, and trade with the West Indies was less in 1860 than in 1790, partly, of course,

because of increased home consumption in the States, but to some extent on account of the difficulties of trading with Europe. The tariff policy in all countries was to minimise importation of grain ; in England to import fish was actually prohibited ; in France fish was highly taxed and tobacco and rice were subject to high duties or prohibited ; trade with the West Indian Colonies was forbidden by Spain and Portugal, and only occasionally permitted by England and France.

Additionally, the currencies of European countries had been upset. The wars and the growth of industry had caused expansion of credit with increased circulation of money, and in 1814 and 1815 in England there was a financial crisis due to over-speculation in banks, canals, and South American stocks. After the war, in their desire to stabilise currencies, the banks contracted the supply of money, perhaps too quickly, and, although the adoption of the gold standard in 1821 in England created confidence and turned the tide of industrial depression, the agriculturalists were not so quickly reassured.

After a particularly good harvest in 1813 the price of all cereals began to fall. In spite of the new Corn Law in Britain forbidding the import of foreign wheat under

80*s.* per quarter, prices fluctuated considerably, owing to further good harvests, and the farmers could not sell their stocks. In one instance destruction of crops was suggested in order to force up prices. On the other hand, despite improvements, disease could not be prevented, and the bad years of 1830, 1839, 1840, and 1845 severely upset the market. The farmers did not want abundant crops, nor did they want the entire crops spoiled by rot—they wanted "normal" crops and steady prices.

Contrary to what one might expect when low returns prevail, the high rents of the war period remained; taxes went even higher; and an increasing number of unemployed made the poor-rates an intolerable burden on production costs. During the war, landlords by high rents, and farmers by high profits, had both been well rewarded for capital expenditure on improved agricultural methods. Agriculture, like industry, had become a venture involving large capital outlay (in place of the home-farming of the small farmer before the enclosures, who put as little as he could into the land and was satisfied with small returns). Wholesale production to supply the industrial markets now took the place of the earlier

retail production. The farmer who could not afford capital was unable to compete: he had to give up working for himself and either become an agricultural labourer or migrate to the towns and to industry.

Agriculturalists were slow to realise that industry was supplanting farming, and that to keep out foreign food supplies was, in the first place, to decrease the demand for manufactured goods overseas because new countries could not pay for them except by exporting food; and in the second place it was to diminish the home market, because the consequent depression in trade checked the demand of the new industrial classes. The farmer thought only in terms of his own immediate profits. He or his landlord had put money into the land; he had increased the yield; he was paying dearly for his monopoly during the war, by taxes to cover the National Debt (which had increased from £261·7 million in 1792 to £885·2 million in 1815) and by rates to meet the Poor Law expenses (which had increased from £1·9 million in 1785 to £7·9 million in 1818); why should he not receive a just price to cover costs of production? And the landowner and tithe-holder, politically influential, encouraged this point of view, and refused

to see why agriculture should face outside competition.

The reports of the British Select Committees 1820–22 and of the Royal Commission 1836–37 are dismally concerned on the one hand with increased acreage and low prices; and on the other with high production costs, insecurity of tenure, and insufficient credit accommodation. The farmer or landlord had to put in hand drainage schemes, to take advantage of agricultural chemical discoveries, to improve his cattle, and to buy the new reaper and steam-driven barn machinery which by then were in general use. All this was expensive use of capital for which he got inadequate returns. He succeeded in keeping down wages, but the temper of the farm labourer was changing, ricks were fired and machines destroyed, and the ablest men left the land for the factories. A suggestion was made that the government should purchase and store stocks, but in fact nothing was done; and the first of the nineteenth-century agricultural depressions dragged on.

There was a further industrial depression in 1842, a financial crisis due to railway speculation in 1847, and general wariness in anticipation of the repeal of the Corn Laws.

But in fact by this time the post-war slump of 1815–48 had passed, and ultimately the new commercial prosperity of Britain and its rapidly growing population brought decreased unemployment and increased demand for food supplies. The wave of liberal reforms, the passing of the Poor Law, the Tithes Act, the abolition of corn and meat duties, and the repeal of shipping restrictions paved the way for free trade. The political demands of the larger industrial public, made more effective by the new political power of merchants and manufacturers in the reformed House of Commons, outweighed the eighteenth-century fear of the farmers ; and though after 1849 imports of corn from Prussia trebled and prices continued to fall, the farmers were surprised to find that they were not ruined by the removal of protective duties which led up to, and followed, the repeal of the Corn Laws in 1846.

1852–1873.—Just before 1850 the sensational gold discoveries in California and Australia brought gold to Europe ; credit expanded on this gold basis ; London and Paris became gold centres, and prices went up. In 1852 agricultural prices started to rise, helped by the disorganised state of the Continent, which had been upset by the

revolutions of 1848. When wheat supplies from Russian ports were stopped by the Crimean War, wheat prices in England rose to an average of 74*s.* 8*d.* per quarter in 1854. Then prices fell gradually, but the relationship between production costs and returns had by this time adjusted itself, and even the farmer was satisfied. There was a severe financial crisis in 1857, due to inflation, speculation, and over-trading, which started in the United States, spread to England and thence to the Continent. Again in 1861, when America adopted an inconvertible paper currency, the consequent influx of gold to Europe stimulated speculation; one big firm failed, and financial panic ensued. But these checks did not affect the main trend of agricultural prosperity in England. Harvests were adequate, the home market expanded, and as imports of wheat increased, the English farmer slowly changed over from cereal production to cattle raising, dairy farming, and market gardening, to supply the new tastes of the enriched and growing towns.

Meanwhile wages were still low. By the system of enclosures the labourer had lost his land, his cow, his fuel, and his independence. From the time of Elizabeth till

after the Napoleonic Wars he was paid at a rate fixed by the Justices in each county (about 1*s.* 8*d.* per day in the South of England), and this was supplemented by grants from the Poor Law Commissioners. But the Poor Law Act of 1834 left the labourer "free" to make his own bargain with the farmers. Industrial trade unions, however, were raising the wages of factory workers, and although not so powerful the National Union of Farm Labourers in England managed in time to increase wages by anything between 1*s.* 6*d.* to 4*s.* a week. Thus higher labour costs were soon to be added to agricultural production costs, and in Britain the burdens became heavier. In France, after 1789, the land had been freed to the peasants; in Russia it was not until 1861 that the serfs were emancipated; in Hungary feudal landlords owned the land; in Germany and Italy there were large landowners and small tenant farmers.

After 1860, though France, Germany, and the smaller Continental States stopped exporting grain, they were as nations still mainly agricultural. After the removal of internal tariff barriers in Germany and the unification of Italy, after the liberal reforms in Russia following the Crimean War, and

after the decline of Turkish authority over the Balkan States, steady progress was made, both industrially and agriculturally. The Anglo-French Tariff Treaty of 1860, handled by Cobden on the British side (an admission of the interdependence of trade between one country and another) was the first of a number of international free trade treaties. By then France held second place in the world's commerce ; Germany, where the beet-sugar industry had been started during the Napoleonic Wars and established by protection, now supplied one-quarter of the world's demand ; Italy's imports doubled after 1861 ; Hungary and Russia, both favoured with rich soils, developed wheat farming on a large scale ; the use of agricultural machinery became general, and railways brought more markets within reach of suppliers. Britain soon began to feel this competition. All countries were slowly developing " national " policies, inventions were having their full effect, and the result of the Franco-Prussian War had been to unify Germany into an ultra-nationalistic Power, and to upset the financial balance by the French indemnity payment to Prussia and by the ensuing adoption of the gold standard on the Continent.

1873–1914.—This disorganisation caused a crisis in 1875–76; prices fell; and competition for markets reacted on tariff policies, which were all speedily reversed in favour of protection, except by Britain, Holland, and a few second-class countries. The great depression in agriculture set in, and from 1876 to 1894 there was a continuous downward trend, unlike that from 1815 to 1850 when prices had merely fluctuated violently. After 1894 prices ceased to fall, but recovery was very slow until 1906.

A British Royal Commission which sat from 1879 to 1882, and which invited opinions from Continental and overseas countries, concluded that the depression was due (1) to the great but unequal fall in prices since 1873—while the general price-level fell by some 25 per cent. the level of agricultural prices fell by 30 to 40 per cent.; (2) to increased competition, chiefly in cereals, but also in dairy produce and meat, caused by larger production overseas, by improved steamship transport, by refrigeration, and by the use of preserved foods; (3) to higher costs of production, particularly labour costs and railway rates; (4) to financial instability caused by gold being competed for and locked up in Germany

after 1871, and by the consequent demonetisation of silver.

The opinions of the contemporary experts are interesting. The United States attributed the depression to the depreciation of silver; Denmark advocated lower interest on loans; Holland higher duties and bimetallism; France higher duties; Germany state-aid; Russia state-aid; Australia frankly admitted that better farming was needed; and only the Argentine stated that the crisis was not severe and that she was increasing her production to counteract low returns. English farmers produced a formidable list of their own particular grievances—against land-tenures, sales of mortgaged land, smallholdings, game laws, commercial speculators, sales of adulterated produce, sales of cattle by live weight, and so on. No one saw the implication of economic interdependence between so many complementary nations.

Again, after 1873, British industrial exporters were not getting so large a share of foreign markets. From 1881 to 1900 foreign countries increased their imports by 11 per cent., of which England's share was only 4 per cent., and the British possessions increased their imports by 17 per cent.,

whereas England's exports to the British possessions decreased by 1 per cent. This was attributed to conservatism in manufacture and marketing, and to the difficulty of competing with tariff-protected countries and comparatively cheap labour. This inability to extend markets naturally lowered prices, and agriculture suffered. Nation after nation adopted the gold standard, but gold supplies were insufficient, credit systems were rigid, and the price of gold rose while the gold-prices of all other goods necessarily fell. On the Continent the industrial push which was being made by Germany, and in a smaller way by Italy and Russia, and the efforts made by France to pay off the indemnity, deflected credit from agriculture to industry, and for a time agriculture became the "poor relation" of industry. Following on the indemnity payment by France heavy speculation, particularly in London and New York, resulted in an unstable financial position. There was a banking crisis in France in 1882, a railway crisis in the United States in 1884, a currency crisis in the United States in 1893, and an industrial crisis in Germany in 1901. The pressure of industrial expansion, the consequent speculations and failures, and the various credit

policies, kept production and demand, costs and returns, in perpetual disharmony.

Concurrently with the increase of acreage devoted to the production of food and raw materials in the vast overseas territories, and with the increased demand for industrial goods, came the development of steamship transport, of new packing and storage, and of refrigeration. This meant that long-distance markets could be served, not only rapidly, but regularly and with larger quantities. Prices, of course, fell and home producers suffered, in Britain particularly. The Continent to some extent protected itself by tariffs—for example, in 1894 the French tax on imported wheat was seven francs a quintal (220 lbs.) as compared with sixty centimes in 1861.

1914. Importing Countries.—The position in 1914 was that food had become cheap and of greater variety because of intense international competition. After 1900 food prices began to rise, owing to the after-effects of the new gold discoveries in South Africa which had caused industrial prices to rise, and to increased consumption as the standard of living went up. The home farmers in industrial countries, by giving less attention to cereal production and more to

stockbreeding, dairying, fruit and vegetables, were holding their own. Tariffs in overseas countries were fostering industries there, so the most advanced Western nations were by now paying for most of their imports of food and raw materials with the interest on their foreign investments or with their new "invisible exports" of loans, credits, freights, and insurance.

In Germany, in spite of the rapid development of industry, there were still large agrarian interests, backed by a political party of great landowners in East Germany. Nationalist feelings and fear of overseas competition showed themselves when in 1902 imports of meat from the United States were restricted, and a tariff of thirty-five cents a bushel was placed on the import of wheat from countries which had not obtained special treaty concessions.

France exported chiefly luxury articles, but for internal consumption agriculture was of major importance. The Ministry of Agriculture was formed in 1881, and grants and bounties were made for growing vines, silk, flax, hemp, and for breeding horses.

Britain was easily the world's largest importer of wheat. In 1905 she only produced one-fifth of her food supplies, and

during the fifty years preceding the Great War her arable acreage had been constantly reduced.[1]

1914. Exporting Countries.—As to the big exporting countries, Russia was the largest exporter of wheat, her average for 1909–13 being 41·2 million quintals. The Argentine exported 24·2, Canada 20·1, the United States 14·3, Rumania 13·3, and Australia 11·4 million quintals.

Austria's adoption of tariffs after 1870 had not interfered with her industrial progress. Hungary grew nearly as much wheat as Rumania, but only a small quantity was exported outside the Austro-Hungarian free trade empire, while Rumania exported more wheat than India or Australia. Greece depended on her currant trade, Serbia exported pigs, and Bulgaria exported as much wheat as Austria-Hungary. Half the population of Italy lived by the land, but methods of farming were still backward, and the peasants were poor. A small amount of dairy produce and poultry was exported. Denmark depended entirely on her export of dairy produce; Holland also exported

[1] U. K.: 1867: Arable 23 million acres, Grass 22 million.
1907: „ 19 „ „ „ 27 „
G. Brit.: 1925: „ 14 „ „ „ 30 „

a large quantity. The growth of railway and steamship transport had made Holland an important intermediary country, her rubber and tobacco colonies were flourishing and her standard of living was high ; hence Dutch farmers prospered.

Cotton was exported chiefly from the United States, where shipments were nearly five times as much as from British India, the next largest exporter. Japan, Egypt, and British India exported respectively 3·0, 3·1, and 4·1 million bales.

The United States was also the world's largest exporter of tobacco, and a considerable exporter of sugar and fruit. At the same time her internal consumption had increased enormously. Australia supplied wool, meat, and fruit ; New Zealand chiefly dairy produce, as well as the products of Australia ; and the Argentine, in addition to wheat, exported meat and dairy produce. At the same time it must be remembered that meat was still largely supplied by the home producers in Europe. Britain, the largest meat-eating country in Europe, still supplied two-thirds of her own requirements.

Brazil supplied two-thirds of the world's coffee demand, and British India and Ceylon were the main tea-growing areas. Cocoa

came chiefly from the Gold Coast. Sugar-beet was produced in Germany, Russia, France, the United States and Poland, and sugar-cane in Cuba and Java. Although the area under cultivation in Java was only one-fifth that in Cuba, the production was nearly three-quarters of that in Cuba. Consumption of sugar and coffee per head had increased very greatly. In 1840 the German consumption of sugar was 2 lbs. per head, and in 1900 it was 6 lbs. ; while in the United States it was 10 lbs. per head. In 1840 the German consumption of coffee was 4 lbs. per head, and in 1900 it was 30 lbs. ; while in the United States it was 70 lbs. per head.

One of the most prosperous agricultural industries of the pre-War period was that of rubber-growing. Before 1830 rubber was hardly used at all. By 1900 it was produced, chiefly in the Dutch East Indies and the Federated Malay States, at the rate of one hundred million lbs. a year, yet the demand was even greater, and prices were kept very high.

Pre-War Conditions.—If we wished to generalise about pre-War world agriculture we should say that farmers worked everywhere as individual units on a small scale,

though a start had been made in the direction of national co-operation. There was, therefore, in this very interdependent world, no real international co-operation among agricultural producers, such as had developed by this time among the leading industrial concerns. It has repeatedly been urged that the farmer does not want to organise or to be organised. He is, in fact, particularly individualistic. Nevertheless, though the theories of the later nineteenth century were nationalistic, the economic interdependence of nations had become inevitable, and while agriculturalists continued to talk as separate units they were being forced to act as a class in each State. It was gradually realised that the profits of farmers depended on a curious relationship between the retail prices of their capital-equipment and the wholesale selling-prices of their produce—an altogether incomprehensible state of affairs to a factory owner. Consequently, not without difficulty, some co-operative efforts were made at least between farmer and farmer if not between countries.

The Raiffeisen credit societies, the first of which was started in Anhausen in 1862, spread from Germany to other parts of Europe. Buying-societies were formed in

almost all areas, so that by pooling orders for seeds, fertilisers, and machinery, farmers could purchase at lower prices. To a smaller extent marketing organisations were started. Membership of agricultural organisations was voluntary, loyalty could not be enforced, and this was a difficult and much disputed problem. In the case of credit and buying-societies there was nothing to be gained by acting outside them; but in the case of co-operative marketing, farmers could not see immediate benefit to themselves, and often could get better profits by selling on their own account. In America, however, it was the marketing associations which had most success. For example, by standardisation of quality, particularly of packing, and by intensive development of markets, the California Fruit-Growers' Exchange has caused the demand for their products to become almost ten times what it was before the War.

In Europe, however, Denmark is the only country where co-operative marketing has taken hold on a large scale. Denmark is the outstanding example of a country dependent on agricultural exports, which has small farmers, and which is run co-operatively from beginning to end. Since the end of the eighteenth century the policy of the

Danish Government has been to encourage freehold peasant farms. In 1864 Denmark was a grain exporting country, but after the war with Germany her best land and her nearest market were lost. She then turned to dairy-farming and pig-keeping. Small-scale farming and co-operative organisation have made Denmark a comfortable country for farmers. There is a state-system of land purchase; but most of the organisation of agriculture has been effected by the farmers themselves without government aid.

There is no legal control, but in fact farmers are loyal to their various organisations and buying and selling is always co-operative. Credit arrangements are through the ordinary banks, not through credit societies of the Raiffeisen type. The middle-man has been largely eliminated, and co-operative stores are the general rule.

In Germany, where in 1913 ninety-five per cent. of the food supply was home-produced, there were a number of agricultural organisations of different types—some state-aided and controlled institutions, some voluntary technical societies, some co-operative financial associations. The situation was similar in Austria and Hungary, though here government aid was considerable—

more so after the War, when the older "capitalist" landowners had lost their vast estates, and new peasant proprietors needed aid.

France, by co-operative action, increased her agricultural capacity by some 40 per cent., chiefly through the Central Union of Syndicates of French Farmers, of which there were branches in almost every small town. They buy supplies and maintain warehouses, but rarely undertake marketing. Government assistance is confined to credit and insurance societies.

Simultaneously one or other form of co-operative organisation was adopted in nearly all European countries. At the same time Ministries of Agriculture were founded, statistics were collected and information was spread by means of pamphlets and lectures, and, particularly in Germany and Austria-Hungary, agricultural schools, colleges, and experimental stations were encouraged. By 1914 England was importing four-fifths of her wheat and three-fifths of her meat; agriculture was considered comparatively unimportant, and the co-operative movement was unpopular. Just before the War, however, there was a growing political movement in favour of land reform—agricultural

workers being more numerous than those in any other industrial group.

Agricultural societies were sometimes in the form of clubs, which at best only gave information when asked. The National Agricultural Society of France, founded at the end of the eighteenth century, was an exclusive and academic society; while on the other hand the Royal Danish Agricultural Society, founded in 1769, was an extremely practical body. Usually each farmer belonged to several organisations, each of which looked after some special aspect or branch of farming. Sometimes organisations were financed entirely by subscription, some had government grants. Sometimes, as in Poland, there was strong governmental opposition to organisation of any kind. Often political influences played an important part in these organisations, and, naturally, there was a certain amount of competition and internal strife between the various societies. In any case, the broad results were that by co-operation production costs were lowered, branded goods became famous for quality, market requirements were studied, farmers could control their own financing without being exploited, and demand became more stable and assured.

One of the least organised factors in pre-War agriculture was the circulation of information. Before 1914 international conferences of any kind were rare. Each country worked on its own, and knowledge of production, consumption, costs, etc., was very vague from country to country. There was, however, some co-ordination within each country, through the Ministries of Agriculture, co-operative organisations, etc. In 1904 the International Institute of Agriculture was founded in Rome by David Lubin, an American Jew of Polish birth, who had discovered by experience that the problems of agriculture were quite different from those of industry. It is characteristic of the pre-War nationalist policies of all countries that Lubin's attempts to form an international agricultural organisation were met by stubborn opposition or polite indifference. However, Lubin was enthusiastic and persistent, and ultimately the Institute began to work. It has since become an important source of statistical information regarding agricultural areas, production, yields, imports, exports, and agricultural laws in most countries. But Lubin had hoped that the Institute would be more than this. He realised that agriculture needed

international organisation, as much from the producer's point of view as from the consumer's, and he realised the inter-dependence of agriculture and industry. In an address to the King of Italy Lubin wrote :

" It is a commonplace in the economic study of history that the status of Government is determined by the equilibrium between the conservative tendency on the one hand, and the progressive tendency on the other. It is also a commonplace that the progressive element is of the cities and the conservative element of the country. It is further recognised as a fact that wherever the predominance of conservatism is so marked as to deaden Progression the result is national stagnation or decay. And, on the other hand, whenever Progress is so rapid as to exclude conservatism the result is national death." [1]

Lubin wanted agriculturalists to realise that their individual interests must be merged, that they must combine, that markets must be agreed upon and not fought over. The post-War depression in agriculture has painfully demonstrated this point, but in spite of several international conferences to deal with the problems of wheat, sugar,

[1] *The International Institute of Agriculture*, by Asher Hobson. Univ. California Press, 1931.

rubber, etc., co-operation between producing countries is still in its very feeble infancy, and its survival in any form is problematical.

1914–1918.—When the War broke out it was realised at once that organisation of food supplies was the most important question. Supplies of wheat from Russia and the Danubian countries almost ceased. Supplies of all food products and materials were in danger of being sunk. To counteract this each country, large and small, made every possible effort to increase supplies, helped by the State. The result was an expansion of acreage under cultivation which was not economically justified by real expansion in markets, except in terms of the abnormal separatism of war conditions. In fact, by competent control of shipping and by effective if irritating food control measures, the allied countries were sufficiently supplied, though at high prices and frequently with food of inferior quality.[1] Agriculturalists were in a favoured position, though not so well off as during the Napoleonic Wars. The successful organisation of food supplies during the War thus

[1] See Sir W. Beveridge, *British Food Control during the War*, Carnegie Endowment, 1928; also Clémentel, *La France et la Politique Economique Interalliée*, Carnegie Endowment, 1931.

became one of the main contributing factors to the present agricultural crisis ; for the over-extension of war-production was never scaled down after the end of the War, and economic nationalism in the peace-time world even further extended the national production of all basic commodities.

CHAPTER IV

THE POST-WAR SITUATION

CERTAIN lessons might have been learned from the trend of events in the agricultural world after 1815. Although the course of things since 1918 is not identical with that after the Napoleonic Wars, yet most of the factors are the same, the figures involved being infinitely larger and our economic system to-day being more complicated. Inflation, deflation, over-trading, over-production, limited markets, falling prices, high costs, and tariff problems are so entangled that no matter what is touched the patient squeals. In spite of the obvious dependence of all countries upon each other, which is theoretically recognised by most nations in their membership of the League of Nations and by their attendance at international conferences, the old nationalist policies are in fact pursued almost everywhere. The course of financial, political, and commercial events aped that of 1815, when the policy of a quick return to the gold standard, the efforts of countries to remain independent

of each other, and the use of tariffs as a means of ensuring this independence, made it difficult to adjust costs and prices. The results of ill-timed deflation, of political debts, and the disorganisation of gold distribution have been no more satisfactory this century than they were last. When Germany was stuffed with gold after the Franco-Prussian War the whole of Europe was almost as uncomfortable as is the entire world to-day now that France and America are stuffed with gold.

At the end of the Great War optimism was "in the air." Spending-power had been very much increased, every one had been employed, and most people had become used to living at a rather higher standard than had been the case before the War. People were tired of war itself, but producers who had made the best of war conditions were anxious that their profits should not be interfered with. They imagined they had reason to be hopeful. Markets which had been closed during the War were again accessible, money was plentiful, and every one was willing to spend his money in a kind of postponed celebration of peace. There was a general sense of prosperity in the victorious countries, while throughout Central Europe wage-

earners exchanged money for goods as fast as possible lest it be worth even less in the next few minutes.

Apart from this there were legitimate financial requirements for refashioning trade and for reconstruction work. Unfortunately each country worked on its own, and as the aim of each country was to build up its own industries, and to re-establish its own agricultural production without reference to general world supply or demand, the resulting competition for markets and increased production reacted unfavourably on prices. (For example, Germany and all the Succession States protected their farmers with a high tariff wall against overseas, or even other European, cereals, at the expense of their own consumers.) The main difficulty was that costs of production did not fall as rapidly as prices. Matters were made worse by the natural tendency of credit to expand, and by the difficulty of distinguishing between genuine development and risky speculation. The first set-back came in 1920, when a crop of unpaid bills in overseas markets, the fruit of eagerness for delivery, led to cancellation of orders, and failure of reputable firms brought about an industrial slump and restriction of credit. In Eastern

markets things were complicated by the collapse of silver and by political disputes.

It must also be borne in mind that countries which export primary commodities are largely undeveloped countries, countries who develop their own natural resources on the capital of the industrial countries in order that these industrial countries shall have supplies of food and materials. This means that the exports of such " primary " countries must not only balance their imports of machinery and manufactures, but must, unless continual fresh loans are made, also pay the annual services—interest and sinking-fund charges—of the outstanding loans. That in its turn implies a continual " export-balance " in the *visible* trade balance, in order to offset the *invisible* " import-balance " created by imports of loans and credits from abroad.

Now if, because of currency-laws, credit deflation, or political events, the world price-level for agricultural products falls, each " primary " debtor country is forced to do one of two things if it is not to default on its loan-services : either it must raise and export *more* produce at the *lower* prices in order to command the necessary amounts of foreign exchange abroad to pay its loan-

services ; or it must stringently limit its visible imports (machinery, manufactures, etc.) to reduce the annual amount of foreign exchange it will require to pay its foreign creditors for these visible imports, thus creating a surplus which can be added to the reduced income from its exports. In the first case, it over-produces and pushes world agricultural prices still lower ; in the second, it restricts its purchases from industrial countries, and so leads to unemployment there. Generally a combination of the two is attempted which results in two evils for one big evil. If *all* " primary " debtor countries do this together, a severe crisis is launched upon all kinds of countries.

This is actually the history of the world's " primary " countries between 1919 and 1923, and also between 1926 and 1931.

During the War and the immediate peace-boom, agriculturalists had benefited by high prices. During the War production had been stimulated by an especially urgent demand, which made it worth the farmer's while to get as much as he could from the land. He spent heavily on fertilisers and machinery, he cultivated " marginal " areas, he paid better wages, and he did it all by incurring debts in inflated money. Bankers

and manufacturers of equipment were only too pleased to extend credits, and the farmer found himself rather popular. Harvests in the first years of the peace were not too abundant, and European sources, curtailed during the War, though in the process of rehabilitation were not immediately available for large quantities. By 1920, however, costs of production consequent upon the extension or intensification of farming were level with selling-prices; supplies from Europe were again on the market; and indeed overseas supplies had been in no way decreased. Europe had been glad enough during the War that the farmers of America and Australia should increase their exports of agricultural produce, but after the War these still increasing supplies became embarrassing. All the more because demand for agricultural products was actually decreasing. Unemployment figures were going up, war-gratuities had been spent, credit was being restricted, currencies were being deflated or stabilised, wages were going down, and the ensuing industrial slump caused a restriction of demand. Prices fell, and the farmer found himself in difficulties. Moreover, deflation after 1924 forced them still lower, and his difficulties increased. He had to pay off loans

from the banks and liabilities to manufacturers at a time when his own returns were decreasing. He was forced to sell at any price in order to meet his obligations, so he raised *more* produce, although his overhead expenses for rent, rates, taxes, transport, and labour were still as high. In fact, although wages are a heavy charge on agriculture they are not up to the level of industrial wages, for in most cases farmers pay their labourers partly in kind (that is, in a reduced cottage-rent, fuel, and food) ; thus, when the farmer's standard of living is reduced, so is that of the labourer, even though there is no direct reduction in money-wages.

As prices dropped the farmer tried to reduce his outlay on fertilisers and machinery ; his own standard of living went down, together with that of his labourers ; but prices went on falling and further loans had to be obtained from the banks, thus increasing his indebtedness in terms of money, while returns decreased. Increased supplies and decreased demand meant accumulation of stocks on the world market, which were carried over and added to the next harvest so that prices had little chance to recover, and from 1920 to 1923 the agricultural world had a lesson which it ignored.

There was a genuine improvement in the industrial world in 1924, but from 1924 till 1928 output increased; there were over-trading, speculation, political and currency complications, all of which reacted unfavourably on the demand for food; and prices fell. No reduction was made in acreage or in cultivation in the world as a unit. In 1928 there were exceptionally good harvests added to the already heavy stocks. The European acreage had almost reached the pre-War figure, the overseas acreage had greatly increased, and Russia, before the War the largest wheat-exporting country in the world, again began to export, though not in very large quantities. Farmers had become uneasy in 1926, when deflation caused prices to fall, and after the bumper harvests of 1928 almost all prices of agricultural produce fell steadily. Up to 1929 agricultural prices were still higher than pre-War prices, although they were low compared with industrial prices. In 1929–30 the fall became abnormal, and in the case of certain products reached levels 25 to 50 per cent. below the 1913 price-level. Matters were made worse by independent fluctuations in prices, which could not be foreseen; and after the 1930 harvests, when farmers were

obliged to sell to meet their obligations prices collapsed completely.

Combined efforts to stop this downward tendency of prices were made by producers, by national tariffs, and by co-operative national measures to control exports and production.

It is a melancholy reflection on national psychologies that the worst economic depression in history should have been necessary to provide an incentive to closer European co-operation. As we have shown, the world-wide economic depression weighs more heavily upon those countries which produce primary products for export. In Europe there are many such states, and the fact that the industrial countries of Europe which import wheat and agricultural produce do *not* favour European countries which export such produce, but rather purchase at the lower prices from large overseas producers, led, during 1930 and 1931, to closer economic co-operation between the European states which export agricultural produce. So strong had the incentive towards closer economic co-operation between these latter states become that even political barriers tended to recede into the background while it was a question of sol-

vency or existence as independent states. The cry was : " Let us unite lest singly we perish."

In the first place it must be noted that technical improvements in the post-War years, together with the extraordinary bounties of nature, have resulted in an enormous increase in world agricultural productivity. Where it has been possible to conduct operations on a large scale by mechanical means, costs have generally fallen more quickly than prices (as in Canada, the United States, the Argentine, and Australia) ; but in the patchwork-quilt aspects of post-War Europe, with each patch cut off from the other by high tariffs, and with the breaking up of large estates and their being handed over to small peasant proprietors, and lastly with the traditional methods of cultivation, the costs of agricultural production have remained high per unit of produce in the Old World.

When the 1929 economic depression descended on the world, Canada, the United States, and, in a lesser degree, the Argentine and Australia, instituted wheat pools or farm boards, or at least some state institution which pegged prices at higher levels and so gave financial assistance to agrarian producers at the cost of their home consumers

and tax-payers. In Europe, however, agricultural producers for export, whether they were in Esthonia, Latvia, Poland, Hungary, Rumania, Yugoslavia, Czechoslovakia, or Bulgaria, had neither state subvention nor large-scale co-operation to help them withstand the assault. These European countries, with small-scale, peasant cultivation and consequently high costs per unit, naturally began at once to consider not so much increasing the areas under cultivation *inside* each country (which would have meant *compulsory* co-operative large-scale farming), but to consider the possibilities of co-operation with the other European agrarian states which found themselves in the same boat.

Accordingly, on July 22, 1930, at Bucharest, the first European Agrarian Conference was called by the Rumanian Government, to which its political partner in the Little Entente, Yugoslavia, was invited and, indeed, to which a political opponent, Hungary, also came. The three states met on equal grounds and decided to press for preferential treatment by European states importing agricultural products.

This Conference was followed on July 30, 1930, by the Sinaia Conference between Rumania and Yugoslavia, which ended in a

customs union between the two. On August 28, 1930, in Warsaw, a further development took place when Poland, Czechoslovakia, Esthonia, Latvia, and Bulgaria also joined with Hungary, Yugoslavia, and Rumania to inaugurate what was called at that time the European agrarian *bloc*. This conference deliberated ways and means of organising the European agrarian states so that they might, through a unified policy, secure from the European industrial states preference for their agrarian exports. It was decided that if this proved unobtainable, retaliatory tariffs should be instituted against manufactures from European industrial states.

The next Conference took place at Bucharest on October 18, 1930, and was significant for two reasons; first France sent an "observer," and secondly a split resulted between the south-eastern states whose exports were almost wholly cereals (Poland, Hungary, Rumania, Yugoslavia, and Bulgaria), and the states whose exports were of a more balanced composition (Czechoslovakia, Esthonia, and Latvia); thus at the second Bucharest conference the agrarian *bloc* had already narrowed down to the former agrarian countries.

The fifth Conference, the second to be held at Warsaw, took place on November 10, and was concerned only with the important question of medium-term credits for the agrarian states, upon which it drew up a long memorandum which became of considerable importance. At the same time, in Belgrade, the sixth conference was being held between the purely agrarian countries indicated above, to draw up resolutions for the creation of export institutes for each commodity in each of the countries, and also of a central sales Bureau which would control the sales of wheat, maize, and rye coming from these countries to the European market.

In the meanwhile, it must be remembered that at Geneva in September 1930 the British Dominions and Japan had spoken vigorously against the idea of a preference for European agrarian products in the European market. At the beginning of 1931 it was clear that the agrarian *bloc* was tending to pin its faith for preferential treatment rather to M. Briand's new European Commission than to any concerted efforts of its own. A tariff war broke out between Hungary and Czechoslovakia which is not yet settled.[1] Negotiations began between Hungary and Austria

[1] March 1932.

for a reciprocal trade treaty. Hungarian economists and experts strongly criticised the idea of an agrarian *bloc*, and advocated Hungary's making regional agreements with more industrialised states, so that the needs of one state should become the advantages of the other and *vice versa*. In the middle of January M. Briand's European Commission was split from top to bottom over the question whether Russia and Turkey should be admitted to the proceedings of this Commission. Owing to the collaboration of Germany, Italy, and Great Britain (positively by votes and negatively by abstentions) it was decided to invite Russia and Turkey to deliberate. At the same time the Financial Committee of the League of Nations considered favourably the question of agrarian credits ; and a delegation from the League's Economic Committee met agrarian experts to consider the agrarian crisis in general. The matter was evidently coming to a head.

In February of 1931 there took place a third Bucharest Conference of the experts of the agrarian states which constituted the first meeting of their permanent committee of experts to discuss European preferences. The crucial period of the European agrarian states, however, opened with the European

grain conferences in Paris, beginning on February 23, 1931. These conferences were really sub-committees of the general European Commission. They ended in a majority agreement to further the claims of the European agrarian states for European disposal of their surplus stocks and forthcoming production. Great Britain and the Dominions, however, abstained from voting, together with Denmark, the Irish Free State, Holland, and Sweden, in accordance with the attitude of the Dominions and Japan at Geneva in the autumn of 1930.[1] Russia was not invited by M. Briand to attend these special conferences, although M. Briand's contention that the European Commission's decision to invite Russia in the middle of January referred only to the full Commission's sittings seems extraordinarily naïve, if not weak.

What, then, is the significance of this European agrarian movement in the sphere of international economic relations?

From the Baltic to the Adriatic and Black Seas there extends a corridor of states the preponderant economy of which is agrarian. This corridor forms a barrier between the isolated but developing economy of Soviet

[1] See page 93.

Russia on the one hand and the industrialist "capitalist" states of Western Europe on the other. The European agrarian states, backward in their methods of production, based on a social structure of small-scale private holdings, and dependent largely upon their agrarian exports, have combined to demand from the Western "capitalist" states not only "capital" assistance to reorganise and rationalise their agriculture, but also a guaranteed outlet for the surplus production which is their only means of purchasing imports. The real argument, therefore, behind the European agrarian movement is an argument more of a sociological nature than of a purely economic or political one. The agrarian states say, in effect: "If you Western industrial states do not help us to raise our standards of living, to rationalise our agriculture, and to unify our social structures in this corridor, then the social progress and increasing productive efficiency in the vast domains of our eastern neighbour, Soviet Russia, will prove fatal not only to *our* prosperity and existence, but also to those of Western Europe as a whole. . . ." To which industrial states reply: "Rationalise yourselves!"

It was therefore sincerely to be hoped that

at the world Wheat Conference at Rome in March 1931, and indeed at all forthcoming economic conferences, the governments concerned would recognise the threat to world equilibrium which was implicit in the unnecessary struggle for export markets between the Americas and the British Dominions, the European agrarian states, and finally, the unknown quantity of Soviet Russia—for, between the advancing agricultural technique of the West and the Russian East, the backward, unco-ordinated European states had only two alternatives.

The first was to enter into a general world agreement to divide the world market for agricultural imports; here, however, the U.S.A. and other overseas producers torpedoed the project in Rome and in London in 1931. The second was the one on which everybody fell back—the old, old muddle of tariffs, bounties, price-agreements, and European preferences, which had been the main causes both of the enormous extension of agricultural production after 1914, and of the ensuing catastrophic breakdown of world-prices for foodstuffs and raw materials.

Canada through the Wheat Pool, and the United States through the Federal Farm Board, had meanwhile arranged to store grain

which had been bought at high levels with public money and to release it on the world's markets in limited quantities so as to force up prices.

If normal circumstances had obtained, and if national interests alone had to be envisaged, the formation of the United States' Federal Farm Board (incorporating the Grain Stabilisation Corporation) and of the Canadian Provinces' Wheat Pool would have been at least defensible. The respective farming interests would have benefited by selling to these organisations, leaving the latter to hold up their own selling-prices. But from 1929 onwards times were abnormal. Total wheat supplies went beyond total effective demand; and these two powerful organisations of farming interests were not powerful enough, for they were both holding out for prices above those indicated by effective demand in the open markets, while European importers (the world's wheat importers) could buy the surpluses from the Argentine, Australia, Russia, and even from the Danubian countries. This is the main reason why Canada and the United States were left with colossal wheat stocks in 1930 and 1931, and also why they eventually forced prices lower when they had to

" unload " at lower levels. A short resumé of events from the formation of these organisations to their collapse in 1931 will not therefore be out of place.

The Canadian Pool was formed in 1924, and usually handled about 50 per cent. of the annual crop. Farmers delivered wheat to the Pool, which paid them a proportion of an " assumed " market price at once. The balance was paid when the total annual crop was liquidated. There was a clear saving in marketing expenses. But each year from 1924 to 1928 the prices paid to the member farmers decreased, while the stocks of grain in the Pool's elevators increased. In the bumper year, 1928, the carry-over to 1929 reached 42,000,000 cwt. —double that of the initial year, 1924. Although European millers preferred Canadian " hard " wheat (to the extent of paying 3*d.* to 8*d.* per cwt. more than for South American wheat), they could not afford to pay the prices demanded by the Pool. They experimented with softer wheats, and diminished the percentage of hard wheat milled, and they then turned to Australian, Russian, and Argentine qualities. In May 1929 the Pool found itself compelled to buy nearly 5,000,000 bushels in the open

market in the hope of fixing prices, but they had to sell it again in June at a narrow profit of only seven cents a bushel. The 1929 carry-over then rose by 19,000,000 cwt. European wheat crops were good, and by March of 1930 the financial situation of the Pool was so critical that the three Prairie Governments had to vote a guarantee from public funds. But by this time the Canadian farmer had begun to doubt the Pool's eventual ability to do what it had set out to do, and the Canadian Wheat Pool entered a phase of negotiations with the Dominion Government and with the banks which amounted to a confession of complete failure.

The United States of America did not profit by the lesson which Canada had offered to their farming interests. In 1928 an Act was passed creating the Federal Farm Board. The United States farmer of the South and Middle West had watched the "prosperity" of industry behind the post-War skyscraper tariffs, but he had voiced loud complaints at having to sell at world-prices for export while his industrial fellow-citizen secured the profits from manufactures at prices higher than the farmer himself need have paid under free imports. The Federal Farm Board was intended

as a means of coercing the farmers into co-operation. It was endowed with £500,000,000 for loans at lower rates to Co-operatives, who then lent to individual members, as crops were realised. Nature, however, with the help of many redundant farmers, moved faster than the Board. In August 1929 there was a carry-over of 140,000,000 cwt. (60,000,000 more than in the previous year), but this did not prevent the Board from lending money on crops which could never realise the "assumed" prices on a world market. Despite official denials that it would ever do such a thing, the Board was driven to enter the open market and follow the example of the Canadian Pool, in purchasing wheat to keep prices high. This was an open invitation to any world seller of wheat to make the United States shoulder the inevitable losses in a wheat-choked world. While the Farm Board was obstinately attempting the impossible, Russia, in September of 1930, was able to step into the American as well as into the world market and "sell short" 5,000,000 bushels. The onset of the world economic crisis in 1931 brought with it a Presidential decree that no more credits, either as loans or as purchases, should be

granted by the Board. New financial arrangements of a general "re-flationary" nature were to supersede the sectional agricultural attempts of the Farm Board. Its activities had written "failed" across the South and Middle West, and had cost the American farmers and tax-payers since its inception many millions of dollars in sheer losses.

It must not be forgotten, however, that *some* organisation of primary producers is necessary, though such organisation will be better directed through national and international co-operative channels than through mere price-rigging schemes like the two North American examples. Co-operation in processes, mechanical equipment, credits, and marketing is the only way agriculturalists in any exporting country can hope to win through the present crisis; for such co-operation is already effected by their industrial competitors on an advanced international scale.

Rubber-planters and coffee-growers had also made various national agreements to limit their output by quota systems. Apparently, however, it was too late to stop prices from falling, and in any case these artificial methods of reducing supplies were

not international arrangements. Only in the case of sugar was there an international body. Thus it became more and more obvious that the agriculturalists of the world must co-operate, that nothing could be done by separate effort. It also became evident, as Western figures of unemployment rose and exports decreased, that the agricultural and industrial depressions were one and the same thing viewed from different standpoints.

CHAPTER V

THE NATURE OF THE CRISIS

One of the results of the War had been to create a belief in the possibility of making practical arrangements by means of conferences. Previously, international conferences were mainly political and comparatively rare, and the idea of using them for economic arrangements was subject to political suspicion. The War, however, made people used to the idea of political affairs being discussed internationally, and facilitated the acceptance of international trade conferences as a matter of common-sense business policy, as against the pre-War attitude that "internationalism in art was all right, but not in practical money-making affairs." After the War statistics of world production and consumption were circulated and were more generally known. Agriculturalists, economists and statisticians met each other at local societies, at national federations, at international associations, and at world economic conferences. There were

discussions, comparisons of figures, and exchanges of ideas. This was particularly fostered by the League of Nations Economic Committee, and in 1927 there was a world economic conference at Geneva; in 1930 a committee for international co-operative relations; and in 1930–31 the Economic Committee of the League dealt particularly with the agricultural crisis, through bodies of agricultural experts. The new European Federation Commission set up international sub-committees on agriculture. Delegates from wheat-producing countries met under the auspices of the International Institute of Agriculture in Rome and again under the auspices of the Canadian Government in London. The European countries exporting agricultural produce met at a series of conferences in 1930 and 1931. Sugar producers from Cuba, the United States, Java, and Germany met at Amsterdam and at Brussels. The British Imperial Economic Committee brought out reports on tea, coffee, meat, fish, and dairy produce raised in the British Empire, and the British Empire Marketing Board conducted special researches into marketing and production within the Empire.

This, however, is only a beginning, for

while theoretically the conferences mentioned above are international, inasmuch as delegates from all over the world are in attendance, the impression given at these conferences is that each delegate is there not only to look after the interests of his own country, but also to put spokes in the wheels of all the others. Delegates are not yet internationally minded, and there is little evidence that their governments require them to be so. In the present state of world crisis it seems to the normally intelligent and much-concerned onlooker that harmonious agreement would benefit all countries concerned. The most completely egotistical theorist must realise at this stage that the best way of serving himself is to look after the well-being of the world group. Yet when one reads the reports one finds that only with the utmost difficulty has some form of agreement been arrived at by the sugar growers ; the wheat farmers have not even now been able to come to any arrangement whereby they can improve their own position ; and negotiations between the British and Dutch Governments with regard to rubber production have been interminable, and, so far, abortive. Delegates are not prepared to be their brother's keeper, even

though their brother's disease is infectious and dangerous to their own lives.

What has been done at these conferences is to collect and publish facts and figures, and on this basis, perhaps before the patient is dead, some remedy may yet be applied.

The League of Nations Economic Committee of 1931 reported that the cause of the agricultural crisis was "the universal disturbance of the balance between production and consumption," either by "excess of production or abnormal diminution of consumption." It is pointed out that overproduction exists because of technical progress and because of redistribution and overextension brought about by the War. At the same time the League's report states :

"Under-consumption arises from insufficiency of purchasing power. . . . The diminution of purchasing power in countries where unemployment 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."

It is also stated that consumption of agriculturally produced goods is not generally elastic. For instance, when more silk is worn cotton orders are decreased, when

granted by the Board. New financial arrangements of a general "re-flationary" nature were to supersede the sectional agricultural attempts of the Farm Board. Its activities had written "failed" across the South and Middle West, and had cost the American farmers and tax-payers since its inception many millions of dollars in sheer losses.

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used in the place of rye and other cereals. In fact, economists considered that the wheat supplies of the world might be insufficient in the future to meet the demand. Sir William Crookes, in his Presidential Address to the British Association in 1898, forecasted a wheat famine for 1931, provided that chemists made no striking improvements. Actually, nitrogen has since been "fixated" from the atmosphere by German scientists, and the average yield per acre of wheat in most countries in 1931 was 14·1 bushels as against 12·7 in 1898. Moreover, the total world production increased 60 per cent. in that period.[1]

When the War broke out the production-areas of Europe were upset and the overseas countries were stimulated into increasing production. The extraordinary demand made it quite safe for the farmer to borrow money, to obtain machinery on credit, and to use expensive fertilisers, with a sure guarantee that their crops would have a market at remunerative prices. Thus, when the War provided the impetus to increase production, and machinery the means, it was found that very much larger quantities could

[1] R. R. Enfield, *Economic Journal*, December 1931, p. 550. "The World's Wheat Situation."

be produced by the overseas countries, which could, in fact, make up the European deficit during the War. As an instance of the remarkable advance of mechanisation in farming, the following facts are noteworthy. Before the invention and general utilisation of the combined harvester-thresher (known as the "combine") anything from three to five hours of human labour was necessary for threshing an acre of wheat, according as a binder and stationary thresher were used, or a header and thresher. But with the new "combine" only three-quarters of an hour of human labour is necessary per acre. Moreover, in 1924 there were only 5 "combines" in Western Canada, and in 1929 there were about 7,250. The American production of "combines" rose from 270 in 1914 to nearly 37,000 in 1929.[1] Russia imported quantities of them; and so did Argentina, Australia, and other countries. The result was that farm labourers lost their jobs and drifted to towns, where they swelled the ranks of the urban unemployed, reducing at the same time the aggregate demand for food and commodities.

[1] Figures quoted by R. R. Enfield, *Economic Journal*, December 1931, "The World's Wheat Situation," pp. 555, 556.

Meanwhile those farmers who could not, for lack of extensive farms, co-operative spirit, capital resources, or credits, avail themselves of the new methods, also drifted slowly into bankruptcy, and in Canada and the United States the governments had either to guarantee prices to the farmers, or else extend them credits through banks from public funds. The figures showing the increase in the number of tractors used in the United States are also significant. In 1920 there were 246,000 tractors and in 1929 there were 853,000, and the League's report estimates that the *value of the equipment* per farm labourer was 200 dollars in 1925 as compared with 36 dollars in 1870, which means an increasing importance of capital and a decline in that of labour. It must be remembered that the overseas producers increased their output mainly on the assumption that they would go on supplying the European market, for although Europe has less than one-eighth of the world population she consumes four-fifths of the world's wheat supplies. In 1928 Canada exported nearly five times as much wheat, the Argentine twice as much, and the United States half as much again as the average exported in 1909–13. This was only a reassuring state

of affairs as long as the production-areas of Europe were disorganised ; but after the War European countries started to reorganise their own cereal farming in order to feed their own people, behind tariff walls, or with vast subsidies and bounties, and to take again a share of the world's export markets. The competition of the overseas producers was enhanced by the fact that freight rates were low owing to the post-War excess of shipping, and wheat could be put on the European market at prices which compared favourably with those of home-grown wheat. Also, there was a considerable demand in Europe for the kind of wheat which is grown in America. Millers needed certain quantities of the "strong" dry, hard, Canadian wheat, and often preferred it to wheat grown in Europe. In one other respect the American exporters had the advantage of the European suppliers—in regard to standardisation of quality and of grading, which in North America had been greatly improved.

Again, research by bio-chemists and biologists had led to the perfection of new qualities of wheat, which matured more quickly in the short summers of the extreme north. This kind of wheat, more resistant to frost and maturing quickly, meant that

the line of latitude above which wheat could not hitherto be successfully grown had now been advanced to the north, thus greatly extending the area of potential cultivation. Nor was this kind of "breeding" and "crossing" confined to cereals; it was extended also to rubber-trees, coffee-plants, cotton-bushes, vines, sugar-cane, and to strains of sheep (for wool and mutton) and cattle (for meat and hides). Thus the mechanical advances vied with the biological to compel a given acre, or a given animal, to yield more and more produce for less and less human labour. All this meant a poor look-out for the older, traditional lands of Europe, with their smallholdings, their out-of-date technique, and their aversion to large-scale agricultural operations. It was no wonder that each agricultural crisis made itself first felt in these lands, and led their governments into paradoxical measures and financial embarrassments; for the new processes on the wide prairies or steppes could cover the capital-outlay on machinery, could utilise it to the full, and their produce could sell at far lower prices than that of the old European farms. This is one explanation of the riot of agrarian tariffs, bounties, and subsidies with which European agriculture

has been pampered ever since the War—with higher costs, higher retail prices, and bad debts as the only results.

The question of Russian supplies was particularly important. During the War and afterwards when Russia was concerned with internal affairs and had been "banished" from "civilised" countries, the enormous quantities of wheat which she used to export were stopped. When she started to organise her farming she had grave difficulties, at first, in producing enough to feed her own people; but now, with remarkably successful mechanisation, she is in a position to export considerable quantities, although not nearly up to her pre-War figure. There is every reason to believe that Russian supplies will become formidable if put on to the world market, but it is likely that before this happens the Russian standard of living will have to be increased considerably, in which case there is little doubt that the Russian population will be able to absorb a very large proportion of Russian supplies. Nevertheless, at the end of 1930 the Chairman of the U.S. Federal Farm Board said he was confident Russia would regain her pre-War importance, and that U.S.A. had better give

up wheat-growing for export! In an endeavour to find a scapegoat for the wheat crisis a great deal has been said about Russian exports of wheat swamping the market, a statement in which there is more belief than truth. Russian exports before the War were about 41 million quintals annually, while in 1930 Russia only exported between $1\frac{1}{4}$ and $1\frac{1}{2}$ million quintals.[1]

The world-demand for wheat, like that for other goods, is affected by three main factors. There is population, there is ability to buy, and there is inclination to buy. For the years 1925–30 the world production increased by 14·4 per cent. and the European population (excluding Russia and Turkey) by only 7·7 per cent. At the same time industrial disorganisation, credit deflation, unemployment, and political unrest decreased the ability to buy. Finally, the tastes and fashions of those people who *could* buy had changed, so that they ate more meat, eggs, and fruit instead of bread, rye, and pastry. Doctors insisted that too much starch was bad for them, and dressmakers insisted that fashion decreed slim figures. Prohibition in post-War U.S.A. killed the demand for

[1] Nevertheless, Mr. R. R. Enfield sees in Russia a grave menace to the world's wheat market, *loc. cit.*, p. 565.

barley, rice, and corn as the bases of malting or distillation. In these circumstances it was unfortunate for the farmers that the total wheat acreage of the world went on increasing so rapidly. When production increases and effective demand decreases prices must fall.

The prices of other cereals also dropped. Since cereals can be largely substituted for each other, the tendency is for prices to be equalised. As the standard of living improves, the consumption of cereals varies from inferior to superior kinds up to a limit; finally, even these superior cereals are replaced by other foods, so that countries which before the War ate so much rye or maize, now eat wheat, and countries which ate so much wheat now eat more meat, butter, and fruit. It should be noticed also that in a time of economic depression the difference in demand between the lower and middle classes is exaggerated. Usually the lower classes form the majority of the unemployed, and while their demand is reduced suddenly to a subsistence level, that of other classes is reduced much more gradually. This tends to make prices very unstable; and fluctuating demand is, of course, much more feared by the farmer than slowly decreasing demand.

The production of rye and barley has not increased, but the consumption has decreased; in the case of rye because white bread is replacing black bread, and in the case of barley because it is being replaced by maize, of which the production is a little higher than before the War. During and just after the War prices were high, but since then prices of these cereals have fallen in sympathy with the world depression. Whereas the price of barley in 1928 in Canada was 66 per cent. above that of 1913, in 1930 it had fallen below that of 1913.

The League of Nations Economic Committee reports:

"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' has brought about a reduction in the number of horses. From 1919 to 1929 the number of horses in the United States decreased from 26,600,000 to 19,600,000, and in Australia from 2,530,000 to 2,030,000. The cult 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 U.S.A. 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. 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."

The production of oats is more important than that of barley, and, outside Europe, than that of rye. Although conditions were unfavourable, owing to the decrease in horses, the area sown had been slowly increasing up till 1928. In 1929 prices were maintained at a high level, though with considerable fluctuations. In 1928 the price in Canada was 80 per cent. above 1913, in U.S.A. 141 per cent. above 1913, and in the Argentine 160 per cent. above 1913. The fall in 1930 brought prices in North America down to 20 per cent. above 1913 and in the Argentine to 50 per cent. above 1913. In France and Germany, on the other hand, prices never reached such high figures. The maximum was 30 per cent. above 1913, and prices fell to 20–30 per cent. below the pre-War level.

The production of rice and potatoes has increased, but fairly equally with demand. In the case of rice the fall in prices has been slow. Potatoes, which depend on national rather than world market prices, show considerable variation in price. In 1926 production had increased by 8 per cent. since 1913, which is a smaller increase than that in population, and in 1930 prices were still one-third above pre-War level in some countries, although in Germany they were much lower.

As a result of greater demand, and of the fall in the price of fodder, cereals, cattle-feed, etc., stock-breeding has increased considerably, but apparently production has not yet caught up with demand, and the drop in prices due to the general depression is much less pronounced than in the case of cereals. This is a reflection from the higher standards of living and the greater consumption of meat and dairy produce. Although the increase in the number of cattle is relatively greater than that of the population, the fact that in the world as a whole there is more meat eaten per head has kept prices fairly high. Prices for chilled and frozen meat are still above pre-War levels. At the same time, the world depression has interfered with the

upward trend of the standard of living, and the increasing demand for meat has been checked. In Budapest, for instance, prices for live cattle and pigs were at the end of 1931 far below pre-War levels.

It is difficult to estimate figures concerning dairy produce, but there are signs of over-production. In many cases farmers turned to dairy farming, partly because the demand for dairy produce was increasing, and partly because in small countries it is a more convenient form of farming than growing cereals. Now, however, people have less money to spend, there are large supplies of cheese, eggs, and butter from New Zealand and Canada as well as from Europe (Holland, Denmark, and Ireland), and this, together with the general tendency of prices, means small returns for the farmer. The Economic Committee of the League reports :

" 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."

It has been calculated that if the Belgians were to increase their consumption of eggs by one egg per person per week the total increase in demand for eggs would be 450 million.

Even in the case of olives and ground-nuts, commodities which are produced on a comparatively small scale, production has increased considerably; that of olives has more than doubled, and that of ground-nuts has become almost three times the pre-War figure. Prices have followed the general tendency to rise and then to fall rapidly. Ground-nuts, which used to come chiefly from Africa, are now subjected to the competition of large supplies from India, Burma, and the Far East.

Sugar is another example of a commodity which has enjoyed increased consumption per head. Before the War, the consumption of sugar was increasing at the rate of 3 per cent. annually. Since the War this increase is 4 per cent. annually, and yet this increase is not so great as the increase in population. This would seem to argue greater possibility of further increasing sugar consumption. At the beginning of the twentieth century

producers of beet sugar supplied half the total world-demand. Since then, there have been great improvements in the method of cultivating sugar-cane, which has resulted in fierce competition between the beet sugar and cane sugar producers. Despite increased consumption, the more rapid increase in production has caused prices to drop continously. The production of sugar-beet is now 20 per cent. above the pre-War level, and that of sugar-cane is almost 90 per cent. higher. In December 1931 the price of sugar in New York was 50 per cent. below the 1913 figure, which in itself was almost the lowest price since 1895. Competition between producers had become so strong that in September 1930 the growers in the United States and Cuba agreed to limit their exports. An "arrangement" was made whereby the National Sugar Export Corporation of Cuba agreed to handle $1\frac{1}{2}$ million tons annually for five years—to be purchased from Cuban producers at $4.00 a bag. In order to do this it was arranged that there should be a bond issue of $40,000,000, and that interest and charges should be refunded to the government by a tax of 11 cents a bag for the next ten years. The American and West Indian growers

realised, however, that this would not help them very much if Java, the other large producer of cane sugar, were left out of the agreement. Java had the advantage of favourable soil, climate, and position, as well as exceptionally low labour costs, which enabled her to keep prices low. A conference was arranged at Amsterdam and the United Java Sugar Producers agreed to restrict their export to 20·7 per cent. of total exports of cane sugar, provided that Cuba restricted production by 23·5 per cent. The Java producers were only amenable because even at low prices they were finding it difficult to market their goods, and in Java it is difficult to store stocks of sugar. Then there was the problem of beet sugar supplies. At Brussels there was a meeting with the principal European sugar producers and quotas were finally determined, covering 55 per cent. of the European total available for export—60 per cent. of the Javan, Cuban, and United States export production. There was some difficulty in getting Germany to agree to the proposed quota, and ultimately she was allowed rather more than the proportion at first discussed. The success of the arrangement depended on the goodwill of the various producers, but as they were all

experiencing a very difficult time there was some chance of its being carried out.

Consumption of tea, coffee, and cocoa depends a great deal on taste, but also particularly on the standard of living; although it is curious to note that when, say, tea has become part of the normal diet, even if there is less money to spend on housekeeping people do not easily stop buying tea, though they may have to cut down expenses on butter or eggs. Habit is a very strong determining factor in the way in which money on food is spent. The demand for the finer varieties of tea and coffee is fairly stable, and the per head consumption of ordinary blends is constantly going up, though this varies very much from country to country. For instance, in the United Kingdom the consumption per head of tea is $9\frac{1}{4}$ lbs. per year, while of coffee it is but $\frac{3}{4}$-lb.; in the United States, however, the position is reversed, and ten times more coffee is drunk than tea. Tea prices have suffered less than those of most produce and in December 1930 were still 172 per cent. of 1913 prices. Coffee, on the other hand, has had a chaotic history. Brazil supplies 70 per cent. of the world's coffee. Immediately after the War prices dropped, and steps were

taken to control supplies, with the result that prices rose in 1922–26, thus encouraging further production, which, of course, led to a fall in prices. At the end of 1931 prices were less than 50 per cent. of pre-War prices, and stocks were phenomenally large —so much so that a million bags were burned in Brazil.

Vine growers were also affected by the urge to increase production, and often, with the aid of modern fertilisers, land which previously had been considered unsuitable was induced to yield harvests. The League of Nations reports that: "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 Report adds that the *poor* crop in 1930 "triumphed over the wine crisis but did not remove its causes."

The demand for hops has considerably decreased, and though production is somewhat less than pre-War, prices are so low that part of the 1931 crop was not picked at all as it would not have paid for the labour of picking it, for, owing to duties and excise

on beer, the consumption per head of that beverage was falling.

As regards industrial-agricultural products, the prices respectively of flax, cotton, wool and silk decreased in 1931 to half, and in some cases less than half, of the average prices in 1928 ; 1928 prices, however, were extremely high : in the case of flax in Latvia the price was 331 per cent. of pre-War, and of wool 208 per cent. of pre-War, but the advent of Russian flax and hemp in 1930–31 brought prices down again. For flax and wool the world-demand is probably greater than before the War, so that the fall in prices is due entirely to the world depression, and the inability of people to buy except at prices which are not profitable to the supplier, though still well above pre-War rates. Cotton, on the other hand, is in a very bad position. Even in 1928 there were signs that production was too heavy, and stocks began to accumulate. The League reports :

" 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."

Both silk and cotton producers have had to face the severe competition of artificial silk, and at the same time the production of real silk has increased to double the output before the War.

The increased production of rubber is really astounding. In 1926 six times and in 1929 eight times as much rubber was produced as before the War. Before the War the demand for rubber was increasing much faster than the output, and it is understandable that having done everything possible to increase production it was almost impossible to slow it down. Cheaper methods of cultivation, the discovery of ways in which to utilise old rubber, and greater durability given to rubber manufactures like motor tyres, increased the stocks of rubber available, and as the world depression set in demand slackened, so that the rubber growers found their prices going down while their supplies accumulated, and a very serious situation resulted. Already in 1926 prices were 66 per cent. of 1913 prices, and by

1931 prices were less than one-eighth of pre-War figures.

From this it is evident that in almost all cases prices have fallen since 1928 and in 1930 were 50 per cent. below pre-War rates, while costs of production had not fallen nearly so low. In the case of wheat, sugar, cotton and rubber, production would have outrun consumption, even if the depression in prices had not been so intense. This in itself partly produced the economic crisis, inasmuch as the demand for industrial goods from countries growing commodities, the prices of which were falling, was naturally lower so that growers could no longer afford to buy from industrial countries at the rate at which the industrial countries were increasing their output. And the increased output of industrial countries was promoted by the fact that credits were still available for expansion at a time when they should have been restricted. Banks were slow in raising the bank rate to check speculation, and correspondingly slow in reducing the bank rate to help credits. At the end of the War the general agricultural price-level was rather above the general price-level, but by 1920 it had fallen below the general price-level, owing particularly to the fact that

prices of produce fall faster than prices of farming requisites and manufactures.

The only thing that can enable the farmer to recoup himself for a bad harvest is that the next world harvests shall be uniformly bad so as to decrease the general supply. The chance of all harvests being bad is very remote, when it is realised that wheat, for instance, comes from places as varied in conditions as Australia, Argentina, Canada, and Russia. One unsatisfactory year, which in itself is a long turnover period compared with that to which industry is accustomed, has a considerably longer effect than in the case of manufactured goods. That being the case, the farmer's spending abilities are curtailed for several seasons, and this reacts on the demand for industrial goods, producing unemployment, lower wages, and again shortening the demand for agricultural produce. Once the circle has started, it seems almost impossible to find a way out, and it is quite certain that when supplies come from all over the world, it is only by the world working together to regulate supplies and stabilise demand that a solution can be found.

In the avalanche of supplies and the collapse in the world's agricultural price-

level, it was only natural that any number of temporary palliatives and *ad hoc* measures should be taken by governments which, seeing their own peasants, farmers, or labourers unemployed and bankrupt, desired to remedy their lot at the expense of the common weal. Unfortunately, just as agricultural production during and after the War had been extended and intensified without any reference to a world situation of supply and demand, so now, when the crisis displayed its first symptoms, no combined effort was made on a truly international scale ; and sectional groupings, like that of the European agrarian *bloc*, resulted.

The effect of a tariff on agrarian imports is obvious. These imports are necessities : the price rises behind the tariff at the consumer's expense ; and the rise goes into the pockets of farmers, landlords, and the state treasury. There is less to spend on manufactured goods, and so industry feels the repercussion of the tariff. This is what happened in Germany with her wheat quota for home wheat and her rye campaign ; the price of wheaten and rye bread in Germany rose enormously as compared with that in Belgium, a free trade country, and, although less overseas wheat

was imported, the purchasing-power of the home consumer was curtailed, and the standards, both of politics and of living, suffered. France, Portugal, Sweden, Switzerland, Norway, Luxemburg, Czechoslovakia, Latvia, and—finally !—Britain, all introduced wheat quotas to protect arable wheat-land and wheat farmers in a world which was almost suffocated with surplus wheat !

There are other protective devices which work in the same way as tariffs. For instance, the quotas mentioned above ; and import boards to buy wheat in bulk at certain times and prices and to keep imports down to a minimum. There are restrictive customs requirements in many products which prevent the easy inflow of goods. There are also certain advantageous rates quoted to home farmers for transport, as against foreign imports. In the case of cattle, Hungary argues that Germany and Poland use their veterinary regulations arbitrarily, so as to exclude Hungarian live-stock. " Administrative protection " of this kind is far more extensive than is supposed. Another variety of protective device is the deliberate ambiguity in customs nomenclature, so that foreign sellers never know exactly what duty their exports are liable to. Finally, we have

the whole range of bounties on agricultural exports—for example, the German and Hungarian "wheat-tickets" which were issued and "discounted" by the state—and subsidies to home producers, such as the British sugar-beet subsidy. These not only load the citizen tax-payers with the costs, but also put the price of the article in question up, so that, although plenty may be available at low prices abroad, the consumers' money is literally "decreed" to be spent on a certain necessity at a certain figure which the government may fix. The waste, misapplication of effort, and uneconomical use of labour and capital is evident; but, it is pleaded, the problem is not purely "economic": it is social, political, humanitarian; the farmer and his labourers must not die out, even if "economic law" of the survival of the fittest decrees their extinction.

But "economic law" decrees no such thing—any more than it decrees the extinction of all industry in a crisis. It merely decrees (or indicates!) a redistribution of capital, land, and labour to *other*, more profitable, agricultural undertakings; and if the small-scale individual farmer cannot *then* make the "business" pay, he must clearly do one of two things: either he must go out of the

"business" of farming, and leave it to the more efficient, in whatever land they occur, and enter some other branch of business; or he must combine and co-operate until the scale upon which the joint undertaking works is sufficiently large to admit of economies such as are made by the overseas producers. But if a government steps in and deliberately pays the difference in costs out of the tax-payers' pockets, it is obvious that over-production and inefficiency have a premium set upon them, and the radical faults are left untouched. For example, since 1929 agricultural land in Britain has paid no rates whatever, and now a wheat quota has been suggested, to encourage British farmers to grow wheat. Even if no rates were paid, it would be quite impossible as an "economic" proposition; yet for the luxury of knowing that there is—how much per cent.?—of wheat from his own country in his bread (it cannot be 100 per cent., for it is too damp!) the British citizen is required to foot the bill for an "uneconomic" proposition, while his farmer-neighbour raises more of an already redundant product.

Even this situation might be less grave, if the fall in world wheat-prices, to which it must inevitably contribute, were to mean an

easier lot for a country like Denmark, which imports cheap foreign wheat to feed to hogs which are exported as bacon. But, although this was one of the reasons which prevented Denmark in 1931 from agreeing to a preference for imports of European wheat, it is a very small point compared with the situation of large-scale wheat farmers in overseas countries.

Three ways of dealing with the present crisis have been tried. As we said above, the Central European countries favoured tariffs and preferential duties. The wheat producers of the United States and Canada favoured restriction of production, sales, and exports. Further, there have been attempts internationally to restrict output by the sugar, rubber, and coffee growers, and an abortive attempt by the wheat growers. It is possible that in other circumstances (ideal, or almost mediaeval circumstances of difficult transport conditions, for instance), tariffs, or judicious restriction of exports of some one commodity might have succeeded in stopping the decline in prices for that commodity. But the financial positions of all countries are inextricably interdependent, and it is quite useless for any country, whether exporting or importing, to try to play by itself; and now that

we are in fact in the middle of a universal depression and slump in prices, it is a pure academic exercise to consider whether in other circumstances such and such a remedy would work.

The League of Nations Committee of Experts reported: "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." The truth of this is only too well apparent in England to-day. Retaliatory tariffs become an international game of leap-frog, dangerous to play from the point of view of industrialists and agriculturalists alike; and it is a hungry and unpleasant game for the wage-earners. It must not be forgotten that industrialists are wage-earners as well as agriculturalists; and their respective undertakings are interdependent.

The theory of protection for the agricultural countries of Central Europe was backed not only for economic reasons. There was considerable fear of internal upsets, and with one eye on the successful Russian experiment, governments talked blandly

about the tranquillity of the peasant, how he stood for peace and order, how the tired city worker could recuperate in the country ; and when the peasant population agitated for protective agricultural policies, governments found it convenient—and safer—to administer the tariff soporific !

That the farmer should ask for protection is not surprising. He lives in a small and rather remote world of his own limited by the money he has to spend and the money he earns. When he finds that profits are disappearing, it seems to him that the solution is to stop competition from outside ; he feels that not only ought his own countrymen to buy his produce first, but they ought to pay a reasonable price for it. The small farmer does not think in terms of the world, and really does not care what happens to other farmers. But governments are another matter. They know that they have to think in terms of the world, and though they probably do not care about other countries, they know that some sort of compromise and some sort of amicable working arrangement must be made, for their own sakes. A government which is genuinely convinced that protection is the best way of helping its own country must have a short memory.

Governments, of course, have other things to consider than agricultural policies, and it may occur that a policy of protection is useful in some ways at a certain time, and that they are so immersed in events of the moment that they are unable to take into account the long period result of this policy. They forget that if by tariffs food-exporting countries are prevented from selling their goods to food-importing countries, the food-exporting countries are also prevented from buying the manufactured goods from the food-importing countries. This cuts both ways, and generally starts a tariff war, which spreads from country to country, increases prices all round, and does nothing to solve the original problem.

Apart from this assumption that a peasant population represents order and is to be preserved and encouraged, there is also the governmental notion that it is as well to grow as much of one's own food as possible in case of war, which is a practical point of view, though it would be preferable to aim at eliminating possibilities of war rather than to aim at being prepared for it. Then there are various "nice" points, of which the League of Nations Report gives an example. They state that if the Swiss import duty on

hogs were abolished there would be no use for the waste products of the cheese factories. That is to say, it is more important that the Swiss people should have dear pork than that the cost of Swiss cheese to outside markets should be too high. There is yet another reason for protection given by the League of Nations Report, namely, that where the peasant population is unable to afford to modernise its methods of production, there would be considerable distress among the farmers in those countries if the population could buy wheat cheaper than the farmers could grow it. As the actual facts are that there is distress among the farmers of all countries, and as prices are settled in a world market, there seems to be little ground to believe that this kind of protection is ultimately for the good of either the farmer or the consumer.

The world-demand for agricultural produce as a whole is limited, though there is no reason to believe that the demand has yet reached its limit, nor that the distribution of that demand over the various products will always remain the same. It is true that in creating a demand for wheat in China, the possibility of a serious crisis in the rice market must be envisaged ; but this might

be avoided by arrangement with rice-exporting countries. The fact which is apparently overlooked by the believers in *laissez-faire* is, that unless you tell a child to look where it is going it probably will not notice how much it disturbs other people as long as it enjoys itself; and producers of food and manufactured goods, like children, want to enjoy themselves, and they cannot perceive the widespread dislocation they are causing until they are themselves run over. To let producers exploit the Eastern and African markets would doubtless lead to a period of crisis, but there seems to be no reason why such an extension of markets should not take place with the minimum of difficulty if it were organised.

Apart from potential demand, there is also the question of effective demand. It is obviously absurd to talk of absolute overproduction at a time when millions of people are hungry, or, at least, capable of consuming much more. The problem is to put them in a position to consume the vast surpluses of food in the world to-day. So large are the stocks of food supplies, so great the potential production, and so persistent the rise in unemployment and the decrease in purchasing-power, that it hardly seems

fantastic to suggest giving the food away, certainly less fantastic than burning it, as has in fact been done. If the accumulated stocks were removed it would go a long way towards helping prices to rise.[1]

The question of reducing supplies has to some extent been dealt with. The depression itself has reduced the acreage sown and the constant circulation of opinion that acreage should be reduced has in some cases had this effect, but not to a large extent. When it was suggested at the London Wheat Conference in 1931 that acreage should be reduced all round, each country acclaimed the idea—for all the others. In spite of the extreme severity of the wheat situation, after three attempts to come to an arrangement it was found impossible to discuss the situation on the basis of acreage, quotas, or anything else. Each country was convinced that it was not at fault, that its expansion had been legitimate, that it ought to have more than its share of the world's market, and that it was not going to give way in any direction. The European countries, truthfully

[1] The reader is here referred to Mr. Hutton's *Nations and the Economic Crisis*, a companion volume in this Series, which examines at length the deficiency in world purchasing-power after 1929, and the consequent world fall in prices. A consideration of proposed remedies is also given.

enough, said that they were not over-producing. In spite of the remarkable recovery of Russia, the total European exports are not higher than before the War, while those of the overseas countries have increased considerably. India is an example of a country which has increased its production but decreased its exports. India has learnt to absorb her own wheat, and that is possibly what will happen with Russia.

The whole question of adjustment of supply and demand must be dealt with as an international question. If industry is depressed, agricultural markets contract; if agriculture is depressed, industrial markets contract. If industry expands on optimistic speculative hopes, inevitably there is a reaction, and these reactions are costly. Stocks pile up and depress the market for a longer time than the original setback would normally warrant. Agriculture suffers particularly because while demand dwindles very rapidly in a time of slump, in a time of boom the increased demand is limited by the fact that no matter how much more one has to spend, the demand for food is limited by appetite. The demand for cereals, meat, dairy produce, and sugar is to some extent interchangeable, according to the standard of living; and so

is the demand for tea, coffee, cocoa, and wine. But in the latter case the demand depends largely on habit and taste, developed artificially by advertising or some such means, and while wine, for instance, is a luxury in England it is a necessity in France. The demand for these products is extremely inelastic. In the case of raw materials for industry, such as cotton and rubber, they suffer severely in a period of slump, because the demand is curtailed in two ways—first, the factories restrict their direct consumption ; and in the second place, when people are thrown out of work because the factories close down they economise on manufactured goods before they economise on the more necessary food.

It is hardly possible in the present state of the world for industrial or agricultural production to be decreased or increased without affecting each other. If a Birmingham engineering firm restricts its production, a certain number of people are thrown out of work. They buy less clothes and food, which curtails the demand for American cotton, Canadian wheat and Argentine meat ; and these overseas producers in turn are unable to buy the finished products of the English factories, which have to close down

and throw more people out of work. In the case of less industrialised countries, such as Hungary, two-thirds of whose exports are represented by agricultural products, the wheat growers find that the world-price for wheat has gone down, and that they have to sell for lower returns so that their spending capacity is drastically curtailed. The main lesson of the 1929–31 crisis has therefore been, that while national action can be used as a palliative, it does not remove the root causes of the crisis ; only international action can do that, and must do it if our material welfare and our standards are to improve.

CHAPTER VI

THE FUTURE OF WORLD AGRICULTURE

It is now time to gather into one skein the manifold intertwined threads of this world agricultural problem. In nearly all commodities we have seen that a crisis reigns, and their producers are virtually bankrupt. This bankruptcy of the world's primary producers has, in its turn, meant defaults on loans, restricted demand for industrial products, and consequent failures and unemployment in industrial countries, as well as a general lowering of standards. In the previous chapter we have traced in some detail the particular effects of the post-War period, as well as the immediate nature of the world agrarian crisis at our doors. Now it remains to discuss the general principles of governing the conflicting particular phenomena.

The world agrarian crisis is not a crisis of *absolute* over-production, but of over-production *relative* to the prices at which agricultural products can be sold so as to cover costs. That is to say, the over-production is not

relative to human needs but only relative to a world price-level. In a world where tariffs, quotas, bounties, subsidies, and agreements have kept in work a vast number of producing units which ordinarily would have succumbed, it follows that advancing technique will lead to grave over-production—production, that is, *over and above the total quantity which at ruling world-prices can be disposed of*. Thus the world agrarian crisis is really, like any industrial crisis, a crisis caused by a dislocation between selling-prices and costs ; but it is aggravated by the fact that states do not, on the whole, subsidise industry ; and that where industry enjoys an elastic demand, agriculture faces a demand which is, as a lump sum, fixed and inelastic in all Western countries ; and the East is the only market where potential demand *might* conceivably be levered-up to absorb the inevitable surplus. Yet the East has not the organisation of credit and exchange to ensure long-term contracts of any reliability ; and so Western bankers and merchants have been unable to do much more than advise destruction of surpluses, storage, or the giving of it away, while millions in the East starved in 1931.

To this one must add that demand for agricultural products in the West has also

been changing in quality—more meat and butter, more pork and dairy produce is now eaten than cereals, starch-food, and bread. Fruit is now more common ; and fish is even displacing meats of all kinds in maritime countries. As standards rise, so the relative importance of the basic cereals declines, and fruit-growers, dairy-farmers, and market-gardeners stand to profit at the expense of large-scale farmers. Thus demand for cereals slackens with the (Western) slackening populations, and new kinds of demand arise.

While, however, the structure of world-demand has been altering, and while states have all acted nationalistically to cause reduplication and over-production, nothing has been done on any appreciable scale outside Russia, U.S.A., and Canada to make of farming a large-scale industry. So that farmers in most countries, and certainly in Europe, have been nursed by governments without being compelled to co-operate on a large scale and so to effect the very necessary economies of large-scale operations. Thus, the taxpayer-consumer in nearly all countries has been burdened with the keeping of the farmer in work—work which was, in view of his opposite numbers in other lands, not

even a necessity.[1] Nationalism, in all its forms, has thus led to a crisis of over-production ; a paralysis of world trade ; and an unprecedented rapidity in the fall of world-prices, which in turn has increased the incidence of all debts, and so led to wide-spread financial chaos. States have been willing to support industrial unemployed in order that their own farmers should stay in work ; while the advance in industrial and agricultural technique really warranted (on the sheer merits of the case) a reduction in all hours of work, in units of industry, in farms, and in undertakings.

In countries like Germany and Britain, where industry has reached its highest levels of development, governments have yet attempted to guarantee uneconomically high prices to farmers to enable them to grow, at the public cost, cereal crops which can be grown at half that cost in other lands. Whereas, if only these governments had looked at the structure of demand, they would have compelled their own farmers to turn to pigs, dairy-farming, fruit, and market-gardening—processes which suit old,

[1] Viscount Astor and Keith Murray : *Land and Life*, Gollancz, 1932. Especially their examination of the effects of a guaranteed price for wheat in Britain.

traditional countries whose farmers work small farms and smaller fields—processes whose end-products command more stable and higher prices in world markets, owing to the fact that overseas over-production of cereals, at costs so low that the older forms of European non-mechanised farming cannot compete without internal taxes or subsidies, is not found in these other forms of agriculture. That is why arable farming in Britain has sunk to a subsidiary branch as an aid for cattle-feed, pigs, or poultry, or even for straw rather than for the grain ; while the raisers of pork, dairy products, fruit, and vegetables have not suffered anything like the fall in prices of wheat, maize, rye, oats, and barley. The reason, again, of course, is that expenditure on bread or cereals forms only about one-eighth of the total expenditure on food and drink in Western countries ; therefore any remedial measures should clearly be directed to the demand represented by the seven-eighths, rather than to the rehabilitation of agricultural products which at the most can only account for one-eighth. That, in turn, means some form of international rationalisation of agriculture, whereby home markets in cattle, dairying, fruit, or vegetables shall

be, to a certain agreed extent, reserved to home farmers—but the essential grains and products where large-scale, mechanised farming offers more economical methods of production, should only be raised and bought from countries where the costs are lowest—as in Russia, Canada, Argentina, Australia, and the United States. Such a scheme would certainly entail considerable redistribution of agricultural production in countries of old-fashioned technique (mainly those European lands like Poland, Hungary, Rumania, Bulgaria), but it would result in a better, more economical, more *profitable* system of farming in Europe, and it would lessen the need for those conflicting state measures of economic nationalism which have largely brought about the present crisis. Finally, it would undeniably raise the standards of consumption in these European countries, and would, in its way, permit of the advance in standards which the free trade of the nineteenth century allowed in the industrialised states. That, in turn, would be all to the good of the industrial states and of their unemployed.

But all this necessitates long-term loans; and these very countries are the poorest and most backward in Europe. That raises

the question of international credit co-operation. If once the political and economic nationalism of the present epoch dies down, and if ever an agreed policy of international rationalisation of agricultural production can be carried, then it will not be difficult to extend the scope and resources of the International Mortgage Bank, which was founded in Geneva in 1931, and to float its bonds on all markets; and the credit-supplies can be regulated in accordance with the agreed allocation of production in each country for the various end-products. In fact, this plan was forced upon the five states of the European agrarian *bloc* by the pressure of events during 1931, but the necessary credits, even for medium-term, were not forthcoming from abroad in the unsettled state of Europe.

Apart from some such international action it is difficult to foresee what is to happen in the world of agriculture. After a century of unparalleled, unimaginable progress in all forms of productive technique it is now evident that there are only two clear ways of escape from the present crisis—that is, from over-production at costs far higher than selling-prices.

One is, to fall back on state action

directed only to one's own nationals *via* subsidies from taxes, bounties, quotas, guaranteed prices, and the rest. That means the world will be split into so many states each trying to raise as much of its own needs as possible, and to import as little as possible, while the consumer in each nation foots the bill to keep the farmer in work at guaranteed prices, which no other kind of producer is permitted to enjoy—a vast orgy of uneconomical effort while all standards of living sink back to those of the eighteenth century.

The other way of escape is to rationalise the basic productive forces of the world piecemeal—rubber, wheat, cotton, wool, sugar, petroleum, etcetera—perhaps by majority-compulsion—until such time as the ensuing redistribution of agricultural effort shall have combined with international finance to make the system work. *Laissez-faire* has been hindered by human activities from settling production in the most advantageous and most economical places; so now human activities of the most conscious kind must order and direct human productive effort into just those channels which the "invisible hand" of Adam Smith's *laissez-faire* itself would have selected.

There is, however, this to be said for the conscious human direction of economic effort —that it may, by taking thought for to-day as well as for to-morrow, be able to alleviate those catastrophical oscillations of the world's economic pendulum which throughout the nineteenth century, and right up to the present *débâcle*, only engendered widespread dislocation of the world's economic machinery before normal conditions could once more prevail. That means continuous research, pooling of information, common agreement, and co-operative organisation on an international scale. In agriculture that has been shown to be notoriously difficult of achievement. But if that is not the way the world will go, then we must all sit down to consider where we can best grow our potatoes ; for if we do not consider it for ourselves, Governments themselves will be forced to tax and confiscate—nay, even perhaps to force labour on to the land—in order that the twentieth-century ideals of a new State feudalism may be realised !

That there exists no single " middle way " out of the world crisis—a combination of state subsidies to home farmers and of state buying and selling on foreign markets—the world crisis has amply demonstrated. International

co-operation, it is true, demands national unification, organisation, and co-operation of producers ; but it is the direction in which the most fateful of economic fingerposts has long been pointing—in fact, ever since the opening of this century. The growing rift between the price-levels of agricultural products and of manufactured products has gradually upset the entire equilibrium of the trading world ; but technical progress in methods of both industrial and agricultural production does not stand still, and, indeed, cannot stand still. Here we live in a world where Plenty has pinched us in 1931 far worse—has caused far more widespread havoc —than did Poverty in, say, 1821. We have world markets where world-prices rule, yet all states whose producers' costs are above world-prices tax their citizens in order to make up the difference, instead of allowing production automatically to be carried on in the cheapest and most efficient manner. But taxes impoverish a nation just as easily and far more permanently than allowing certain producers to turn to other walks of economic production at a temporarily lower standard ; so that the states which prefer to impoverish themselves in this way should carry their national policies to the logical

conclusion—that is, they should all come together to agree to banish *laissez-faire* once for all, and to share the world's production and market in all products. Yet this is the very conclusion to which they refuse to come ; and so we live in a world which is neither *laissez-faire* nor rationalised—neither automatically controlled in economic matters, nor consciously. It is, in short, a world of economic anarchy, punctuated by crises ; but the crises land on all of us—all nations, all producers, and all consumers. The cheapness of food bankrupts the farmer, but it means nothing to the industrial consumer, who is, by the bankruptcy of the farmer, out of work, and cannot afford to buy even the amount of food he needs ; and so food is burned. Something is evidently rotten in the state of prices when there is too much of everything—food, materials, machinery, plant, labour, manufactured goods, even transport—and yet it cannot be distributed in a world whose standards are susceptible of infinite expansion—even in foodstuffs.[1]

Nevertheless, as was said in the Introduction, this very gloom is itself a mirage—an unpleasant one perhaps, but undeniably a mirage. This "too much" of everything

[1] See Hutton, *op. cit.*, Ch. III, pp. 63–68.

proves that the problem of production has been technically solved; unemployment alone proves that. Our standards are high, but can be even higher yet, if only the world can direct its efforts and utilise its resources and technique so that the most economical use is made of land, labour, capital, and credit. All that differentiates the present crisis from the problems facing the classical economists is, that in their day it was left to the "invisible hand" of private enterprise under *laissez-faire*—to the "enlightened self-interest" of the profit-seeker—to render the whole world's economic system automatic. A century of phenomenal economic development in that world has, however, taken away the automatic machinery, the "unregulated" private *entrepreneur* and his aims—and so, minus this connecting-rod, the whole machine is working furiously in so many parts, without any co-ordination, conscious or automatic. Nothing has been substituted but state intervention and state regulation, with an eye only to the state itself. The problem before the world of the twentieth century is that of rationalising a world of states whose economic sectionalism has almost destroyed the fruits of the Industrial Revolution. If that problem is not solved inter-

nationally, then the world must revert, politically, socially, and economically, to its prototype of the Middle Ages—a bundle of conflicting elements with conflicting policies, and with economic standards lower than had previously been enjoyed.

If, on the other hand, the logical conclusions of the phenomenal advance in industrial and agricultural technique are to yield fruit for the material welfare of mankind, then we can do no better than quote, in conclusion, one of the most significant passages from the League of Nations Report on the world's agricultural crisis :

"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 agriculturalists 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 instructive sense of this imperative necessity."

Agriculture, that is to say, must adopt the international outlook and organisation which, ever since the Industrial Revolution reached its apex, the leading industrial units have adopted. If nations of agriculturalists and of industrialists alike turn inwards to create " back-garden economics," and so to renounce the advantages of international specialisation and co-operation, then it will fare ill with both Industry and Agriculture ; the world, which might have been an efficient working unit, will be fallow and only spasmodically sown ; and its citizens, " secure " in their petty national plots, will look back to the end of the nineteenth century with wonder and not a little curious envy.

This book has attempted to show exactly how co-operative Industry and Agriculture must be in a world which has decided to " make the best of both." But, in the last analysis, it is for the peoples and their leaders to take that beneficial decision, and to make it work.

STATISTICAL APPENDIX

TABLE I

WORLD POPULATION AND WHEAT PRODUCTION : INDICES

	1913	1925	1928	1930
POPULATION :	100	105	110	112 [1]
WHEAT	Av. 1909–13	1925	1928	1930
Europe . . .	100	102·9	103·2	100
Canada . . .	100	200	285·2	200
U.S.A. . . .	100	97·9	132·4	123·4
Argentine . . .	100	130	237·5	162·5
Australia . . .	100	124	172	224

[1] = estimated.

TABLE II

CONSUMPTION OF WHEAT IN KGS. PER HEAD

Country	Av. 1910–14	Av. 1926–30
Europe	129·9	128·7
U.S.A.	147·3	124·6
Argentine.	170·6	149·1
Australia	160·3	146
India	23·6	23·7
Other countries	15·5	17·6

Sources : L. of N., *The Agricultural Crisis*, 1931, pp. 24–7.

TABLE III

WHEAT PRICE INDICES

Year	Manitoba (N.I.)	Barletta (B. Aires)	German (Berlin)	French (Paris)	Italian (Milan)
1913 . .	100	100	100	100	100
1925 . .	186	180	136 [1]	113 [1]	147 [1]
1930 (Dec.)	63	75	126	116	102
1931 (Dec.)	71	78·5	117	111	99

[1] = 1926.

Source : L. of N., *The Agricultural Crisis*, 1931, p. 25. Dec. 1931 figures calculated by Authors.

TABLE IV

WHEAT PRICES, FREE AND PROTECTED

(In June 1931, per bushel)

Gt. Britain	Paris	Berlin
3/2½	8/3½	7/3

Source : R. R. Enfield, *Economic Journal*, Dec. 1931, p. 561.

TABLE V

ARGENTINE EXPORTS : 000,000 gold pesos

Products of :	1911–13	1928	1929
Stock-breeding. . .	174·1	342·7	299·2
Agriculture. . . .	239·7	649·6	624·7

TABLE VI

AUSTRIAN PRODUCTION : 000 quintals

Item	1919	1929
Wheat	1,895	2,695
Rye	2,311	4,675
Barley	839	2,277
Oats	1,974	4,243
Sugar-beet	765	6,158
Potatoes	5,471	25,878

TABLE VII

HUNGARIAN EXPORTS DISTRIBUTION (PER CENT.) AND PRICE INDICES

Item	1913	1929
Within Austro-Hungarian Customs Union, or to Succession States post-War	75·7	59·3
To other countries	24·3	40·7
Agricultural price-index	100	95
Manufactures price-index	100	131

Source : L. of N., *The Agricultural Crisis*, 1931.

TABLE VIII

INDEX OF BRITISH EXPORT PRICES TO IMPORT PRICES

1913	1926	1929	1930
100	118	116	126

Source : L. of N., 1931, *Course and Phases of the World Economic Depression.*

TABLE IX

BRITISH IMPORT PRICES

(1913 = 100)

At London	1928	Dec. 1930	Dec. 1931
Beef, Argentine . .	187	187	140
Mutton, N. Zealand .	194	141	105
Bacon, Danish . . .	141	106	60
Butter, Danish . . .	152	111	107·5
Eggs, Danish . . .	149	176	150

Source : L. of N., *The Agricultural Crisis.* 1931 figures calculated by Authors.

TABLE X

INDICES OF IMPORTS AND EXPORTS, PRE- AND POST-WAR

(1913 = 100)

Country		Price Indices					Volume Indices			
		1913	1922	1928	1929	1930	1922	1928	1929	1930
* Denmark.	Import	100	166	147	148	127	113	144	149	166
	Export	100	185	139	149	125	100	174	170	191
France .	Import	100	310	535	506	428	108	116	133	143
	Export	100	283	501	484	466	86	148	147	131
Germany.	Import	100	98	127	126	109	59	103	99	89
	Export	100	64	134	132	124	61	86	95	91
* Hungary .	Import	100	126	136	136	—	114	204	179[1]	—
	Export	100	85	127	116	—	137	197	270[1]	—
†Switzerland	Import	100	142	146	143	130	71	98	101	105
	Export	100	175	151	150	142	70	102	101	90
†United Kingdom	Import	100	152	137	134	117	86	110	116	112
	Export	100	183	157	153	142	71	80	82	68
* N. Zealand	Import	100	176	137	136	135	90	150	164	145
	Export	100	117	155	148	116	158	157	162	168
* Argentine	Import	100	189	131	130	130	74	128	133	114
	Export	100	117	132	122	105	112	154	151	113
U.S.A. .	Import	100	113	126	119	97	154	181	206	176
	Export	100	138	125	125	113	112	164	169	137

[1] = Excluding " improvement trade " previously included.
* = Exports mainly agricultural.
† = Primary needs imported.

Source : L. of N., *Review of World Trade*, 1930, pp. 63–8.

TABLE XI

VOLUMES AND VALUES OF AGRARIAN EXPORTS, 1927–29, BY COUNTRIES

Exports of:	Metric tons (000's)				$ (000,000's)			
	1927	1928	1929	1930	1927	1928	1929	1930
Wheat from:								
Canada	6942	9945	5741	5654	340	434	249	186
Argentine	4226	5296	6613	2213	193	242	264	76
Australia	2204	1587	2040	1462	110	76	89	50
U.S.A.	4581	2621	2453	2389	240	120	112	88
Europe [1]	—	942	1535	4162	—	—	—	—
Meat from:								
Argentine	822	617	594	557	112	107	106	90
Uruguay [2]	138	93	105	145	20	16	18	23
Australia	86	120	114	117	15	22½	23	22
N. Zealand	171	193	169	205	44	50	48	51
Brazil [3]	33	65	79	113	5	10	13	19
Cotton from:								
U.S.A.	2221	2028	1806	1585	826	920	771	497
India	544	636	713	738	192	233	242	199
Egypt	332	334	343	266	193	223	204	118
Wool from:								
Argentine	157	125	129	134	78	78	66	38
Uruguay	69	53	51	78	33	32	28	23
S. Africa	118	115	130	125	83	82	71	42
Australia	348	325	347	387	309	296	242	162
N. Zealand	100	103	107	90	63	81	75	36
Maize from:								
Argentine	8344	6372	5048	4670	218	220	160	89
Europe [1]	—	687	834	2182	—	—	—	—

[1] Note European displacement of overseas supplies, largely due to tariffs, bounties, or Russian exports in last two years.

[2] Note Uruguayan displacement of Argentinian products.

[3] Cf. Brazilian turn-over to meat from coffee.

Source: L. of N., *Review of World Trade*, 1930, pp. 36–8.

TABLE XII

WORLD PRODUCTION INDICES

(1925 = 100)

Item	1927	1928	1929	1930 [1]
Cereals	99	104	101	102
Meat	(105)	(110)	107	—
Tobacco	101	106	113	—
Textiles	98	106	108	109
Rubber	122	116	149	140
Wood pulp	114	117	131	—
Chemical fertilisers	106	123	133	—
Foodstuffs	102	106	105	106
Raw materials	108	112	120	110

[1] = provisional figures.

Source : L. of N., *Memo. on Production and Trade*, 1925—29/30, p. 27.

TABLE XIII

PERCENTAGE DISTRIBUTION OF WORLD PRIMARY PRODUCTION

(World = 100)

Grouping	Foodstuffs		Raw Materials	
	1925	1929	1925	1929
Europe (incl. U.S.S.R.)	41·9	44·2	31·5	34·6
N. America	25·8	23·8	40·7	38·6
Latin America	9·6	9·5	5·2	5·3
Africa	2·7	3	3·1	2·9
Asia (excl. Asiatic Russia).	18·3	17·8	16·9	16·3
Oceania	1·7	1·7	2·6	2·3

Source : L. of N., *Memo. on Production and Trade*, 1925—29/30, p. 25.

TABLE XIV

PERCENTAGE CHANGE IN AVERAGE GOLD EXPORT PRICES
(From 1929 to 1930)

Agricultural		Industrial	
Coffee (Brazil)	−43	White Cotton textiles (U.K.)	−11
Rubber (Br. Malaya)	−42	Petrol (U.S.A.)	−11
Wool (Australia)	−40	Silk tissues (France)	−9
Cotton (U.S.A.)	−25	Wood pulp (Sweden)	−8
Raw silk (Japan)	−30	Newsprint paper (Sweden)	−1
Maize (Argentine)	−40	Steel girders (Belgium)	−1
Wheat (Australia)	−22	Automobiles (up to $1,000) (U.S.A.)	−2
Sugar (Czechoslovakia)	−20		
Butter (Denmark)	−19		
Bacon (Denmark)	−15		
Frozen meat (Argentine)	−9		

Source : L. of N., *Review of World Trade*, 1930, p. 12.

TABLE XV

PRICE INDICES OF AGRICULTURAL PRODUCTS
(Basis : 1929. I = 100)

Country	1929	1930				1931			
	IV	I	II	III	IV	I	II	III	IV
Canada .	106·1	99·7	92·6	78·3	68·6	61·9	60·2	55·6	55·8
U.S.A.[1] .	100·7	95·6	91·9	80·9	75·0	67·6	63·7	55·4	50·2
N. Zealand	87·1	80·5	77·4	75·3	64·1	57·4	56·7	59·6	58·3
Argentine	98·2	89·5	88·2	83·1	66·4	59·7	59·5	59·5	63·1
England-Wales.	99·3	100·0	93·1	95·1	88·9	87·5	85·4	83·8	79·2
Germany .	96·8	87·1	83·2	86·4	83·1	79·9	81·4	77·5	73·0
Poland .	89·8	78·4	76·3	75·0	70·9	64·0	71·4	63·4	63·3
Hungary .	73·9	68·7	61·9	61·9	59·7	60·4	62·4	64·2	66·4
Holland .	97·1	89·3	84·6	86·4	78·9	77·1	78·2	70·7	61·1
Italy . .	88·2	82·3	77·3	75·4	69·5	63·7	65·1	61·4	62·4

[1] Federal Bureau of Agr. Economics figures.

Source : Monthly Report and Agricultural Statistics, Jan. 1932, International Institute of Agriculture, Rome.

TABLE XVI

STOCKS OF AGRICULTURAL PRODUCTS

At beginning of	American cotton 000 bales	Rubber 000 tons	Sugar 000 tons	Tea Mn. lbs.	Coffee 000 bags	Wheat Mn. bushels
Jan. 1929 .	3494	266	4422	220	15,703	565
Jan. 1930 .	3662	383	5614	260	25,063	584
Jan. 1931 .	6471	506	7018	262	29,309	583
Dec. 1931 .	8811 [1]	638	8897	219	33,259	463 [2]

[1] Estimate.
[2] Aug. 1931.

Source: Royal Economic Society's *Memoranda*, London and Cambridge Economic Service.

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