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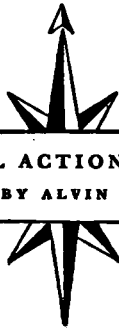
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**CAN INDUSTRY
GOVERN ITSELF?**

An Account of Ten Directed Economies

Books by O. W. Willcox

CAN INDUSTRY GOVERN ITSELF?
NATIONS CAN LIVE AT HOME
RESHAPING AGRICULTURE

CAN INDUSTRY GOVERN ITSELF?

*An Account of Ten
Directed Economies*

By
O. W. WILLCOX

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INTRODUCTION

THE PRINCIPAL occupation of civilized man is to produce, distribute and consume the good things of life. As producers, men are primarily concerned about the price they shall receive for what they have produced: as consumers they are primarily concerned about the available quantity of consumable goods, and about the prices they are called on to pay for what they need. In fact, so far as the ordinary man is actively concerned, the whole subject of economics revolves about questions of production and price. And if there should be invented a system whereby production and price could be so controlled as to put a completely satisfying quantity of de-

irable commodities at the disposal of the public, to be sold at prices that would at the same time be within the purchasing power of the lowliest consumer and remunerative to the producers, one could feel that a grand new stage of social-economic evolution had been achieved.

This being the case, it will be interesting and pertinent and without doubt important to look around and see how production and price are being brought under social control by the joint action of industry and government, and how such control is serving or might further serve the general interest on a national or international scale.

At the outset it may be emphasized that we are to ascertain what is going on; the reader is not being summoned merely to hear what the author thinks should go on. We do not set ourselves up as "planners"; the present undertaking is mainly a reporting job, in which a thoroughgoing objectivity is the first consideration. The purpose of this book is to exhibit a series of social-economic instrumentalities that have been invented and are now in use for achieving production and price control, all of them operating in the same general way, but with infinite variation of detail under an infinite variety of circumstances. And what we have to show is not imaginative "blueprints," but life-size, functioning working models, the gears and levers of which may be seen in full operation.

By their existence and continued functioning in many different parts of the earth these instrumentalities demonstrate the feasibility of subjecting supposedly

uncontrollable economic "forces" to orderly direction and restraint. Of themselves they prove their own universality and independence of race, religion, language, or climate, or of historical, cultural, or political backgrounds. They are vouchers of the willingness and ability of industrialists to discipline themselves and to cooperate with the body politic in works of constructive social-economics along novel lines; and it may be that, on close examination, they will suggest a passable means of attaining that more abundant life which is the aspiration of a depression-ridden world.

Doubt as to the physical possibility of providing a more abundant life for all has disappeared in proportion as science and technology have disclosed the material riches of Nature and have indicated processes for making these riches available. The dominion of man over the physical world is nearly complete. Practically unlimited sources of mechanical power are available for multiplying the productivity of human labor. There is no lack of either the organic or the inorganic raw materials that are the basis of human well-being and comfort.

The rise of the new science of agrobiolgy has shown the real vastness of the power of life that resides in the cultivated plants that supply men with food and clothing; and this science has removed, practically for all time, any danger that population will overtake the potential means of food production. In his little book, *The Farm Chemurgic*, Hale captivates the imagination with a picture of the farmer supplying unlimited raw materials for the manufacture of an infinite quantity

and variety of the material accessories of a convenient and joyous existence.

But, alas, men are drowning themselves, economically, in the flood of the very abundance they are creating. The world's markets are choked with products that do not move out to fill half-empty stomachs and cover backs that are practically bare. Widespread destitution exists in the sight of plenty. Though the technologist and the agrobiologist stand ready to supply to the full every material human need, they find it easier—much easier—to produce than to sell. The apparatus for production is modern, splendidly designed and amply built; the apparatus for distribution is crude, ramshackle, inefficient, painful to operate, and subject to periodic break-down and disaster. Plainly, invention in the social-economic field is far—very far—behind invention in the field of production.

Such being the case, any authentic invention in the social-economic field will commend itself for careful examination. By authentic invention in the social-economic field we mean a system that has come up out of life, bearing signs that it has been wrought in the crucible of experience. "Speak to the earth, and she shall teach thee." Inquire of life, and you will obtain instruction. If the social-economic lives of men could be reconstructed by academic dreamers it would have been done long ago by the Platos and the Sir Thomas Mores who have bestowed on us their visions of an ideal state of society. We are more likely to find the inventions we seek evolving themselves out of the mass reactions of men who, in learning to control themselves, have

learned to conquer the difficulties that threaten to crush them.

It is on these grounds that we recommend thoughtful consideration of the instrumentalities described in this book. As inventions they may not be perfect; new inventions seldom are. But the principle is there, needing only further development.

The book might be called a First Reader in Contemporary Directed Economics because it inducts the reader into what is perhaps the first example of a directed economy that has gained world-wide acceptance and success. As all First Readers should, it deals with its subject in an elemental way, and makes free use of details to illuminate the principles. To avoid the sin of diffuseness it does not attempt to describe every system of directed economics now going; in fact, no attempt has been made to go beyond a single chosen industry. But this one industry, with which the author has had years of contact, provides ample material for the purpose because it involves a commodity of universal use and one that figures extensively in both local and world-wide trade. It offers a complete cross-section of the ordinary economic activities of men—production, manufacturing, transport, wholesale and retail distribution and consumption, with such incidental concomitants as tariffs, taxation, the relations of agricultural and industrial capital and labor to each other and to the State, and in addition mirrors the conflict of warring economic theories and social ideologies that have repercussions on national and international politics.

This industry is the world-wide sugar industry, which

has been brought more completely under production and price control by more variously situated bodies politic than any other major industry. Here we see what a directed economy really is, why it has had to be invented, how it is made to include all elements of the industry, and in what manner it subserves the general welfare of the nations that have installed it.

All this is interesting enough of itself; the greater interest attaches to the conclusions we may legitimately draw from the record, the hints we may obtain for expanding the use of the new invention into other—perhaps into most if not all—branches of human labor and economics. Here if anywhere in the contemporary scene we can see the developing germ of a social-economic organization by which we might eventually attain that long dreamed-of and longingly desired economy of real abundance whereunder a satisfying plethora of goods may flow into consumption; wherein the machine age and technological unemployment are stripped of their menace; whereby economic security for the masses is made a reality; where the hoary principle that demand creates supply is reversed so that supply first suggests and then fills demand, and where economists and industrialists learn new concepts of cost, price and value.

The reader may notice the absence of references in the text. To cite authority for every material statement made would require appending two or more footnotes to every page. Anyone interested will find the full history of the sugar industry during the past twenty-five years recorded in the files of the periodicals devoted to this industry, among which are: *Facts About Sugar*,

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International Sugar Journal, Australian Sugar Journal, South African Sugar Journal, Die Deutsche Zucker-Industrie, Centralblatt f. Zucker-Industrie, Prager Zuckermarkt, l'Industria Saccarifera Italiana, Journal des Fabricants de Sucre, la Industria Azucarera, Brasil Açucareiro, etc.

CHAPTER I

The Working Philosophy of Proration

IN this book there is put before the reader a record of what might be described as a series of national experiments in constructive social-economics, conceived and carried out in the post-war period by the sugar producers and the governments of various countries in different quarters of the earth. In all cases these experiments have had to do with what is called the allotment plan, or a system of prorating production and distribution among qualified members of an industry. In one form or another the prorating system has been established in the sugar industries of Argentina, Australia, Belgium, Brazil, Bulgaria, Denmark, Cuba, Czechoslo-

vakia, France, Germany, Italy, Jugoslavia, Poland, Roumania, Spain, South Africa, and the United States along with its dependencies, not to mention countries where the matter is under consideration. It would seem that we have here a fair sample of the whole civilized world. The principal divisions of the Caucasian race, at least that portion of it which has an Occidental rather than an Oriental civilization, are represented. We also find a representation of all the continents where western civilization has gained a foothold. In going from one of these nations to a different one we may cross and recross the equator several times. Altogether the sixteen political entities here named contain nearly a fourth of the total population of the globe, and they annually produce, consume or export about half of the world's sugar. The peoples who have worked out these experiments have different racial, historical and cultural backgrounds; they speak and think in many different languages, and they have developed their experiments under the most dissimilar political systems: in genuine and in quasi republics, under mild dictatorships and under dictatorships where the last traces of democracy and true representative government have been all but obliterated.

What we, as students of production and price control, have to discover in this vast heterogeneity is how men and nations of different types react when confronted by similar social-economic circumstances, and particularly whether they tend spontaneously to work out new destinies by the same principles. If we find all these men in all these nations reacting in the same fashion accord-

ing to a common principle, we may reasonably conclude that all other men and nations of similar types, but concerning whom we do not as yet have authentic experimental evidence, may in all probability be expected to react according to the same principle, if and when the same has been made plain to them. Such a principle, if found, we may recognize as a basic "law" of human economic and social behavior, and we may perhaps with justification use it as a foundation on which to erect a consistent system of social-economics that will be valid for all racial groups under all political systems where the fundamental social polity is the same as in the systems represented in the experiments.

This means that we should first make sure that all the diverse political systems covered in the experiments do in fact have a common fundamental social polity. The common feature that is found in all the systems taken into consideration we identify as the institution of private property, particularly private property in the instrumentalities of production. This excludes such countries as Russia, where our common denominator is not found, and where other principles of production and price control are in operation. But in all the countries that come within our range the title of ownership and the usufruct of private property are respected. Even in Nazi Germany and Fascist Italy the farmer is left in ownership and operation of his farm; the industrialist remains in possession of his factory and is still financially responsible for its successful operation. Both the farmer and the industrialist are entitled, by the basic laws of all these lands, to indemnification if

the State exercises its paramount right of eminent domain. In none of these countries is there anything resembling communism on the Bolshevik model; and except for an occasional railroad or other obvious public utility, there is not much resembling State ownership and operation of the means of production, although here and there certain natural resources and certain manufactured products have been made State monopolies and are merchandised for State account.

Hence any principles of constructive social-economics we may find running consistently through these experiments will not be inconsistent with but rather intimately dependent on the institution of private ownership of land and equipment, which means that they will not be inconsistent with capitalism in the sense that invested wealth is entitled to a reasonable return. All the peoples that come under our consideration can, in fact, still give and take deeds and mortgages, buy and sell stocks and bonds, and live on rents, interest, and profits, if any.

However, although in all these systems of proration for production and price control the institution of private ownership is essentially preserved, certain ancient concepts of what goes with ownership have been eradicated and new concepts have been added, as we shall later particularize, first outlining the circumstances that usually lead up to the establishment of a system of proration.

Proration as we have to deal with it is a social-economic invention for preserving a certain *status quo ante*. In all cases there is something to be divided up, there is always a social-economic reason for dividing

it, and there are certain interests among whom it is to be divided. The something to be prorated is always a saturated market, which means the market for a certain commodity whereof the supply is at least fully equal to the demand. If the supply exceeds the demand, so that an unsalable surplus is accumulated, the market is said to be supersaturated. A condition of supersaturation of the markets for essential basic commodities is universally regarded as highly undesirable from the standpoint of the producers and—ultimately—from the standpoint of the body politic itself. Whenever an excess of production begins to hang over the market prices soon fall to a level far out of proportion to the amount of the surplus (law of Davenant and King). Persistent overproduction eventually drives the price below the cost of production. Profits vanish. The producers dissipate their capital by failure to make repairs and replacements and thus deprive collateral industries of business. Debts and taxes become unpayable. Wages drop. Unemployment increases. A clamor for monetary devaluation arises, with general discontent and social and political disorders as the ultimate consequences. In other words, overproduction and business depression are cause and effect. Overproduction in even a single large industry may have consequences of grave national and international concern, as the economic history of the sugar industry abundantly proves.

It is for these reasons that proration has been introduced into the world-wide sugar industry. A study of all our cases shows that it is never invoked until the markets have reached saturation and threaten to pass or

have already passed into a condition of supersaturation. Prior to saturation the market is a "free commons," in which any enterprising capitalist or farmer may seek his fortune and freely compete with others in meeting a demand that exceeds the supply. There is then no prohibition on the erection of new factories or the opening of new beet or cane fields. There is still room for all to expand and prosper, and the body politic may even take pains to increase the number of producers and encourage them to enlarge their capacities, as by tariff protection and other forms of privileged status. In the case of a nation that is building up its infant sugar industry no attempt is made to control the price the consumer must pay, that matter being left to free bargaining and a tariff low enough to bring in foreign sugar if and when the producers attempt to gouge the public.

During this growing period of infant industries the processes of natural selection and survival of the fittest are left in full operation. Those producers who fail with a wide open market in front of them are economic casualties over whom few social tears are or need be shed. But when saturation of the market is reached, and the dangers of supersaturation loom ahead, the situation calls for the creation of a new order of things. The theory of proration, accepted in every one of our cases, is that when a producer has come thus far he has, for all proper social-economic purposes, demonstrated his economic effectiveness. He is regarded as one of the fit who have survived. He is a factor to be reckoned with as the market now threatens to enter the ruinous stage of supersaturation. He may not be quite as effective or

as up-to-date as some of the rest; but there he is, still able, in a way, to add to the overhanging surplus that threatens to crush all, and there is very little evidence, except in extreme cases, of a desire to push him off the raft on which all must now endeavor to float. He has therefore acquired the status of a qualified producer at a time when any increase in the number or the capacities of qualified producers will be a menace both to the industry and to the body politic. It is now no longer in the interest of the body politic to treat the market as a free commons wherein a predacious individualism may rage devouring. The public loses much more from prolonged price wars than ever it gains therefrom, especially when the price is beaten down to the point where extensive dissipation of capital begins and where there is wholesale lowering of the standards of living of the producers.

In such conjunctures proration enters to congeal the *status quo*, to arrest the industry on the brink of self-destruction. The public thereby makes itself sure of an instrument whereby its need for an essential commodity is fully supplied at a fair price over which it, the public, may and does take control, a price that will serve national ends by keeping the industry alive and allow all its workers to live in reasonable comfort. What more could a reasonable and sensible public require?

To perpetuate this desirable condition it is indispensably necessary on the one hand to guarantee each qualified producer a preëmptive share of the existing business, and on the other hand to forbid him to encroach on the preëmptive shares of those who have come

with him down the same long road. And by the same token it will be necessary to forbid entrance into the industry by newcomers, whose cumulative activities can but lead the industry deeper into the mire of super-saturation, thereby exposing all anew to the danger of suffocation, which would mean whittling down the pro rata shares below the point where they will hardly yield enough to support all who have joined the ranks.

It is here that we put our finger on what, from its universality in the field we are studying, may be regarded as a leading principle of constructive social-economics. It is that the market for an essential commodity, once it has been prorated, shall not thereafter be overcrowded with more producers than it can decently support at a price fair to the public. The theory of proration as it is practiced is that when an industry has saturated its market it is *ipso facto* saturated with producers, and that the price that has been set by the government in consultation with the industry is no more than will enable the proprietors to earn a fair return, keep up the efficiency of their equipment, and pay their workers a living wage. Raising the agreed price beyond the point of maximum vendibility would decrease the industry's total income and hence the amount to be divided; increasing the number of producers, involving an increase of producing capacity, could have only the result of increasing the surplus, unless the quotas of the existing producers were scaled down to make room for the newcomers. A collateral effect of a too minute subdivision of quotas would be a loss of the advantages of large scale production, thus increasing

unit costs and necessitating a higher price, which by hypothesis is already at the presumptive social-economic limit. On the other hand, a differential scaling down of the larger producers in favor of smaller ones, or any reduction of quotas except as necessitated by a decrease of consumption, would involve an invasion of established property rights, which is not sanctioned in any of our sixteen countries. Such moves have indeed been attempted, as in the Argentine State of Tucuman, where a State law reduced the quotas of the large planters in order to make room for small independent farmers who were not theretofore cane growers but were stirred by a desire to plant cane and thus claim a share in the stabilized sugar business. But the Argentine Supreme Court, which in applying Argentine constitutional law freely quotes from Marshall and other American constitutional authorities, sets a resolute face against expropriations.

No doubt a body politic might find itself hard pressed to find livings for its depressed elements; but that is now mostly regarded as a problem of a different order, not to be solved by a further dilution of an already sufficiently diluted industry. Even in Germany, where of all our countries the pressure of population on the soil is greatest, the government has set dead-lines against overcrowding in many industries, even in retail trade.

Not the least remarkable of the phenomena brought to light by these experiments is the practical unanimity with which sugar producers all over the world have accepted, *yea*, have clamored for the institution and perpetuation of systems of production and price control. In

view of the outcry (of late much heard in the United States) against "regimentation"; against "restriction on freedom of action"; against "repression of economic liberty"; against "deprivation of the God-given right of every man to carve out his own fortunes"; against "shutting the door in the face of aspiring ability"; against the "shackling of initiative and progress"; against "intrusion of governmental fingers into business affairs," meaning the setting up of bureaucracies "to tell producers what and how much they may produce," and in general against the crucifixion of "rugged individualism," it might be supposed that farmers and industrialists alike would flee proration as from the devil.

But what do we find? The apostles of rugged individualism misread the facts and misjudge the situation. They have not learned to appreciate the width and depth of the gulf that separates the economics of unsaturated markets from the economics of supersaturated markets. No man in his senses ever rises to propose the shackling of individual enterprise and initiative in an unsaturated market, not any more than he would protest the settlement of an unoccupied fertile new land by willing and competent emigrants. Let some Ford discover an unfilled want, creating new wealth that does not depreciate an equivalent of existing wealth, but opens a wide new field of employment and makes a large positive addition to human comfort and happiness, and he is hailed as a public benefactor, even though there may not be lacking malevolent hands to clutch at his reward. In an unsaturated market goods flow into consumption as fast as they can be produced, or at least

with small delay, the rate at which they are absorbed depending on the quality of the salesmanship behind them. There is here no superfluity of producers or of producing capacity. Every unit of goods here turned out is marked, in a social-economic sense, with a positive or *plus* sign, and goes on the credit side of the social-economic ledger. But when the dead-line of saturation is reached and crossed, the social-economic sign of every additional unit becomes *minus*; its mere presence tends to cancel the positive values of previously created units; it becomes both a private and a social-economic liability. Such creation of superfluous new units of wealth in a supersaturated market is self-defeating in a social sense. The rugged individualist who expands his production in such a market is not serving society but damaging it; every stroke of his engines is a thrust at the economic life of his industry, and eventually at the well-being of the general public. In a supersaturated market no man can achieve wealth except as by superior prowess or fortunate situation he can extinguish competitors. Of course the rugged individualist claims a "natural" right to extinguish competitors by superior prowess or advantageous situation; and so the debate is on, to be settled only by a trial of strength. (It is not for us to say which side is abstractly right; we have only to ascertain which side does concretely win in the pragmatic struggle between individualism and collectivism in the sugar industry, and everywhere we go we find collectivism triumphantly in the ascendant.)

In all the experiments which we have to examine we shall observe that the same succession of events is re-

peated with singular regularity. At first the market is unsaturated and wide open, and individualism is given full rein; then comes supersaturation, the consequences of which can only be avoided by joint action of all the producers. If not already in existence an association of producers is formed, and an agreement is drawn up to put a limit on production and to apportion shares of the existing business among the members of the industry in proportion to their respective capacities. (When this agreement is laid on a table it is signed by a preponderant majority of the producers representing a great majority of the production. But there are always some hold-outs, seldom exceeding 10 per cent. These recusants are rugged individualists, who from sheer stubbornness or inability to understand that in union there is strength insist on standing aloof; or else they are sly individuals, largely lacking in social conscience, who are glad to see others limit their production while they themselves make haste to profit from the occasion.) Then the majority of the producers, seeing themselves helpless in view of the damage that even so small a minority can wreak, appeal to the government; and the government, whether it be democratic or autocratic, seldom fails to see through the situation and it applies the proper remedy. The agreement drawn up by the majority of the producers appeals to common sense; it is enacted into law and made binding on all members of the industry. Rugged individualism loses; the hold-outs are clubbed into line. The government and the producers agree on what the consumers shall be asked to pay and how the surplus that has accumulated or will accumulate

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shall be disposed of. And so, instead of being a sore spot on the body politic, where capital is being dissipated and unemployment threatens, the industry now becomes a tower of strength in the national social-economy. And the public approves: in no case have the people in the most democratic of countries called their legislators to account for ratifying such agreements, even though they provide for fixed prices and the closing of the industry to newcomers.

This summary treatment of an insignificant minority need not be regarded as an unwarrantable suppression of individual liberty. Unanimity for social action in the general interest is not to be expected in large masses of humanity; the universal existence of a certain type of predacious individual—criminals—who war on society is sufficient proof of that. A producer who would persist in hewing his own way to fortune regardless of the consequences to others must be a criminal at heart, and in all modern systems of proration there is express provision made for treating him as such.

We are inclined to accept this state of affairs as a fairly satisfactory general proof that so far as concerns saturated industries all men who are not anti-social by nature prefer collectivism to individualism. If this does not rank as a universal "law" of social-economics it is at least a principle that is firmly rooted in the world-wide sugar industry, and we have no reason to believe that sugar industrialists are essentially different from other men.

In brief, proration in its fully developed phase is essentially a compact between government and a ver-

tically integrated, self-governing industry. It is first and last an arrangement in the public interest, assuring continuity and adequacy of supplies at prices which the public will find supportable and fair, the criterion of a fair price being that it at least avoids dissipation of productive capital and allows comfortable wages to the workers. Not the least of the benefits accruing to the public is that, through integration, the resources of the industry as a whole can be brought to bear on collateral problems of supply and distribution in ways impossible under a régime of individualism. How the system thus works to knit together various loose ends of social-economics will appear from an examination of details of the experiments described on following pages.

CHAPTER II

The World-wide Sugar Industry

SUGAR is one of the world's principal manufactures. It is produced or refined in nearly all the recognized political subdivisions of the earth, exceptions being such remote or backward regions as Albania, Afghanistan, Ethiopia, Thibet, and the like. There is, however, no country in which it is not an article of trade and daily consumption; to a certain extent it is consumed in one form or another in most of the homes of the world, although for various reasons the per capita consumption differs from one country to another. In the United States, Denmark and Australia, for instance, the average yearly consumption is 100 pounds or more per head, whereas the average

Chinaman may not eat three pounds in a year, not because Chinamen do not like sugar, but because their average purchasing power is small.

Sugar is a concentrated food and is practically 100 per cent digestible; one pound contains about 1,800 food calories. Since the average American citizen consumes about a quarter of a pound of sugar a day, and takes into his system a total of about 2,800 food calories daily, it is easy to figure that this one foodstuff furnishes a little more than one-seventh of the total bodily energy of the entire American nation.

To put the importance of sugar as a commodity in perspective with that of some other everyday agricultural commodities, we may refer to some figures. As set forth in the Year Book of the United States Department of Agriculture the world's production of sugar in 1934 was, in round numbers, 27 million tons. According to the same authority, in the same year the world produced a trifle more than 6 million tons of lint cotton. On a tonnage basis sugar is therefore more than four times as important as cotton, and although sugar is generally cheaper per pound than cotton, the sugar crop is worth on the whole about as much as the cotton crop. The world's wheat crop, exclusive of Russia and China, was about 30 million tons, or about 10 per cent larger than the sugar tonnage, but here the sugar had the larger money value. Tobacco production in 1934 was only one twenty-seventh the sugar tonnage and brought only about a third as much money. On the other hand, the latest statistics show that in 1933 the world's corn (maize) crop, excluding Russia, was in round numbers

132 million tons, so that from the tonnage standpoint sugar is only about one-fifth as important as corn, which in point of fact bulks larger than any six other farm crops combined. But it is still a fact that to produce 27 million tons of sugar a year requires the labor of great numbers of men, a great area of land, and an immense aggregate amount of agricultural and industrial capital.

There are several substances called sugars that are consumed as food, such as glucose or corn sugar, malt sugar, maple sugar, milk sugar. But in ordinary conversation sugar means the substance which the chemists designate as "sucrose"; it is the white, crystalline substance known to grocers and housewives as "granulated sugar." It is also called cane sugar or beet sugar, according to whether it has been produced from the sugar cane or from the sugar beet. The sugar trade sometimes makes a distinction between cane and beet sugar, but when properly manufactured the two are physically, chemically and physiologically identical.

The sugar cane and the sugar beet are two quite dissimilar vegetables. The sugar cane is a very tall grass with very thick stems that contain a rich sugary juice. The sugar beet belongs to an entirely different botanical family. The most prominent feature of the sugar beet is its large, bulbous, fleshy root, which also is surcharged with a rich sugary juice containing the same sugar as the juice of the sugar cane.

The sugar cane and the sugar beet differ not only in their botanical relationships and outward appearances, but also in their habits of growth and particularly in their climatic preferences; they therefore show divergen-

cies in their geographical distribution. The sugar cane is very sensitive to frost and cool weather. It requires a temperature of at least 75° to 80° F., preferably 85° to 95° F., and it stops growing altogether when the temperature falls below 70° F. For this reason it is of no agricultural importance except in the tropics and subtropics, and even there only at comparatively low elevations above sea level. Its normal life period is from 18 to 24 months, and hence it is ruled out in countries having a well marked winter season. However, some countries with very long summers and short and relatively mild winters do manage to grow it after a fashion, as in Louisiana, but in such countries the sugar cane is never seen at its best.

Although, like other plants, the sugar cane produces seeds, the seeds are never planted except by geneticists and practical plant breeders who are looking for new varieties; for ordinary purposes it is always propagated by cuttings. When a stalk of sugar cane, which may be 10 or 15 feet long, is examined, it is seen to consist of a large number of joints or internodes, just like any other grass. At the base of each internode may be seen a small vegetative bud which normally remains dormant; but when the stalk is cut into short lengths and the pieces laid lengthwise in a furrow and covered with moist earth, these buds germinate and send up shoots that eventually grow into big canes fit to be cut and sent to the sugar mill. All sugar cane plantations are started in this manner, and from the nature of the case planting a 5,000-acre cane field is a huge undertaking. First the ground must be plowed and harrowed and the furrows

opened. Then it is necessary to reap about 10,000 tons of standing cane, cut the stalks in short pieces and lay them end to end by hand in the previously prepared furrow. Lately, after much effort, there have been invented cane planting machines that do away with much of this hand labor.

After it has come up (the young cane is cultivated by ordinary methods and implements until it is ready to harvest, and then begins another major operation. Laborers, armed with great knives, invade the cane fields, seize each individual cane stalk, sever it close to the ground, and then cut off the top bunch of leaves or growing point, which is of no value but if left on would create trouble in the factory. Then the heavy stalks are bundled, laboriously loaded on carts or tram cars for transport to the mill. One man may cut, top and load 5 or 6 tons of cane a day, and as yields run from 15 to 150 or more tons to the acre (depending on the amount of fertilizer and water given to the crop), and as single plantations may extend over thousands of acres, it may readily be understood that much labor is required during the harvest season, and that a cane farmer with no more than 40 or 50 acres of cane must be something of a capitalist. Recently machines adapted to harvest cane without much labor have been invented, which means that cost of production is being lowered and that technological unemployment among cane field laborers is on the increase.

Not only is there a large labor component and a large capital component in the purely agricultural production of cane sugar, but further large amounts of capital must

enter the picture to provide facilities for extracting the sugar from the raw material. Therefore in the center of each cane-growing district will be found a larger or smaller factory. In some cases this factory will be a huge affair, costing up to five million dollars, drawing raw material from tens of thousands of acres. Such establishments usually have staffs of trained chemists, engineers, and other technicians, besides a large force of laborers during the grinding season. The manufacturing process consists essentially in pressing out the juice of the cane by passing the cane through a system of powerful rollers, evaporating this juice to the point where the sugar will crystallize out, and separating the crystals from the molasses. The product of many tropical cane sugar factories is "raw" or brown sugar still contaminated with a considerable proportion of molasses. The refining of this crude product is generally a separate operation, carried out in a separate factory called a refinery, which may be thousands of miles distant from the tropics.

Although some owners of cane sugar factories also own large sugar cane plantations, the agricultural and manufacturing branches of the industry are generally in different hands, purchase of the cane being arranged by annual contract between farmer and factory. Not all the cane sugar consumed in the world is the product of a factory large enough to be called an industrial plant. In many remote or primitive regions are multitudes of small plants where cane is ground in a two-roller mill powered by a bullock, with a pot over an open fire to concentrate the juice, and the product is sold to neigh-

boring populations who are generally too poor to buy refined white sugar.

In contrast to the sugar cane, the sugar beet is a hardy vegetable that can flourish in northern latitudes, even in Canada and Sweden. Its temperature requirement is much lower than that of sugar cane, that is to say, the sugar beet is able to make use of what might be called low-grade thermal energy; its seeds will germinate in soil so cold that the sugar cane would rot. It grows vigorously at 70° F., a temperature at which the sugar cane is practically dormant. From the standpoint of sugar-loving humanity these two plants are perfect complements; sugar cane to supply inhabitants of warm climates, and sugar beet to supply those living in the cooler regions of the earth. It is therefore possible to produce sugar anywhere that ordinary agriculture can be practiced, so we find a sugar industry in all countries of any importance.

Like the sugar cane, the agriculture of the sugar beet requires much labor and no small amount of capital. It is a relatively simple matter to prepare the land for planting, and the planting operation itself involves little trouble. Unlike the sugar cane, which is propagated by cuttings, the sugar beet is raised from seed, which is thickly sown in drills. The trouble comes when the seed has come up and the young plants require to be thinned. The thinning process is a major operation which has to be done by hand, an operation that is tedious, back-straining, and expensive; the beet farmer who plants more than 10 or 15 acres has to depend on outside help. The next major operation comes when the beets are

"ripe," that is, when they contain a maximum of sugar. They are then dug up, topped one by one by hand labor, thrown into a truck and taken to the factory. This harvesting operation is also an expensive one.

The operation of a beet sugar mill differs from that of a cane sugar mill chiefly in the method of obtaining the juice. Instead of being crushed between rollers to press out the juice, the beets are cut in slices and soaked in hot water. The resulting liquor is then boiled down to crystallize the sugar.

The industrial side of the business of producing beet sugar is on a scale comparable to that of the cane sugar business; a beet sugar factory may represent an investment of millions of dollars. Because of a somewhat more involved process of purifying the beet juice it is not practical to make beet sugar on a small scale with primitive equipment; hence the beet sugar business is more generally capitalistic than the cane sugar business.

Like all other processors that stand between the producers of the raw material and the consumers of the finished goods, the sugar manufacturers compensate themselves with the difference between what they must pay the farmers and what they can get from the public. After being produced on the farm and processed in the mill, the sugar has to be marketed, which on occasion has turned out to be the most difficult operation of all.

As regards production and consumption of sugar the world as a whole is divisible into three parts. The one part comprises those nations that consume sugar but produce none within their own territories; they are therefore wholly dependent upon imports. Nearly all

such nations levy import duties on sugar, but such tariffs are for revenue only, and not for the purpose of embarrassing the foreign producers. The second part comprises those nations that have a sugar industry of their own, but do not produce enough sugar to meet the demands of the domestic market, and the balance has to be covered by imports; such nations also have sugar tariffs, which are laid for the double purpose of collecting revenue and making it difficult for the foreigners to undersell the home producers. The third part comprises those nations that produce more sugar than they consume, and thus have a surplus for export to countries that must import sugar. The nations in this third category have sugar tariffs so high as to be prohibitive; their domestic markets being supersaturated with sugar they have no need of imports, and they take great pains to keep out foreign competitors who can produce more cheaply than themselves.

The countries of the first and second categories, that is, those countries that for one reason or another are obliged to import sugar, constitute what is known to sugar exporters as the "free market," meaning a market in which it is possible to sell foreign grown sugar by grace of a tariff not high enough to be prohibitive: countries having prohibitive tariffs are of course closed to foreign producers.

The countries of the first category, producing no sugar, are few and relatively unimportant; Norway and Greece are examples. Among those nations that produce less sugar than they consume are the United States, Canada, Great Britain, China, and lesser nations like

Turkey and Persia. Among those nations that are or have been able to produce a surplus for export are Cuba, Germany, Java, Peru, Poland, Czechoslovakia, Santo Domingo, Australia, the Philippine Islands, and in general the tropical possessions of Great Britain and France. For present purposes it is unnecessary to make the above lists complete; the point is merely that besides producing sugar to supply their home markets the sugar manufacturers of some countries find themselves with an excess of their product which they must seek to dispose of on the free export market, where they come into competition with other producers similarly situated. The price on this free market, which is generally referred to as the "world price," is set by the producers who can lay down sugar at the least cost (tariff included) in the London or New York market. Hence the cost of producing sugar in one country may seriously affect the price obtainable by the producers of all other countries, whether they produce for domestic consumption exclusively or go in for exports also; this is a condition characteristic of the market for all commodities that are the objects of international trade.

The present complexion of the world-wide sugar industry is best understood in the light of its past and recent history. Somewhat more than a hundred years ago there was only one kind of sugar on the world's markets. This was cane sugar, which was produced exclusively in the tropics and more especially in the West Indian islands, and quite generally by slave labor; the methods used were primitive, and usually no attempt was made to refine the raw sugar on the plantations,

this operation being left to refineries at the ports of debarkation. Not much of striking interest in the modern history of sugar occurred until the time of the Napoleonic wars, when the great Corsican held sway over most of Europe, except Great Britain. As a part of his campaign against the British, Napoleon prohibited all countries under his domination from trading in British goods; in return the British undertook a blockade of the whole European continent, and being in effective command of the seas they were successful to a degree in cutting off the maritime trade of the French and their allies or subjects. The net result was that the continental Europeans found themselves completely deprived of sugar. As is usual in such circumstances, strenuous efforts were made to find an alternative source of supply of this much-liked substance. Cultivation of tropical sugar cane was of course out of the question for Europe; the only other vegetable that could come into consideration was a white variety of beet that had recently been found to contain sugar in small amounts. This idea appealed strongly to Napoleon, who gave large subsidies to get the new industry started. Through this example the beet sugar industry gained a foothold in various other European countries and eventually became established throughout most of western Europe.

After the Napoleonic storm had subsided it became apparent that the infant beet sugar industry, which was called into being by subsidies, could not continue to exist without support. Cane sugar again flowed in from the tropics, and was sold at prices under the prevailing cost of beet sugar. But by this time the sugar beet had

won for itself a place in the scheme of things from which most of its new friends were unwilling to see it dislodged. Direct subsidies were dropped and replaced by tariff walls behind which the industry slowly expanded until it became able to deliver a full supply to the various home markets. Generally, when this point was reached, the tariff wall was raised so high that tropical or other foreign sugar, being no longer needed, could not get in to compete seriously with the home product.

At this point we may touch upon a matter which mystifies many people and enrages others, including dogmatic free traders and the severe school of classic economists generally. The sugar beet industry is thoroughly—one might say completely—"uneconomic"; that is to say, the cost of production of beet sugar is everywhere high in comparison with the cost of producing cane sugar. There is not a country or region on earth within easy reach of a seaport that cannot be supplied with cane sugar from halfway around the globe at a price lower than the nearest beet sugar factory could supply it. This lower cost of the tropical product is due to certain inherent advantages of the sugar cane as a crop plant. It is true, as we have stated, that the cost of planting a field of sugar cane is a very expensive operation; but after it has once been planted the cane will produce a long succession of crops from the same roots. When the ripe cane has been cut, new shoots spring up of themselves to repeat the cycle, and barring accidents, such as disease or insect plagues, this can go on nearly indefinitely; cane fields originally planted forty years ago are still producing satisfactory crops. On such fields

the planter has only to keep down weeds for a few months of the year and harvest the new stalks when they are ripe. On the other hand the heavy expense of planting and thinning a crop of sugar beets has to be assumed each year. The tropical sugar producer has the advantage not only of requiring less labor, but the wages of his coolie field workers are lower than those paid to the most depressed white laborers of Europe.

Then again the sugar cane has what the agrobiologists call a larger "quantity of life" than the sugar beet; that is to say, for the same input of fertilizer into the soil one acre of ground planted in sugar cane will yield a larger quantity of sugar and other products than the sugar beet. Further, the sugar cane plant itself furnishes all the fuel required for the steam and power required for manufacturing the sugar. The "bagasse," or fibrous residue left after the cane has been crushed to obtain the juice, can be burned in the power plant, whereas the juice of the sugar beet has to be worked up with steam and power produced by burning coal or oil. The general result is that a pound of cane sugar represents a smaller proportion of human labor and material resources than a pound of beet sugar.

And yet we find every nation in which the beet sugar industry has gained a foothold exerting itself to protect this industry, and there are even nations that within recent times have deliberately set up beet sugar industries where none existed before, supporting such "artificial" industries by direct subsidies that represent no small burdens on their exchequers, or maintaining high tariffs as an alternative means of compelling the

generality of their peoples, to foot the bill. Among the nations that have thus flouted the free traders and the classic economists when they might have continued to let their people buy cheap foreign sugar may be mentioned Great Britain and Turkey. It is generally expected that men, when left to themselves, will buy in the cheapest accessible market, just as they will endeavor to sell in the dearest market. And still we find more than half the sugar-consuming population of the globe deliberately turning their backs on cheap sugar, taking a course, as bodies politic, directly contrary to what they would gladly do as individuals.

Here is indeed an unmistakable anomaly for which the ordinary science of economics has no ready explanation. The sugar beet industry, as now established and fostered, fails to respond to any of the touchstones of this science. Its continued maintenance violates the competitive principle and denies to efficient producers the advantage that should accrue to them from their more favorable position or skill, or both, and denies to consumers the right to buy necessities at the lowest possible price; it deliberately obstructs the "natural" movement of goods into trade, and hence is anathema to all free traders. It puts a premium on relative inefficiency, and hence it is loathed by all "rugged individualists" and all who believe in the survival of the fittest. It is patently a negation of the cherished wish of all classic economists, namely, that international trade be so rearranged that production of basic commodities will be left to those regions that are "best fitted to produce them." All this and more may be and frequently is al-

leged to prove that the beet sugar industry cannot put forth the shadow of a logical or legitimate excuse for existence.

Still, the fact remains that more than thirty nations of the earth, including practically all of what we call the civilized world outside the tropics, are fixedly set in a policy of supporting an industry which by all the tenets of ordinary economics is unworthy of support; here is no mere surface phenomenon, but one that must have some deep-seated human significance. Perhaps the explanation is that the logic of ordinary economics is not quite as inclusive of human economic reaction as some of us have believed; that the rules and doctrines evolved from observation of the economic conduct of individuals cannot, or at least may not, apply to the economic conduct of large, integrated groups of individuals—the fact here is too well attested and too obvious to admit of doubt. Men can and will do, corporatively, what they do not and cannot do as individuals. It is perhaps not far from the truth to say that there must be two economic worlds and two economic sciences, and that these two do not altogether overlap.

We have entered on this digression in order to discount, in advance, the prevalent notion that "economic laws cannot be set aside." This book is filled with instances where men are setting aside the laws of economics, or rather, we should say, of instances where men are moving about in fields wherein the "laws" of ordinary economics have no validity; it is literally another world. We shall be the first to grant to the intellectual descendants of Adam Smith full competence in the field

which they have already preëmpted—the reactions of the “economic man,” but we warn against an attempt to export the concepts that have been built around this hypothetical individual to the fundamentally different realm of community economics. To do so will merely result in bedevilment of the subject to no good purpose. What is coming to be known as social-economics is evidently a distinct entity among the social sciences, having its own roots in the natures of men. We will allow that the ordinary economist going about his proper business is a useful—we will say even an indispensable—workman; but when he essays to cultivate this different field with his ordinary tools he is more than likely to become a pest, as we shall see.

To resume: neglecting such countries as France, wherein at the moment the national sugar consumption and the national sugar production are nearly in balance, all countries either export or import sugar; it is the importing countries that constitute the so-called free market. This market is only relatively free; there is generally some sort of indigenous sugar industry which is favored by fiscal legislation. But such as it is, the free market is a standing enticement to outside producers. Excess or surplus sugar flows toward it from all directions, both from countries that have deliberately created for themselves an export business and from countries where there are small or occasional surpluses to be disposed of. Where competition from so many sources becomes concentrated in this manner the lowest-cost producer sets the world price, except when the price is set by the most necessitous producer, or by producers who

for one reason or another practice what is called "dumping." In either case the high-cost producers either use up their capital in a more or less hopeless endeavor to stem the tide, or eventually drop out of the business, unless they have behind them a well-protected home market.

But the export market, being completely at the mercy of the fiscal policies of the importing countries, is full of perils from which not even the most efficient and lowest-cost producers are exempt. A country which today has a rudimentary sugar industry and presents itself as a part of the free market may tomorrow suddenly take a notion to raise its own sugar industry to full stature.

The recent case of Java illustrates the point. This Dutch dependency is situated near the equator, where all circumstances join to provide the sugar cane with a nearly ideal habitat. In addition to its natural endowment of soil and climate, Java, as a sugar-producing country, could count up the following advantages: nearness to the vast populations of India, China and Japan, absence of other well developed sugar industries from the region, and an abundant supply of very cheap labor. On this foundation Dutch enterprise erected one of the most marvelous agricultural-manufacturing industries the world has ever seen. Nowhere else has there been so intelligent and successful a search for a sugar cane variety with the largest possible "quantity of life," and nowhere has this life been evoked with greater scientific skill and attention to detail. The combined result of Dutch science and Dutch organizing ability was that Java could and did produce sugar more

cheaply than any other country on earth. Distant rivals could not possibly enter Java's Oriental market, whereas Java sugar could go west of Suez to beat down the world price. Hundreds of millions of Dutch and other capital were poured into the sugar industry of the island, giving employment to scores of thousands of natives in one of the most densely populated nations of the world, and by one scientific achievement after another the plantation managers and their agrobiologists ran their total production to a peak of three million tons a year, unmindful that their blooming industry was all the time in a den of sleeping lions.

Eventually the figurative lions awoke. India, the original home of the sugar cane, has always had a sugar industry. But it has been of the most primitive description. A pair of wooden or iron rollers, a buffalo, a pot set on a rude oven and three Hindus constituted, and to a considerable extent still constitute, an Indian sugar factory. The product is *gur*, a mess of sugar and molasses that satisfies the tastes of the depressed strata of Indian society. But there is a large section of the population that demands white sugar, and this the very efficient Dutchmen in Java could supply at a moderate price. There was a small Indian sugar tariff, but it was not high enough to afford much protection to the few Indian white sugar factories that managed to exist by the grace of exceptional circumstances.

The British masters of India, who here as elsewhere have been the chief exponents of the *laissez-faire* idea in economics, at length began to take account of the realities of the situation. The continued dependence

of India on foreign supplies of a necessary commodity in the face of a latent supply of that commodity at home was judged to be bad social-economics from the Indian standpoint, one that could be rectified by the simplest of expedients: a high sugar tariff. The effect was practically instantaneous. New white sugar factories arose all over the land as fast as contracts for the planting of cane could be arranged. An enlarged number of Indian *ryots* now have a new outlet for their labor in a land where such outlets are badly needed.

Naturally, in proportion as the multiplication of native facilities for manufacturing sugar proceeded, the Indian market was lost to Java. Meanwhile the Japanese, formerly good customers, were similarly fostering their sugar industry at home, in Formosa, and in Manchoukuo, and even the Chinese, who on the whole eat little sugar, began to put up sugar factories. The combined result was that the Java producers, who had blithely expanded their annual production to the three million ton mark, have found their accessible free market shrink to less than half a million tons, with most of this going to satisfy the relatively low per capita consumption of the Javanese natives. In a remarkably short time the number of their sugar factories in operation decreased from 172 to less than 40. Huge million-dollar plants were sold bag and baggage for as little as a thousand dollars, to be dismantled and the usable equipment carted off to India or Japan to produce sugar for the same customers, but under a different social-economic dispensation, whereunder men pay more for their sugar and ignore the apostles of *laissez-faire* who cry that the

race should be to the swift and the battle to the strong. Never was there a more complete debacle of a technically more highly developed export industry, blown to pieces by an adverse tariff erected to shelter and develop a home industry.

The smash-up of the Java sugar industry affords a convenient text on which to base a discussion of "parasitic" and "predatory" industries. From the standpoint of ordinary or *laissez-faire* economics the beet sugar industry is a parasitic industry *par excellence*. It is inefficient, because of the defects inherent in its raw material in comparison with the more excellent raw material of other producers. In order to live at all it must receive a higher price than would be paid if the "economic man" could follow his natural bent; it is kept going by a *tour de force* that prevents consumers from shopping in the cheapest markets. It sucks up resources of purchasing power to which it is not honestly—as honesty is understood in *laissez-faire* circles—entitled. What the beet sugar industry is in general the Indian cane sugar industry was in particular. In the mass it was primitive; even the few "modern" mills were poorly equipped and inexpertly managed, and many of the new ones are not much better. The industry has been localized mostly in subtropical regions where it does not have the full climatic advantages demanded by the sugar cane. Moreover, the sugar cane varieties predominantly used by the Indian planters are inferior hang-overs from ancient times and although the Indian geneticists, led by no less a genius than Venkatraman, have presented the Indian *ryot* with

better cane agrotypes, the thin Coimbatore canes they have so far turned out cannot compare with the thick, "noble" canes of the deep tropics.

On the other hand (still pursuing the logic of ordinary *laissez-faire* economics), the Java cane sugar industry was all that an economically respectable industry should be. It was efficient. Its labor cost was low. It could make use of the very best raw material in a climate where the sugar cane is at its best, and to this raw material it applied industry and science—agrobiological, chemical and mechanical—in a masterly way. It could furnish sugar at an unmatched low price. It had every logical justification for existence, and its destruction by a stupid tariff, which could but substitute dear sugar for cheap, was violative of the true principles of classic economics.

Nevertheless (now pursuing the logic of social-economics), the reason for the destruction of the Java sugar industry was precisely its great efficiency. It could not be competed with on an equal footing. It beat down weaker indigenous sugar industries. For every person it employed in its own operations it kept out of employment three or more persons elsewhere. It was essentially predatory, in that it reached out and seized the natural economic easements of others, without bestowing an adequate return. It may be answered that the Java industry made a sufficient return when it reduced the price of sugar to the lowest possible terms, and that it was standing by to furnish all that was wanted on those terms. To this objection it may be answered that a difference of a penny a pound in the price of sugar, paid by the more well-to-do classes of the Indian population,

made an immense difference in the welfare of a very large section of the Indian masses to whom the Java producers owed not the slightest social duty, and certainly had less of reciprocal interest with the lowly *ryots* than the compatriots of these same *ryots*. And as regards the objection about the incomprehensibility of this turning of the "natural" order upside down, this turning of cheap goods into dear goods, it may be rejoined that no *laissez-faire* economist will ever qualify as a social-economist until he sees the point. Here is, in fact, the *pons asinorum* that separates these two branches of economic science. A social-economist, as he will be shown in action in this book, might be described as a person who, on occasion, will have the hardihood to begin the reconstruction of a wrecked industry by first suppressing the efficient to make room for the inefficient, and by making consumers pay more for their necessities. It may seem like getting off to a queer start, but there it is. It is not a theory, but a fact. The whole world-wide sugar business is shot through with parasitic sugar industries, bulwarked and fortified against predatory sugar industries; the catastrophe of the Java industry is merely an episode in a general internal and external conflict between efficiency and relative inefficiency, a conflict in which bodies politic, with startling unanimity, are throwing their weight on the weaker side. The free sugar market now serves hardly a tenth of the total market, and the proportion bids fair to become still smaller. Indisputably, in its sugar economy the world prefers parasitism to predacity, and bodies politic are finding the results to their liking; here the social-

economist is patently up, the apostle of *laissez-faire* as patently down.

However, we still have to finish our survey of the recent history of the world-wide sugar industry. Prior to the episode which we have just related, in which the once flourishing Java sugar industry was reduced to practical insignificance, the Java producers, in common with the rest of the sugar world, had already passed through a pair of eventful decades. The Great War of 1914 brought to a close a more or less humdrum age, in which the production and consumption of sugar were nearly in balance; if anything, demand tended to run a little ahead of supply due to a general increase in population, and a rising level of prosperity which was reflected in a gradual increase in per capita consumption in many of the principal nations. Total production was nearly evenly divided between cane and beet sugar. The free market was still fairly wide. The beet sugar industry was the more highly developed, both technically and commercially. However, beet sugar still could not compete with cane sugar on equal terms in the free market, and to overcome this handicap various governments, having already guaranteed their sugar industrialists absolute possession of their home markets (by means of prohibitive tariffs), encouraged them to produce an export surplus by giving them an export bounty in one form or another, thereby enabling them to underbid some of the tropical producers. This matter of bounty-supported competition in sugar was more or less satisfactorily adjusted by international negotiations resulting in an agreement known in sugar history as the Brussels

Convention, after which the sugar trade settled down to a more or less placid state of normalcy until the outbreak of the World War.

This world-shaking catastrophe had profound repercussions on the sugar industry. Practically the whole of Europe, which means practically the whole of the European beet area, was involved in the conflict, and aside from much actual destruction of sugar factories and devastation of producing beet fields the industry was severely crippled by shortage of labor, scarcity of fertilizers and other essential materials, and by the political and agrarian readjustments that grew out of the great struggle. The practical result was that at the close of hostilities there was a great shortage of sugar on the world markets. In the face of this shortage there were extensive lowerings of import restrictions. Countries that formerly maintained prohibitive tariffs had to modify them or go without sugar. The free market suddenly underwent a broad expansion.

Sugar producers everywhere rushed to take advantage of what appeared as a golden opportunity. New cane sugar factories sprang up all over the tropics, and nowhere more spectacularly than in Cuba. What haste had the Cubans, or rather their American capitalist backers, to produce sugar in a hurry is exemplified by their method of bringing new land into production, which was to cut down and burn off the primeval forest, punch holes in the ground with a crowbar, and drop a piece of seed cane in each hole. No pulling of stumps or plowing of the ground to make a smooth seed bed, there was not time. To the credit of the virgin soil of

Cuba be it said that even with this crude treatment it yielded abundantly. There being no lack of capital while the boom lasted, the production of sugar in Cuba was expanded until it reached more than five million tons in a year, and all the while a parallel expansion was going on in other cane-growing countries.

Meanwhile the European beet sugar producers were restoring their industry, and in proportion as they regained ability to supply their home markets they began to rebuild their tariff walls toward the original heights. The world shortage of sugar was gradually made good, the free market gradually shrank back to its original dimensions and even became smaller. The wild rush to produce sugar was perforce slowed down, but not before a great excess of producing capacity had been called into existence and also not before huge surplus stocks had accumulated. With such increases in producing capacity and with such large unsalable stocks hanging over the markets the price of sugar on the world market fell to levels such that no producer serving this market could make a profit or more than cover his costs, not even the super-efficient efficient Dutchmen of Java. The picture was further darkened by the depression that began in 1929, in which the per capita consumption of sugar decreased in the face of the lowest prices on record for this staple.

At about this time Wall Street, mindful of its more than hundred-million dollar stake in the Cuban sugar industry, set up a Mr. Chadbourne as a Moses to lead the sugar hosts out of the wilderness into which they had recklessly strayed. It was to all appearances a heavy

assignment: nothing less than to persuade the owners of all the sugar factories whose products entered the free market to restrict their offerings and reduce their new production until the accumulated stocks had been worked off. Only by this means did it appear that sugar could be sold again at a fair price—meaning a price that would give farmers and factories an appreciable return on their labor and investments. What was needed was no mere gentlemen's agreement but a binding contract; a contract, moreover, written into the public law of the land of every country concerned, whereby every factory and every sugar beet farmer and sugar cane farmer would be required, under penalty of fine or imprisonment, to make the necessary sacrifice and abide by the stipulations in the interests of all.

Strangely enough, Mr. Chadbourne found his efforts crowned with a certain measure of success. The multitudinous sugar manufacturers in such diverse regions as Peru, Czechoslovakia, Belgium, Cuba, Poland, Germany, Java, Jugoslavia, and Hungary were amenable to logic, these being chief among the exporting nations. They were finally brought, not without much sparring, to agree to put on the free market a total tonnage of sugar not exceeding the estimated requirement of this market and to accept proportionate shares of this tonnage, apportioned on a pro rata basis that was found mutually agreeable. Furthermore, each group of producers agreed to persuade (and did persuade) its national law-making authority to enact legislation to restrict each factory to its pro rata allotment under the Chadbourne plan, and to restrict each individual beet

or cane farmer to his pro rata share in the quota of the factory with which he was associated. In sum, the entire free market for sugar was amicably parceled out or prorated all along the line—nationally, locally, industrially and agriculturally, from the most powerful capitalist down to the smallest farmer.

Within the purview of our present subject the putting through of the Chadbourne agreement is a notable phenomenon. There is here exhibited the working out of a phase of practical, constructive social-economics on a grand international scale: a well organized world-wide effort to call a halt on world-wide predacity, and instead of *laissez-faire* economics to substitute a managed economy. The fact that the commodity involved was sugar is of less significance than that such an undertaking could be materialized with any commodity. We are familiar enough with world cartels in this or that line of production; these have usually been little more than loose agreements between a few powerful groups of industrialists, who generally stuck together as long as they severally found it convenient. The remarkable fact about the Chadbourne agreement is that it could unite all producers of all nations competing for the free sugar market and bind them in a common purpose—the willing along with the unwilling, the big ones along with the little ones.

It would be a pleasure to be able to state that the Chadbourne plan was completely successful, but its results fell considerably short of attaining the objects sought, which were to provide for an orderly marketing of the surplus over a five-year period, to keep supply

and demand in balance while the surplus was being worked off, and so to maintain a price that would at least not represent a loss. But the plan did not have all the desired effect either in keeping up the price or in moving the surplus. This was due to two factors. First was the decrease in the per capita consumption of sugar throughout the world as a result of the depression. More serious was the fact that the plan did not include *all* exporting countries, particularly those countries that were not exporters but were still bending their energies to take more complete possession of their home markets, and so were making the free market still smaller. Hence the plan reached the end of the term with a large surplus still on hand, and it was not renewed.

One of the main lessons of the Chadbourne episode, therefore, is that if production and price control are to be effective instruments in economic reconstruction all producers must come into the scheme. This may be difficult on an international scale, especially when the available market is constituted in whole or in part by nations that feel themselves impelled toward self-sufficiency, but we shall have abundant occasion to see that it is both practicable and practiced within national boundaries where conflicting interests can be made to fit into a national economy.

CHAPTER III

Proration in Australia

BEFORE outlining the system of production and price control as it is practiced in the Australian sugar industry, it will be useful to sketch in something of the geographical, political and historical background.

First of all the reader should be reminded that the Australian Commonwealth is one of the world's genuine democracies. It has a basic law equivalent to a constitution and a parliament consisting of a senate and house of representatives elected by popular vote. The electorate includes both men and women, and any elector who fails to vote without a valid excuse is liable to a fine. The total population is 6,623,000, of which about

3,649,000 are enrolled voters. The country has a variety of political parties—Laborites, Nationalists, Country Party, Independents—all of which are free to write their own platforms and express themselves as they will on political questions, and in general compete on equal terms for control of the government. As in the United States and Canada, the government is molded on the federal plan; besides the Commonwealth or national government there are six State governments, each with its own parliament. The British system of ministerial responsibility is carried out in both the Federal and the State governments; the leader of whatever political party wins the election becomes Prime Minister and head of the executive power, and holds the reins of power until his party is turned out by the voters at some subsequent election, unless in the meantime his followers in the parliament should turn upon him with a vote of no confidence.

The point is that there is as yet no trace of Fascism or dictatorship in Australia. The people have exactly the kind of government and the kind of law that are wanted by the electorate. As in all democracies, there are often sharp differences of opinion as to what kinds of law should be placed on or removed from the statute books, and it might be argued that the Australian electorate occasionally makes mistakes. But so long as what is done or left undone reflects the will of the majority no one can say that the principle of democracy is violated. What is democracy if not majority rule? The case is not altered in the least if some of the things done in Australia have for some people a queer look

when viewed from afar; queer or not, they are expressions of the will of an untrammelled democracy. For the rest it is sufficient to say that Australian public polity and jurisprudence follow the Anglo-Saxon tradition.

Like the United States and Canada, Australia has only recently been won for civilization from the wilderness, and the population is still perfused with the robust self-respect of a pioneer race.

The country is largely agricultural and pastoral, and although manufacturing industries are steadily developing, many articles of daily use have to be imported and paid for by exports of agricultural products. At that, the proportion of urban to rural population is high. Fully half of the total population is concentrated in the seven chief cities, two of which have more than a million inhabitants each. Most of the industrial establishments are in the temperate southeastern zone.

The Australian sugar industry, with which we are more particularly concerned, is localized mostly in the State of Queensland. There are thirty-six sugar cane-growing districts, with a raw sugar factory in each. These sugar-producing districts are strung along the coastal belt from Port Douglas in the north to the Clarence River in the south, a distance of more than a thousand miles, which is about the distance between New York and Chicago. Climatically, this sugar belt stretches over the subtropics to well within the tropical zone.

In this connection we will mention one of the distinctive features of the Queensland sugar industry. All labor, in the fields as well as in the factories, is performed

exclusively by white men; this in fact is true of all labor in Australia. Aside from a few aborigines there are no colored people in Queensland. This thriving State is a standing confutation of the popular notion that the white race cannot permanently endure a tropical climate. The vital statistics show that the death rate in Queensland is actually lower than in the rest of Australia or in England itself. Moreover, Queensland has a higher birth rate and a lower infant mortality rate than the rest of the Commonwealth,¹ all of which seems proof enough that white men can labor and thrive in tropical Queensland and that white women may accompany them without any loss of fertility, mentality or physique.

It was not always thus. The earlier settlers of this region were of the opinion that only dark-skinned laborers could work the fields and the mines, and so indentured South Sea islanders—Kanakas—were imported in large numbers. What with white overseers, massed colored labor, speculators, prospectors, and all the riff-raff that infest a new land, tropical diseases took a rich toll; the unhappy Kanakas died in great numbers, bequeathing their diseases to their white masters. The average expectancy of white males at birth was only 41.3 years, and the crude death rate was 50 per cent higher than in the rest of Australia. This state of affairs was changed by adoption of adequate measures of tropical hygiene, and especially by the resolution to make and keep Australia "white." The Kanakas were removed from the country, and with their disappearance

¹ Sir Raphael Cilento, Director General of Health and Medical Service.

there also disappeared the principal obstacle to that general sanitation which is the best guarantee of health anywhere.

In 1901 the several Australian colonies federated themselves into the present Commonwealth. Queensland came into the federation on the distinct understanding that her chief industry—sugar production—should be given adequate fiscal protection against sugar produced by black labor in other countries. This involved an engagement by the rest of the Commonwealth to maintain conditions such that the sugar industry could live under white labor conditions, and that its workers could enjoy the same standard of living prevailing in the rest of Australia—which, by the way, is as high if not higher than in any other part of the world.

So Australia became a Commonwealth, and the Queensland sugar industry was to be protected so that it could become and remain white; the bargain was carried out on both sides. Tariff protection was at once accorded, and a bounty was paid on all Queensland sugar that was produced exclusively by white labor. This speeded up the change from black to white labor, so that by 1909 the last of the colored men had been repatriated to the islands of their origin. The Queenslanders struggled to keep production of sugar abreast of the country's requirements, but at that time their equipment was not fully adequate to cover the entire home demand; in most years there was a deficiency of sugar that had to be made good by imports.

Matters ran along in this course until the Great War, which precipitated an interesting series of events in

Australian sugar affairs. Much of the beet area of Europe having been devastated by the contending armies and the rest largely drained of labor by the call to colors, there arose a shortage of sugar in many consuming markets, creating, as it were, a vacuum which sucked in supplies from all available sources. This pull was felt even in Australia, which did not yet produce enough sugar for its own needs. The Queensland sugar producers (not unnaturally from the standpoint of ordinary economics) were quite ready to entertain bids from insistent overseas buyers who ran the price much above the accustomed level, with the result that Queensland sugar tended to flow out. On the other hand, the rest of the body politic (not unnaturally from the standpoint of social-economics) could but regard this outward flow of Queensland sugar and the consequent shooting up of the domestic price as illogical, and a breach of mutual obligations undertaken when the nation was founded and the Queenslanders undertook to supply the domestic market in return for ample tariff protection. The Commonwealth having gone to considerable lengths to provide the Queensland sugar producers with an assured living on a higher plane than that enjoyed by any other white community in the tropics if not in the world, it was (in the logic of social-economics) entitled to have its home-grown sugar at a reasonable cost notwithstanding the high prices paid on the outside markets; and under this view it proceeded to assert its rights. In 1915 the Commonwealth government, in coöperation with the Queensland State government, took complete control of the sugar industry, and has

maintained control ever since. In what manner this control was exercised and with what result we have now to examine.

The first act was to put an embargo on all sugar exports from Australia; the second was to put control of sugar imports into the hands of the government. By these measures it was assured that domestic sugar would remain at home to supply the home market as far as it went, the government assuming responsibility for importing enough to cover the deficit. Concurrently the government fixed a maximum price for the farmers' cane, and a maximum price to be paid for sugar by the consumers.

Meanwhile the price of sugar on the outside markets continued to mount under the stress of the war demand, so that the government's imports cost more and more; its difficulties were accentuated by the very unfavorable season of 1919, making it necessary to import nearly 200,000 tons at a very high price. Since the government was unwilling to pass this increased cost to the consumers (as by all the tenets of ordinary economics it should have done) it had to take a considerable loss, and in the end had to give in. The wholesale price of sugar on the domestic market was raised to £49 per ton, and to encourage the producers to build up their facilities to a point where they could make imports unnecessary, they were guaranteed a price of £27 6s 8d per ton of raw sugar.

Thus encouraged, the Queensland sugar producers began to expand in dead earnest, and in no long time they not only met the home demand but greatly sur-

passed it. In 1925 the excess production amounted to 200,000 tons; this excess being unsalable at home, it had to be exported. And coincidentally the bottom began to fall out of the export market. Thereby the over-expanded Queensland sugar industry was left with a relatively worthless surplus, an investment which would have to be written down, and a supernumerary body of workers for whom it would no longer have remunerative employment.

In passing we may emphasize a phase of this saga that, while logical enough from the standpoint of social-economics, may wear a peculiar aspect when viewed through the spectacles of *laissez-faire* economics. In the first stages of the Australian control of the sugar business the object was to prevent the high war-time prices from being used by the Queensland producers and private sugar importers as an excuse for exploiting the domestic consumers. The local price was "artificially" kept far below the world price, and it is small wonder that there was fretting and fuming over denial of the opportunity to gather the rich profits offered by the world crisis. The American reader will doubtless appreciate the irony of the situation if he remembers what occurred in the wheat market of the United States during the same period. Under the insistent war-time demand the price of wheat shot up to a high level even while the United States was still neutral. The government of the United States made not the slightest attempt to prevent the situation from working to the disadvantage of the American consumer, and in fact it was not legally equipped for such action. And even if it had been con-

stitutionally able to move in this direction it is not difficult (Americans being what they are) to imagine the outcry that would have arisen from the wheat belt at such a contravention of "natural economic law," and to picture the fierce resentment that would have been directed against the party in power. What! With wheat quoted on the world market at two dollars and a half, compel American farmers to take one dollar?

But while it may be characteristic of the "economic man" to hurl his weight against social bulwarks that separate him from enticing profits, when economic adversity descends upon him he is no less ready to invoke again the shelter of those same bulwarks. So it was that the Australian government, having got its fingers severely burned in an effort to protect the Australian consumer, was finally obliged to turn the Queensland producers loose to luxuriate in the rich fields of war-time and post-war profits, only to find them, after a season of riotous liberty, returning to the parental roof broken on the wheels of adversity, praying for succor; even as the American farmers, having sown the wind, gathered under the rickety AAA erected by a compassionate government to shelter them from the ensuing whirlwind.

We will now inspect the new structure erected by the Australians to shelter the broken Queensland sugar industry, whereby the industry would not only be restrained from further harming itself but would also be held to the performance of its duty to the body politic. First we will note a slight change in the original set-up. Actual control of the industry was now handed

over by the Commonwealth government to the Queensland State government and with it the responsibility of maintaining adequate supplies of sugar for the whole country. This transfer was effected by agreements between the two governments, with the concurrence of the industry, under which the Commonwealth agreed to maintain the prohibition upon exports and imports, provided that the refined products were sold on the Australian markets at prices agreed upon by the two governments.

In general outline the situation to be handled was as follows: The industry as it stood could count up 325,000 acres of producing cane land. In addition to a certain number of mill-owning companies that cultivated their own estates, cane was being produced by nearly 8,000 farmers, most of whom were owners in fee. The average cane farm comprises about 44 acres. Many of these cane farms are not too large for the owner and his family to do all or most of the work, but on the whole there is large need for extra labor, especially at harvest time, which usually extends over several months of the year; a large proportion of the seasonal laborers are local residents and home owners. The majority of the thirty-six sugar factories are coöperatively owned by the farmers who supply them with cane; the remainder are owned and operated by independent private companies. The annual average production was something over 500,000 tons of commercial sugar, whereas domestic consumption (at the exceedingly high figure of more than 110 pounds per person per year) was around

300,000 tons. This left a surplus of around 200,000 tons, for which there was no market at home.

There were several optional lines of action. The solution offered by the thoroughgoing free-traders was to withdraw all tariff protection and let natural economic laws come into full operation. But it was clear that this would result in reducing the Queensland cane farmers (if they persisted in the business) to the economic status and standard of living of Oriental coolies, whose daily income is represented by pence instead of by shillings. No white men would or could exist on such a level. To throw overboard the protected industry would therefore involve a serious thinning of the population of tropical Queensland, inviting occupation by overcrowded nations of the vicinity. Moreover, places could scarcely be found in other parts of Australia for the displaced workers and farmers.

The main cause of the industry's troubles arising from the recurring production of a surplus that could be disposed of only at a loss, a second option would have been to reduce the physical equipment and human component of the industry to dimensions such that it would be just large enough to meet the home demand. The objection to this was that two-fifths of the cane land, two-fifths of the cane farmers and workers, and two-fifths of the existing manufacturing facilities would become superfluous. The resulting unemployment would create a grave social problem.

Assuming that the foregoing options, however well they might fit in with ideas that have clustered about the traditional "economic man," should be rejected as

socially illogical, it remained to count the cost of maintaining the industry in its present dimensions, and how this cost might be met. All such calculations had to start from the premise that the farmers, the workers and factory men now included in the industry must be kept therein and provided with incomes that would enable them to exist on what is accepted as a decent standard of living for white Australia. This could be accomplished only by giving them a corresponding price for their product, the said price not to exceed the limit of tolerance by the Australian consumers. The Commonwealth and the Queensland State governments could control the domestic price, but they had no control over the price paid for export sugar on the free market, to which at least two-fifths of the Australian product must go. So the problem became one of computing a price on the known volume of sugar entering the domestic market, such that when the sales on the domestic market were added to sales on the export market (at whatever price obtainable) the sum would give the producers the desired average return.

For attaining the general objective as outlined it was necessary to provide a suitable administrative set-up, and to take precautions against certain eventualities. First and foremost, since the scheme was designed for the benefit of the whole industry, it would be necessary to see that its benefits did in fact accrue equitably to all in the industry. An indispensable prerequisite of the whole undertaking was the total exclusion of foreign sugar so that the entire yield of the home market might go toward the support of the home producers, who were

thus to be effectively shielded from the outside predatory sugar industries that could produce sugar at a cost so low that they could capture the Australian market with scarcely an effort. But protection against external predacity alone would not wholly meet the situation. In order that the contemplated benefits might be equitably distributed among all the claimants it would be necessary to provide impediments to internal predacity. Just as there are inequalities of efficiency among producing nations working on the same commodity, so there are inequalities of efficiency among producers of the same commodity within national boundaries. Men differ both in skill and in judgment as producers, and they differ in the amount of capital and the quality of the material equipment they use in their calling. Some of the Queensland sugar producers are more favorably situated than others as regards soil and climate; some command relatively large resources of land, capital, or credit, and if given a free hand will be in a position to dominate the domestic market to the detriment and possible extinction of their less well equipped colleagues in the industry, which is contrary to the proposition that the industry shall be preserved as a whole. Then, again, it will be necessary to separate the product of the industry into two parts—one part for the domestic market, the other part to be exported. The sugar going on the domestic market is to be paid for at a much higher price than can be realized for the export sugar. Nothing will be more natural than that a producer, following the primordial urge of the "economic man" to grab everything for himself, will move heaven and earth in con-

triving to get his sugar on the domestic market and leave the meager returns of the export business to his less forehanded and aggressive brethren. The plan to be set up must therefore provide that each man shall have his share, but no more than his share, of the fat domestic business, and he must also be compelled to assume his equitable share of the less attractive export operations.

In working out a system that would subsume these basic considerations, the first thing to be settled was what was each producer's equitable share in the business and how this share was to be determined. As a first reference point it was decided to take into consideration the capacities of the various sugar factories. Each such factory had been designed and built by its owners to crush a certain number of tons of cane a day; the length of the "campaign" or number of days that the factory might operate in a season was governed by local circumstances, such as the area planted to cane in the territory served by the factory, and the rate at which the farmers could cut and deliver the raw material. But the measure of capacity taken for prorating purposes was not the nominal rated capacity of the mill, but its "record" performance, that is, the maximum output of sugar in the best year of its history, the theory being that this "peak" output was what the owners could do if they really tried; the figure thus ascertained represented the maximum amount of sugar that the factory would be allowed to produce under the plan.

The "peak" of the factory served in turn as a basis for reckoning the pro rata allotment to each farmer that had been supplying cane to the factory. The cane field

of each farmer was measured and its limits defined. The acreage so ascertained was recorded as "assigned land" on which the farmer could continue to grow cane under the plan. The practical effect of all this was merely to legitimize the *status quo*. Each farmer was left free to cultivate his assigned land as usual, and each factory was free to turn out its usual quantity of sugar.

The total production being thus prorated, there remained the further matters of prorating the markets, the control of the domestic price, and particularly the matter of separating the sugar that was to come on the domestic market from the sugar that should be exported. For effecting these various purposes there appeared to be only one practicable way, and that was to vest possession of the output of every factory, and consequently the product of every cane farm, in a single authority. As such authority there was created by law the Queensland Sugar Board, consisting of a chairman appointed by the government, and three other appointees, one to represent the mill owners, one the cane farmers, while the third is supposed to represent the general public. All raw sugar, when produced at the factory, is acquired by the Board and is taken possession of by statutory authority as the property of the Queensland government. The mill owner's equity in the sugar becomes a right to be paid for it at a price fixed and declared by government proclamation at the beginning of each crop season, and after consultation between the industry and the two governments concerned. For example, the declared price for the last crop (1935) was £23 per long ton for sugar entering domestic consumption. All the acts of the Sugar

Board are subject to the final responsibility of the Corporation of the Treasurer of Queensland, who is responsible to the State parliament.

The Sugar Board, as representative of the government, owns no raw sugar factories and has nothing to say as to their management. The reader will understand that the sugar acquired by the Board is raw sugar not suitable for direct consumption. The factories out in the cane districts (first processors) are generally not equipped to refine or convert the raw sugar into granulated sugar; this has to be done in special refineries (second processors). The Queensland government also owns no sugar refineries. It therefore employs the services of existing refineries, first to take delivery of the raw sugar in its behalf, pay the mill owner the proclaimed price, to transport the sugar to the refineries, refine it and sell the refined sugar at wholesale prices settled upon by agreement between the Commonwealth government and the Queensland State government. On passing into the hands of the retailers the sugar must be offered to the public at the uniform retail price of 4d the pound.

For their services the refiners are paid as follows: Their out-of-pocket costs for freight, insurance, etc., and the actual cost of the refining operation are refunded; for management, interest and depreciation on their plant they receive 20s per ton of raw sugar melted; for financing the whole undertaking they are paid rates that return something less than bank interest; for selling the refined products to the trade they get a commission of 7s per ton. They also attend, without charge, to the exporting of all sugar not taken by the domestic trade.

At the end of each campaign it is known exactly how much of the crop stayed at home and how much went abroad. For instance, the proportion of domestic consumption to total production by those mills that in 1934 did not exceed their quotas was 54.66 per cent. This means that about eleven-twentieths of all sugar produced in that year was paid for at £24 per ton (less certain deductions to which further reference is to be made), and nine-twentieths at the export price, which averaged £7 11 3, so that the average price for all sugar produced according to the plan was £16 10 11, which, on the whole, was sufficient to recompense all branches of the industry. On this basis the Board settled with the mill owners, who in turn settled with their farmers.

The retail price of refined sugar throughout Australia is 4 pence the pound. Of this, 0.443 pence is allowed to the retail grocer for his profit; the wholesaler gets a discount of 0.049 pence; refining costs, freight on raw and refined sugar, selling costs and other overhead absorb 0.791 pence, leaving 2.717 pence to be divided 70:30 between farmer and mill owner.

We have here the broad outline of a smoothly working scheme for the prorating of a major commodity so that all members of the industry—farmers and factory men—may be secure in their livings. Certain details and collateral matters will be worth noticing.

We will first notice the fact that the mill owners all sell their sugar to the Board f.o.b. factory, and that they all receive the same price per ton, irrespective of their distance from the refinery. Further, the refined sugar is delivered to the retail grocers at a price, f.o.b. station,

such that they can all sell it to their customers at the same uniform price of 4 pence the pound, irrespective of their distance from the refinery; in other words, the housewife's 4 pence liquidates all conceivable charges from the cane fields to the grocer's shelves in complete disregard of mileage. From the social-economic point of view this simple device of a uniform price has some interesting consequences.

In the first place it abolishes all competitive handicaps among producers due to differences in geographic location. The miller or the farmer within easy reach of the great consuming centers has no advantage in freight costs over the miller or the farmer eight hundred miles up country. In the second place the housewife in a far-off southern city, or even in the distant Island of Tasmania, pays no more for her sugar than the housewife in Brisbane, which is in the heart of the sugar country.

What this state of affairs might mean in a nation's economic life may be visualized when it is compared with conditions in some such country as the United States, for instance. In the United States and many other countries the question of freight costs enters every calculation and governs every move of farmers and industrialists alike. Farms are valued in proportion to their nearness or remoteness in relation to markets, industrial locations in proportion to distance from markets and sources of raw material. Freight costs dictate the erection of factories in one locality and ban them from another; a difference of two hundred miles may make a difference of 50 per cent or more in the net incomes of equally

competent farmers serving the same market. All this is changed when producers are paid the same uniform price, f.o.b. works. Nobody is then penalized for living and laboring in the back country, and no otherwise fruitful and healthful region need go undeveloped when location ceases to cut any figure in the valuation of industrial property employed in the production of a basic commodity. On the other hand, so far as concerns the cost of living as affected by the price of this commodity, no consumer anywhere has any advantage over another, and all household budgets can be reduced to a common denominator.

This matter of a uniform price, independent of geography, is not as novel as might hastily be supposed. It has long been established for many articles of nationwide distribution. A package of Wrigley gum, or a cake of Colgate shaving soap, for instance, is offered at the same price in California, Texas or Maine. The manufacturers of these articles calculate the "average haul," meaning a figure that will represent the average of all distances from their factories to all consuming districts, and write this amount once for all in the price they charge the dealers. This book is another example: it is sold in all bookstores throughout the country at the same advertised price; what is saved in the cost of delivery to a reader in New York is shared with a reader in San Francisco. The fact is that we are here touching on one of the great matters that will undoubtedly figure in the coming transition from a *laissez-faire* economy to a social-economy. If an ideal social-economy be defined as one wherein factitious or fortuitous differentials in

competitive conditions have been removed in the interest of all producers and all consumers, then uniform prices for all essential commodities are indispensable. Herein will be found one of the shortest and ethically one of the most justifiable paths for a redistribution and equalization of economic opportunity. Social-economic reformers may take note and shape their programs accordingly.

We may next consider the principles along which the Commonwealth government and the Queensland State government, in consultation with the industry, collaborate in fixing the uniform retail price of sugar. There is here no recondite groping for a hypothetical "parity price" that harks back to some remote golden age, but a common sense and business-like examination of the actual money cost of the efficient production of a ton of sugar under the existing conditions of the present. The first consideration is the present financial position of the producers. For example, the retail price of sugar in 1931 was fixed at 4½d. When the question of fixing the price for 1933 came up it was noted that the economic depression had brought about lower wages generally, and also lower costs of the commodities required by the sugar producers for their productive and living purposes. These facts warranted a reduction of the price of sugar by ½d. The question of further reduction coming up again in 1935, it was found that while wages and living costs had not risen, the price of export sugar had declined so that the average return on all sugar produced had definitely fallen to very near the average cost of production. How this was affecting the economic

positions of the cane farmers is revealed by two indicia. One is the increase in the number of liens on farmers' crops with the fall of sugar prices, as indicated in the accompanying table.

SUGAR PRICES AND CROP LIENS

Year	Price of sugar per ton		Number of crop liens	Percentage of all farms
	£	s d		
1932	18	6 2	3102	60
1933	16	3 6	3186	61
1934	15	10 9	3559	69

Obviously, the farmers were having difficulty in maintaining themselves. Further proof of the fact was found in farmers' income tax returns. At the close of 1934 only 23½ per cent of the farmers earned enough "personal exertion money" to be liable to pay income tax, and it was easy to figure that a reduction of ½d in the retail price of sugar would eliminate practically all cane growers from the income tax field. The proposition to make a further reduction of the price was therefore turned down.

The wages and working hours of the cane cutters who do the heavy work of harvesting are fixed by law, as are also the wages and hours of the mill workers. Moreover, the laborers have certain rights which the farmers and the factory owners are forced to respect. Membership of cane cutters in the Australian Workers' Union is not merely permissible but is by law compulsory, and no farmer can refuse to hire a union man except by a very special dispensation. Neither can he pick and choose among union men; he must take them in the order of

seniority as they stand on the union books, and as long as a cane cutter does a fair day's work he cannot be discharged until the crop is finished. And the farmer cannot refuse to hire the same men again next season, unless he gives official notice that he is going to harvest his cane himself, and does so. In case no union men are available, men not previously union members may be taken on, but before they lift a cane knife they must tender the union fee to a union representative and obtain a receipt. Any infraction of this law, which includes many provisions for the health and well-being of the cane cutters, may be brought before an Arbitration Court which has rather large powers for enforcing its decisions on both sides, as is shown by the record of fines imposed. On the other hand, the men have the right to strike and to hale oppressive employers to court. The factory workers have similar rights.

This position of labor in the Australian sugar industry may in certain quarters be regarded as extraordinary, but the logic is simple. The government, having guaranteed the economic positions of the farmers and of the factory owners, who form only a part of the industry, merely completes its task of preserving the whole industry by a reasonable guarantee to the laborers who form the other part. The price of labor is fixed, but so are the prices of cane and of sugar, and the government, acting as impartial trustee for all interests, has done its best to make reasonable adjustment of the conflicting interests. In other words, the Australians have had wisdom, courage and honesty—and we may add humanity—enough to see the problem whole, in sharp contrast with

the brutal sacrifice of the laborers, share croppers and tenants under the Agricultural Adjustment Act of the American New Deal, which took into consideration no interests but those of the landowners.

It might be supposed that the enforcement of the proration system would necessitate the creation of a bureaucracy to be maintained at public expense. But there is nothing of the sort, except for a few clerks in the office of the Sugar Board. The allotment of quotas and the surveying and policing of assigned lands is attended to by local committees of the sugar industry whose expenses are covered by a levy of a few pence per ton of cane crushed, so no burden is laid on the public treasury—the industry pays its own way. There is no incentive for either farmers or factories to exceed their quotas, although they are at full liberty to do so with the understanding that the excess sugar cannot be pooled with sugar sold on the domestic market, but is purely and simply export sugar for which only the export price will be paid.

Such is the Australian scheme for the vertical proration of a major agricultural industry, a scheme that reaches from the primary producers and their laborers through the first and second processors to the distributors and the corner grocers. The description we have given will doubtless enable the reader to form his own opinion of it.

The Australians themselves have expressed some very definite opinions on the matter. The country does not entirely lack citizens who believe in *laissez-faire* and all the associated doctrines of personal liberty and free-

dom of action, and who are also imbued with a hatred of monopoly in any form. The Australian sugar scheme is indeed a monopoly, guarded and protected at all points. Nobody who was not a cane planter before the inception of the scheme can start a new cane plantation in the hope of serving the domestic market, and even no field laborer can cut a stalk of cane unless laborers with senior standing are unavailable, and not then unless he is a member in good standing in the labor union; no capitalist can put up a new sugar factory, nor enlarge an existing one in the hope of winning more than a fixed proportion of the domestic market. The whole industry is clenched in the grasp of the men who happened to be in it when the government took charge; new applicants for participation are firmly repelled.

In the opinion of Australian critics of the scheme the creation of a closed caste of sugar producers is bad enough, but the government has destroyed every chance of free competition by taking control of the product as soon as it is manufactured, and to cap the climax of this economic iniquity it has fixed the price far above what offshore producers would gladly accept. The Queensland sugar industry, handicapped as it is by its high costs and its relative inefficiency, could not last a year if exposed to the free play of economic forces. The costs which every industry worthy of existence should be able to sustain are saddled on consumers who have other troubles of their own. In a word, the government, so it is said, has established and is maintaining, in violation of equity and common sense, an industry which is parasitic in the fullest sense of the word.

The opponents of the scheme, headed by the Henry George League (an organization which, as the name connotes, is committed to the principles of free trade), have resorted to figures to show the enormity of what they characterize as "this political outrage." The sugar embargo, it is alleged, has cost the Commonwealth generally £70,000,000 within the past ten years; in other words, the extra price paid by the Australian consumer during that period was sufficient to pay the full value of all the land, plant, buildings and machinery used in connection with sugar milling and refining, and to have given the growers sufficient money to pay a hundred pounds for every acre of land planted with sugar cane; and at that the consumers might still have kept in their pockets £30,000,000 that is not there now. The friends of the industry question the accuracy of the figures quoted by the Henry George League; however, it is indisputable that the Australians might have their sugar cheaper, but how much cheaper is not material for the purposes of this book.

On the other hand, the friends of the sugar agreement point out that it exists and has existed for many years by the freely expressed will of the whole Australian people. It is worthy of note that the industry is practically confined to the single State of Queensland, which is situated in the northeastern corner of the Australian continent and contains less than 15 per cent of the total population of the nation. The industrial centers and the districts where ordinary agriculture is practiced—regions that carry much the larger share of the political weight of the country—lie far to the south. The propinquity

factor therefore does not count for much in favor of the sugar interests. Yet every government that has risen to power in the Australian Commonwealth during these years—the Fisher, the Hughes, the Bruce-Page, the Scullin and the Lyons governments—representing all shades of public opinion, has observed exactly the same policy in protecting the sugar industry, i.e., by successive renewals of the sugar agreement which in every case is subject to approval of the Commonwealth parliament, the supreme law-giving authority that is subject to control by the whole electorate. In the course of its long history the sugar agreement has been subjected to the scrutiny of one Commission of Inquiry after another, not one of which has suggested that the industry was not worthy of adequate protection or that it exhibited major faults that required correction. It is at least significant—so the argument runs—that nearly all the members of these Commissions were citizens of southern States wholly dissociated from the sugar industry. On the latest Commission (1931) the consumers had three direct representatives, nominated by their respective interests: housewives, manufacturers, and fruit growers. This Commission unanimously recommended an extension of the agreement and the embargo for another period of five years, which was accordingly so done by the parliament on the advice of the Lyons government.

It may be useful to recount what good, not visible to the Henry George League and other critics, could be found in this parasitic industry by such a cloud of witnesses. There is of course the national defense argument previously mentioned. To allow the Queensland sugar

industry to fall a victim to free trade would go far toward depopulating a naturally well favored region, and give potential enemies a convenient point of entrance. Then there is the argument that if the domestic price of sugar were forced down by removal of the embargo, and if the people still wanted a domestic sugar industry, the present white labor would have to be substituted by imported coolie labor as in the Kanaka days, which is contrary to the ideal of a white Australia; white men could not be expected to live on coolie wages. Moreover, if the policy of free trade were to be applied to sugar, it might as well be applied to the many other protected industries of the country. According to the Hon. T. W. White, Minister for Trade and Customs, it has been declared by eminent economists that complete free trade would result in Australia being able, under prevailing world conditions, to support only half her present population; and what, then, would we do with a surplus population of more than three million?

Aside from these general assertions the pro-embargo party also resorted to statistics. It is pointed out that during 1933-34 Queensland sold $12\frac{1}{4}$ million pounds worth of products to the other Australian States, but from them bought 16 million pounds worth of mostly tariff protected goods, giving the non-sugar States a trading advantage of $3\frac{3}{4}$ million pounds. The value of the sugar delivered by Queensland to the other States was about $6\frac{1}{2}$ million pounds. Suppose Queensland had no sugar industry; she would have her purchasing power diminished by $6\frac{1}{2}$ million pounds, and the other States would have their profitable Australian market for a

wide range of manufactured goods curtailed by that amount. In addition to helping provide a good home market for other protected industries the Queensland sugar industry performs another notable service to the Commonwealth, in that by exporting its surplus sugar at a relative loss it provides the country with a very useful foreign exchange credit of 2 million or more pounds with which to finance necessary imports.

One other positive service rendered by this parasitic industry to its body politic deserves mention, and may it please the reader to make special note thereof for future reference. This is in relation to the Australian fruit processing industry, which itself is of considerable importance. This industry is normally a large consumer of sugar, and is also heavily dependent on an export market. But exports of fruit products would be impossible without cheap sugar; so it was arranged that the fruit processors could be furnished with *excess* sugar (that would otherwise have to be exported anyhow) at about a sixth of the domestic wholesale price. The result was that the fruit industry, besides supplying the home market at reasonable prices, was enabled to "capture" the preserved fruit market of the United Kingdom, which without difficulty is absorbing all surplus Australian fruit.

The point here is that a prorated industry, having been given a controlled market at prices that assure its economic perpetuation, is enabled to deliver a part of its surplus for the furtherance of other socially desirable objects. The excess wealth which it creates, and which in socio-economically less mature commonwealths would

be destroyed to take it off the market, is diverted, with little regard to price and with no hardship on the industry, into directions where it will still redound to the public benefit. This exemplifies a real "directed economy," which, like the simple device of a uniform price, contains the germ of a social-economic invention of vast portent that we shall take occasion to consider again.

CHAPTER IV

Proration in Brazil

BRAZIL is a country of magnificent distances, with a territorial extent comparable to that of the United States. The climate varies from temperate and sub-tropical in the south to tropical in the north.

The population, which is concentrated mostly in the eastern half of the country, numbers about 42 millions. The inhabitants are largely whites of Portuguese, Spanish and Italian origins. A certain number of blacks were introduced in the slavery days. The interior, especially the Amazon basin, still contains numerous tribes of Indians and is yet but little developed. The most thickly settled regions lie in the south; this section is

well supplied with railroads, but the country as a whole lacks a well developed transportation system, and intercourse between the north and the south is largely limited to coastwise navigation.

Agriculture is the chief industry, although there is considerable manufacturing in the south. Coffee is the principal crop, and the chief article of export.

The form of government is that of a federated republic composed of twenty States, a Federal District, and the Territory of Acre. The political set-up is in theory similar to that of the United States. Each of the twenty Brazilian States has its own constitution under which it elects its President (governor) and a State parliament. Over all is a Federal government of delegated powers, with a national President and a national parliament elected according to the national constitution last prevailing. Political conditions are on the whole somewhat more stable than in some other Latin-American countries, although rebellions and other political upheavals are by no means unknown; a few years ago the National and State governments were overthrown by a transitory dictatorship, which eventually restored the old order with a few material changes.

The history of sugar in Brazil reaches back as far as 1521. The culture of the sugar cane was early established in what is geographically the northeastern corner of the South American continent, now occupied by the sugar-producing States of Sergipe, Ceara, Alagoas and Pernambuco; the latter State ranks as the most important producer of sugar. The industry was at first carried on by slave labor, and up to recent times this section of the

country sent considerable quantities of sugar to the European markets.

In the course of time cane culture spread southward into the subtropical States of Minas Geraes, San Paulo and Rio de Janeiro; but the sugar industry of these States, although considerable, is not quite on the same relative scale as in the north. For one thing, the southern Brazilians are much more interested in the culture of coffee, of which they furnish more than half the world's supply. These southern States also pay much attention to manufacturing, and they contain the largest cities. Although this region contains a number of modern sugar mills, these mills do not produce enough sugar to supply the large southern population; the deficit is covered by shipments from the northern States.

The average Brazilian eats about 50 pounds of sugar a year, which may be compared with a per capita consumption of about 100 pounds in the United States and about 110 pounds in Australia. There is thus a wide margin for a possible increased domestic market for Brazilian sugar.

As an industry, the production of sugar in Brazil presents some marked contrasts. At one extreme are great manufacturing establishments fitted with all modern equipment for grinding upwards of 1,000 tons of cane a day; at the other extreme are small affairs employing two or three men and working up a few hundred tons of cane in an entire season. In between is every gradation of size and efficiency. For statistical and taxation purposes sugar enterprises in Brazil are listed in three categories: (1) "*usinas*" (factories) which

possess vacuum boiling apparatus and centrifugal machines for separating the sugar crystals from the molasses; (2) *usinas* which have vacuum apparatus but no centrifugals, or centrifugals but no vacuum apparatus; (3) "*engenhos*" which have neither vacuum apparatus nor centrifugals. The latest statistics show that in the whole country there are 341 establishments in the first category, 408 in the second and no less than 24,923 in the third category. The majority of the establishments in the third category—the *engenhos*—are mostly primitive affairs, being in fact survivals of the type described by travelers in the sixteenth century. The equipment of an *engenho* generally consists of a rude mill powered by a water wheel or a pair of steers; its operations are often limited to grinding the cane produced by the labor of the owner of the mill and members of his family. Somewhat more pretentious *engenhos* may have a steam boiler and an engine for the grinding and sugar-boiling processes, and may enlarge the scale of their operations by purchasing cane grown by neighboring farmers. In the absence of vacuum apparatus and especially of centrifugals for separating the crystals from the molasses, the *engenho* product scarcely ranks as an inferior brown sugar and is comparable to the *gur* produced by the native Hindu sugar mills; it is generally sold locally to the poorer classes or to refineries.

White sugar for the urban markets and for consumers who are not satisfied with *engenho* sugar is supplied by the better equipped *usinas* and the refineries. Although the *engenhos* far outnumber the *usinas* their aggregate production is scarcely a third of the total, which

amounts to around 900,000 tons a year. On the other hand, 23.3 per cent of the total is produced by the eleven largest *usinas*.

The Brazilian sugar industry thus presents itself to us as a business scattered over an immense territory, comprising establishments of all sizes and efficiencies, from the giant mills of great corporations down to what is practically a rudimentary cottage industry, all operating under infinitely varied conditions of soil, climate and marketing facilities. Not the least of the differences observed in this heterogeneous industry is in the matter of technological efficiency. Owing to the crudity of their equipment and methods the *engenhos* and the smaller *usinas* often fail to recover as much as half the sugar in the cane delivered to the mill, and even in many of the more expensively equipped establishments there are no technically trained executives such as are found in the more advanced sugar-producing regions, as Hawaii or Cuba, for example. On the other hand there are a number of factories that are not only equipped in the most modern manner but are also under highly skilled management. There is, therefore, a wide variation in unit costs associated with a wide variation in individual margins of profit.

The economic history of the Brazilian sugar industry in the war and post-war periods mostly followed the general pattern prevailing in the world sugar industry. The principal variation was that the Brazilian producers were not at first allowed to participate in the wild upswing that occurred in other sugar-cane-growing countries after the practical destruction of the European beet

sugar industry during the war. When the "natural" rise in the price of sugar first began to occur in the wake of this cataclysm and make itself felt in Brazil the government, using the powers with which it was then invested, restricted the export of Brazilian sugar in order to shield the Brazilian consumer from scarcity prices. This action delayed but did not prevent the ultimate expansion of the industry. The Brazilian sugar market did not escape the pressure that everywhere forced the price of sugar to high levels in the few years preceding 1929. Nor were the usual consequences lacking. The industry expanded its facilities, largely (as in other regions) on borrowed capital. Then came the great depression and the precipitous fall of prices, the effects of which were aggravated by a decline in per capita consumption. The producers found themselves squeezed between the consequences of overcapitalization and excess of equipment on the one hand, and on the other hand the presence of a surplus of sugar which the domestic market would not absorb even at ruinous prices, and which could not be exported except at great sacrifices.

And precisely as in other countries where similar circumstances prevailed, the Brazilian sugar producers set up a call for governmental intervention to save them from ruin.

About this time the great depression was affecting other departments of the national economy, and in the opinion of certain elements of the population the existing government did not appear to have a program adequate to the requirements of the crisis. However that may be, there was a somewhat forcible change in the

government, which passed under the control of an Intervenor in the person of Getulio Vargas, who became invested with dictatorial powers and whose program was to give Brazil, so far as possible, a "directed economy." With the general aspects of this program we have nothing to do here, except in so far as it found expression in a directed economy for the Brazilian sugar industry.

The primary situation to be met was the prevalence of prices for sugar that were distinctly below the average cost of production. These prices were at such a level that a large proportion of the producers not only could not continue production except at a net manufacturing loss but were unable to meet commitments made during the sugar boom. In other words, there was prospect of wholesale bankruptcy in the sugar business.

The surplus was not as large, proportionally, as existed concurrently in some other countries, amounting in the case of Brazil to about 10 per cent of the total production. But the poisonous effects of even so small a surplus are well understood in analytical economics. According to the law of Davenant and King every deficit of production, and inversely every excess of production, causes in the first case an increase and in the second case a decrease in the price, which in both cases will be far out of proportion to the percentage of deficit or excess of production. This law expresses one of the phenomena involved in the general law of supply and demand: an excess of only 10 per cent above requirements, from the fact that it represents an unabsorbable fraction of the whole stock, may be offered on the market ten times

during the year without finding a buyer. The psychological effect is that the visible supply appears to be ten times as great as it really is.

The situation having been diagnosed as arising from (a) the presence of an unsalable surplus and (b) the prevalence of low prices, the question arose as to what constructive measures to apply. The Interventionist government entrusted the formation of a plan to a group of men, including sugar industrialists, who were evidently actuated by a desire to find the best possible solution.

Even before work was started on the plan hereinafter described, a resolution was taken as to what sort of plan would *not* be adopted. Economic crises due to overproduction of an agricultural commodity were not unknown in Brazil; the case of the Brazilian coffee industry is a classic example. As we have previously remarked, coffee is the principal crop of the country and forms the backbone of its foreign exchange. The soil and climates of the States of Rio de Janeiro, Minas Geraes and San Paulo furnish an ideal habitat for the coffee tree. In past years the world demand for coffee was strong and there was an irresistible temptation for the planters to expand, which they did until the outturn of Brazilian coffee greatly exceeded what the markets were willing to take at prices that would give a desirable return; and as is usual in such cases, a demand arose for governmental assistance. The action of the government took the form of what students of coffee history well know as "valorization"; the Federal government was inspired with the belief that if a substantial quantity of the coffee

crop were temporarily withdrawn from the market, the price would rise and the coffee previously withdrawn could subsequently be returned to the market at a better price. Accordingly, the government set up a Coffee Board authorized to issue government bonds for the purchase and warehousing of a sufficient quantity of the commodity, which was pledged as security for the bonds issued. Meanwhile the planters in the hinterland were left entirely free to continue if not to increase their former scale of production.

The result was what any competent student of analytical economics might have predicted. The "valorized" coffee still remained hanging over the market in the sight of all men; new stocks continued to accumulate; the government bonds fell due; the pledged coffee had to be sold ahead of the new crop; the bottom dropped out of the coffee market and in the end the surplus had to be abolished by dumping part of it into the sea and burning the rest. In view of this fiasco, the disastrous consequences of which are still acutely evident to every Brazilian, it was clear that valorization of sugar was something to be avoided.

In passing it may be mentioned that the government of the United States has also taken occasion to burn its fingers with valorization fire. The results of the Hoover experiment with wheat are, or should be, fresh in the memory of every American. There was the same fatuous idea that the price of wheat could be raised by using government funds to take a part of the excessive supply off the market, and that the portion thus temporarily removed might subsequently be returned without loss.

And there was the same dismal result of dissipation of public money and a market finally wrecked by continued oversupply. It is said that one of the chief teachings of history is that men never learn anything from the teachings of history; at any rate, it seems to be a fact that in the Hoover days Americans had learned nothing from the lesson of Brazilian valorization. But to the architects of the Brazilian new deal it was very clear that the salvation of the Brazilian sugar industry did not lie along the valorization road.

Before entering on a discussion of the mechanical details of this phase of the directed economics of Brazil, we may summarize the specific objectives to be attained and the lines along which these objectives were to be approached.

One of the prime objectives of the sugar program was to assure that the surplus would not become any larger, which might otherwise result from the activities of those who could still produce sugar at a profit, as well as from the efforts of marginal and sub-marginal producers who might seek more or less vainly to turn their losses into profits by expanding the scale of their operations. The obvious way to attain this objective was to impose a limit on production ; to stop the industry, as it were, in its tracks. Every producer, whether farmer or manufacturer, would have to be interdicted from producing any more than the average amount of sugar he had produced during a term of preceding years, and there would have to be an interdict on the establishment of new sugar enterprises.

A second objective was to get rid of the existing sur-

plus that was a powerful factor in holding down the domestic price. Since this surplus could not possibly be absorbed by Brazilian consumers, the only way to deal with it would be to remove it bodily from the country, or find some non-food use for it.

Beyond the problem of the existing surplus lay the problem of dealing with future surpluses. There were three possible ways of attacking this matter. One would be simply to scale down production to the actual needs of the domestic market; a second way would be to force the annual exportation of the surplus at the joint expense of all the producers; a third way would lie along the proposition already mentioned: that of finding a use for the surplus sugar for other than food purposes, thus conferring on it the character of an additional component of the national wealth. To scale down production to the actual needs of the home market would involve much more difficulty than merely holding the industry in the *status quo*. Forcing the exportation of the surplus would be very little better than dumping it into the sea, because under prevailing conditions Brazilian sugar could not enter any foreign market, even the so-called free market, except by paying a tariff that would leave a nearly infinitesimal residue of cash return; in this respect Brazilian sugar is worse off than Australian sugar, which enjoys a certain tariff preference in the British market.

Under the existing circumstances the third recourse, that of converting the surplus sugar into other forms of national wealth, would on all counts be the most preferable, and there happened to be a clear way of accom-

plishing the purpose. Brazil, although a country of vast extent, has been relatively very little explored, and up to the present time no worth-while deposits of petroleum have been found within the national boundaries. The national supply of coal is also inadequate. All gasoline has to be imported, and due to poor transportation facilities must be sold at relatively high prices in many parts of the country. However, roads are being built and the number of automobiles in use is large and increasing. Now, it has been found that a mixture of gasoline and anhydrous alcohol, which can be made from the juice of the sugar cane, is a quite acceptable fuel for internal combustion engines. The program of a directed economy for the sugar industry as an integral part of the national housekeeping might therefore well call for a diversion of surplus sugar production to fill, at least partially, a void in the national fuel economy with advantage not only to the sugar producers but also with no extra burden on the fuel consumers, and with the additional advantage that the nation would be to some extent freed from dependence on foreign materials. This recourse appeared attractive not only as a relief from present difficulty, but also as a promise of great future import to the sugar producers by opening to them opportunities for expansion limited only by the quantity of alcohol-gasoline fuel which the motorists would take.

A fourth and not the least important objective was to effect a reform of the price structure of the sugar market so that producers could be saved from the bankruptcy that threatened many of them, a price that would en-

able them to keep their properties in functioning order and give them the equivalent of a "living wage."

There thus arose the question as to what would be a fair price, and to whom it should be paid. To the analytical economist of the liberalistic or *laissez-faire* school the answer appears simple and direct. Let the law of supply and demand have the fullest play. Two-thirds or more of the sugar industry of Brazil is anachronistic. In this day of improved sugar-making machinery there is no logical place for the *usineiro* who asks the public to pay him for making sugar without a vacuum pan or without a centrifugal; and as for the lowly *engenheiros*, they are too unspeakably inefficient to be worth preserving. Let the business go to those who can deliver sugar to the public at the lowest cost per unit. No business has any function other than to supply the necessities of consumers at prices set by free competition, and no price can be fair to consumers if it is arbitrarily fixed so as to keep alive uneconomic enterprises, thus preventing the expansion of efficient industrialists who could give the public goods produced at low cost and sold at correspondingly low prices.

To such a conclusion does analytical economics infallibly lead; and if there were no economics but analytical economics the case would be closed. But where analytical economics ends, constructive social-economics begins. The business of the constructive social-economist is to salvage situations which his analytical colleague is ready to abandon as hopeless. Where the one alleges that no industry has any function but to supply consumers in the most efficient manner and at the lowest possible cost,

the other retorts that not the least important of the functions of industry is to support the producers. The anachronistic *usineiros* and *engenheiros* had to be saved because they needed salvation, and because, in a broad social-economic view of the matter (a view which analytical economics habitually dismisses *a priori*), the body politic stood to gain much more by saving them than it would lose by paying a few more *reis* a kilo for its sugar. Let it be granted that even three-fourths of all the Brazilian sugar factories are economic eyesores; but simply to abandon them to the rigors of free competition would raise greater difficulties than would be settled; there would be wholesale bankruptcies, whole regions—and not merely the sugar-producing regions—would feel the resulting loss of mass purchasing power (what significance can be attached to this particular specification in Brazilian economics will appear later), and no insignificant proportion of the total population would be driven into the ranks of discontent. What large scale discontent can mean in a Latin-American republic needs no explanation.

The price to be fixed and maintained must therefore be high enough to save most if not all the producers, efficient and inefficient alike, and yet not so high as to injure the consumers to an extent that would provoke a decrease in consumption, or to produce a hostile public reaction that would wreak vengeance on the proposed directed economy.

So much as regards the objectives to be striven for. There remained the question as to the character of the approach.

In the first place, having in mind the methods and results of bygone valorizations, what was to be done for the sugar industry should be accomplished without imposing the least burden on the public treasury or the public credit. This would mean that whatever salvation was to come to the industry would have to come solely through the enhanced price established by the regulative measures to be put into effect.

In the second place no new bureaucracy was to be established with arbitrary authority to dominate the industry in the execution of the regulatory program; on the contrary, control over the industry was to be put into the hands of the industry itself, to be exercised within the broad lines of public policy laid down in the enabling legislation. Once the organization permitted by this legislation had been perfected, the industry would be invested with the power and the responsibility of policing itself by its own agents having direct access to the courts to deal with recalcitrants. The government would indeed have representation on the central board of control, but the attributes of this board would be strictly defined and it would lack power to vary the original set-up without the prior consent of a consultative body composed of elected representatives of the sugar cane growers and the factory operators.

We will now examine the directed economy of the Brazilian sugar industry as it was set up and is now operating.

To obtain immediate action pending the establishment of a permanent organization there was created a "Commission for the Defense of Sugar Production,"

hereinafter styled, for short, the Commission. The first blow of this Commission was aimed at the existing surplus, which was to be exported for what it would bring, however little. Every producer was required to deliver to the Commission, without compensation, 10 per cent of his stock on hand, this being the estimated amount of the surplus hanging over the market; those producers who had managed to get rid of their surplus were required to pay their share of this "sacrifice quota" in cash.

A parallel step was to decree the limitation of sugar production throughout the nation, assigning a production quota to each State to be divided up among the factories and the planters of that State in proportion to the rated capacities of their mills and the area planted in cane on the basis of an average of the past five years. At the same time there was created a system of inspection to assure that the assigned quotas would not be exceeded. A necessary corollary of this limitation was the prohibition of the erection of new factories or the enlargement of old ones.

In addition to its power to confiscate surplus sugar for export, and in pursuance of the policy of making the industry pay its own way, the Commission was empowered to levy and collect a tax of 3 *milreis* on every 60-kilo bag of sugar produced in a *usina*; on the lowly backwoods *engenho* sugar the tax was only 1.5 *milreis* a bag.

The measures in defense of the sugar industry thus far listed would seem to consist mainly in laying new burdens upon it. At the time the Commission began its

labors the wholesale price of a 60-kilo bag of sugar f.o.b. the Rio market had struck a low point of 22 *milreis*; the 3 *milreis* levy per bag was in effect a tax of $16 \frac{2}{3}$ per cent on the value of the product, aside from the 10 per cent involved in the confiscation of the surplus. To come to the aid of despairing producers by exacting such a proportion of their goods would seem to be a queer move in constructive economics. But the levying of these contributions was a necessary first move toward accumulating a fund for handling the surplus and to pay the costs of enforcing the limitation of production, the public treasury having been tightly closed against the Commission. And while with one hand the Commission was making the producers pay for their salvation, with the other hand it prepared a way whereby they could procure funds with which to pay the levies and have enough left over to continue production. Using powers conferred upon it by law, the Commission fixed the wholesale price of a 60-kilo bag of sugar f.o.b. Rio de Janeiro at 42 *milreis*, with suitable price differentials for the other wholesale markets of the country.

The resolution to make the wholesale price of sugar 42 *milreis* a bag grew out of a painstaking consideration of the cost of production, which was found to show wide divergencies. The large, handsomely equipped *usinas* of Campos and Pernambuco, with their great plantations of good cane land, with both mill and plantation under the same skilled management, could produce sugar at a smaller cost than a second- or third-rate *usina* in the hilly backwoods. A low maximum price that

would allow the one to live would extinguish the other; if the price were made high enough to save all, the opulent owners of the better factories would be made richer; and there were persons in Brazil to whom this latter prospect was as bitter as gall (a feeling not unknown in the United States under parallel circumstances). However, a constructive social-economist must see his problem whole; if he is called on to save an industry he must save it all, or at least as much as possible. Anyway, the prospect that the big fellows will get too much of the consumer's money is too much worried over in some countries, including the United States. What does it matter if, in the necessary act of saving the little fellow, a disproportionate share of the net income of the industry flows into the pockets of the big ones? These latter can easily be mulcted for the general good by income and excess profit taxes, and if the Brazilians are not yet skilled in these tricks of the tax gatherer, it is never too late to learn.

In the boom years before the depression, with sugar at 60 *milreis* a bag, practically all the sugar men were making money. In the depression of 1930, with sugar at 22 *milreis* a bag all, or nearly all, were losing money. The Commission received much advice from the industry to move the price back to 60, and also much advice from consumers and friends of the people (and middlemen) to go gently in the matter. As a compromise that would save the industry as a whole without bearing too heavily on the consumers and without making the big *usineiros* too rich, it was decided that at first the price

should be 42 *milreis*, or nearly 100 per cent above the low point of the depression.

Here the reader will please take note of the difference between the Australian and the Brazilian method of handling the matter of price. In Australia the Sugar Board comes into physical possession of the sugar as soon as it is manufactured, and is thus complete master of the situation. Being the sole buyer of raw sugar and the only seller of refined sugar in the country, it can fix and maintain whatever price the consumers and the voters, or their representatives in parliament, will stand for; and as a matter of fact the price of sugar in Australia, once fixed for the sugar year, does not vary the fraction of a farthing from the first month to the last. But in Brazil the Commission did not assume such plenary power; instead, the Brazilian producers were left in full possession of their sugar, and were left free to market it when and as they pleased. Now, by analytical economics it could be predicted that the "economic man" would make short work of a fixed price under such circumstances; but the constructive social-economist can bring into action a variety of effective devices, even though some of them may appear awkward and unnecessarily complicated. We will describe the Brazilian device, its workings and results.

The decreeing of a fixed price of 42 *milreis* a bag in the Rio de Janeiro wholesale market was notice to the producers that this was what they could expect, and also notice to the buyers that this was what they were expected to pay. But since every buyer is an "economic man" *par excellence*, no buyer could be expected to pay

42 *milreis* for sugar if by hook or crook he could get it for less, so it was necessary to devise measures for circumventing buyers on the lookout for distressed producers. A sugar producer needing cash might not meet a buyer offering 42 *milreis*. In that case he could take his sugar to a warehouse and from the Bank of Brazil obtain a loan of up to 80 per cent of its value at the official price; with this cash in his pocket he could pay his tax of 3 *milreis* and wait for the buyers to change their minds. On the other hand, to circumvent any disposition of the producer (himself not entirely free from the primordial instincts of the "economic man"), thus fortified for a period of waiting, to hold off for an offer above the official price, the Bank in such cases was authorized and required to sell the hypothecated sugar at not above the official price of 42 *milreis*. On the other hand again, if there was a tendency for sugar to be sent to market in unusual volume, as would happen at the close of the grinding season with depressing effects on prices, the Commission could and would use the proceeds of the tax to take up enough sugar to restore the price to the official level, subsequently returning the sugar so acquired to the market in the slack season. This it could safely do without incurring the perils of valorization, because it had full power to restrict production, and so could not be reduced to such a pass as finally overtook the Hoover Farm Board in the United States, for instance. Under this arrangement the price of Brazilian sugar has been kept fixed, not indeed with the absolute rigidity of the Australian price, but its

oscillations around the official level could be and are restricted to a very narrow range.

Brazilian currency being inconvertible and unstable, it was to be expected that its purchasing power would fluctuate to the disadvantage of the producers on the one hand or of the consumers on the other. To cover such contingencies the Commission was empowered to change the official price as the situation required, and has done so on several occasions. It is also authorized and required to lower the price if there should be a general improvement in the methods of production tending to lower costs.

These measures having been executed to meet the immediate needs of the situation, it was next in order to put the scheme on a permanent basis. In moving toward establishing a permanent agency that would have charge of a directed economy under which producers and consumers would enjoy economic stability, the architects of this Brazilian scheme expected to accomplish two further purposes.

The first of these purposes was to turn the whole affair over to the producers. This purpose was born of a conviction that the men actually engaged in the business, devoting their whole energies to it and depending on it for their living, would be more familiar with its details, its needs and its duties than any bureaucracy; and it appears to be a fact that the men who drew up the plan were genuine bureaucratophobes.

The second purpose was to organize means for absorbing the annual surpluses which, under the limitation established for production, would be sure to re-

turn every year. This limitation did not necessarily contemplate any actual reduction of cane acreage or of rated mill capacity; each farmer and each *usineiro* or *engenheiro* could go on raising cane and producing sugar as usual, being forbidden, however, to put more than a certain amount of finished sugar on the domestic market. Had there been no visible way of utilizing this surplus other than by exporting it at a very large loss the limit on production would need to be brought down low enough to extinguish the surplus. But there was a way by which any ordinary surplus could be absorbed; as we have already mentioned, this way would be to turn the surplus cane juice into anhydrous alcohol for mixing with gasoline to produce a good motor fuel. Here was an opening through which, by a skillfully managed directed economy, the industry could be led as a whole into a rich new field that, in the absence of facilities for joint action, it would be next to impossible to develop along rational lines. A few of the *usinas* had fermenting and distilling equipment, but in order to make the utilization of surplus cane in this way general throughout the sugar districts it would be necessary to make it possible for every factory to obtain and install the necessary equipment, or at any rate to provide central distilleries to which surplus sugar could be sent to be fermented.

In order to provide a suitable administrative organ to act as trustee for the new directed economy, the Commission for the Defense of Sugar Production was abolished and replaced by the Institute for Sugar and for Alcohol, hereinafter styled Sugar Institute for short.

This Institute is composed of one delegate representing the Federal Ministry of the Treasury, one the Ministry of Agriculture, one the Ministry of Labor, one the Bank of Brazil (appointed as the financial agent of the industry) and one representing each State whose annual production of sugar exceeds 200,000 bags. The delegates of the States elect four of their members who, together with the representatives of the Ministries and of the Bank, constitute the executive board of the Sugar Institute. The remaining State delegates, together with separately elected representatives of the planters and the *engenheiros*, constitute the Consultative Council of the Sugar Industry, which exercises an ultimate control over the acts of the executive board.

The practical effect of this arrangement is to vest final authority in the elected representatives of the industry within the limits initially laid down by the law-making power. It was necessary in the first instance for the government to establish by law the guiding principles of limitation of production and price fixing in the interests of both the producers and the public, and to make available machinery for collecting the tax from the producers and for dealing with recalcitrants. This done, the government could retire into the background, leaving behind it no incubus of bureaucracy but throwing on the producers the responsibility of running the affair at no cost to the public treasury. The presence on the executive board of three Ministerial delegates, who might be regarded as bureaucrats of a sort, is of no special significance as they might be regarded as representatives of the general public. The executive board is

interdicted by law from altering the original set-up in any way of its own motion; it can promulgate no new rules, create no new jobs, raise no salaries except by and with the consent of the Consultative Council, which is composed exclusively of the elected representatives of the producers.

The law creating the Sugar Institute conferred on it the power and the duty of enforcing the limitation of production, the maintenance of a fixed price, and promotion of the manufacture and use of industrial alcohol. The tax of 3 *milreis* a bag of sugar, which is paid by the factory, was retained to provide the Sugar Institute with funds which, after paying administrative expenses, it might use (with approval of the Consultative Council) in any appropriate way such as crop financing, retiring temporarily or permanently (by exportation) any unusable surplus of sugar, and especially in financing the new and still only partially developed alcohol industry. In order to assure an outlet for the anhydrous alcohol to be produced, the Sugar Institute is empowered to prescribe the quantity of alcohol to be mixed with all gasoline imported into the country, and to fix the price at which the mixture shall be sold to the consumers. No attempt is to be made to fix the price of unmixed or straight gasoline for automobiles. The alcohol-gasoline fuel, which is dispensed from special pumps at the filling stations, is expected to sell on its merits, at a reduced price if necessary. This use of surplus sugar being capable of almost indefinite expansion, this "directed economy for the Brazilian sugar industry" gives the producers a source of additional income that will be

limited only by their ability to produce cheaply enough. But the principle of pro rata participation in the alcohol market is maintained on the same basis as proration in the sugar market.

In all cases it is the ultimate consumer who shoulders the burden whether the price is officially fixed or not. How this social-economic intervention in behalf of the Brazilian sugar industry affected the consumer may be deduced from the following considerations: In 1933 the official price was revised upward to 48 *milreis*. At this level it stood 117 per cent above the low point of the depression, a more than double increase. It might naturally be supposed that this increase came directly out of the pockets of the consumers, but taking the low depression price as a base (100) it is found that while the price paid to the producer had risen to 217, the retail price to the consumer had risen only to 137. This difference of 80 points in the index numbers is supposed to have been taken from the middlemen, who were buying sugar at distress prices and maintaining a disproportionate spread between the wholesale and the retail price. It is usually a fact that under proration systems the producer obtains a larger share of what the consumer pays.

In general, this directed economy for sugar in Brazil has worked as smoothly as could be expected. The initial stages were productive of some lively troubles, due to the novelty of the matter and to misconceptions that have been more or less straightened out by accumulated experience. As previously mentioned, the various Brazilian States do not all produce sugar in propor-

tion to their populations; some produce none, some produce more than is consumed in their own territories, in others the production is insufficient to cover local consumption, and the deficit has to be supplied by purchases from those States that have a surplus. The deficitary States at first manifested a strong inclination to take the position that no surplus of sugar existed so far as they were concerned, and that if production was to be prorated they should be given State quotas large enough for their own factories to cover their local needs. However, this autarchic view was outvoted in favor of maintaining the industry as it stood. The two chief disputants in the debate were the States of San Paulo and Pernambuco; the former is a highly industrialized region with deficitary sugar production, the latter a region with few manufactures and an excess of sugar production. The contention nearly wrecked the plan but the end result has turned out satisfactorily to both sides. It was soon demonstrated anew that the purchasing power of Pernambuco and the rest of the northern sugar States for goods manufactured in San Paulo depends a great deal on the prosperity of the sugar industry of that region, and not least on the amount of sugar shipped to San Paulo. During the period of low sugar prices the sale of San Paulo goods to Pernambuco fell off greatly, but with the reestablishment of fair prices following the action of the Sugar Institute the trade between the two regions greatly increased, so that on the whole it may be said that the Paulistas have lost nothing by the deal.

In one way this case illustrates that division of industry between differently endowed regions which is the

ideal of every classic economist. Pernambuco has certain natural advantages for sugar production that are lacking in San Paulo, and on the other hand San Paulo has better natural and acquired facilities for manufacturing than Pernambuco. What could be more appropriate than the amiable maintenance of a *status quo* of equilibrated mutual service between such regions? And why could not separate nations, having different natural adaptabilities, maintain the same admirable relations? They could, provided there were a common political authority, which it seems is the indispensable condition for the maintenance of enduring coöperation between regions and between individuals.

Other troubles arose from the fact that the Brazilian system, lacking the elegant simplicity of the Australian system, is clumsy, hard to work, and subject to surprise attacks from various directions, attacks which can be warded off only by eternal vigilance and a high sense of duty on the part of the heads of the Sugar Institute. The vulnerability of the Brazilian system lies first of all in the fact that the producers are left in possession of the product, and in virtue of this possession they might on the one hand be forced by their necessities to sell below the official price, and on the other hand they might seize occasions to force quotations above it. A necessitous producer can always go to the Bank of Brazil and obtain a loan of 80 per cent of the value of his sugar based on the official price; of course he has to pay interest on this loan, and the rate of interest is high: 8 per cent. There is thus left a considerable margin within

which bold middlemen might organize what in American market parlance is called a "bear maneuver," and attempts to carry out such maneuvers have not been lacking. For instance, it is officially related that wholesale buyers and distributors of sugar in the metropolitan district (Rio de Janeiro) had an understanding to squeeze the producers at the end of the sugar campaign in Campos by neglecting to absorb the new sugar, hoping thereby to capture a considerable quantity of distress sugar. The plot was fairly obvious, and the matter settled down to a contest of endurance, the wholesalers refusing to buy and the producers refusing to sell, until the warehouses of Rio were practically empty and scarcity prices began to prevail. In this conjuncture the Sugar Institute had to intervene to break the middlemen's strike by supplying the retail dealers from its own stocks, thus demonstrating that it could, on occasion, cope with the "economic man."

As an example of a raid by the "economic man" from the opposite quarter there may be cited a maneuver by the producers of the State of Pernambuco, which has a large excess production and ships much of its sugar to the States in the south. These producers, having delivered their "sacrifice quota" of 10 per cent of their production for export, were strangely remiss about shipping their new crop to the southern cities, and by this maneuver did succeed in forcing quotations several *milreis* above the official price. Taking cognizance of the situation the Sugar Institute threatened to divert the excess sugar intended for export to the Rio market instead,

and to use other methods within its competence, whereupon the Pernambuco gentlemen capitulated.¹

These incidents indicate that with such a system as the Brazilian there may still be warfare between constructive social-economics and the "economic man," with the former continually on the alert and on the defensive. Even with such a system it may be possible (as the Sugar Institute has proved) for alertness and integrity to win the day for social-economics, but there is always an element of risk and a possible breakdown of integrity that may carry with it the ruin of the whole system. Constructive social-economics will need to guard against these risks by reducing them as nearly as may be to zero; its defensive structure should figuratively correspond to Abraham Lincoln's specification of a perfect rail fence: horse high, bull strong and pig tight. The Australian system seems to correspond to this specification, because it aims to possess itself of the real key to the whole situation. By assuming physical possession of the product the system of control becomes unassailable from any direction; the "economic man" is delivered into its hands "thrown and hog tied."

¹ Since this was written a predominant majority of the Brazilian sugar factories have voluntarily associated themselves into an organization that will act as an agency to spread marketing the crop uniformly over the year, maintain a reserve, and curb price fluctuations.

CHAPTER V

Proration in the Argentine Republic

THE Argentine Republic is a Latin-American country which extends from Bolivia 2,300 miles down to Cape Horn, and from the ridge of the Andes to the South Atlantic Ocean, occupying the greater part of southern South America. Its area about equals that of the eleven Mountain and Pacific States of the United States. It is a country of great agricultural possibilities, much of which still remains undeveloped. Large quantities of wheat, maize, flax, beef, mutton and wool are exported; more than half of the leather consumed in the United States comes from Argentina.

The population numbers about 12 million, more than

a fourth of whom live in the ten largest cities; the inhabitants are almost entirely whites, being mostly immigrants from Spain or Italy, or their descendants. Although agriculture is the principal source of wealth, there is a large and growing manufacturing industry, especially in the south.

The form of government is that of a federated republic, closely resembling that of the United States. The constitution provides for a President, a Chamber of Deputies and Senate, and a Supreme Court. There are fourteen Provinces corresponding to the American States. Each Province has its own constitution, under which it elects its own Governor and Legislature and regulates its own affairs on the principle of home rule. There are ten Territories not yet erected into Provinces; these are administered by the Federal authority. Religious liberty and freedom of speech prevail. In general the régime is quite democratic, although on occasion an unpopular government may be turned out by other and more expeditious methods than electioneering and balloting.

Aside from two unimportant beet sugar factories the sugar cane is the basis of the country's sugar industry. The sugar cane plantations are in the three northern Provinces, Tucuman, Salta and Jujuy; the first named of these Provinces contains much the largest number of sugar enterprises. The "sugar belt" is comprised between the 27th and 23rd parallels of south latitude, just touching the tropical zone on the north and on the south extending to what is regarded as the limit of the subtropical region.

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This "sugar belt" was settled from the south. The first sugar factories were established along the southern edge of the sub-tropical zone and then, as rail transportation was developed, were carried on to the northern boundary, which, as we have indicated, lies on the edge of the tropical zone. Within this belt there are considerable variations in climatic conditions. Some districts are irrigated, others depend on natural rainfall.

In general, the Argentine sugar industry is a "high cost" industry because in the first place it depends largely on white labor with a fairly high standard of living; the eight-hour day and minimum wage scales are legally established. In the second place the region lies outside the tropical zone and has a well defined though mild winter season wherein frost is not unknown; this condition is not very favorable to the sugar cane, which is preëminently a hot weather plant. For this reason the crop cycle is only about 10 months instead of 18 months, as in the deep tropics, and hence yields of sugar per unit of land surface are relatively small. In the third place, the product has to be transported long distances by rail to the main consuming centers in the south; it costs as much, for instance, to ship a ton of sugar from Tucuman to Buenos Aires as from Hamburg. Therefore the Argentine sugar industry requires tariff protection as an indispensable condition for its existence.

The latter day history of the Argentine sugar industry shows the same pattern as the other sugar industries that come under notice in this book: a period of expansion after the war, overproduction, collapse of the world market and the domestic price, and general economic

shrinkage. By 1930 the price of sugar on the Buenos Aires market had sunk to such low levels that all the northern sugar enterprises were losing money except one, which by virtue of extraordinarily favorable circumstances managed to show a profit of 3.9 per cent. A surplus of more than 100,000 tons had piled up and was still accumulating. In view of this condition many of the sugar factories were preparing to shut down, and the livings of more than 100,000 laborers and small cane farmers were threatened. The sugar industry being the principal business of the three northern Provinces, especially Tucuman, the economic life of this region became seriously disturbed, with repercussions on the economics of the whole nation. The sugar crisis finally reached the stage where there was loud clamor for Federal assistance.

As usual in such crises, the reaction of the general public to this clamor showed some difference in opinion. The advocates of free trade and the proponents of *laissez-faire* economics were not behindhand with suggestions to "let Nature take its course." As in the case of Australia, the Argentine sugar belt is located in a far-off corner of the nation, remote from the centers of population, industry and political weight. "The relative inefficiency of the home industry, as compared with the sugar industries of some other sugar cane regions, is well known; and even the beet sugar producers and the government of Czechoslovakia have evolved a system by which they can ship beet sugar halfway around the world to Buenos Aires at a price the Tucuman producers cannot beat unless they are sheltered behind an

absurdly high tariff. To keep alive such an industry will be an imposition on the mass of the people, who are having troubles enough of their own. Let the cheap foreign sugar come in to create trade balances that will move Argentine wheat and beef to foreign markets."

However, this policy of "scuttle" found no more favor in Argentina than it did in Australia or in any other case that will come to our notice in this book. From the national social-economic standpoint it was fairly obvious what would be the result of abandoning the sugar industry of the northern Provinces to the rigors of *laissez-faire*. An immense amount of invested capital would become unproductive; scores of thousands of small cane farmers and laborers would suffer serious loss of employment, which could not be wholly alleviated by turning the cane lands to other crops, or by absorbing the workers in other branches of Argentine industry. In proportion as the sugar industrialists were ruined the general business life of the sugar Provinces would deteriorate and the expanding manufacturing industries of the south would lose no inconsiderable block of customers. On all accounts the sugar industry was a national asset worth preserving at the expense of a few extra *centavos* a kilogram of sugar.

About this time the economic troubles of Argentina, of which the sugar situation was only a part, gave rise to a mild political revolution, and as in the parallel case of Brazil the government passed under the control of a Provisional President (Uriburu), who became invested with dictatorial powers. Taking cognizance of the sugar situation the Uriburu government decided to go to the

rescue. The work of devising and executing a plan for rehabilitating the sugar industry was entrusted to a Commission (*Comisión Nacional del Azúcar*) of eleven members which was composed of representatives of the cane growers, the factory owners, the refinery operators, the National Bank, the National railroads, the National Agricultural Society and the Minister of Agriculture.

As the situation presented itself to the rescuers the main source of the sugar industry's troubles was the presence of an immense carry-over of sugar from previous years, and the first thing to consider was what to do with this surplus. The surplus of sugar in Argentina was much more of a problem than in the cases of Australia and Brazil which we have already considered. As regards Australia, the reader will recall that Queensland sugar enjoys a small tariff preferential in the British market, thus making it possible to get rid of the surplus at a loss that the Australian consumers are willing to bear without complaining; in the case of Brazil the absence of petroleum resources in that country makes it possible, by a directed economy, to provide a non-food outlet for surplus sugar. But in Argentina neither of these ways was open. What with high costs of production on the one hand, and complete absence of tariff preference in any foreign market on the other hand, exportation of Argentine sugar was a practically hopeless proposition. There was little chance of establishing an alcohol industry for motor fuel, because the country had a flourishing oil industry that could furnish cheap gasoline in large quantities. Under the stated circumstances both Australia and Brazil are able to preserve

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their sugar industries in the original dimensions, that is, without forced abandonment of land planted to cane, or throwing out of use any existing factory equipment. But there being apparent no comparable opportunities for an integrated directed economy for sugar in Argentina, there was nothing to do but to scale down the industry to fit the requirements of the domestic market, and to devise measures for causing the accumulated surplus to disappear.

Calculation showed that in order to bring the annual supply of sugar into equilibrium with the domestic demand there would have to be a curtailment of about 30 per cent of the current production. But there was a political difficulty. The Argentine Federal government, like that of the United States, is a government of delegated powers under which the Provinces (like the American States) have certain indefeasible attributes of sovereignty, which even an Argentine Provisional President with a revolutionary mandate behind him did not care to overturn. The three sugar Provinces were constitutionally full masters of their internal affairs and direct control of production was traditionally not a matter with which the Federal government could interfere. But with good will on all sides the problem was solved in a practical way. An agreement was made between the Federal government and the government of the Province of Tucuman wherein the Provincial government agreed to pass and enforce the necessary legislation for effecting a reduction of production, and the Federal government undertook to control the domestic price of sugar throughout the nation.

In execution of this agreement the Provincial government of Tucuman prorated its sugar industry on the reduced basis. Each factory was assigned a quota in proportion to its previous production, and these factory quotas were parceled out among the cane growers. But in fixing the terms of proration among the farmers it was considered that if the reduction were applied as a uniform percentage on all, the economics of the smaller cane growers would be more seriously affected, proportionately, than would be the case of those who operated on a larger scale. It was therefore arranged that no established cane grower whose average sugar yield did not exceed $10\frac{1}{2}$ tons should be disturbed, thus giving recognition to the principle (recognized nearly everywhere) that the weaker members of the industry should be dealt with as gently as possible.

This matter having been arranged, it was next in order to tackle the surplus, which it appeared to be inadvisable to export and for which no non-food use was visible. There remained a third option, which was to destroy the surplus. But the mania for getting rid of surplus agricultural production by the short and simple process of destruction—a mania which history will doubtless record as one of the most bizarre phenomena of the great depression—does not appear to have affected the Argentinians. Instead of dumping scores of thousands of tons of excess sugar into the sea, the following plan was hit upon: A certain portion of the surplus sugar was set aside as a contingent reserve, and the rest was to be put on the domestic market in three annual installments.

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This meant that during the three years required to get rid of the surplus current production would have to be further reduced by an amount equivalent to the quantity of the surplus marketed, and the question arose: on whom should this particular reduction fall? In settling this question it was taken into consideration that the companies owning the sugar factories were morally responsible for the existence of the surplus. They were the leaders of the industry, and had made it a point to encourage independent farmers to plant cane. Besides, most of the companies themselves owned large cane plantations which they cultivated for their own account; in fact, 54 per cent of the total area in cane was owned and tilled by the companies. In the light of these facts it was agreed that the temporary reduction of production necessary to accommodate the annual installments of the surplus should fall on the company-owned fields, leaving the small independent growers in full enjoyment of their regular quotas.

The industry having been thus redimensioned to fit the national requirements, with no hope of exports nor immediate prospect of other outlet, but with each man assured of his proportionate share of the existing business, the question next in order was: what price should the Argentine consumer be called on to pay for sugar in order that the necessities of the redimensioned industry would be reasonably met?

As a first aid in obtaining an answer to this question the *Comisión Nacional del Azúcar* had at its disposal a previously made investigation of the cost of producing sugar in the three northern Provinces. For reasons pre-

viously outlined it was found that no two sugar enterprises in the region showed the same costs. Those farthest away from the frost belt, who were equipped for irrigation, whose extensive fields were well adapted to the use of modern farming implements, and whose factories were equipped with the most modern types of sugar-making machinery, could naturally produce at less cost than those not so favorably situated or so adequately capitalized. It would not do to set up a price that would enable the most efficient producers in the best districts to make what the public would regard as exorbitant profits, nor one so low as to deprive weak producers in the less favorable districts of hope that by modernizing their methods they could still keep afloat. In the light of all the facts it was considered that the reasonable cost of producing one kilogram of granulated sugar (mill white), f.o.b. factory, was 28 *centavos*. Adding 5 *centavos* for Provincial taxes and freights, and 1½ *centavos* for commissions, it resulted that the cost of sugar laid down in the capital of the Republic (Buenos Aires) would be 34½ *centavos* a kilogram for this grade. Adding on another 3½ *centavos* for refining costs, the final cost of the best grade of refined sugar on the Buenos Aires market would be 38 *centavos*, with appropriate differentials for the other wholesale markets of the country. Although there was perhaps something of arbitrariness in taking this particular figure as a definitive cost price, it was arrived at in free conference between all the interests involved and was acquiesced in by those most concerned.

It having been established that the reasonable cost of a kilogram of refined sugar laid down on the Buenos

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Aires market was 38 *centavos*, it was next to be ascertained at what price it should be sold at wholesale to the public. Here again it was necessary to strike a balance between the parties concerned—on the one hand the consumers who would wish to obtain sugar as cheaply as possible, and on the other hand the producers who would wish the widest possible margin of profit. As a reasonable mean between these conflicting aspirations it was agreed that the official standard wholesale price should be 41 *centavos* (0.41 *peso*) on the Buenos Aires market.

The official wholesale price being thus agreed on, the final problem was: how to make it stick; in particular, how to circumvent maneuvers of producers who, it was to be supposed, would seek occasion to drive the price above the official level, as well as the tricks of wholesalers who might improve every opportunity to drive the price paid to the producers below the legal limit. (Examples of such maneuvers have been described in the chapter on Brazil.) It does not appear to have occurred to the *Comisión Nacional del Azúcar* to adopt the Australian plan of setting up a Board to act as sole buyer from the producers and only seller to the wholesalers, thus shutting off most effectively all chance for market and price manipulations. Instead, the *Comisión* worked out an indirect scheme that, while seemingly complicated and awkward in comparison with the Australian system, was enacted into law and has proved sufficiently effective for the purpose. The scheme is as follows:

A specific duty of seven *centavos* gold per kilogram is laid on foreign sugar. As additional tariff protection,

to this 7 *centavos* is to be made an addition of 11 *centavos* which will be compounded as follows: At the end of each month the *Comisión Nacional Azúcar* receives a cablegram from the Argentine consular representative in Prague, naming the day of the past month on which there was the minimum quotation for refined sugar for exportation c.i.f. Buenos Aires. Similar information is obtained by cablegram from Hamburg and London. The *Comisión* notes which quotation is the lowest of the three, and the day on which it occurred, whereupon the official rate of exchange for that day is noted. To the minimum quotation ascertained as above there is added a fixed charge of 3.63 *centavos* to cover official fees, etc. Then the sum is subtracted from eleven, and the difference represents the extra duty that the foreign sugar (if any) arriving during the coming month must pay. What it amounts to is that foreign sugar imported into Argentine will always have a handicap of 18 *centavos* gold, made up of the cost on the lowest European market, the specific duty of 7 *centavos*, the additional duty computed as above, plus charges. These 18 *centavos* gold are the equivalent of the official price of 41 *centavos* in the depreciated Argentine currency. To keep the actual market price from exceeding the official price it is provided that when sugar is offered at wholesale on the Buenos Aires market for more than 41 *centavos*, application of the additional duty will be suspended and foreign sugar allowed to come in until the price is beaten back again to the official level. The fact is that the Argentine producers have shown little inclination to offer sugar at less than the official price, and the result

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is that during the past four years the price of sugar in Buenos Aires has varied only within extremely narrow limits, even narrower than is the case under the Brazilian scheme.

The reason for the greater stability of the Argentine price as compared with the Brazilian price is that the producers, of their own volition, have created an approximation to the Australian Sugar Board. There being no special hostility to trusts in Argentina the sugar producers have formed themselves into an Association, which has a committee to regulate sales in collaboration with representatives of the wholesale trade. Each factory is assigned a monthly delivery quota in proportion to its annual quota; there is thus no flood of sugar rushing to market at the end of the grinding season to depress the price, and due to the arrangement with the wholesalers there is no scramble for buyers. Production and consumption being nicely balanced, every kilogram of sugar is certain of a buyer, and every buyer is assured of obtaining his sugar at the official price.

The Argentine sugar industry has in this manner been put on a very stable basis. The producers get a sure return that in the main is satisfactory to them, and there is no public opposition to the scheme except from chronic agitators with communistic leanings, and the outright free traders.

The production quotas are generally respected, although there is considerable pressure to enlarge the quotas of the small planters at the expense of the larger ones; this pressure seems to have received a check from the stand of the Argentine Supreme Court against ex-

propriation. Respect for the quotas as originally established is not entirely left to good will. There are heavy penalties in the shape of confiscatory taxes on excess production. An excise tax is laid on all sugar produced, and the machinery for collecting this tax is such that the factories have to account for every kilogram of sugar that enters their mills in the farmer's cane.

Since the inauguration of the scheme the annual production has been close to 340,000 tons, which is also the average annual consumption. To guard against possible shortages due to unfavorable seasons each factory is required to carry a reserve of at least 17½ per cent of its production as an emergency supply; the consumer is thus in a measure protected against scarcity and famine, prices between seasons, and besides this precaution there is the provision for automatic admission of foreign sugar.

In the elaboration of this Argentine scheme there arose an interesting question as to what to do about the independent sugar refineries not connected with plantations but located on the seaboard and procuring their raw sugar by purchase on the open market, preferably cheap foreign raw sugar. There were two of these refineries, both small affairs with a combined annual refining capacity of not more than 12,000 tons, and together employing not more than seventy men. The factories up in the sugar belt were well able to supply all the refined sugar needed, and it would appear that the seaboard refineries had no excuse for existence. But so far from insisting that these outside refineries disappear from the scene, the up-country refiners consented to supply them, from their own quotas, enough raw

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sugar to keep them going. Such is the spirit of proration; no existing enterprise is doomed to extinction if it can be kept alive. This might be taken as an indication that industrialists, when given a chance to regulate themselves in the interest of all, may show more of the spirit of live and let live than they are generally given credit for. We shall meet with other instances of the sort.

A matter that seemed at first to threaten trouble was the fact that Tucuman was the only sugar Province to pass legislation to restrict production and enforce proration. This left the sugar producers of Jujuy and Salta free to take advantage of the fixed price while escaping their share of the burden of the surplus and avoiding the inconveniences of limitation. But it was unnecessary for these two Provinces to pass such legislation; their sugar planters did not overlook the permanent advantages of the system and of their own accord signed up to accept the same régime as the Tucuman producers. We may cite this as additional evidence of the readiness with which farmers and industrialists in a supersaturated market take to a safe and equitable system of proration.

This Argentine arrangement readily lends itself as a text for a short discussion of the nature and social-economic uses of a protective tariff. Such a tariff, as the name implies, is a protective device, a screen behind which a native industry may find shelter from the assaults of an exterior predacious industry that otherwise, by reason either of superior efficiency, exceptionally favorable situation, or a system of bounties designed to facilitate "dumping," would be able to drive

the native producers out of their own home market. When a tariff is imposed for protective purposes the theory is that the native producer shall be able to sell his product at a price equal to the sum of what the foreigner accepts when he sells his goods for export, plus the amount of the duty imposed on these goods. The protective tariff thus implies that the home producer is entitled to demand of the public a certain predetermined price which the tariff-making authority has considered fair. This is, in effect, a sort of governmental price-fixing in favor of an industry which it has been deemed in the public interest to preserve.

When the government, through its tariff-making agency, has thus ascertained and by implication has declared what is presumptively a fair price, the logically complementary action will be to arrange that the producers shall actually receive that price. This is exactly what is accomplished by the Argentine sugar legislation. On the one hand the tariff is fixed high enough to protect the industry but low enough to exclude profiteering, and on the other hand machinery is created so that *the industry as a whole*, and not merely the most predacious among the home producers shall receive the full benefit of it; such arrangements are of the essence of an enlightened social-economics. In certain quarters this will no doubt be stigmatized as "radicalism," but calling names will be no good substitute for proof that, *all things considered*, the Argentinians might have devised a scheme by which, from a national standpoint, they would be better served; anyone who is prepared to offer them a superior plan will doubtless be accorded an at-

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tentive hearing. The point is that in the United States there is no lack of protective tariffs on agricultural and other products that theoretically should assure American farmers and industrialists fair prices on the home market. However, the notorious fact is that, for lack of the complementary action we have been describing, the American farmer has in recent times derived practically no benefit from the tariff walls supposedly erected for his good. There was a time when wheat, for example, sold on the American market for 35 cents or less per bushel in the face of a tariff of 40 cents, and if at the present writing the price is better, that is due to factors that are independent of American tariff legislation.

These considerations inevitably lead around to the question: Why has there been in the United States a lack of effective action, complementary to tariff legislation, that would afford American farmers fair prices? We will first note that there has been no lack of good will in the matter. The Rooseveltian New Deal came to the seat of power saturated with a desire to help the farmer by reconstructing American agriculture, and if the sapience of the Roosevelt régime had been equal to its zeal the problem might have been settled in short order. But unhappily the Roosevelt administration, itself a product of American constitutional processes, chose to proceed in disregard of constitutional limitations and its measures, clumsy enough in themselves, were nullified by the United States Supreme Court. State rights were the rocks on which the AAA and the NRA were shipwrecked.

Whether the Rooseveltian New Deal might have

sailed around these rocks is an interesting question that may be considered in the light of the Uriburian new deal for sugar in the Argentine Republic. The circumstances are exactly parallel: an agricultural industry in obvious distress appealing to a federative government whose powers are constitutionally limited so as to preserve to the individual States (Provinces) full right of control over their internal affairs. It is true that Uriburu, with an army in motion behind him, might have set aside constitutional limitations, but the advisers by whom he was surrounded apparently did not recommend this course; it seems that the *Leitmotif* of the Argentinian new deal was to preserve and not to destroy the constitution. The salvation for which the people of the northern Provinces were clamoring was to be provided only within strict constitutional limits. The Federal government, by reason of its constitutional powers over imports, was completely able to create machinery for maintaining prices at any desired level, provided a corresponding control was imposed on production. The Argentine Federal government had no constitutional power to control production within a Province and it would not illegally assume such power; if the northern Provinces wanted economic salvation for their sugar, let them provide for the control of production and the Federal government would attend to the rest. And if they refused thus to help themselves let the consequences be on their own heads. The sugar Provinces jumped at the chance. Tucuman promptly placed the necessary legislation on its statute books, and the action of the sugar producers of Jujuy and Salta made legislation by

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those Provinces superfluous. The results have been as we have described them.

The present writer is no seer who can declare infallibly "what might have been," but it is not unreasonable to suppose that if the Rooseveltian New Deal had made a similar approach the American agricultural situation might at this moment be wearing a different aspect. As we see it, the two capital errors of the Roosevelt régime have been an overestimation of its constitutional rights and an underestimation of the innate readiness of farmers and industrialists, oppressed by economic supersaturation, to unite for coöperative action. We venture to surmise that if Roosevelt had boldly announced to the cotton States or the wheat States that the Federal government was ready to couple its tariff machinery with a State-sponsored production control plan that would establish and maintain satisfactory prices for their products, and that if they refused to take such action the Federal government would turn a totally deaf ear to their woes, every Governor would forthwith have called his willing legislature in special session. But it does not seem to be in the record that the Roosevelt New Deal ever seriously considered approaching the States in this fashion.

Having gone thus far in indicating what the Roosevelt administration might have done we may as well finish the discussion by considering what further steps might have been taken. The American problem varies from the Argentinian problem in that while in the latter case an export business is eschewed, in the former case there is an export business which it is desired to

perpetuate. Experience has overwhelmingly demonstrated that in all systems of proration the fraction of the total production that is destined for export must be rigidly separated from the fraction that is to supply the home market. The whole object of proration and all protective tariffs being to raise and keep the domestic price above the world price, it would be fatal to allow any of the export surplus to hang over the fully saturated but not supersaturated domestic market. The export goods have to take their chance in foreign trade, but the domestic price being fixed high, the producers get an average return that is satisfactory.

Assuming that the several States have accepted a uniform plan of production control under threat that the Federal government will wash its hands of the troubles of their citizens, it remains to consider how the export business might constitutionally be separated from the domestic business. We cannot of course speak the mind of the United States Supreme Court, but it may be taken for granted that the Federal Congress can lay a uniform general tax on all wheat produced in the United States, and so far as we know there would be no objection to collecting the wheat tax in kind. The proportion between domestic requirement and export surplus being known, the tax would be fixed so that the whole of the export surplus would come into physical possession of a government agency that would export it, and by subsequent administrative action or legislation the proceeds of the export operation would be rebated to the producers.

The alternative to procuring coöperation of the States

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in production control is of course a constitutional amendment allowing the creation of some such scheme as the Australian, the Brazilian, the Argentinian, or some of the others later to be described in this book. But the amendment should be so drawn as to make it impossible for a meddling Congress to set up a dominating bureaucracy; the controls devised should be lodged in the hands of industry itself within broad limits of enabling legislation that would provide for labor and consumer representation. The experiences related in this book tend to show that, under any one of half a dozen skillfully contrived systems of proration, the great mass of agriculturists and industrialists can be trusted not to outrage the public.

CHAPTER VI

Proration in the Czechoslovak Republic

THE Czechoslovak Republic is a relatively small country situated in about the middle of continental Europe. Its area is 54,207 square miles, which is about the area of the American State of Illinois. The population is approximately 15 millions; there are six large cities and 97 others having more than 10,000 inhabitants each, and there is a total of 3,791,621 farms. These farms are mostly quite small affairs; 27.6 per cent have not more than 1 hectare (2.47 acres) and 43.6 per cent not more than 5 hectares, leaving only 28.8 per cent for those with more than 5 hectares. This extreme subdivision of agricultural land is a result of the splitting up of the

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great *latifundia* (baronial estates) after the World War and the distribution of this land among the peasantry; some of these *latifundia* had contained more than half a million acres each.

Aside from a large population of Germans in the western Province (Bohemia) the people are mostly of the Slavic race. Manufacturing is highly developed, and considering the rather low average rainfall (irrigation is not practiced) agriculture is on a high level of efficiency. However, the country is densely populated, especially when the ratio of population to arable land is considered; there is scarcely one acre of plow land per person. Under these circumstances it is necessary to import some food, particularly grains and feed stuffs for cattle, and to cover these imports the country naturally has to have a sufficient foreign trade balance, which is provided by exportation of manufactured goods, including sugar.

The form of government is republican, with a President and a Parliament composed of a Senate and a Chamber of Deputies elected by universal suffrage. Freedom of speech and religious liberty are guaranteed and other attributes of democracy are in evidence. Literacy is high, and the Czechs are to be regarded as among the most civilized and progressive nations of Europe.

Before the Great War the region now known as Czechoslovakia was the principal seat of the sugar industry of the Austro-Hungarian Empire. With the fall of the Hapsburgs and the break-up of the Hapsburg dual monarchy the Czechoslovak sugar industry, cut off by new political barriers from its former markets, was left high and dry, as it were. The other fragments of

the Hapsburg dominion—Hungary, Austria, parts of Poland, Jugoslavia, etc., also became independent and proceeded to establish sugar industries of their own. The Czechoslovaks, being unable by far to consume all the sugar that was being produced by their beet farms and sugar factories, were perforce driven to build up an export trade in sugar, which they were all the more willing to do because of the great extent of the “free market” for sugar during the first post-war years, and the handsome prices that were being paid for sugar all over the world. So they even set about expanding the sugar-producing facilities of their small country until by 1925 they had about 150 sugar factories in operation, and were producing $1\frac{1}{2}$ million tons of sugar a year. The existence of this active sugar industry was, in fact, the principal financial salvation of the young republic in the dark days following the war, when sugar well deserved the figurative appellation of “white gold” on account of the foreign credits won by its sale, and the resulting inflow of food and raw materials into the country. During the first few years after the cessation of hostilities the sugar industry turned into the national treasury nearly 10 billion crowns, without which the new nation would have had great difficulty in starting on its independent national life.

However, the fat years of the early twenties were succeeded by years of increasing difficulty for the blooming Czechoslovak sugar industry. As we have seen, the high price of sugar, owing to the scarcity entailed by the war, was producing the logical consequences. The French, the Belgians, the Germans, the Russians, etc.,

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were making haste to restore their wrecked or run-down sugar industries; the new nations were creating industries where none existed before, and the tropical cane sugar producers, especially those of Cuba and Java, were increasing their production by leaps and bounds. Avalanches of sugar were sweeping toward the free markets. And at the same time the free markets were fenced around with tariff walls that were being raised higher and higher in proportion as the importing countries were becoming more and more self-sufficient in the matter of sugar production. Then came the great depression and a general decline in per capita consumption, the result of a generally decreased purchasing power. The heavily over-developed Czechoslovak sugar industry began to face distress. It was then producing more than a million tons of sugar a year. Little more than a third of this production was being consumed by the Czechoslovak population; the rest could find a market, if at all, only in foreign countries, and the foreign markets were not only becoming narrower but the world price was sinking lower and lower, until in 1932 it reached an unparalleled low level (the basic price for standard raw sugar fell to less than a cent a pound). No existing beet sugar industry could sell sugar at that price and meet necessary expenses. The Czechoslovak market itself was closed to outside sugar by fiscal arrangements that amounted to an absolute embargo, but as we have just stated, the domestic market could absorb much less than half the total production.

Under such circumstances the Czechoslovak sugar in-

dustry, and with it the Czechoslovak government, were called upon to choose an appropriate line of action.

As elsewhere, an obvious alternative was to "let Nature take its course." This solution was, as usual, offered by the economic liberalists and those who believed that the soundest economics, in the end, will be to let the "economic man" work out his own destiny; and relying on the principles of analytical economics they could bring up some powerful arguments. The export trade in sugar having ceased to give a return that would cover cost of production, to continue therein would be folly. The sugar industrialists should bow to the inevitable, stop throwing good money after bad, salvage as much as possible of their surplus equipment, write down their capital and compete with each other for the domestic trade behind a sugar tariff high enough to enable the rump of the industry to supply the domestic requirement. Under such an arrangement the weaker companies and the inefficient farmers would disappear from the scene through the operation of natural economic law. The beet farmers would cease to be paid for superfluous beets for the production of export sugar to be sold abroad at a loss; the best beet land might continue to supply the home demand, and the rest of the beet land could be devoted to the production of grain, of which the country was importing large quantities to the detriment of its supply of foreign exchange.

In this debate the defeatists could urge, and with reason, that the crisis in sugar was not, at least so far as the beet sugar branch of the industry was concerned, a passing disturbance that could be expected to blow over

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after a while. The day when beet sugar could be exported at a profit from any country was apparently gone forever. There was small chance that any of the countries that were developing or preparing to develop their own sugar industries would forego their intentions. Even Great Britain, heretofore the mainstay of producers who were obliged to seek the free market, and heretofore committed to the philosophy and practice of free trade, was by degrees veering toward a policy of protectionism, and besides setting up a new beet sugar industry in its home islands was awarding tariff preferentials to cane sugar produced in its overseas dominions and colonies.

And if all this were not sufficient to crush future hope of a profitable revival of an export business in beet sugar, the doom of this business will be spelled by the great advances that have been made in cane sugar agriculture. The sugar beet in its present state of genetic development is no match for the sugar cane as a producer of sugar for the world market, especially not when the sugar cane is tended by such master agrobiologists as those of Hawaii and Java, who have demonstrated ability to produce from 10 to 18 tons of bagged sugar per acre, whereas an ordinary beet farmer on an unirrigated European farm may produce hardly 10 to 18 tons of raw field beets from an equal area of land. As long as there is a semblance of a free market for sugar in any part of the earth it will be invaded by cane sugar producers who can offer their goods at prices that are below the costs of any beet sugar producer. Therefore no beet sugar industry can be kept alive except by onerous ex-

actions from the consumers. There might be some color of excuse, from an autarchic point of view, for maintaining a sugar industry capable of meeting home requirements, but under existing circumstances an artificially maintained export business in beet sugar is nothing short of the acme of economic parasitism.

However, as we have remarked before, where analytical or classic economics ends, social-economics begins. It is a defect of classic economic theory that it offers no solution for the social problems raised by economic supersaturation, or else it offers a solution that would ruthlessly sacrifice social-economic values for which it has no pigeon-hole. Economic science as it is understood by the common man is a system of knowledge largely deduced from the behavior of individuals who are supposed to be first and last on the lookout for their own interests, and who normally are motivated exclusively by the hope of profit or the fear of loss. Abolish individualistic profit and the individualistic profit motive, and the classic economist has nothing to work on; the ground is cut from under his feet. From the individualistic point of view there cannot possibly be any virtue in a business that is perpetually losing money. Such a business is significantly damned as "un-economic." On the other hand, where ordinary economics takes as its unit the hypothetical individual typified in the conception of the "economic man," social-economics takes as its unit the body politic, and judges all economic processes according to how what may be called their algebraic resultant affects the whole social unit. Where classic economics is analytical and largely

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confined to mapping the trail of the "economic man," social-economics is essentially constructive and synthetic, piecing together the different elements required to make a satisfactory social fabric. Some of these elements may be mixtures of positive and negative values and yet may be indispensable materials for an enduring national housekeeping. Life must be lived not only individually but also nationally, and from a national standpoint it is clear that circumstances have arisen exigently to require a nationally directed economy for the Czechoslovak people. In this directed economy the existing Czechoslovak beet sugar industry, monstrously "uneconomic" though it be, is indispensable—is, in fact, the essential keystone.

So it was decided that the industry was to be maintained not only in its existing dimension, but also expanded as occasion warranted. This could only be accomplished by allowing the price of sugar entering domestic consumption to be fixed at a level such that when averaged with the returns from the export business the farmers would have an enduring price for their beets, and the factories an over-all margin of profit sufficient to cover slightly more than fixed charges and operating expense. What this would mean to the Czechoslovak consumer will be appreciated when it is considered that for every two pounds of sugar consumed in the country three pounds (more or less, depending on crop fluctuations) would have to be exported, so that the domestic wholesale price must be two or three times greater than the export price, and this load on the domestic price

would be additional to any consumption taxes the government was already levying.

Arguments of varying degrees of cogency were put forward to justify this course. We will review some of these arguments, reserving the most important for the last.

The first argument was over the scaling down of the industry to the requirement of the home market. This was objectionable because limitation of sugar production to domestic needs would seriously upset the present balance in agriculture. We have previously pointed out that farming in Czechoslovakia is conducted mostly by small landholders; more than 70 per cent of all farms have less than 12.36 acres. In 1930 the total number of these small farms that were supplying sugar beets to the factories was 198,216, of which 47.2 per cent furnished not more than 10 tons each, and 80 per cent not more than 30 tons each; their combined production was about a third of the total. The sugar beet requires a greater output of labor per unit of land area than any other field crop generally cultivated in the temperate zone, and the price, figured on an acre basis, must be correspondingly high. To force the small beet farmers into other cultures calling for less labor and a smaller gross return would impose on them a hardship for which the body politic could give them no adequate compensation. Then again, the larger beet farms, on which two-thirds of the crop is grown, require much hired seasonal labor because the thinning and digging operations generally require more work than can be accomplished by the landholder and his family; under

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limitation much of this labor would be dispensed with.

Further, the inevitable result of scaling the industry to domestic requirements would be the closing of three-fifths of the existing factories, whose operatives would lose their jobs, and altogether the general unemployment situation would be aggravated. The extinction of these factories would appreciably affect the coal mines, the railroads and other lines of industry and trade.

Then the suggestion was made that if the sugar consumers are summoned to face the prospect of having permanently to carry along this parasitic export business they should at least be assured that the burden would not be allowed to grow any heavier; that the farmers, assured a good enough price for their product regardless of whether the beets were to be turned into sugar for export or for home consumption, should not be left free to expand their deliveries *ad libitum*. In other words, a fixed upper limit (preferably a low one) should be put on total production, and each beet farmer should have his share of this total. In such case he would be paid the standard price for all beets within his quota, but for any excess he should receive only the export price. (The reader will note that this would be practically a duplication of the Australian system.)

This proposition to impose an upper limit, and preferably a low one, on the production of sugar was duly considered by the Czechoslovak government, and was rejected for what, under the circumstances, was regarded as the most cogent reason of all.

The sugar beet, with all its faults, is nevertheless the most powerful among the field agrotypes that figure

in temperate zone agriculture, meaning that (in the language of the agrobiologist) it has the "largest quantity of life." (It is not as powerful as the tropical sugar cane, but that is another matter.) Through a century and a quarter of intensive breeding and selecting its percentage content of nitrogen has been continually reduced, and with each reduction in nitrogen content its potential vigor has increased. The special circumstances that have led the plant breeders to confer on the sugar beet more life than is possessed by most other useful plants is a matter of technical agrobiologics on which we need not at present dwell. The point of interest here is that for a given quantity of soil fertility the sugar beet will make a more handsome return of consumable wealth than wheat, for example. In this respect it is surpassed only by the sugar cane and a few others that seldom or never come into consideration outside the tropics. Under the conditions of Czechoslovak agriculture a hectare of sugar beets can be counted on to yield, on the average, more than 4 tons of sugar; the average yield of wheat from the same hectare will scarcely reach $2\frac{1}{2}$ tons. Even in the dark days of 1930 the sugar produced on a hectare of land could be sold on the export market for 6,400 Czechoslovak crowns; this was of course far below the cost of production, but it nevertheless represented a cash credit of 6,400 crowns in foreign exchange, which might be used to pay for imports of foreign goods, including wheat. The practical effect is that one hectare of sugar beets will bring into the country as much wheat as could be raised on two hectares at home.

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Herein appeared one of two reasons why maintenance of the Czechoslovak beet sugar industry, absurdly parasitic as it was in the short-sighted view of economic liberalism, would actually represent a most necessary work of national constructive economics. It may be recalled that, in the opinion of some sociologists and students of population, the product of at least $2\frac{1}{2}$ acres (1 hectare) of cultivated land is necessary to give one person the equivalent of an American standard of living. There being in Czechoslovakia hardly one acre of cultivated land per person, it is evident that the country is heavily oversaturated with population. Wheat and other food must be imported, and food imports presuppose foreign credits. In view of tariff walls and other impediments to trade, foreign credits are hard to acquire. *Hence every acre of the home land must be cultivated to the best advantage and for the benefit of the whole body politic.*

The pressing necessity of maintaining the allegedly parasitic sugar export business was further evident from the condition of the balance sheet of the country's foreign trade, even in 1929. In that year there was a favorable net balance of 511 million crowns. The foreign credits established by sugar exports were 1,061 million crowns. If the sugar industry were reduced to dimensions such that it merely supplied the domestic market, it would no longer be a source of foreign credits and the country's trade balance would be turned from favorable to unfavorable. What an unfavorable trade balance may mean to an overpopulated country with deficient natural resources is exemplified by the recent

economic histories of Germany and Japan—misery and social dangers on a large scale.

Thus, when seen whole, as all problems of national social-economics must be viewed, this putting of a heavy load on the domestic price of sugar in order that the farmers and the sugar factories might continue to sell sugar on foreign markets at less than the cost of production loses much of the absurdity with which the economic liberalists and those who, on principle, are opposed to subsidies, would invest it. But under prevailing world conditions the Czechoslovak consumer would have to bear the equivalent load in any case; he was irrevocably "on the spot." If he did not pay his sugar industrialists a high price in order that they might fill the sugar bowls of foreigners at a third or a fourth of the price he himself must pay, he would nevertheless have to pay the foreigners the same or a greater tribute in some other form. Inability to purchase foreign materials in sufficient volume would cripple many a branch of the national industry, and, in the existing posture of affairs, to maintain the necessary foreign credit it was inevitable that a sacrifice would have to be made somewhere. The question was where the sacrifice would cause the least pain, and of all the products of Czechoslovak industry and agriculture the powerful sugar beet presented itself as among the most able to fill the breach. The sugar beet was more than earning its keep; it was making one acre of land do the work of two, and it was keeping the nation's foreign trade "out of the red." The domestic price of sugar might seem excruciatingly high when superficially considered, but on final balancing of

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accounts in the national economy it is susceptible of demonstration by figures that the consumer will be getting his money's worth in collateral benefits. In paying for his sugar he would also be financing the importation of other necessary foods and indispensable raw materials for the national industries, the continuing functioning of which is a basic condition for his own continuing economic existence.

And that, we may here remark, is of the essence of an intelligently directed national economy—the strategic use of national resources in men, land and materials to promote the welfare of the citizen through safeguarding the general weal in the prevalence of circumstances wherein individualistic economic action would leave the general welfare prostrate.

We will not here reproduce the figures involved in the demonstration that in paying “through the nose” for his sugar the Czechoslovak consumer was really doing himself a good turn. For us the significant fact is that in a large view of national housekeeping, it was found desirable and practicable, for other reasons than the preservation of an industry, to sustain the production of what, considered by itself, was a most unprofitable surplus. For our purposes we accept it as a demonstration that in a constructively directed economy there is nothing inherently absurd in requiring the production of an excess of goods to be sold at ridiculously low prices at the apparent expense of some other section of the body politic. It is all a question of means justified by an end result that satisfies the collective common sense.

Our further interest in Czechoslovak directed

economy, so far as it is exhibited in the Czechoslovak sugar industry, will lie in an examination of the means devised for dividing up the business so that all the producers may have an equitable share therein, and also the means for controlling the product and the price, these being the main problems to be solved in all systems of proration. The objectives being the same in all cases the methods pursued are basically more or less the same. However, as we have seen in the preceding cases, there is often a considerable variation of detail, which makes the study of constructive social-economics exciting as well as instructive.

The special feature of the Czechoslovak system of proration in the sugar industry is that, although the efficient organization and functioning of the industry is of vital concern to the government, the government has kept its hands entirely off it, reserving only the right to be consulted about the price at which sugar is sold on the home market. No law was passed dictating how the industry should be organized, or how its business should be conducted.

For an understanding of the set-up we will note that there are two distinct categories of sugar factories in Czechoslovakia: raw sugar factories (first processors), mostly small establishments that take the farmer's beets and make crude or raw sugar (88 per cent pure) therefrom. Lacking facilities for refining this crude product the raw factories sell their output to refineries (second processors) where it is converted into a form (white crystals) suitable for consumption, after which it is distributed to the wholesale trade. Corresponding to these

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two types of sugar factories there are two national organizations of sugar manufacturers, one for the raw factories and one for the refineries. There is also a national organization of sugar beet farmers. All three organizations draw up their own constitutions and by-laws, hold annual elections for officers, including a Board that executes the declared purposes of the association, and generally conduct themselves after the manner of cognate organizations of producers in the United States, Great Britain and other democratic countries.

When the sugar boom collapsed, confronting the industry with an enormous surplus, falling prices and a dwindling free market, the Czechoslovak sugar industry began to consider what it should do to be saved. One thing was soon agreed on, which was that joint action offered better chances of salvation than for the separate units each to pursue an individualistic course. But joint action would have to be founded on an equitable basis and this would involve a partitioning of the home market in proportion to actual operating capacities. With each producer thus assured of his due share of the protected domestic market, the industry could bring united action to bear on the export problem.

Accordingly, all sugar produced in the country was to be regarded as made up of two component parts, a certain part being destined for the home market and the rest for export. No limit was placed on the total production of any refinery, but no refinery was to be allowed to send into domestic consumption more than its previously ascertained share of the domestic requirement. This arrangement naturally required painstaking

control of the whole production at all stages. Each raw sugar factory was therefore required to agree to deliver all its product to a specified refinery and to no other, and each refiner was bound by agreement to accept all raw sugar tendered by his tributary raw sugar suppliers. The refiner would then convert the raw sugar into finished sugar and release part of it to the home market in the quantities and in the manner prescribed by a Central Committee established jointly by the two manufacturing associations. This Central Committee also represents the factories in the annual negotiations with the beet growers' association regarding the price and terms of delivery of sugar beets. The Central Committee makes monthly estimates of domestic sugar requirements, and in accordance with the observed trend of consumption permits the refineries to sell quantities of sugar corresponding to their pro rata monthly quotas; the rest is turned over to another Committee for export at the best obtainable price. The sugar at all times remains in physical possession of the refineries. But the chance of any clandestine dealings in domestic sugar is remote. In the first place sugar is subject to an excise tax, collectible at the factories. The factories must account to the treasury agents for every kilogram of sugar that enters with the farmers' beets and show what disposition has been made of it. In addition, the Central Committee maintains its own Commission of Accounts, or "revisors," who make independent audits and inventories at all factories that have subscribed to the agreement and have obligated themselves in advance to forfeit substantial sums as liquidated damages in case of breach.

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At any rate, during the many years the agreement has been in existence infractions have been very rare and inconsequential. The expenses of the Central Committee are met by pro rata assessments on the members.

The Central Committee not only specifies the monthly quotas of sugar that are to come on the domestic market but also, in free consultation with the government, fixes the domestic price for the month. In determining what this price shall be no other rule is followed than that of charging the traffic with all it will bear (principle of maximum vendibility). The purpose is frankly to get the domestic consumer to buy as much sugar as possible at the highest possible price. If sugar consumption shows a downward trend the price may be lowered with the object of encouraging retail buying; if consumption picks up the price may be raised, but always with the object of obtaining the largest total amount of cash to serve as a "backlog" for the unprofitable export business. Even so, there have been years when the income from the domestic business, added to the returns from the export sugar, was still not sufficient to remunerate the beet farmers. The government, being vitally interested in keeping the industry alive both for the sake of the farmers and the indispensable foreign credits resulting from the sale of export sugar, would employ funds from other sources to make up the deficiency.

Aside from consulting with the producers on the price of sugar to be sold on the domestic market and making good eventual deficits in the price of beets, the government has not even seen fit to pass formal enabling legis-

lation to give the scheme effect. The business is simply "turned loose," in full confidence that the real object of a directed economy for Czechoslovak sugar—the preservation of the industry as the sustainer of large sections of the population and the creator of foreign credits—will, under the conditions prevailing in that densely peopled country, work itself out through the natural tendency of industrialists in a supersaturated market to cling together. It is this tendency, amounting almost to an instinct, that gives the practical social-economist a base on which to do effective work. There is no law requiring any factory or farmer to conform. So far as officialdom is concerned it is entirely optional with any factory or refinery owner whether he shall subscribe to the cartel and heed the behests of the Central Committee, or play a lone hand, throw his entire production on the fat domestic market and let his colleagues bear the brunt of the losing export business. But if the government does not lift a finger against recalcitrants, it at least does not interfere to prevent the industry from dealing with recalcitrants in its own way. Every producer who joins the cartel pledges himself to have no dealings of any sort with firms or individuals in the sugar business who refuse to join; also to patronize no manufacturer of equipment, no dealer in any necessary supplies, no banker, no commission merchant, no architect, no engineer, no beet farmer, or any other individual or firm who has established business relations of any sort with any non-signer; and he gives a bond as security that he will govern himself accordingly. As an overwhelming majority of the producers joined the cartel in

the beginning the hold-outs were overawed by the boycott that was prepared against them and soon fell into line.

All this will no doubt sound exceeding strange in many American ears. If ever there was what might be called a rank "conspiracy in restraint of trade," capped by a thoroughgoing practice of the boycott, this Czechoslovak sugar cartel is it. But other countries and other times, other manners. Trusto-phobia is now, apparently, a distinctly American complex, engendered in the happy days of expansion, when American economics were distinctly in the sign of "scarcity," when markets were mostly unsaturated, when the evil days of super-saturation were not yet come, and when competition was indeed "the life of trade." But there has come a change, of which not a few are still unaware. The world's economy, not altogether excepting the economy of the United States, has by degrees drifted out of the "economy of scarcity" into the so-called and misnamed "economy of abundance" which is really an economy of penury in the midst of overproduction, excess of man power and excess of productive facilities—sure indicia of the lack of competent social-economic organization. Competition has largely ceased to be the life of trade in many lines, and is now working to the ruin of trade. Whatever beneficial functions anti-trust laws on the American model may have once had or may still have, they are incompatible with a directed economy that would make strategic use of national resources to balance weakness in one part of the national household by summoning strength from another part. There are two

courses open to any government confronted with a disorganized national economy: either out of its own wisdom to take the initiative in devising machinery for a wisely directed economy, or to turn the job over to the industrialists themselves. The verdict of history may perhaps be that in the crisis that began in 1929 the government of the United States largely failed in the first alternative; and by its insistence on the anti-trust laws it is showing no inclination to turn to the second. The experiments in national social-economics reviewed in this book demonstrate that the first course does not necessarily involve the creation of a stifling bureaucracy or anything that could rightly be called State capitalism; the second does not necessarily involve an injury to the public so long as the body politic retains a voice in fixing the price, and we have ample evidence to show that the equitable fixing of prices, at least for the basic commodity that is interesting us, is not nearly so difficult as might be supposed.

Of course, instead of allowing the industry to apply sanctions of its own devising on its recalcitrants, it might have been simpler and more seemly for the Czechoslovak government to have provided regular legal sanctions to cover the case, but it may be doubted whether legal sanctions could have been more effective.

Legal sanctions actually became necessary when the Chadbourne plan was put in operation, which required that an upper limit be imposed on sugar production for export. The Czechoslovaks were not the only producers who were driven by stern necessity to throw sugar on the free market for what they could get for it. Germany,

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Poland, Belgium, Jugoslavia, Peru, Java, Cuba, Czechoslovakia were "all in the same boat" and from bitter experience were led to conclude that orderly marketing of the world sugar surplus was better for all concerned than unlimited competition.

The Chadbourne plan was no mere gentlemen's agreement; its provisions were enacted into binding legislation in each of the countries just named. As it was put into effect in Czechoslovakia, each beet farmer was allotted a certain quota of beets in proportion to his previous relative production. The factories would indeed accept any amount of beets offered by a farmer in excess of his quota and extract the sugar therefrom, but such excess sugar would be denatured (rendered unsuitable for human food, though still suitable for stock feed) and returned to the farmer with a bill covering the factory's expenses in the matter. Thus the principle was still followed of not allowing any scraps of national wealth to go to waste. Meanwhile all other conceivable means of utilizing excess sugar were adopted, regardless of price. Chief among these was the enforced mixing of anhydrous alcohol (made from beets) with gasoline for automotive fuel, an outlet all the more welcome because it decreased the national need for foreign exchange to cover petroleum imports.

CHAPTER VII

Proration in Poland

Up to about the middle of the eighteenth century Poland existed as an independent kingdom which became extinguished when the Polish nation was conquered and partitioned between Prussia, Russia and Austria. When the rule of the Hohenzollerns, the Romanoffs and the Hapsburgs crumbled as a result of the Great War the Poles promptly seized the occasion to reestablish their national life, and erected the present Polish Republic. Universal suffrage was established; freedom of the press and religious liberty were guaranteed, and a large measure of home rule was granted to the provinces. The constitution provides for a Presi-

dent and a bicameral Parliament. The Parliament is elected on the basis of proportional representation which takes care of minorities, of which there are so many that none commands a majority and the government generally has to be carried on by the bloc system, and on occasion by a dictatorship. Although it has been found necessary to empower the President to govern by decree, the Parliament still has effective control of taxation and fiscal matters generally. The country has a population of about 32 millions, of which about 65 per cent are engaged in agriculture.

During the long period of the Polish captivity different sections of the country fared unequally well. West Poland, which was the part that fell to Prussia after the dismemberment, participated to a large extent in the progress of the German people, although the Germans did not in all cases show too much consideration for their Polish subjects. Nevertheless, education was promoted, and industry and agriculture were fostered. On the other hand, East Poland, the part which went to Russia, fell into the general stagnation and neglect characteristic of the old Czarist empire. The effects of these contrasting régimes are visible to this day. The traveler who passes from West Poland across the old boundary line into East Poland cannot fail to notice that he is leaving a region of well-kept properties where order and thrift are ingrained habits and is entering a region where the meanness of the structures and the general relative poverty attest past decades of repression and neglect. As for that part of Poland that was formerly under Austro-Hungarian domination, if it was not so

advanced as West Poland, it was not quite so dilapidated as Russian Poland.

At the beginning of the Great War there was a total of 86 sugar factories in the territory of what is now the Polish Republic. After the conclusion of the struggle between the Russians and the Central Germanic powers who made Poland their battleground, and after the subsequent war between Poland and Soviet Russia, only 59 of these factories resumed operations. The combined production of these factories was not sufficient to supply the new nation with sugar and their number was eventually increased to 80, of which 34 were in West Poland, 43 in East Poland and 3 in Galicia or Little Poland, the latter being the district formerly under Austrian rule. The shortage of sugar arising from the general devastation of European beet fields and factories created good prices for sugar not only in Poland but all over the world, so the Poles expanded their sugar industry until they had covered the needs of their home market; but they did not halt there. The price on the export market was so enticing that the Poles decided not to be behindhand in the mad race for increased production. But with everybody plunging in all over the sugar-producing world the inevitable consequence began to make itself felt; the free market began to be overflowed with sugar, and at the same time the free market was becoming narrower because of rising tariff walls and the upbuilding of home sugar industries in former importing countries. Finding a market for export sugar began to be more and more difficult until finally the export business ceased to be profitable. By this time,

however, the Polish sugar industry had grown to enormous proportions. From 173,000 tons in 1920-21 production swelled to 917,000 tons, of which scarcely half was being absorbed by the home market.

In the meantime the Polish sugar industrialists began to feel the need of united action in conducting the export business, in which the government also had a lively interest, first because it collected an export tax on sugar, and secondly because sugar exports were helping greatly in creating a supply of foreign credits. In order that the factories might continue to export sugar even at a loss a stiff import duty was imposed on foreign sugar entering Poland, and behind this protection the producers could raise the price of sugar high enough to cover their losses, pay the farmers, and still have a more or less reasonable profit.

The Polish sugar producers thus found it necessary to divide their market into two separate compartments: a profitable domestic market and an unprofitable export market. In such a conjuncture it was inevitable that some of the producers would wish to enjoy the one and avoid the other. But it was as plain as a pikestaff that if all the production were thrown on the home market no amount of tariff protection would keep the domestic price from falling to or even below the export price. Hence there was need of an organization that would equate the two divisions of the market for the general benefit of the industry. With this idea in view the majority of the producers joined in the formation of a cartel which would control sales on the domestic market, attend to exports, assist in necessary financing and pro-

mote the general good of the industry, including the farmers.

In this case, however, it was much easier said than done. Among all the cases we have to review this Polish case is remarkable for the diversity of the interests that had to be reconciled, and for the patience and skill with which compromises were effected. In hardly any other country were there such inequalities among beet sugar producers as existed among the Polish beet sugar factories. As we have seen, Polish sugar enterprises are divisible into three groups which in their general set-up and in the conditions under which they operate exhibit great differences. In the group that occupies West Poland the factories are mostly large affairs, with working capacities of 1,300 to 3,600 tons of beets per day; one of them, the works at Culmsee, is the second largest beet sugar factory in the world, being surpassed only by the giant Spreckels factory in California. Most of the factories in this district are well equipped and competently managed; they are mostly coöperatively owned, the stockholders being farmers who supply beets in proportion to the number of shares of stock they own in the companies. There is thus no occasion for discussion and strife between factory and farmer over the price to be paid for beets. In East Poland the set-up is materially different; here the factories are mostly small affairs, working 500 to 1,200 tons of beets a day. They are owned and operated by stock companies having no corporate relations with the farmers, so that regulation of the price to be paid for beets is a matter of annual unpleasantness. On account of their location these eastern factories are

seriously handicapped in the matter of export business which the western factories, being nearer the ports, can handle more easily. The factories in Little Poland are also under capitalistic ownership and management and are also somewhat handicapped as to export business. These differences in the technical and commercial circumstances of the three districts are so pronounced that at first there were three separate business organizations and even three separate associations for the regional technologists, the manufacturers feeling that their problems were so distinct as to require separate study and discussion.

Under these circumstances there was very great difficulty in effecting a nation-wide organization for control of the industry. The West Polish factories had all the best of it. Their factories were large and modern. They produced on a large scale and hence could reduce overhead charges and unit operating costs to a minimum. Their supply of raw material was well organized. They had a general advantage in transport facilities and could export sugar with the least loss. The East Polish factories lacked the advantage of large-scale production with efficient equipment; their supply of raw material was insecure and their operating costs high. They were more remote from the ports of shipment and would have to bear a larger proportion of loss on their export sugar. The East Polish factories therefore refused to come into a general cartel unless they were assured of compensating advantages.

Deferring for a moment detailed consideration of the concessions granted to the East Polish producers, it was

a fact that neither wing of the industry could survive without the benefit of high prices on the domestic market, and rather than precipitate an orgy of competition for the domestic business a majority of the producers joined in the formation of a cartel on the basis of a proportionate distribution of the two markets. All sugar from all the subscribing factories was turned over to a Sugar Bank established for the purpose; this Bank attends to sales on both the domestic and the export markets and prorates the proceeds back to the producers, thus performing very much the same function as the Australian Sugar Control Board which we have previously described.

This arrangement eventually brought into the cartel 89 per cent of the factories, representing 92.5 per cent of the production; 11 per cent of the factories, representing 7.5 per cent of the production held back, content to allow the others to shoulder the export burden while they themselves threw the whole of their production on the protected home market. In other words, one out of ten of the Polish sugar producers turned out to be an incarnation of the "economic man" intent only on his own good, whereas nine out of the ten were found conformable with the spirit of social-economics, willing to pull together for the common good. There is abundant evidence all over the world—at least all over the sugar world—to indicate that this is not an unrepresentative distribution of the two mentalities.

But even so small a proportion of hold-outs as one in ten can create an uncomfortable situation in any directed economy; and since moral suasion could not

bring in the outsiders the problem was put up to the government. Whether by accident or design the plan fabricated by the politicians made a bad matter somewhat worse. By the law of 1925 all sugar factories were forced to join the cartel; each year the factories were assigned a base quota and a reserve quota. The base quota was in proportion to the capacity of the factory and represented the quantity of sugar the factory could place on the home market; the reserve quota was destined to take care of any increase in the domestic per capita consumption. All sugar produced in excess of the sum of these two quotas had to be exported, or else subjected to a prohibitive excise tax.

The weak point of this arrangement was that the quotas were fixed at the end of each year on the basis of actual production during the past "campaign." The more sugar a factory had produced the greater became the quantity it could offer on the home market during the coming year. This condition naturally awoke the "economic man" slumbering in every Polish sugar manufacturer, and was a direct incentive to produce the largest possible quantity of sugar in order to gain the largest possible quota on the home market. The situation played nicely into the hands of the West Polish producers, who on account of their size and good equipment could more readily enlarge their production than their East Polish colleagues, which they proceeded to do and soon were acquiring a preponderant share of the home market. This naturally threw a greater share of the unprofitable export business on the backward East Polish factories, and in defense the latter saw no alter-

native but to expand also, which they did by invoking foreign capital, mostly British, to finance the necessary enlargements. The net result was that production soon shot up to an all-time peak, with neither side gaining much advantage, but with both loaded with a greater surplus than before. Even the dullest saw that this could not go on forever; so all hands, without further reference to the government, joined in setting up a definitive plan by which conflicting interests would be equilibrated on a give and take, live and let live basis.

The plan of fixing quotas on the basis of the past year's production was with one accord dropped in favor of permanent quotas fixed in relation to the 1928-29 campaign, subject to revision at the end of five-year periods. The thorny question of equating the strong West Polish section of the industry with the weak East Polish section was approached by the western manufacturers with a frank recognition of the handicaps under which their eastern brethren were laboring. The latter simply could not produce as cheaply, and from any point of view could not support the share of the export burden that, by the application of a cold arithmetical formula, should fall to them. The West Poles therefore agreed to cede to the East Poles a larger proportionate share of the protected domestic market. The East Poles were further relieved of a large part of the expense of actually exporting their surplus sugar; the West Poles, being closer to the ports, took care of the exports, so that all or most of the sugar consumed in the country actually came from the eastern factories. Since the Sugar Bank was retained as the sole dis-

tributing agency of the industry for both domestic and export sugar, all receipts from both branches of the business being pooled in the Bank, each factory received its due share regardless of whether its sugar was exported or consumed at home.

As a further measure of equalization an "ideal freight charge" was figured out; that is, the average cost of shipping 100 kilograms of sugar (in lots of 10 tons) from one point in the country to any other point. This ideal freight charge was found to be 5.5 *zlotys*, and this figure was added by all factories to the price of sugar sold on the domestic market. Then another 5.5 *zlotys* was added on the domestic price to cover the average loss on the export business. Finally, a price of 80.5 *zlotys*, uniform at all rail points throughout the country (f.o.b. station of consignee) was fixed for domestic sugar; this uniform price, but not the principle by which it is computed, is naturally subject to modification according to varying conditions in the domestic and export markets.

The end result of this remarkable arrangement is that so far as appears humanly possible or desirable the conditions for the continued existence of each and every sugar enterprise are made equitable and uniform, with an extra measure of favor accorded to the weaker members. Every factory, regardless of its location, can place its product on the home market on the same terms as any other factory; freight differentials disappear completely. And, also regardless of location, the most remote factory can dispose of its export surplus as economically as the factory nearest the frontier. The uniform domestic price also is not without advantage to large sections of

the consumers; sugar can be purchased in the shops of one part of the country as cheaply as in any other part. Formerly the retail price of sugar was based on the price at Posnan (the "Sugar Capital"), with an increment added for freight according to distance. By the introduction of the "ideal freight charge" and the uniform retail price the cost to consumers in some of the remote sections was reduced as much as 40 per cent. In this way proration works to equalize the cost of living throughout the country, so the consumer is not penalized by living in the remoter sections of the country; advantage of location no longer means individual advantage, but is merged in the general social-economic capital.

It will not escape the reader that for all practical purposes the machinery of the Polish system of production and price control is a replica of the Australian system. Both systems contain a single agency to act as the sole buyer from the factories and the only seller to the distributors; both have made practical application of the concept of the ideal freight charge, so that in both we find a country-wide uniformity in the cost of the product to the consumer.

It might appear that this scheme of proration of the Polish sugar industry owed its final form to the overgenerosity of the West Polish producers in relinquishing to their less favored eastern colleagues a part of the advantages that accrue to them from their location, their superior capitalization, industrial organization and equipment. While they may be credited with good sense there is no reason for attributing to them an excess of

altruism. An industrialist engages in works of constructive economics not because he has cast off the "economic man" (which very few humans wholly succeed in doing) but because it has become plain to him that his own ultimate salvation is more surely promoted by sticking closer to the golden rule, *and because there is exhibited to him an apparatus by which the golden rule will be given effect.* By resolutely embarking on a fight to a finish the West Poles might eventually have destroyed their rivals, but the cost both to themselves and the general body politic would have been terrific. Cold reflection (out of which all movements in constructive economics are and should be born) eventually led the parties to the conclusion that coöperation on the principle of live and let live was better than struggle and no quarter.

And where was the Polish government all this time, while the sugar producers were dividing up the markets, fixing quotas, pooling receipts, equalizing freight costs, and setting a uniform price throughout the country? Was not this a flagrant example of combination in restraint of trade, elimination of competition, creation of monopoly, and doing away with price wars that might enable consumers to get sugar for next to nothing for a while? Such things could not happen in countries having Sherman laws and Clayton acts. The Polish government of course knew about it all the time, but the Poles have never had anti-trust laws on the American model, and have never been impressed with their underlying philosophy; if pressed for an opinion a Pole might characterize such laws as basically foolish and say that

from the standpoint of a sound national economy they might even be suicidal. In the United States a man who engineered an industrial combination that prevented a disastrous price war, that saved half an industry from bankruptcy and gave consumers a necessary commodity at a fair, steady price might be clapped into jail; in Poland a medal is pinned on him. So far from interfering with a private arrangement by which sugar was marketed on the principle of maximum vendibility with advantage to the national foreign exchange account the Polish government was quite ready to declare itself in as a beneficiary. All that the Finance Minister needed to do was to lay on a consumption tax that, with the marvelous intuition of a modern European *fiscus*, would be fixed too high for the producer to pass entirely on to the consumer and yet low enough to keep the wolf from his door. Nobody can justly complain if by skillful taxation excess profits are kept down and the national household kept going; the consumer must foot the bill one way or another.

We will not leave the reader under the impression that since the agreement to prorate the Polish sugar industry was signed in 1930 everything has been serene and comfortable. It is beyond the power of the government and the producers of any one country to control the whole market of a commodity of world-wide production and distribution, such as sugar. Neither the Poles nor the Australians, nor the Czechoslovaks nor any of the rest could prevent narrowing of the free market resulting from the rise of tariff walls and the promotion of new or enlarged national sugar industries by their

customer nations, and they stood helpless in the face of the great depression that brought on a decrease in per capita consumption in nearly every market. With the help of the best-intentioned proration system a weak enterprise might hold on for a time. There is a limit to the ability of any home market to cushion export losses, and when these limits are reached the weakest must perforce succumb—unless new resources of social-economics are discovered.

We will devote a little space to the period of the decline of the Polish sugar export business, because it has brought to the front a phase of directed economy that, if it should become generally applied, is likely to open up vast new prospects of social-economic evolution, and perhaps afford opponents to change in the social order new occasions for "viewing with alarm."

The most immediate effect of the shrinkage of the free market for sugar was a reduction in the loss incurred in the export branch of the business. This tended to reduce the load that had to be put on the domestic price in order that the excess sugar could be sold on foreign markets at less than the cost of production, and opened a way to reduce the cost to the domestic consumer. Sugar being thus made cheaper by degrees, consumption showed a tendency to increase. But this did not prevent the situation of the farmers and the factories, especially the smaller ones, from becoming critical. The unit cost of operating a beet sugar factory rises as the scale of operations diminishes; with a dwindling outlet for the product the smaller factories became more and more uneconomic, until a new crisis was in prospect:

either the domestic price had to be raised to a new high level if all the factories were to be kept going, or else the weaker factories must be closed and their beet farmers deprived of a source of income which they badly needed and on which they had come to depend.

Matters having reached such a pass, the Polish government, using powers with which it was invested, and moving in close collaboration with the leading men of the industry, undertook a drastic reorganization of the sugar business. The elimination of a number of factories that were clearly uneconomic was now unavoidable, but the object was to effect this reorganization with the least possible loss to the displaced factory owners, and especially to avoid depriving beet farmers of their occupations.

The first step was to divide the whole country into districts, of which there were three categories: (1), districts which contained several factories lying close enough together so that all farmers in the district might more or less conveniently deliver their beets to one of them; in this case the most suitable factory was selected for continuance, the others were closed and their owners compensated by an interest in the factory that was kept open; (2), isolated districts containing a single factory that was still capable of economic operation; and (3), isolated districts containing a single factory that was clearly uneconomic, and too far away from other factories to admit of an amalgamation.

This regrouping being accomplished, the amalgamated companies were assigned quotas corresponding to the sum of the quotas of the preëxisting factories; the

factories in category (2) retained their original quotas, all on the basis of the prior arrangement worked out by the industry itself. It remained to find means for raising the quotas of the factories in category (3), of which there were eleven, so that these factories would get enough beets for a yearly production of at least 4,000 tons of sugar, which was established as the absolute minimum for efficient operation.

This object was accomplished as follows. The new law gave the government authority to put a limit on the amount of sugar that could be exported. One of the purposes of this limitation was to reduce the export loss by an amount calculated to admit of a reduction of the domestic price that would evoke an estimated increase in the quantity of beets that could be worked into sugar for the home market, and this means of lowering the retail price was further helped along by a reduction in the heavy consumption tax on sugar. The effect of these arrangements was to assure that consumption of sugar in the country would increase from 300,000 tons up to about 338,000 tons a year.

It is the disposition of this extra gain of 38,000 tons of sugar a year for the home market that is the point of interest from the standpoint of a socially-directed economy. Under an individualist economy an enlargement of the outlet for a manufactured product would be fair game for any rugged individualist or enterprising firm in the business, and even in a prorated industry it might be supposed that the increase would be distributed pro rata among the members. But in this case the increase was regarded as a social fund to be used in

strengthening weak places in the national social-economy. A part of the increase was impounded in a reserve stock against crop shortages, and the rest was used to bolster the quotas of the eleven moribund factories that were about to close down, thereby impairing the economic positions of their operatives and beet farmers. Most significant of all is the declared purpose of impounding future increases in the home demand with the object of further strengthening the weak members. It will be recalled that the absolute minimum of output that would justify the continuance of an isolated factory was set at 4,000 tons a year; in the interest of a still more economic operation of these small factories it is purposed to use future increments in the home demand to raise the minimum to 4,500 tons, and only when the smaller factories are thus taken care of will the larger ones be admitted to prorate in the increase.

This later development of the Polish sugar economy presents itself as a notable extension of, or emphasis upon, the underlying social-economic principle that runs through every proration system erected as a measure of a nationally-directed economy, namely, that a super-saturated market cannot be regarded as a "free commons" in which a crass individualism may run riot. Proration as it is practiced is founded on an accepted dictum that a qualified producer, once he has been enclosed in a prorated industry, has a preëmptive right to his proportionate share in the business of that industry *as it exists at the time of his entrance*, but he acquires no mortgage on, or "stockholder's right" in, the future of the industry. In other words, rights to future

increments of value that develop in an industry vest in the body politic to be used for social-economic purposes and are withdrawn from individualistic exploitation. It is true that under ordinary circumstances, as in Australia or Brazil where no one member of the industry needed exceptional favors, an expansion of home consumption or new outlets for the product may be prorated among the original participants—but only up to a certain point. Whenever it can be safely done (that is, without damage to the original entrants) increments of prosperity accruing to a prorated industry in a supersaturated market may be used to admit into the fold new members for whom the body politic can find no other shelter (see further on), or employed (as in this Polish case) to improve the lot of lowly members who are becoming victims of a disordered economic system.

No expropriation is involved. A first-comer may be initially assigned a quota of 10,000 tons in a market that absorbs a million tons, but he does not necessarily acquire a quota of 20,000 tons when the requirement of the market rises to two million tons. His original quota will not be diminished: it is a vested right. But though he may keep what he has, whether he participates in future developments is a matter to be determined by the body politic. *The future belongs to the public.*

It may be that some observers, while commiserating the hard lot of the small Polish sugar producers, may still feel sorry for the larger enterprises down whose throats this "socialistic" scheme has been rammed. But the plan, though in form imposed from above by a dictatorial executive power, was really worked out by

the leaders of the industry who, as we have already seen, have had much prior experience in the equating of interests and in the practice of self-denial in favor of distressed colleagues; their work is additional proof that industrialists, taken by and large, are not quite as callous as is sometimes presumed. It is improbable that such a system, bearing the earmarks of skilled workmanship, and which German and Czechoslovak experts in sugar economics have pronounced an extraordinarily ingenious and well-balanced arrangement, could have been produced by amateur sociologists or a hastily assembled brain trust.

CHAPTER VIII

Proration in Germany

IN approaching a directed economy represented by production and price control of the sugar business in Germany, we encounter a political set-up somewhat different from that prevailing in the countries so far considered. Australia, Brazil, Argentina, Czechoslovakia and Poland still have democratic institutions and republican forms of government under which, with the exception of transitory periods wherein mild dictatorships have intervened to break up a political or economic *impasse*, the will of the people usually finds expression through the customary organs of representative and parliamentary government. In Germany parliamentary government

and practically all forms of democratic public life have been extinct for some years, their functions being taken over by a faction that has lodged supreme legislative and executive power in the hands of one man. This power has been used in ways and for purposes that are viewed very much askance in various parts of the earth, raising doubts in some minds whether common-sense economics or a high type of constructive social-economics could originate in an environment of that sort. But if liberty and democracy (in the Anglo-American sense) seem to be extinct for a time in German politics, the traditional German genius for well-thought-out organization and capacity for team work are still very much alive and, as regards that phase of German social-economics which concerns us, are functioning in ways that seem well adapted to the circumstances.

The German nation now occupies a territory of about 186,000 square miles, with a population of about 65 million. The extent of arable land is about 50 million acres, exclusive of grass land; this figures less than one acre of cultivated land per inhabitant, which means that the German people cannot be maintained on a high level of comfort on their own agricultural produce; we have previously referred to the estimate of sociologists that the maintenance of a reasonable standard of living requires somewhat more than two acres per person. Extra food, especially products that would give a varied and balanced diet, must therefore be imported, but in recent years the Germans have found it increasingly difficult to procure foreign credits with which to finance imports, and in consequence the average German stand-

ard of living has sunk to an uncomfortable level. They are thus compelled to make the most of their indigenous resources, which they are striving to do by means of the system of production and price control which we now will describe in so far as it is exemplified in the organization of their sugar industry.

Germany is the original home of the beet sugar industry. It was a German, Margraff, who first showed that sugar might be obtained from the white Silesian beet, and it was at Cunern in Silesia that the world's first beet sugar factory was erected in 1802; furthermore, it was largely through the work of the German plant breeders that the original beet has been given its present endowment of growth power.

At the threshold of the Great War (1913-14) the Germans had 1.31 million acres planted in beets, from which they were producing around 3 million tons of sugar, which was enough to supply the home demand and leave a considerable surplus for export. During the war years production fell off greatly, due to increasing shortage of labor, fertilizer and other necessary materials, until by 1919-20 there were only 702,000 acres in beets; and these acres, due to long continued neglect in the use of fertilizers, were producing at scarcely half the normal rate. However, the Germans set to work to rebuild the industry, so that within a few years they began to approach the pre-war scale of production, and eventually were able to resume exports. In the meantime, as we have already had occasion to relate, the great sugar boom had got under way, and sugar was pouring on the free market in great volume under the stimulus of high

prices, with the result that overproduction forced prices below a level that would cover cost of production.

In the face of this debacle the German sugar industry reacted along familiar lines. When the price of export sugar reached the loss line the question arose as to whether exports should be continued, or whether the industry should reduce itself to the requirements of the home market. The latter alternative was rejected for the familiar reason that deflation of the capital and labor already involved in the over-expanded industry would be a national hardship not to be endured if it could be avoided; and, besides, German finances were chronically in need of foreign credits to finance necessary imports of raw materials. So the usual devices were resorted to: the producing companies drew together in an Export Cartel; the Reichstag, which was then still functioning, gave them a large tariff protection which enabled them to sell sugar on the domestic market at a price high enough so that when averaged with the export sales they would obtain a satisfactory return on their total production. To shield the domestic consumer against unlimited exploitation the Reichstag established a maximum domestic price in this wise: the tariff duty on foreign sugar was fixed at 25 *Reichsmarks* per 100 kilograms, with the proviso that when sugar was quoted on the domestic market at a price greater than 20.5 *Reichsmarks* the duty would automatically be reduced to 10 *Reichsmarks*. The German sugar producers took the hint and for the most part kept their quotations for domestic sugar just a few *pfennigs* under the dead-line. The tariff had to be revised upward several times in

order to keep out Polish and Czechoslovak exporters, who were themselves past masters in the art of "dumping."

In passing, we may remind the reader that we have already seen cases where the protective tariff is made to serve a double purpose: on the one hand to assure that the producer may continue to exist, and on the other hand that the consumer will not be called on to pay beyond a certain limit. The point to be emphasized is that the producers are actually allowed to enjoy the full degree of benefit that the law promises.

However, this arrangement had the defect that the Export Cartel concerned itself only with exportation of the surplus. There was a gentlemen's agreement that the factories would share and share alike in both the export and the domestic business; but it was not possible to estimate accurately the domestic requirement in advance, and some of the less socially-minded producers were inclined to throw an extra proportion of their produce on the protected market, which strongly tended to depress the domestic price below the legal limit. An attempt was made to remedy this defect by forming a Domestic Sugar Association which would regulate internal sales, but as no effective control was instituted the situation was not materially improved.

About this time the Chadbourne plan, to which we have made frequent reference, appeared on the horizon. This plan was born of the miseries experienced by all sugar producers who had to seek the free market to dispose of their surplus. The idea was to impose a general restriction on the amount of sugar in the stream of

world trade in the hope that the debacle of the world price might be arrested and that the price would perhaps turn upward. Germany, as one of the exporting countries and by this time not unskilled in "dumping," was solicited to join. The Chadbourne plan required that all participating countries should proportionately reduce their exports, and since the domestic markets of these countries were all supersaturated with sugar, a restriction of exports would necessarily involve a reduction of production all around. Under the plan the Germans would be allowed an export quota not exceeding 500,000 tons in 1930, diminishing to 300,000 by 1932.

The German producers were therefore called on to decide whether they would reduce their production accordingly. On this proposition 244 of the factories, representing 93.4 per cent of the producers and 96.65 per cent of the production, voted to accept the plan; that is, 15 out of 16 of the German sugar producers were socially-minded persons ready to join in a work of constructive economics that was obviously necessary for the good of all. This is a proportion that seems to be the rule throughout the world sugar industry (note: this was before Nazism reached the seat of power in Germany).

But the seventeen small dissenters were still important enough to spoil the plan if left free to throw their entire production on the protected home market while avoiding the burdens of restriction and pro rata exportation that the coöperatively-minded majority was ready to assume. So the matter was put up to the government; and the government, acting on the principle that what is accepted as good by the vast majority of an industry

must be good for the whole industry, persuaded the Reichstag to incorporate all the sugar factories into an Economic Union of the German Sugar Industry. This organization was provided with a governing body, elected from among members of the industry; the law empowered this body to allot production quotas, to fix for each factory the amount of sugar it could put on the domestic market and the percentage amount it would be required to export, to organize a regular supply (monthly sales quotas) of sugar for the home market, to establish maximum prices for each grade of sugar, and to finance sugar stocks awaiting consumption or export. Each factory was required (with the help of a local committee on which farmers were represented) to subdivide its quota among the beet growers in its territory in proportion to their previous productions, irrespective of whether these beet growers were or were not stockholders of the factory company (80 per cent of German sugar factories are coöperatively owned). To assure compliance with the regulations the factories were required to submit frequent and detailed reports of production, sales and stocks, and to hold their premises and records open to inspection by "revisors" who might be employees of the governing body but not in any way connected with a sugar factory. Adequate machinery for settling disputes and hearing complaints was provided in the form of arbitration and appeals committees, not omitting sanctions to be applied to offenders.

So long as the original *status quo* persisted this arrangement, which went into effect in 1931, met the situation fairly satisfactorily. Every existing sugar enter-

prise, whether factory or beet farm, was confirmed in possession of the share of the domestic business to which its contemporary importance entitled it, and by the same token had to assume its proportionate share of the export burden, which it could do under the shelter of a maximum retail price that was reasonable in view of the prevailing situation. All forms of unfair competition, price cutting and other exhibitions of anti-social predacity simply faded out of the picture. Everyone knew how much he could produce (weather permitting), and how much he would be paid for his share of the domestic sugar (the export business remaining at the mercy of the world price). The domestic consumer was protected from scarcity prices by the existence of purposely maintained stocks, and by the enforcement of maximum prices. However, the maximum prices were left subject to upward or downward revision, preferably upward. If consumption showed a tendency to increase the price would be raised, but not necessarily for the benefit of the producers; the government, acting on the principle that future increments of value belong to the public, could, would and did lay on consumption taxes equal to the increment of market value, thus increasing its own resources while leaving the producer's original margin undisturbed.

But the original *status quo* did not persist. The Chadbourne plan did not achieve all the results hoped for. It did have some visible effect in lessening the amount of sugar coming on the free market from the signatory countries, but it could not prevent or regulate the export of sugar from countries not parties to the plan, nor

prevent importing countries from furthering their own sources of supply. The world price kept on sinking until the Germans reached the conclusion that from their standpoint little or nothing was to be gained by exporting sugar and they practically withdrew from that field. Meanwhile the general economic situation of the German nation was going from bad to worse. As we have before mentioned, the native agriculture was not maintaining the people on an adequate level of comfort, and food imports were necessary to maintain even a passable existence for the majority of the population. German manufactured goods, especially those fabricated from imported raw materials, were difficult to sell on foreign markets; hence there was a dearth of foreign credits, much unemployment and consequently a diminished average purchasing power. What with collapse of the export sugar trade and a fall in the domestic per capita consumption of sugar, 61 of the factories—nearly a fourth—had become extinct by 1932-33, and the area cultivated in beets had shrunk by nearly half, with a corresponding number of cultivators frozen out of the industry by the hard times.

At about this time The National Socialist Party rose to power under the leadership of Adolf Hitler and became heir to the economic troubles of the old régime. The Nazis brought with them some novel ideas of politics, economics and social polity with which we shall not be concerned except as they have given new aspects to the directed economy of the German sugar industry. In the meanwhile it may become easier to comprehend the Nazi economics if the central fact by which they were

and still are confronted be kept in mind: a distinctly over-populated country and a shortage of natural resources, out of which arises their main problem: how to use what they have to the best—or what to them appears the best—advantage.

The *Schlagwort* (keynote) of the Nazi philosophy is: "The general good takes precedence of private good." To the Nazi mind this phrase involves more than lip service to the principle, recognized throughout civilization, that the public interest is paramount. Even in the United States, where rugged individualism is about as well rooted as anywhere, there is little or no dispute over the proposition that when a circumstance in production, manufacturing, transportation, trade, sanitation, etc., becomes affected by a public interest it becomes a fit subject for regulation by public authority; if not by the Federal government, then by the States or the municipalities. Controversy begins when the attempt is made to fix the point where public interest requires public intervention; meaning the point where the individual can and should be deprived of the allegedly inalienable right to life, liberty and the pursuit of happiness in his own unregulated way.

How a social philosopher is to be classified will depend on where he would fix this point. If he puts it far off to the right, he may be tagged as a devotee of capitalism, a spokesman for plutocracy, an exponent of rugged individualism, an apostle of predacity, a subscriber to the doctrine that that government governs best that governs least, a proponent of the theory that the public good is best served by throwing on the in-

dividual full responsibility for his own personal fortunes, and the devil take the hindmost. If on the other hand he sets the point far off to the left he may be found among the Marxists if not among the latter-day Sovietic communists who believe that both the public and the average private interest are best served by complete submergence of the individual in the community, who hold not merely capitalism but even any concept of private ownership in abhorrence, and who regard rugged individualism as something to be liquidated by Siberian exile if not by firing squads.

In between these two positions there is room for an infinite assortment or gradation of viewpoints, and somewhere within the range bounded by the extremes there may be conceived to lie a middle ground or dividing point which might be regarded as marking a more or less generally acceptable balance or compromise between what should be allowed the individual and what should be taken away. Every reader will set this marker to suit himself; we have all around us abundant evidence that complete unanimity will not be easy to attain, but for classificatory purposes it may be desirable to fix a point that will (more or less arbitrarily) separate right from left. As a basis of reference it may be assumed that the ideal central position is that one wherein the institution of private property is essentially maintained, the individuals in possession thereof being held accountable for its use in their own and the public interest. To the left of this position the means of production and social capital in general begin to pass under public ownership and operation; to the right, individualistic ownership

and use of property and capital tend to become absolute.

Weighing the above considerations, and looking away from such Nazi exhibitions as Jew-baiting, blood purges and autocracy or one-manism, we might ask: where is Nazism as a working economic system to be placed? Is it definitely on the socialistic side, or on the capitalistic side, or does it land in the middle? We shall leave the reader to formulate his own answer; we have here only to examine the thing before us and to report, with scientific detachment, what we see.

Starting from the leading principle that the general good is superior to individual good, the cardinal doctrine of Nazi pragmatics (we are quoting Freiherr von Ohlen, one of the officials in charge of the destinies of the German sugar industry) may be stated thus:

"A right is always rooted in a performance, and a performance is always a fulfilled duty. According to the National Socialist viewpoint (which is decisive in all fields of human life—political, economic and cultural) every duty is determined, every performance is evaluated and every right is established, not according to the needs of the individual ego, but exclusively in conformity with the general welfare; that is to say, according to the needs of the body politic."

Applying this doctrine a little closer to the business that mainly concerns us, the same authority proceeds:

"A product that is vitally necessary for the nourishment of the people must be so administered that the producers, the processors and the distributors thereof are uniformly grouped together under conscientious and responsible leadership for the purpose of adequately serving the public at a reasonable price even in critical times."

As regards the relations between the agencies of supply and to their common leadership it is laid down that:

"Every group included in a marketing union—producers, processors, distributors—has the same right to live and the same duties. Therefore no one group may dictate what the others may do or leave undone; that is exclusively the function of the higher authority, namely the leadership, which in the National Socialistic conception is the impartial trustee of each of the members."

Many books explaining the Nazi State have been printed outside Germany, but publications in English showing exactly how Nazism is geared to industry (or vice versa, as you like it) appear to be rather scarce; we may therefore be allowed to explain in some detail how the German sugar industry has been fitted into the Nazi scheme.

The Nazi idea is not, in general, original; it was borrowed, in some essentials as well as in outward ritual, from Mussolini, who was the inventor of Italian Fascism. Fascism is a word derived from the Italian verb *fasciare*, to bind together. In the Mussolini concept (taken over bodily by the Nazis) all cognate lines of business should be economically integrated, or coördinately united in a single organization comprising all elements: producing, processing, distributing; such an organization corresponds to a "vertical corporation." As the Nazis have worked it out the whole German national economy is partitioned off into several grand divisions: agriculture, mechanical industries, finance, etc., with Hitler as the Grand Leader and arbiter of all. Such *Reichshauptabteilungen*, or National Headquarters Divisions, are

under the delegated supervision of an Associate Leader, who ranks as a cabinet member.

To confine ourselves to the industry in which we are directly interested, agriculture and agricultural manufacturing fall in *Reichshauptabteilung III*, at the head of which stands the *Reichsbauernfuhrer*, or National Farmers' Leader, who also discharges the functions of Minister of Agriculture and has general supervision over the *Reichsnaehrstand*, or National Food Administration with jurisdiction over all questions of food supply. This broad field is split up into numerous sections, called *Hauptvereinigungen*, or Head Unions, which are intended as vertical integrations of a distinct line of agricultural production, such as:

- III-(1)—Grain, including flour mills;
- III-(2)—Live-stock industry;
- III-(3)—Milk industry;
- III-(4)—Potato industry;
- III-(5)—Egg (poultry) industry;
- III-(6)—Truck farming and wine growing;
- III-(7)—Brewing industry;
- III-(8)—SUGAR INDUSTRY, including confectionery;
- III-(9)—Fish industry;
- III-(10)—Stock feed and mixed feed trade;
- III-(11)—Oleomargarine and artificial fats industry;
- III-(12)—Wool and silk;
- III-(13)—Farmers' coöperatives.

It will be noted that the official designation of the German sugar industry is III-(8)—*Hauptvereinigung der Deutschen Zucker-Industrie*, and we have now to observe what a sugar industry may look like when a *Hauptvereinigung* has been fitted on it.

In the first place the old Economic Union of the German Sugar Industry, which was formed to put the Chadbourne plan into effect and which was composed only of factory companies, was dissolved. The country was divided into nine sugar districts, and all the sugar beet farmers, sugar factory companies, and distributors of sugar and other products of the sugar beet were made members of a *Zuckerwirtschaftsverband*, or District Sugar Union. At the head of each such Union stands a Chairman, whose business it is to see that the laws and regulations relating to sugar are observed in his district, and to impose fines on violators (subject to appeal to a higher authority). Assisting the district Chairman is a Board (*Verwaltungsrat*) composed of four representatives of the farmers, four of the sugar factories and two of the distributors. This Board decides what levies are to be made on the members to pay expenses and how orders from higher up are to be carried out. The acts and the accounts of the district Chairman and his Board are subject to review by a district Representative Assembly (*Vertreterversammlung*) composed of twenty-five members, of whom at least ten shall be beet farmers, with the other two classes represented according to their relative importance in the district; no member of the Board can be a member of the Assembly, and neither Board nor Assembly members receive a salary, although they are allowed their expenses.

Over all the nine sugar districts stands the *III-(8)-Hauptvereinigung* itself. Like the District Sugar Unions this central organ is composed of a Chairman, a Board and a Representative Assembly. The Assembly is com-

posed of thirty-five members, fifteen of whom must be beet farmers, fifteen representatives of the factories, and five representing the distributors; the Board of the *Hauptvereinigung* is composed of the nine district Chairmen and eight other members, two of whom are beet farmers, two factory men, two representing the distributors and two the National Food Administration. Decisions on allotments, total production and prices are ratified by this Board; on all sub-committees of the Board having to do with prices of sugar or beets there must be a representative of the consuming interests. The acts and accounts of the Board of the *Hauptvereinigung* are subject to review by the General Assembly of the industry, which must also approve the administrative budget.

Such is the organ designed to control the German sugar industry for the general good. Concerning the complexion of this organ, we have first to note that it is appointive throughout; elections to positions of public trust went out when the Nazis came in. The Chairmen of the district Sugar Unions, the members of the district Sugar Boards and the members of the district Representative Assemblies are appointed for two years by the Chairman of the *Hauptvereinigung* and are removable by him. The Chairman of the *Hauptvereinigung* himself and the supplementary members of the General Board are appointed for two years by the Minister of Agriculture and Food, while the members of the General Assembly of the *Hauptvereinigung* are appointed by the Chairman of the *Hauptvereinigung*. It may well be supposed that every person appointed to a position of

authority and leadership over the sugar industry is first of all a good Nazi party man, one who can be counted on to support the Hitler régime. Aside from this indispensable requirement he must also be a *nationalzocialistischdenkender Mensch*—a person who thinks along National Socialistic lines; a believer in the Nazi philosophy which starts from the principle that the general good takes precedence of private good; in short, a person who would not be found among the hold-outs when the times require conscientious team work for the general welfare. These qualifications being suitably attested, he must be actively engaged in some branch of the sugar business and familiar with its technique and its problems. The end result is that in its details the sugar business is administered by sugar men. The sugar men placed in authority have to follow the lines of a policy laid down from on high, but so long as this policy earnestly seeks to advance the general good, and so long as the different interests are provided with facilities for making themselves heard in the execution of this policy and are given some control over expenditures in its administration, the genesis of the organization need not be too closely inquired into for the purposes of this book.

The fact is that the general good of the German nation was, and at this writing still is, in a low state. The previously large German foreign trade, which in the prosperous pre-war days could support a large industrial population independently of domestic industry and domestic agriculture, is now greatly diminished, and there is in Germany little hope that it can ever be revived in its former magnificence. The native soil does

not produce a sufficiency of organic raw materials for a satisfying national existence, and nourishing food, particularly meat and fats, is none too plentiful. So the Nazis set themselves to rouse the whole body of German farmers to an *Erzeugungsschlacht*, or "battle for production," much as Mussolini, when faced with an analogous situation, roused the Italian *contadini*. to a "battle for grain." Through this struggle for increased production the Nazis hope to obtain for the Germans their *Naehrungsfreiheit*, or freedom from dependence on foreign food, which, like the sour grapes of the fable, is anyhow largely beyond their reach. In this, *Erzeugungsschlacht* the sugar industry is required to intermesh with its sister agricultural industries to make the nation independent of foreign food, or as nearly independent as possible.

In order that the German sugar industry may play its full part in achieving the *Ernaehrungsfreiheit* of the German people the Chairman of the *III-(8)-Hauptvereinigung* is vested with very wide powers, some of which we will enumerate:

To fix the total quantity of beets to be produced, and to apportion this production among the several districts;

To assign production quotas to farmers and factories;

To determine what proportion of the beet crop shall be made into sugar and what proportion into other products;

To hold both the farmers and the factories to an obligation to grow beets and make sugar according to their allotments;

To lay down regulations for the delivery of beets to the factories and for payment by the factories to the farmers;

To determine whether and under what conditions the production allotments of farmers or factories should be changed or taken away;

To lay down regulations for the production and distribution of raw sugar;

To control the distribution of beets not grown for sugar manufacture;

To regulate the production and distribution of sugary stock feeds;

After hearing the Committee on Prices, and taking into consideration the national economic situation, to establish prices and price spreads for beets, sugar and other products derived from beets, said prices to be binding on every member of the district Sugar Unions;

To take appropriate measures to promote sugar consumption;

To see that a reserve stock of sugar is maintained and to supervise the storing and financing of this stock;

*To lay the industry under contribution for the formation of special stocks; **

To control the erection of new factories and the enlargement of old ones;

To limit any factory to the production of a given sugar product and shut down temporarily or permanently any department of any factory or any branch of the wholesale business;

* The reader will please note for future reference.

To distribute export quotas (when necessary) uniformly among the producers; and when occasion offers, to enter into agreements with the sugar industries of other nations for the regulation of the world sugar market.

Arbitration committees and "complaint courts" are set up for the alleviation of hardships in particular cases and for redress of injustice inflicted by arbitrary action of subordinate officials.

No administrator bent on showing what he could do in the way of fitting a directed economy on a beet sugar industry could ask for more ample authority, and if there is any virtue at all in a directed economy it should be visible in this German experiment. But the significance of the experiment will be lost on an American, for instance, if he begins by identifying it as un-American (which it certainly is in several particulars); it should be viewed, *ex loco*, as it appears to the Germans themselves. The nub of the German situation, we repeat, is the presence of exigent national need in the face of exiguous national resources. It is plainly necessary that the most be made of what is at hand. It is equally plain that cross purposes and lost motion must be eliminated from production and distribution. If lost motion and cross purposes are to be eliminated the body politic must move toward its objectives as a unit, because if individual producers are left to go footloose and alone they will soon bog themselves and the body politic yet deeper in morasses of economic difficulty. *Regimentation?* Yes. But it is the same kind of regimentation that you observe when Alpinists rope them-

selves together, single file, as they approach a dangerous crevasse. Team work is not repugnant to Germans or other intelligent men when confronted by occasions requiring unitary action; we have already seen how fifteen-sixteenths of the German sugar industrialists voluntarily surrendered a freedom of action that had become of questionable value, and subscribed to the limitations and duties imposed by the Chadbourne plan; and in all the other nations considered in this book we have found and will find the same overwhelming predisposition toward coöperation. If the discipline which the German sugar industry now accepts from the Nazis is not much resented, it is because it is recognized as an extension of necessary measures for rendering the common effort more effective.

We bring up this angle of the subject because if the exact situation now prevalent in Germany is unlikely to be duplicated in the United States, it is quite possible and even probable that an equivalent situation may arrive in this country by an entirely different route. In fact, we may say that the situation in question is already at hand. The German problem is to equilibrate a population that is too large with a supply of the means of existence that is too small. The American problem is the reverse: to find a balance between a floating supply of the means of existence and a population that is too small to absorb all that has been or might be produced; the one country is supersaturated with people and the other is supersaturated with goods and the means of production. The Germans are driven by necessity to invent a directed economy in order to get the

maximum of social utility from what they have; the Americans are wondering what sort of directed economy to invent for relieving the disastrous congestion in the markets for their goods and labor. Whether supersaturation is due to a combination of overpopulation and underproduction, or to a combination of underpopulation and overproduction, the result may be equally miserable; and the only way out (unless it be to "let Nature take its course") in either case is to devise a suitable form of collective action. With us the matter of the moment is neither to praise nor to damn the directed economy of the Nazis, but merely to ascertain what their system is as they are working it out on the Nazified German sugar industry.

The function of a German *Hauptvereinigung*, whether the same has been fitted on a branch of agriculture or any other form of German industry, is not primarily to confer prosperity on the producers; the latter naturally cannot be sacrificed or ignored, but beyond what is necessary to keep them functioning their special interests are submerged in the general interest. In the case of the sugar industry, for example, the general interest requires that the German people be supplied with a due proportion of the products of the sugar beet. What this due proportion is must be determined by the needs of the German people for beet products on the one hand and their need for other products on the other hand. That is to say, there being only so much cultivated land in Germany, this land must be divided among the various crops, of which the sugar beet is one, so as to obtain a desirable social-economic

balance between all crops. From this it results that a certain area, no more and no less, must be planted in beets. Further, the total crop of beets produced on this land must be so divided that a due proportion shall be worked into sugar, and other due proportions into other products. From the standpoint of a most efficient and well-balanced national housekeeping, it is obvious that the determination of what these due proportions are cannot be left to the judgment or personal inclination of the individual farmer or the individual factory manager; such decisions are "exclusively the function of the higher authority, namely, the leadership," who is in the best position for gauging the national need in its manifold aspects and who, in the von Ohlen phrase, is "the impartial trustee for all."

This being understood, the task of the Chairman of the sugar *Hauptvereinigung*, assisted by his General Board, his General Assembly and the Chairmen, Boards and Assemblies of the nine sugar districts, is easily outlined. Each year's program requires a careful estimate of the amount of sugar the German people may be expected to consume during the year, having in view the general economic situation. This estimate, plus 20 per cent to establish a contingent reserve, fixes the amount of beets to be worked into sugar. The amount of beets required for other purposes (mostly for stock feeding) is next taken into consideration. This was at the start a more complicated matter, as there are numerous factors to be weighed. Stock feeds are produced by other branches of German agriculture that are administered by other *Hauptvereinigungen*, and there is generally

a deficit to be made up by imports. To strike a proper balance between the various kinds of stock feeds produced in Germany involves some intricate problems of directed economy, which have to be worked out between the sugar *Hauptvereinigung* (III-8), the grain *Hauptvereinigung* (III-1), and the live-stock *Hauptvereinigung* (III-2). For example, dried beets and barley are excellent food for the pigs that are now the main source of edible fats in Germany. The live-stock *Hauptvereinigung* (III-2) has its program calling for fattening a certain number of pigs; and the question is, what proportion of the necessary feed should be furnished on the one hand by the beet growers and by the barley growers on the other hand, the distribution between these two domestic sources being such as to reduce the import requirement to a minimum? In settling this question the relative "quantities of life" residing in these two crop plants are taken into consideration. Now, the fact is that the sugar beet has a quantity of life that is four times that of barley, so that one hectare of land planted in sugar beets will produce feed values equivalent to what might be yielded by four hectares of barley. Every hectare planted in beets will therefore set free three hectares previously devoted to barley (a notable saving of space in an overpopulated country!), and the extra land thus gained may be used for raising other raw materials that now have to be imported (with consequent saving in foreign exchange!). However, this substitution of beets for barley cannot be pushed too far, for various reasons. In the first place, beets alone do not make a balanced ration for pigs, hence barley culture cannot be dispensed

with entirely. Then again, beets are an expensive crop to raise, requiring much labor expense, and the dried beets have to be sold in competition with relatively cheap materials. Now, even in Nazi Germany there is no disposition to compel the farmer to produce any crop at a loss. But by paying him a relatively high price for that portion of his beets worked for sugar, and a relatively lower price for a certain additional tonnage of feed beets, he can be assured of a total return that will equitably compensate him for the sum total of his labors.

As the reader may have already divined, the foregoing is only another phase of a characteristic feature of directed economy: the practice of making a product of relatively high intrinsic value carry the extra cost of supporting another branch of the national economy that would otherwise languish. In Australia part of the retail price of sugar is used to subsidize a thriving fruit processing industry which without this material assistance would have difficulty in existing. In Brazil an increment of the retail price of sugar finds its way into a fund for subsidizing the production of motor fuel in a country without petroleum resources. In Czechoslovakia the retail price of sugar was heavily loaded with the burden of financing imports of indispensable raw materials. And now we observe the Germans putting an extra load on the price of sugar in order to make a limited area of agricultural land "go farther." This is a principle that appears to be capable of indefinite extension, and in proportion as nations are impelled by circumstances or by choice to make the most of their resources for social-economic purposes, we may expect this principle to

become one of the most useful of the tools of the constructive social-economist. We will return to this subject further on.

To resume: after due consultation among the leadership of the various *Hauptvereinigungen* concerned, the sugar *Hauptvereinigung* is able to announce the total area of sugar beets to be planted in Germany. This area is then prorated among the qualified beet producers who had established rights under the old Economic Union of the German Sugar Industry. The new régime made little change in the old arrangement, but a new principle of some importance was added. This new principle is expressed as: "the right to produce is the duty to produce."

The meaning is that when a farmer or a factory is given a quota it is expected that the quota shall be produced. The reason for this requirement is readily understandable. As has already been explained, the country has a population out of proportion to its area of cultivated land, and in view of the low supply of foreign exchange every hectare must be utilized effectively. Further, for the purposes of a balanced national house-keeping only a certain area of land can be allotted to beet culture, and every hectare of this allotment must function. Therefore the owner or occupant of a farm to whom a beet quota has been allotted cannot decide, for purely personal reasons, to grow and produce less; on this point he must accept the decision of the higher authority which, as the impartial trustee of all, has ascertained the needs of the nation as a whole and has assessed the producers accordingly. One of the functions

of the district Sugar Boards is to ascertain what is a fair average yield of beets that, by good management, should be produced on a hectare of any of the various kinds of soils in their districts, and it then becomes the duty of the quota-holding farmer to get a yield that measures up to the standard for his soil and locality; if any negligence is apparent the district Chairman may impose on him a stiff fine (subject to appeal). This is a fair sample of what is meant by the Nazi doctrine that private good and private inclination must defer to the general welfare. The German beet farmer is not allowed to fill his quota by purchasing beets from his neighbor; he must produce the beets himself. Nor does a quota, once assigned, become private property; it can be neither bought nor sold, nor even given away, although it may be canceled by the higher authority. In the Nazi view, the business of producing sugar beet is first of all a matter of national concern; the body politic must be supplied with sugar and pig feed, and this need must not be exposed to frustration by the negligence or incompetence of individuals. In fixing the standard of performance for individual quota holders the district Boards are inclined to set the figure on the high side, with the express purpose of inducing occupants of land not well adapted to the culture of the sugar beet to surrender their quotas. In this way it is expected to concentrate beet growing on the lands most suited to this crop. When a beet farmer thus surrenders his quota he comes under the jurisdiction of the *Hauptvereinigung* having control of the crop for which his land is most suitable.

If the beet farmer is under the duty and obligation to grow beets, so is the factory owner under the duty and obligation to accept and pay (at the prescribed price) for all quota beets supplied by the farmers who have been assigned to him. Moreover, he has to follow the plan laid down by the Chairman of the sugar *Hauptvereinigung*, who prescribes what proportion of the beets shall go through the sugar-making process and what proportion shall be dried for stock feed. Any factory manager who has other views in the premises lays himself open to heavy penalties. The Chairman of the *Hauptvereinigung*, in consultation with his Board, further prescribes what proportion of the manufactured sugar shall be held as a reserve, and how this reserve shall be financed. Also, the Chairman determines what proportion of the sugar shall be manufactured as finished sugar for direct consumption and what proportion into raw sugar.

This last provision is intended to save the former free-lance refineries that previous to the new régime had depended on purchase of their supplies from raw sugar factories. With changed conditions in sugar technology the latter had begun to turn their raw sugar into refined sugar for their own account, and thus to appropriate for themselves the margin of profit enjoyed by the second processors. The refineries were thereby being left high and dry, and their laborers were threatened with loss of employment, victims of the march of progress. By putting a stop to the addition of refinery equipment to raw sugar factories the free-lance refineries were kept alive, and their operatives retained in their jobs. Here again

we see the tendency, observable in all these sugar proration schemes, to go to considerable lengths in avoiding the extinction of existing enterprises, even though it might be demonstrated that they are clearly "uneconomic." We have observed the same phenomenon in the chapter on Argentina, and we shall run across it again further on. It really seems to be a principle of social-economics that technological progress shall not be given free rein to create technological unemployment, at least not in times when unemployment is already rife.

Under the new régime the marketing of the sugar is left pretty much as it had been under the old Economic Union for the Sugar Industry. Each year the sugar *Hauptvereinigung* announces the probable sugar consumption during the coming year and decrees what percentage of their base quotas the factories are to produce for that year. When the new crop of sugar has been made the supply is gradually released, or *freigegeben*, for consumption. These releases are usually made monthly by announcement that an additional 5 or 10 per cent of the base quota may be sold. Each factory manager sells directly to the distributors at the established maximum price, or as far under it as he pleases; he has only so much sugar to sell, representing a definite fraction of the known consumption, and so has nothing to gain by cutting the price. The *Hauptvereinigung* receives daily reports of all sales *ex factories*, and no new release is announced until all factories have disposed of their current *Freigabe*, provided that the laggards have not been negligent in accepting orders; if such negligence is apparent the culprits are required to denature

the remnant and sell it as stock feed at a much lower price, and jail awaits the factory man who by hook or crook succeeds in exacting more than the maximum price.

The Germans have not yet adopted the "ideal freight charge," by reason of which consumers in all parts of the country might pay the same retail price, as in Australia and Poland. In Germany the official retail price is calculated for each locality to include freight from the factory, and this price is binding on the retail dealers, under penalty. The practice observed in many countries of making sugar a "loss leader" is strictly taboo in Germany; the retailer who makes use of this time-honored device of predacious individualism to lure customers away from his rivals lets himself in for a deal of trouble, as the records of the magistrates' courts show.

The Chairman of the sugar *Hauptvereinigung* is also empowered to exact contributions of sugar from the factories for the formation of "special stocks" for use in special forms of directed economy in the general interest. For instance, the poorer classes subsist largely on bread, which might be more palatable if spread with butter, or with oleomargarine; but there is a shortage of fats, which are consequently high in price. The next best substitute would be marmalade. Fruits, however, are also expensive, and in order to make marmalade as inexpensive as possible the sugar industry is called on by the higher authority to furnish sugar to the marmalade manufacturers at a nearly nominal price. With the same idea of making it easier for poor Germans to swallow their bread the production of honey is favored by mak-

ing a great reduction in the price of sugar to bee keepers for the artificial feeding of their bees. It all comes under the policy of making a high-priced article contribute to the support of weak elements of the national household. At first sight it might be inferred that levying on the sugar industry for these special stocks is a form of expropriation, but in the end the levy is covered in the price the sugar manufacturer is allowed to charge for that portion of his total production that goes into direct consumption.

It is, indeed, a fact that proration in Germany, as elsewhere, does not involve expropriation. In the German system, which is perhaps the most thoroughgoing example of directed economics now extant (we are not considering the Russian experiment), the essential rights of private property are maintained. The farmer keeps his farm, works it himself, and prospers or fails according to his skill or luck as a cultivator. The factory owner retains possession of his factory, buys and pays for his raw materials, hires and directs his operatives, sells his product and pockets the profit, if any, or in the contrary case sustains the losses. The sugar *Hauptvereinigung* is indeed invested with the power of eminent domain; it can order a factory to confine itself to the manufacture of certain products, to close down one or more of its departments or to add a new one as may appear necessary for the success of the general plan, which is to achieve *Ernaehrungsfreiheit* for the German people; and it may even shut down entirely a factory that appears to be superfluous. It may increase or diminish a beet farmer's quota, or take it away entirely and release him

to the jurisdiction of some other *Hauptvereinigung*. But in all such cases it must make good any damage that is done to substantive equities, such damage to be assessed by judicial process. However, the State assumes no liability for constructive damages that might result from public control of prices. The presumption is that the higher authority, the impartial trustee for all, will fix a price that will do justice to the consumers and be high enough to keep alive every competently managed enterprise; if the entrepreneur is unable to make both ends meet under this arrangement his loss will be on his own head.

Proration and price control do not necessarily put a premium on inefficiency. Neither do they of themselves guarantee ultimate economic salvation to a nation. It is all very well to have a directed economy that makes everything go as far as possible, but no stream ever rises higher than its source. The economic situation of the German people in respect of agricultural materials is now in a low state and will remain so until the fruitfulness of the German soil is increased by simple measures that are obvious to every competent agrobiologist, but with which German officialdom has not yet begun to reckon in earnest.

CHAPTER IX

Proration in Italy

ITALY has a population of about 42 million, and is about the size of New England and New York State combined. The country is nearly without mineral resources, being particularly short of coal and petroleum. This scarcity of fuel, together with a shortage of other indigenous mineral products, is a severe handicap on manufacturing, which has to depend to a large extent on imported foreign materials. The principal industry is therefore agriculture. However, the country has only about 54 million acres of good plow land, or about $1\frac{1}{4}$ acres per inhabitant, and it has been necessary for the Italians to import more or less food; such imports are not always

an easy matter for a country that is both short of productive land and is without a voluminous foreign trade. Hence, from the sociological point of view, Italy is classed as a rather overcrowded nation with a fairly low standard of living and a low average mass purchasing power.

Although one of the Orient's greatest gifts to modern agriculture, the sugar cane, was planted in Sicily by returning Crusaders, its culture has never flourished there, so that throughout the Middle Ages and down to about the beginning of the twentieth century the Italians had no sugar industry of their own, although the beet sugar industry had long been established in France and other nearby European countries. At length beet culture was started in a tentative way in the northern Italian provinces. The Italian climate, with its hot and often dry summers, is not very favorable to the sugar beet. This fact, together with the high cost of fuel and the lack of experience with the new crop, made the beet sugar produced in Italy very expensive. But the Italians felt that they needed a sugar industry and provided high tariff protection. After a few years the producers began to make progress, and at the close of the Great War the industry could count thirty going factories, which were still far from able to supply all the sugar consumed in the country, the deficit being made up by imports under government supervision.

Then along came the great world sugar boom, to which we have already made frequent reference. Owing to the paralysis of the beet sugar industry in the theatre of war, production of sugar was far behind the demand

and the price soared to a high figure. There was great haste everywhere to plant new fields and build new factories, and the Italian capitalists and farmers joined as willingly as any in the race. The number of operating factories was increased, but meanwhile the high price of sugar was irking the people, and the advisability of maintaining a relatively inefficient and high-cost domestic sugar industry began to be vociferously questioned. The government yielded to the pressure and abolished the sugar tariff, with the result that the consumers soon had all the sugar they wanted at the world price, which was low in comparison with the price that could be exacted by reason of the tariff. As we have just mentioned, the cost of producing beet sugar in Italy is high—the highest in Europe. At the time we are considering the average cost of producing beet sugar in Italy was 275 *Lire* per unit, whereas the Czechoslovaks and the Hungarians (who were indirectly subsidized by their governments in the manner previously described) could lay down sugar in Trieste for 200 *Lire* per unit and make a profit. Before the blast of this foreign competition the Italian sugar industry could but shrivel. Nearly half the home factories, seeing their warehouses full of sugar which they could not sell except at a tremendous loss, closed their doors and dismissed their workmen; thousands of small beet farmers had to turn to other crops, and the economics of the sugar provinces were thrown badly out of joint.

By this time the great depression began to cast its shadow over the land. The country began to run short of foreign credits for the financing of necessary

imports, and deep consideration began to be given to how the supply of foreign exchange could be conserved and made to go as far as possible. Under such circumstances it could hardly escape notice that half a million pounds sterling, gold, was leaving the country every month to pay for foreign sugar while Italian warehouses held more than 300,000 tons of native Italian sugar unsold and unsalable at anything near the cost of production. Taking into consideration the drain on foreign exchange and the unemployment and economic dislocation resulting from the abolition of the sugar tariff, the government at length reached the conclusion that the young sugar industry, though it might well be called "parasitic" and "uneconomic" in a certain sense, was neither the one nor the other when considered from a broad national viewpoint. It had been giving regular or seasonal employment to more than 100,000 persons, and if allowed to grow up to the needs of the country could employ many more. Acre for acre, the sugar beet could contribute twice as much agricultural wealth as corn (maize), which was one of the country's main food crops. And its indirect value to the Italian farmer was something that could not be overlooked: wheat following beets yielded six bushels more to the acre than any other rotation.

So the sugar duty was restored to what was thought to be about right. But in setting up the new tariff the government had reckoned without the Czechoslovaks. These efficient sugar producers and dumpers, egged on by their own country's need for foreign exchange, found the new Italian tariff merely a slight inconvenience, and

it was not until the tariff had been increased several times that they ceased dumping their product in Italy. In return for this ample protection the government exacted from the producers a pledge that they would not charge the domestic consumer more than a certain maximum price, under threat that in the contrary case the duty would be lowered again; the hint was quite sufficient. The producers immediately set up a Consortium that acted as sole sales agent for all the factories, thus assuring one price—the maximum, of course—to all.

The industry was now free to expand sufficiently to supply the home market. Like any other infant industry it had only to grow. The field was wide open to any capitalist who felt disposed to invest his money in a new sugar factory. The government was content to leave the industry alone except to see that the maximum price was not exceeded, and to collect its manufacturing and consumption taxes. At the time of which we write these taxes were onerous in the extreme—the highest sugar taxes in Europe, with the result that per capita sugar consumption in Italy is the lowest in Europe, being around 12 to 15 pounds as compared with around 100 pounds in the United States. But such as it was, this demand for sugar warranted the extension of beet planting and the creation of new manufacturing facilities. The price being stabilized, investors could be reasonably assured of a stable return, although speculative chances of another runaway sugar market were obviously remote. During the period while the home market was still unsaturated with home-grown sugar the deficit in production was covered by government purchases of foreign

raw sugar, which was refined in Italy and sold at the established price for government account; in proportion as the home producers expanded their facilities the government decreased its imports.

While expansion was going on the only excitement in the Italian sugar business was provided by the annual argument between the factories and the farmers' over the price of beets. The factories organized themselves into a National Association of Sugar Producers and the beet farmers set up their National Federation of Sugar Beet Cultivators. The object of beet farmers everywhere is always to get the factories to pay higher prices for beets; the Italian factories, hemmed in on the other side by the maximum price for sugar, would stubbornly resist. The result was generally a deadlock which the government would have to break by allowing the maximum price to be raised, the increment being passed on to the farmers.

By degrees both the factories and the farmers were improving their equipment and methods, and were gaining efficiency. Better cultural practices and improved strains of sugar beet seed began to raise unit yields. Eventually the home production came fully abreast of the home demand, i.e., the producers saturated their market. From this point to supersaturation was but a short step; a surplus made its appearance. Exportation of this surplus under the existing conditions was out of the question; it could only be done by raising the domestic price high enough to cover the export loss, but the domestic price was already so high (largely on account of excise taxes) that such a proposition could not be entertained. There was then only one recourse:

proration and limitation of production to the actual home demand. This was accomplished by the industry itself, without governmental assistance. The factories and the farmers alike accepted mutually agreed-on quotas; the factories according to their previous outputs of sugar, and the farmers according to their previous acreage, or hectarage, planted in beets.

Then followed what might have been expected from a proration scheme where production is limited only with reference to the area of land surface involved. The Italian beet farmers proved to be, at bottom, as much "economic men" as any others, and each proceeded to make the most of his surface allotment. The result was that the surplus grew instead of diminishing, and it was apparent that a further reduction of area was necessary. So the farmers accepted reduced allotments and intensified their culture. Nature also took a hand, and a succession of favorable seasons swelled the surplus to quite undesirable dimensions. About that time the effects of the great depression began to be felt in real earnest in Italy; the per capita consumption of sugar began to show signs of decline, and it became plain that limitation would have to apply to tonnage as well as to acreage.

The farmers and the factories being thoroughly alive to the necessity of keeping down the surplus, it was agreed that the farmers should not have the right to deliver more than a fixed tonnage of beets grown on a definitely described area. But in setting up this system a sort of safety device was provided. There was the possibility that an extra good season would present the

farmer with more beets than his tonnage allotment called for; and on the other hand there was the possibility that a bad season would leave him with a short crop. To provide for this double contingency, it is stipulated that any excess of beets over allotments in a good year should be accepted by the factories, worked into sugar for storage, and the farmer paid for the excess at the price to be agreed on (by collective bargaining) for beets in the following year, his next year's quota being reduced accordingly. In this way the farmer is not exposed to the necessity of selling any of his production at sacrifice prices; the surplus being converted into a reserve stock the public is assured of continuity of supply, and both farmers and factories have an insurance against the variability of seasons. To guard against clandestine delivery of excess beets all farmers having allotments are prohibited from growing beets on their farms for stock feed, and an inspection service, organized and supported by the industry itself, has been set up to see that the terms of the mutual agreement are observed; and all this without governmental intervention.

Meanwhile, the government had long since passed under the control of the Fascist party, and Mussolini, the Fascist chief, was maturing his plan for transforming Italy into a totalitarian State, meaning (among other things) a State in which all the various economic elements should be grouped, classified and organized so that their efforts, instead of being dissipated for lack of coördination or spent in unregulated competition, might be brought to bear on specific problems affecting the general interests of the body politic. The official

keynote of Fascism, as it is of Nazism, is that the general interest of all takes precedence of private interests. To give effect to this idea all cognate departments of production, manufacturing and distribution were to be organized into Corporations in which the government and every classifiable element of industry would be represented. This same idea is the basis of the Nazi economy in Germany and has about the same significance. The wider aspects of Nazism and Fascism do not concern us; we have only to note that the professed object of the one and the other is to bring a compact social organization to bear on the problems of a nation that is overpopulated and undersupplied with the natural bases of a comfortable national existence.

The sugar industry is one of twenty-two Italian industries that have been corporated, and we have next to see into what form this industry has been cast under Fascism.

For all practical purposes no change has occurred in the internal organization of the industry. The existing organizations—the associations of the factories, the wholesalers, the farmers, the technological societies and labor organizations originally associated with the industry were left undisturbed. The existing agreement between the factories and the farmers regarding allotments and limitations remains in force; the Consortium remains in full charge of sales of sugar for the account of the factories, the machinery for maintaining the maximum price is the same; in fact, everything goes on as before. There is nothing even remotely resembling the German sugar *Hauptvereinigung* with its concentration

of authority and minute supervision over production and distribution of the products.

What has occurred is that the collective sugar industry has been made a division of the Council of State in order that its collective wisdom might help to guide the government in matters relating to the economics of sugar. With no disturbance of its existing structure the industry was organized into a "Corporation of Sugar and the Sugar Beet." This body is composed of three representatives of the Fascist party, two of the beet farmers, two of the laborers in the beet fields, one of the sugar factory owners, one of the sugar factory laborers, one of the owners of alcohol distilleries using beet products, one of the laborers in the distilleries, one of the sugar wholesalers, one of the employees of the wholesalers, one of the sugar factory technologists, and one of the professional sugar chemists. This obviously represents a complete cross-section of all interests of the industry, with sufficient representation of the public in the three party men. The chairman of the Corporation is the Minister of Corporations (meaning Mussolini), who by himself or his delegated representative appoints the various members of the Corporation—no doubt taking care to select good Fascists. The Minister of Corporations himself prepares the agenda on which the sugar Corporation is to deliberate (he will entertain suggestions), and fixes the date for meetings. The Corporation may voice its approval or disapproval of the propositions submitted to it; those propositions which it approves go up for ratification to the Central Committee of Corporations; if approved by this body the proposition becomes a law

without requiring the sanction of the two houses of parliament, which are now on the way to extinction.

The Corporation for Sugar and the Sugar Beet held its first meeting in 1934 for consideration of the following program, which was largely suggested by the members and accepted by the Minister:

Regulation of beet culture for sugar production and for seed.

Regulation of the relations between sugar-producing and sugar-using industries.

The tax policy in regard to its influence on sugar consumption.

Regulation of the selling price of sugar.

Expansion of beet growing for the production of alcohol motor fuel.

Out of this program there originated, by the corporation-legislative route, a law confirming the *status quo* in beet agriculture, that is, strict proration and allotment with regard to both area and tonnage, and prohibition of the growing of beets on unassigned lands for any purpose, thus legalizing the measures already set up by private agreements for controlling production. The Corporation's project for a definite policy of sugar taxation was put into effect by a program of cautiously reducing the consumption tax in the expectation that the people would consume more sugar if they could get it cheaper, the idea being to make full use of the economic principle of maximum vendibility. As a further encouragement to consumption the Corporation approved a law for a uniform price for sugar throughout the country by taking into the wholesale price the

"ideal freight charge," which would cover transportation costs to any railroad station, regardless of distance from the factory; we have seen that this same device has been put into effect for the sugar trades of Australia and Poland.

A commission was appointed to consider how the general interest could be served by making special discounts to sugar-using industries, and as a start in this direction the marmalade manufacturers were voted a subsidy in order to encourage the use of fruit by-products, provision for covering this subsidy being made in the price of sugar sold for consumption as such. Here again is the principle of "special stocks," or levies made on one industry by a directed economy for bolstering other branches of the national housekeeping, the industry levied upon being reimbursed in the price allotted to it for its main product.

As a further contribution to a directed economy for Italy the Corporation for Sugar and the Sugar Beet recommended the enactment of an expansive program for the manufacture of fuel alcohol. Here was a distinct void in the national housekeeping, which only a directed economy could fill; Italy is devoid of important petroleum resources, either at home or in the Italian colonies, and hence is dependent on imports from foreign countries. This is a situation that involves a double inconvenience: on the one hand a large amount of foreign credit must be used up to finance petroleum imports, and on the other a too-exclusive reliance on foreign motor fuel is undesirable from the standpoint of national defense. It may be impracticable to displace

gasoline all at once, but a beginning can be quickly made to very materially supplement a minimum of imports. The sugar beet is now well established, and a wide extension of beet culture for the production of alcohol will involve little sacrifice of food production because of the quantity and quality of beet by-products that would be available for stock feeding. This proposition was ratified; the necessary legislation for compulsory use of motor alcohol was worked out in collaboration with sister Corporations; thus a large new field of employment was opened up. It is indeed a fact that the alcohol so produced costs much more (in *Lire*) than imported gasoline, and that its compulsory use imposes on operators of internal combustion engines an unmistakable burden. However, the matter can also be viewed as a concrete application of the Fascist dictum that the general interest takes precedence of private interest. The Italian automobilists are, in effect, levied upon so that the general foreign exchange situation may be eased, and so that additional employment may be provided for farmers and laborers. In both these ways a directed economy serves the general welfare; a part of that which is taken from the automobilists will no doubt eventually be returned to them indirectly as bread upon the waters: the general level of existence will be raised, and this improvement will in some degree be felt by all.

Those who have wondered what the elaborate corporative structure of a totalitarian State can do for the common man may find a partial answer in what has here been set forth. The common man will benefit to

whatever extent the machinery of a directed economy makes a more effective distribution of consumable goods and opens sources of employment in ways that cannot be accomplished by unregulated capitalism. But not too much need be expected; a well-directed economy may make a better use of existing social-economic capital, but it cannot create social-economic capital out of nothing. For all their elaborate organizations Germany and Italy are overpopulated and poor countries, and will remain such until new sources of national wealth are tapped.

In appraising German Nazism and Italian Fascism from the social-economic viewpoint it will be well to make a sharp separation between the two main ideas which permeate both systems. The Fascist State as conceived by Hitler and by Mussolini is "totalitarian" and it is also "authoritarian." It is totalitarian in the sense that all the various economic elements composing the body politic are made to intermesh so that the general interest rather than selfish private interests of minor groups will be promoted. For this purpose all economic life is supposed to function through an organization whereby productive capital and labor may be used in the most effective manner for social-economic purposes. Totalitarianism in its objective phase looks toward a more perfected national housekeeping, and while not neglecting any group or sacrificing any essential right of property gives especial care to the depressed members. With the general purposes of totalitarianism there need be little quarrel; surely a more perfectly organ-

ized society, one that tends to make living conditions easier for the masses and puts a curb on predacious competition and industrial anarchy, is something to be desired.

The authoritarian aspect of Fascism is more debatable. The question here is whether totalitarianism shall be achieved autocratically or democratically. Granting that organized social control of production and distribution is unavoidable if the disastrous consequences of supersaturation (whether due to overpopulation or overproduction) are to be escaped, it is necessary that the organization created for the purpose shall have within it, somewhere, an authority to coördinate and to apply sanctions. Under Fascism of the German or the Italian variety this authority becomes vested in a dictator, who is the sole fountain of constitutional and substantive law, who takes such advice as seems to him good, and who himself chooses the agents for executing such plans as he approves. Without condoning obvious abuses, there is little question that from the purely social-economic standpoint the plans approved by the Fascist dictators have really tended to make the best of bad situations in their respective countries; and Fascism and Nazism, in so far as they have actually worked and are working to improve conditions in Germany and Italy, are entitled to a certain justification. But this is not an admission that the same results may not be achieved in a genuine democracy, where both the plan and the leadership are under complete control of the people. As a matter of fact, the Hitler and the Musso-

lini dictatorships have not achieved a more admirable directed economy for their sugar industries than is to be seen in such democracies as Australia or Czechoslovakia, not to mention other systems lying outside the special field that interests us. No more complete control of an industry in the joint interest of the producers, the consumers and the public could be imagined than that which is to be seen in these countries, where the industrialists and the governments, with the approval of elective parliaments, have collaborated in a constructive work for the general welfare.

The structure and the functioning of the Italian sugar industry itself indicates that industrialists can put their own houses in order with only the assistance that any wise democratic government can give. Long before the present Italian Corporative State took its form the Italian sugar producers, through their own organizations, had themselves corrected the state of supersaturation which had overtaken them, had made a nice adjustment of the relations between farmers and processors, and were furnishing the public with an essential commodity at a price fixed by agreement with the government at a level that corresponded to certain necessary social-economic requirements. The dictator had the good sense to take this smoothly working organization bodily into the corporative scheme and to give it additional means for making its influence felt in the national council. What social-economic counsel the industry offered we have just related.

The point is that a dictatorship can do nothing in the

social-economic field that might not be done by a democracy that is sufficiently infused with the spirit of wisdom; Fascism is not necessarily the sole trustee of the principle that the general interest takes precedence of private interests.

CHAPTER X

Proration in France

IN the two preceding chapters we observed systems of production and price control under Fascist and Nazi régimes in which only traces of democratic institutions remain. We may now turn again to a country wherein democracy is still in full and vigorous bloom.

Perhaps to a greater extent than in any other nation the French government is dominated by an elective Parliament. The President has only a shadow of authority; the executive power rests in the hands of a Cabinet which is voted in or voted out on short notice by the representatives of the people who are in turn ultimately responsible to their constituents. Under such circum-

stances any official act affecting public policy in any substantial manner may be said to have the direct approval of the nation acting through its responsible organs.

The French sugar industry is founded on the sugar beet, which flourishes in the favorable environment of northeastern France. A considerable amount of cane sugar comes to the French market from the French colonies, chiefly from the French West Indian islands and from the island of Reunion, which is in the Indian Ocean.

During the four years of the Great War it was precisely the sugar beet district that was the chief theatre of hostilities on the Western front, and of the numerous sugar factories in this district hardly one stone was left upon another when the Germans finally withdrew. With the return of peace the beet farmers and the sugar industrialists set about restoring the industry, but progress in rebuilding was slow. The government established a sugar tariff that afforded them protection, but for a considerable time foreign sugar had to be admitted to cover the shortage in domestic production. In other words, during much of the post-war period the French market was unsaturated so far as domestic sugar was concerned. There was consequently no restraint on new enterprises; new factories could be put up by anyone who could get together the necessary capital, and any farmer could plant beets with assurance that the product would find a market by displacing a corresponding amount of foreign sugar.

At length the industry caught up with the domestic

demand, and by 1930 the sugar beet had been so improved, or the French beet cultivators had become so adept, that with the concurrence of a series of good seasons the market became not only saturated but a surplus was piled up that was quite alarming. The world price had shrunk to abnormally low levels, so exports were hardly possible. And so, as in all the numerous cases we have considered in this book, recourse could be had only to the one obvious remedy: limitation of production. This being the case, there being nothing in French law to the contrary, the Syndicated Sugar Producers on the one hand and the Confederated Beet Planters on the other entered into an agreement to keep the total of the crop down to a figure that would about equal the annual domestic demand. The term of the agreement was fixed at three years. The total production decided upon was 800,000 tons, to be divided among the 108 existing factories in proportion to their relative capacities as shown by past performances. Each factory then parceled out its quota among the established beet farmers of its territory; farmers not heretofore accustomed to growing beets, but who became seized with a desire to grow beets, were shut out.

Under this new self-made régime the industry got along fairly well for a year, but it soon transpired that the arrangement was seriously defective. In the first place there were a few hold-outs, controlling not more than 10 per cent of the production, who had refused to sign the agreement and who did not scruple to take advantage of the sacrifices of their colleagues to increase their own production. In the second place the cane

sugar producers of the French colonies, also not parties to the compact, proceeded to increase their offerings on the French market by more than 50 per cent. So the surplus continued to grow, and its growth was helped along by a slight but noticeable decline in consumption due to the general economic crisis.

When the time came for the three-year agreement to expire there was strong reluctance among many in the industry to renew it. "Why should we 'hold an umbrella' over those who refuse to contribute to the common good, but are bent on profiting by our sacrifice and self-denial?" The alternative—a break-up of the plan, followed by unlimited cut-throat competition in a supersaturated market, was not pleasant to contemplate but was apparently certain to come about.

About this time the French government—meaning the Laval Cabinet—had become painfully aware of the great depression. Unlike most of the highly industrialized nations of western Europe, the French have a population that for a long time has been increasing only very slowly. Their agriculture is mainly in the hands of a numerous small peasantry who are strongly attached to the soil and are skillful cultivators; the products of the farms are almost if not quite sufficient to meet the demands for ordinary staple foods, and after the post-war recovery period the country has had little difficulty in maintaining a reasonably satisfactory foreign trade balance. For these reasons the French were slow to feel the effects of the depression. But eventually they, too, were involved in the "crisis," and like most of the rest

of the world have been seeking ways and means for dealing with it.

In this connection one of the ideas that came into the mind of the French government was to render it easy for French industry and business to make the necessary readjustments between production and consumption. A *projet de loi* (bill) was introduced into the Parliament, which provided that whenever a branch of production having an important place in the national economy found itself in a position of exceptional difficulty by reason of circumstances of a general nature, the majority of the enterprises in this branch of production could agree on their own plan to remedy the situation; such plan, when examined by an advisory commission and finally approved by the government, would be made obligatory on all members of the branch. In effect, this proposal contemplated something having a certain resemblance to the National Industrial Recovery Act (NRA) in the United States. It may be mentioned that this French scheme was not gotten up with special reference to the sugar industry, but was intended to embrace every branch of French industry that felt the need of putting its house in order.

The French Parliament approached this proposed *loi des ententes professionnelles* with great circumspection. It was debated with earnestness and has been subjected to examination and report by seven parliamentary commissions and committees, and at the time this is being written the debate has not been completed. Meanwhile the situation was not standing still, and the French government found itself increasingly confronted with nu-

merous difficult problems of domestic policy for which it was necessary to find immediate solutions. In order that it might have arms for use against this sea of troubles the Parliament was persuaded to invest the government with a power to legislate by decree—*decrets lois*—that could be put into effect without the delays incident on parliamentary procedure, but subject to later confirmation. In granting this authority the Parliament intended that it should be used mainly to “defend” the French franc.

The sugar problem had now become acute enough to attract official notice. Here was a new disturbance that carried no mean threat of still further muddling the already much troubled economic situation. A price war impended in the sugar industry that would wreck many of the weaker enterprises and bring even many of the stronger ones to the brink of ruin; unemployment would be increased and the incomes of tens of thousands of small farmers would be adversely affected, and the economic situation in the sugar region would be deteriorated.

Here, obviously, would have been a good place to establish an *entente industrielle* (industrial code), but the law was not yet passed. Then some one suggested that to save the sugar industry from itself would be one way of defending the franc, for which purpose the government had been empowered to legislate by decree. So a *decret loi* was launched against the sugar crisis. By this law all persons then engaged in the sugar industry were authorized to agree on a plan for the self-govern-

ment of the industry, with the proviso that if four-fifths of the producers, representing four-fifths of the production (the farmers and the factory operators voting separately under the same four-fifths rule) should agree on a plan, and if such plan, when examined by an official commission appointed for the purpose, should be found not incompatible with the public interest, it would become binding on all persons and corporations engaged in the production of sugar. It may be noted that the majority here required (four-fifths) to put the plan into effect exceeds that required (two-thirds) in the pending general law, but it is possible that the government had advance information of the state of feeling in the sugar industry. At any rate, a four-fifths majority of both farmers and factories was easily obtained, and so the sugar industry became the first French industry to obtain a legal charter for its self-government. This *decret loi*, with others issued at the time by the government, has been ratified by the Parliament, which is still making up its mind about passing a general law permitting similar vertical accords.

The scheme of self-government which the French sugar industry formed for itself under the new legislation included those features which the great majority of both farmers and factories had previously endeavored to realize by voluntary agreement; its main object is to obtain a stable balance between production and consumption. Hence all factories and all beet farmers are held to strictly defined allotments or quotas. The farmers are limited in the first instance to a definite acreage and

a definite tonnage, but in recognition of the fact that climatic influences may greatly vary the output from a given farm it is provided that if beets are produced in excess of quotas in extra favorable seasons, the excess will be accepted and paid for at a discount, the excess sugar not to be sold until the next crop year. This is the same "safety device" we have noted in the Italian sugar industry; it is a social-economic invention worth emphasizing, because it seems to be the best way to equalize the fluctuations of production (and consequently of price) of staple agricultural commodities.

It was also written into the law that during the time the law remains in force any project for the erection of new sugar factories must first receive official approval; any person erecting such a factory without permission is subject to fine and to civil damage suits; any product issuing from an unauthorized sugar factory is subject to four times the taxes that would be collected on legal products, and a court of competent jurisdiction may order seals to be placed on all machinery and apparatus, and also on all doors in the place; these measures, as one commentator observes, would evidently result in closing down the illegal establishment. Measures for preventing the entrance of newcomers into the industry are of course never absent from any effective system of proration in any country, democratic or autocratic. But authority to admit newcomers is useful under certain circumstances. The government may use it to make allotments to additional producers in case the domestic consumption increases, rather than allowing the increase

to be absorbed by the established producers; or it may point to it as a guarantee of good order in the industry in case abuses appear that would suggest dilution of the monopoly.

The question of colonial sugar entering the French market was settled by agreement with the colonial producers, who accepted a quota that was satisfactory to them and to the producers in the "metropole." In their case the further difficulty arose that the colonials would turn their surplus sugar cane into rum, and thus precipitate trouble in the rum market. This was obviated by putting the rum industry under an analogous régime of limitation and quota.

The French system of proration and production control differs from the systems previously considered in that no arrangement has been made for stabilizing the price. The law, while sanctioning rigorous control over the output of both farmer and factory, is silent on the question of what price may be exacted from the consumer; and the factories have not seen fit to set up a body, such as is found in many other sugar-producing countries, that would act as a joint sales agent and see to it that the product came on the market in a continuous regular flow. On the contrary, each French producer chooses his own time to sell, and takes what the buyers are offering at that time. The result is that prices on the Paris Sugar Bourse fluctuate as erratically as in any country where proration is unknown. There appears to be nothing in French law that would prohibit price agreements; in fact, after the law was in force

the government made an attempt, without success, to persuade the industry to establish a uniform price. The French are supposed to be a very logical people; why the French sugar producers overlook all the advantages open to them is not easily explained.

CHAPTER XI

Proration in Spain

PRESENT-DAY Spain has a written constitution, a republican form of government, a President and a unicameral legislature, the Cortes, which elects the President. Election to the Cortes is by direct and secret ballot by universal suffrage on a basis of proportional representation. There is a Supreme Tribunal to pass on constitutional questions. Each province has its elected Assembly, and municipalities have home rule. Although not exempt from severe political disturbances, the Spaniards may be said to be living under a democratic régime in which the will of the people is more or less clearly expressible through the ordinary instrumentalities of republics.

Spain has the oldest European sugar industry, which dates back to about the eighth century A.D. The Moors of that time had more or less close connections with their Mohammedan brethren of the East and had become acquainted with the sugar cane, which they proceeded to introduce into what are now the southern Spanish provinces, Almeira, Malaga and the southern part of Granada. However, these districts being on the extreme northern edge of the sub-tropics, this noble plant could not flourish to any great extent in its new home, so that although the sugar cane has been grown continuously in southern Spain for more than a thousand years it has not been able to extend much beyond the tip of the Iberian peninsula.

At about the beginning of the twentieth century the cane district was far from able to supply the home demand for sugar. This was not much of an inconvenience so long as Spain retained her West Indian possessions, but with the loss of Cuba and Puerto Rico the Spaniards had to consider the creation of a new source of supply. It was found that the sugar beet did very well in that part of Spain where the sugar cane could not thrive. The Spaniards therefore set about the development of a beet sugar industry.

The first step in this direction was the orthodox one of erecting a tariff barrier behind which the infant industry could grow, secure against the assaults of a too-able competition. The growth of the industry was slow, and it was not until about 1923 that the domestic beet sugar crop, combined with the nearly negligible cane crop, was able to catch up with domestic con-

sumption and make further imports of foreign sugar unnecessary. When this point was reached the government raised the sugar tariff high enough to discourage dumping, in the expectation that the sugar question was settled for good and that the industry, now grown to full stature, would continue to live and prosper.

However, the record of subsequent events is merely the same old story in a Spanish version. The producers, having come fully abreast of home consumption, began to overshoot the mark. A surplus appeared, and began to grow. The export market was quite unattractive. According to the nearly universal precedent in such cases the producers should have got together in an agreement to limit production, there being no anti-trust laws standing in the way. But because of a chain of circumstances not necessary to relate, the companies operating the factories found themselves split into several hostile groups. So far from coöperating in a united front against the surplus they began a war of mutual extermination, which took an unusual form. Instead of embarking on a price-cutting war, lowering the price to the consumer in a contest of endurance in which the weaker units would meet their "natural" end through lack of reserves and inability to cover their costs, the stronger companies sought to deprive their rivals of raw material. In the face of the fact that the Spanish domestic sugar market was already supersaturated and exports nearly hopeless, the rival groups began to build new factories in each other's territories, and to outbid each other for the farmers' beets. In this contest they offered and paid the beet farmers prices that left pro-

ducers in other European countries mute with astonishment. This stirred the interest of Spanish farmers in districts where beet growing was not yet established, and they besieged capitalists with requests to put up factories for them; if no capitalists showed themselves sufficiently interested the ambitious farmers formed cooperative companies and went about building their own factories. The chief beneficiary of this merry warfare was of course the unsalable surplus, which doubled and redoubled until it amounted to more than half a year's supply.

By this time any Spaniard could see that this sort of thing could not go on forever, and the factory owners at length concluded to do at last what they might as well have done at first. Except for the inevitable small rump of hold-outs that it seems is always found standing aloof from movements looking toward the common good, ready to take selfish advantage of the sacrifices and self-restraint of others, the Spanish producers began work on an agreement to limit production, on a pro rata basis, to the needs of the domestic market. But the situation had become vastly complicated on account of the new factories that had been thrown up. In the fury of the late contest beet culture had been spread into districts where it was clearly "uneconomic." From some standpoints it would be highly desirable to shrink the industry back to the dimensions it had before the beet war broke out. But the new interests that had been created were in no mood to be sacrificed. The proposition to deflate the price of beets especially drew the fire of the embattled beet farmers, and contests devel-

oped that might have eventuated in a general suspension of beet planting.

The noise from the sugar districts eventually rose above the din of squabbles in which the Madrid politicians were at the moment engaged, and the government saw itself obliged to take a hand. The action of the government took the form of a law that required the industry to work out its own salvation within certain specified lines.

The law set up a *Comisión Mixta Arbitral*, or mixed arbitration Commission, and charged it with the duty of putting the sugar industry in order. This Commission consists of ten members, five representing the factory owners and five the beet farmers. Both orders of representatives were elected by the ballots of their respective interests. The Commission, which functions as a continuing body, is authorized and required to determine, annually, the total quantity of beets to be produced in the country for all purposes, and to divide this production between the five recognized sugar-producing regions in accordance with the average production figures of the preceding five years. The quotas of each region are then divided on the same basis among the factories in the recognized sub-regions, and within each sub-region the allotments to the individual farmers are distributed among the farmers by committees chosen by the farmers themselves. In making the first distributions regard was had for the existence of the surplus, and the quotas were kept low enough to allow this surplus to be worked off within a reasonable time. Account was also taken of the fact that farmers had been encour-

aged to grow beets in relatively unfavorable districts, and were therefore in a relatively disadvantageous position as compared with others; the law therefore required the Commission to allocate these farmers an extra quota amounting to 4 per cent of the total. It was stipulated that as the domestic consumption of sugar increased in the future the increase should be prorated on the same basis. In this arrangement the cane-growing region of the south, which could offer little or no threat to the beet interests, was not subjected to limitation except that extension of cane growing beyond the usual districts was prohibited. The Commission was further authorized and required to determine the price of beets in accordance with a scale that would apply to the whole country.

Another provision of the law was that no factories then in operation should be closed down by their owners without a serious reason satisfactory to the Commission. This provision was aimed at those capitalists who, in the late frenzy, had built new factories with which to ruin each other. In so doing they had inveigled a considerable number of farmers who otherwise would not have been drawn into the struggle. Now that the strife was over the capitalists would be glad to suppress these extra facilities, which were not needed in the first place, and to cast their new beet farmers adrift. This might be eminently advisable from the standpoint of classical economics, which puts a premium on utility and efficiency, but from a social-economic viewpoint it was not desirable thus to cast off the following that a bull-headed capitalism had attracted to itself. The capitalists

themselves having diluted the industry, they must abide the result, and allow all qualified producers to share and share alike in the newly stabilized industry. It was therefore stipulated that the desire of the owners to close a factory must be founded on compelling reasons. In such a case they must cede to their farmers an option to operate the factory as a coöperative concern, and in case the farmers could not avail themselves of the privilege the factory might be turned over to any other competent entrepreneur who could keep it in operation "for the purpose that the factory may continue to function in defense of the agricultural, mercantile and labor interests in the district wherein the factory is situated." Here is a clear-cut instance of the application of the doctrine that private interest or inclination must defer to the larger good. It also calls to mind the Nazi dictum that the right to produce involves the duty to produce; facilities for production cannot be abandoned if such abandonment militates against the public interest.

The law is to remain in force for a period of six years. For preventing any further dilution of the industry stringent provision is made against the erection of new factories, the enlargement of existing factories or the removal of a factory from one district to another; these prohibitions are to apply until the national consumption of sugar reaches 350,000 tons annually (this being approximately the producing capacity of existing facilities). When this occurs the question will be raised as to whether or not the industry shall be opened to new recruits. Meanwhile the relative quotas of farmers and

factories are to be maintained, no factory being allowed to reduce the production figure assigned to it, as this would involve a forced reduction of the farmers' quotas.

Finally, the Commission was authorized and required to work out a price structure for sugar that will reasonably compensate the producers and be fair to the consumers. At this writing the plan for controlling the price, which must be approved by the government, has not been definitely settled upon.

CHAPTER XII

Proration in the United States

THE United States consumes more sugar than any other single nation of the earth; annually this country requires about 6.4 million tons, which is a good round fourth of the total sugar consumption of the world (about 25 to 27 million tons). The average per capita consumption is about 100 pounds a year, from which it may be inferred that sugar has an important place in the diet of the American people.

The first industrial production of sugar in the present territory of the United States dates back to the closing decade of the eighteenth century, when a sugar cane mill was set up in what is now Louisiana. But the

Louisiana sugar industry has always been a small one, due among other reasons to the fact that Louisiana is practically on the outer edge of the sub-tropics where the sugar cane does not greatly flourish. About the middle of the nineteenth century the leader of the Mormons, Brigham Young, proved that the sugar beet was adapted to the continental inter-mountain region, and since that time the growing of sugar beets has spread over many of the western States and even as far east as Ohio. More recently, culture of the sugar cane has become established in Florida, but the area available here for this crop is also relatively small.

The combined production of the sugar cane areas of Louisiana and Florida, plus the sugar beet areas of the western States, is insufficient to supply much more than a third of the sugar requirement of this country. So the United States is and always has been a sugar-importing country, and there are practically no sugar exports. In the early days the imported sugar was supplied by the West Indian islands, from which raw cane sugar, cheaply produced, can easily reach the refineries on the Atlantic seaboard and pass by rail into the interior to compete with beet sugar. Since the cost of producing cane sugar is on the whole less than the cost of producing beet sugar, the former dominates the American market in the east, and the only reason (aside from the sugar tariff) why beet sugar is not driven out entirely is that railroad freight charges on the imported sugar put a limit on its westward travel. For this reason the American beet sugar industry is mostly confined to the trans-Mississippi region where it is within

easy haulage of local markets, but out of the reach of severe competition.

At about the close of the nineteenth century the United States had acquired three other cane-sugar-producing regions: Hawaii by annexation, and Puerto Rico and the Philippine Islands as spoils of the Spanish-American War. At the same time Cuba, the largest and most fertile of the West Indian islands, became an independent republic, and under a reciprocity treaty its sugar was given a preferential status within the American tariff wall. In this respect Cuba enjoys a position relative to the United States similar to that enjoyed by Australia and other dominions with respect to Great Britain. Under this arrangement the Cubans are able to market a large part of their sugar in the United States; the rest they throw on the free world market.

At the time these new sugar-producing areas became associated with the United States the outlet for their product was large and was increasing, not only because of the rapid increase of the American population but also on account of a steady increase in the per capita consumption; for a long time the producers of both beet and cane sugar enjoyed continued growth and prosperity.

Then came the Great War, and on its heels the great boom in sugar. The world market suddenly became highly unsaturated, and there was a great rush of sugar producers everywhere to fill the void. The occasion called for the instant creation of new producing capacity, and nowhere could these facilities be provided on a greater scale or on shorter notice than in Cuba. Ameri-

can capitalists seized the golden opportunity. Large areas of Cuban land were hastily cleared of their primeval forests; dozens of the largest cane sugar mills the world has ever seen sprang up on the island. Year by year the Cuban export figures grew, helping the world market to approach nearer and nearer to and finally to cross the line of saturation. Prices began to weaken. The Cuban producers (and others) redoubled their efforts, hoping to offset lower prices by an increased volume of production with which to discourage competing regions. Meanwhile the Philippine Islands, a fertile tropical land where sugar could also be produced cheaply and one which enjoyed a tariff preference over Cuba in the United States market, also attracted capital and began shipping large and increasing quantities of sugar to this country. Then Hawaii and Puerto Rico, also enjoying a preferred status in the American market, doubled and redoubled their shipments. And all the time the reconstructed European beet sugar industries were rapidly regaining ability to supply their home demands; they not only secured from their governments higher and higher tariffs, but also subsidies of one kind or another that enabled them to export in the face of Cuban competition; and at the same time the Cubans were called on to face competition from Java, where the science of sugar cane agriculture had made astonishing strides.

If the Cuban and Javan producers had been endowed with even a small gift of prophecy they might have sensed the approaching cataclysm. But it was not until they had accumulated enormous stocks and had driven

the free market far into supersaturation that they began to realize the situation and to cast about for means of salvation.

There appeared to be only one way out, and that was to reduce production and stocks to the requirements of the markets. The Cubans, who had accumulated the largest unsalable surplus, took the lead in opening conversations on the one hand with exporting countries interested in the free markets, and on the other hand with the various groups that were supplying the great protected market of the United States. As we have previously set forth, the conversations with the exporting countries eventuated in the Chadbourne plan, an admirable gesture that yielded little practical result. In the other direction the American beet sugar interests and the cane sugar producers of Puerto Rico, the Philippine Islands, Hawaii, Louisiana and Florida were, in principle, favorably disposed to entertain proposals for limitation of production; they were not much interested in the free market, but they were decidedly interested in the United States market, on which the immense Cuban surplus was pressing with crushing weight and making even the Smoot-Hawley protective sugar tariff an empty gesture. But alas; the hands and feet of the American producers were tied; they were painfully conscious of the existence of the American anti-trust laws, which forbid anything having the appearance of a "combination in restraint of trade," especially if such combinations seem to involve tampering with the "natural" control of prices and production.

These American anti-trust laws are hang-overs from

a dead and gone era of American economic history. They were conceived at a time when practically no market in the United States ever reached saturation, at least not for long; at a time when economists, especially political or congressional economists, had little or no experience with or conception of overproduction or the social-economic consequences of market supersaturation. The United States was still a land of unlimited possibilities; it was still under-peopled and was still welcoming annually great swarms of immigrants bringing with them new purchasing power and new producing capacity; it was still exchanging raw materials and foodstuffs for manufactured goods and was all the while straining to create its own industries that rarely seemed able to catch up with demand. In such circumstances prices need little stimulus to rise. Such rises could easily be provoked if two or more competitors should get together to exchange market information, and especially if they should agree to divide markets, or form pools or joint sales agencies. In a word, anti-trust laws on the American model appear as devices to prevent prices from reaching their upper level in a scarcity market, and they were doubtless well meant as a protection to consumers living under an "economy of scarcity." But the framers of these laws, alive enough to the duty of saving the consumer from high prices, apparently had no conception of circumstances whereunder the consumer would need to be saved from the consequences of prices that are too low. In the era of Sherman and Clayton the United States had not reached, much less crossed, the border line between a scarcity economy and

a surplus economy. The idea was that if producers suffered losses with wide open markets in front of them it would be their own fault, and this is doubtless true so long as the market is unsaturated. But the days of unsaturation are largely passed in most of the primary markets. The great depression has belatedly opened the eyes of (some) economists and even some legislators to the fact that if in the public interest prices require a ceiling, it is no less in the public interest that they be given a floor; that if the public suffers when producers make exorbitant profits, it suffers no less if the producers incur disastrous losses. The anti-trust laws may make a good ceiling, but they are hung over a bottomless pit into which producers are welcome to fall, singly or in mass.

However that may be, the sugar producers who were within reach of the long arm of the American anti-trust laws, sorely as they needed and desired a solid floor for sugar prices in the United States market, could do no more than offer the Cubans a gentlemen's agreement, which might faithfully be kept by most of the gentlemen, but would certainly be bushwhacked by the inevitable hold-outs.

Meanwhile, the great depression had descended in full force on other branches of the American national economy. The situation of the sugar producers was bad, but not so bad, relatively, as the situations of the wheat, corn-hog, or cotton producers, for instance. The average American farmer had been deflated on a large scale; the prices of his products had fallen to levels where they were not merely unprofitable but were involving

dissipation of his capital; and there were enormous immovable stocks hanging over his markets. His debts remained unpaid. His community life was deteriorating for want of necessary services. His consumption of the products of other industries was reduced. The numerous urban workers who depended in large part on his purchases for their livings were losing their employment. In other words, the foul weeds of market supersaturation were yielding the bitter fruits of an unmanaged surplus economy. Such was the state of affairs when the Rooseveltian New Deal arrived on the scene to promise a more abundant life for all.

The sponsors of this new contribution to the ideology of American national economics deserve this much credit: they had some conception of where the evil lay, and a halfway perception of a means of attacking it. It is not within our proposition to particularize the structure of the National Recovery Administration (NRA) nor the Agricultural Adjustment Administration (AAA), except as the latter affected the sugar industry. The AAA did not, in fact, at first directly include the sugar producers, who were received into a separate structure, the so-called Jones-Costigan Act. This Act was founded mostly on a structure already worked out in the negotiations between the interests supplying the United States market but which could not be executed on account of the anti-trust laws. The basal structure of the scheme as finally adopted was that which we have already seen exemplified in so many countries: All interests were put on quotas determined on a basis of present capacity and past performance.

These quotas were assigned in the first instance by countries and regions. The sugar market of continental United States, estimated to be capable of absorbing about 6.4 million tons, was divided between the sugar beet areas and the cane-sugar-producing areas of Florida, Louisiana, Cuba, Hawaii, the Philippine Islands, Puerto Rico, and the small Virgin Islands which were now also under the American flag. Cuba, although now not in any way under American tutelage, was accorded an extra tariff preference, not very much to the liking of some clamorous proponents of "American markets for American producers." But in view of the deplorable economic conditions of this neighboring country it is not to the discredit of the majority of the American sugar producers and the American Congress that these clamors were resisted in recognition of the fact that a contented and reasonably prosperous Cuba is worth a good deal to the United States as a whole. Nor were remote foreign sugar producers entirely excluded from the new American scheme. Although sugar from foreign countries not having tariff preference in the United States—the so-called "full duty" sugars—must pay the regular sugar tariff, odd lots of a few hundred tons of such sugar had occasionally reached this country. All foreign countries are allowed to make shipments in proportion to their past participations in this market. In this way Czechoslovakia, for instance, was given a quota of 86.9 tons, and it is a testimonial of the zeal of the Export Committee of the Czechoslovak producers in acquiring foreign exchange at the behest of their gov-

ernment that they have on occasion not disdained to pick up even this small scrap.

To digress a little. In previous chapters we have noted instances of the solicitude with which established interests are preserved when proration of an industry is instituted. Another case in point is the American sugar refining industry, consisting of some fourteen companies operating large plants on the seaboard of the United States. These companies buy and import tropical raw cane sugar and manufacture it into refined products. Until recently the tropical sugar factories were not equipped to turn out high grade white sugar. Heretofore this operation has required the installation of expensive bone-char filters, necessitating much capital for economical operation. The tropical factories, necessarily operating on a restricted scale, were generally unable to make such a large investment, so from the beginning it has been customary to make a division of labor; the tropical producers confined themselves to making an impure raw sugar and shipped it to the refineries for further elaboration. But with the invention of new processes it became possible to refine sugar at the local mills at little expense. The practice was rapidly being adopted, and it looked as if many if not most of the raw sugar factories in Cuba, Puerto Rico and the Philippines would soon be sending only refined sugar to the United States market. This would leave the American cane sugar refineries high and dry, bereft of both raw material and business. As American industries go, the independent sugar refining business is a small one; even so, a large investment of capital was being threatened

with annihilation, and a considerable number of workers were threatened with loss of employment. Although the American sugar refining interests did not neglect to avail themselves of political pressure, they were materially helped by the fact that the function of proration as it is practiced is to save and not to destroy. To avoid extinguishing the refineries it was agreed, and written into the law, that the tropical sugar factories should not increase the proportion of refined sugar they were then shipping to the United States; and they must, in effect, include in their quotas enough raw sugar to keep the independent refineries going.

We bring up this case in order to reemphasize the fact that constructive social economics as it is generally exhibited in proration systems is much more inclined to be preservative than destructive of existing human values. The great investments in bone-char refineries, unconnected with a direct source of raw material, are not merely obsolescent, they are distinctly obsolete in the sense that their equipment and their processes have been outmoded by new inventions and new conditions. By all the tenets of *laissez-faire* economics they should disappear, and with them the livings of those whom they have been sustaining. Many people would think it quite a matter of course that a more efficient new invention should displace antiquated and relatively less economic facilities. That is precisely why inventors are encouraged by the patent law and by the capitalists, whose idea of progress is to set up the new and to throw out the old, regardless of the ensuing social-economic wreckage. It is being done every day in many

industries on such a scale that there has been much talk of "technological unemployment," of hundreds of workers being displaced by a machine that can be operated by three or four men. What to do about these evil accompaniments of the "machine age" is a problem that has left many thinkers in a quandary. Without for the present going more deeply into the subject, we may hold up the present instance as suggesting an answer. Bone-char filters in an isolated refinery may be obsolete, but the employees—and even the stockholders—of these refineries that operate by the bone-char process have as great a need as ever for places in the social-economic sun, and their extinction may go far in counterbalancing the social-economic benefit that might flow from a cheaper source of refined sugar. The point is that even obsolescence may still contain human values socially worth holding, and that new inventions should, for the general interest, be held in check until they can be released without too much damage to established interests, especially in a saturated industry. At any rate, we can now accept it as a more or less well demonstrated rule, that when men in collective action set about putting a supersaturated industry in order they are not necessarily prone, in the name of progress, to throw cripples to the dogs of *laissez-faire*. When this viewpoint has been generalized, as we may not unreasonably expect, the problem of the machine age will be far on the road to solution.

To resume; the quotas of sugar production for the United States market having been assigned by regions, they were next subdivided among the sugar factories

according to their relative capacities and past performances. Quotas for producing the raw materials—beets and cane—were similarly prorated among the farmers tributary to each factory. In the case of Cuba and the Philippines the distribution of quotas was made in accordance with laws passed by the legislatures of these countries; in the other cases the distribution was made by local organizations under the supervision of the United States Secretary of Agriculture.

Thus far the American approach to the problems of the sugar industry conformed accurately to the elegant mold into which the sugar industries of all the countries herein considered have fallen by consent of producers, government and public, as if in obedience to a natural instinct of human reaction. But although the foundations were thus true to type, the superstructure was of a peculiar pattern. Though the New Dealers might pull the teeth of the anti-trust panther, in the end they were devoured by the constitutional tiger. (However, it must be admitted that under the circumstances they need not have done otherwise. Their work was not destined to endure.) Such things as control of product and of price, let alone compulsory control or regulation of production, are not among the legal powers possessed by the Federal government of the United States, or so the Supreme Court did declare. The AAA became of no more significance than a useless piece of paper. The attempt to build a floor over the bottomless pit that sucked in industry and agriculture, and spewed forth a swarm of social-economic evils, ended in defeat for the time being, not to be repeated unless approached

through each of the forty-eight States, or by constitutional amendment. With our present hindsight it would appear that the New Deal should have sought a constitutional amendment in the first place, at a time when the American public, shivering on the brink of a gulf of troubles, was apparently ready to follow the leader wherever he might lead.

However, we have to examine the superstructure erected by the New Deal on so excellent a foundation. As we have just remarked, any other structure would perhaps have met the same fate, but while they were about it the builders might have produced something having a more workmanlike appearance. What the New Dealers produced bears small resemblance to anything we have observed in our survey of systems of production and price control in many lands. What we would naturally look for in approaching a new proration system, aside from an equitable distribution of the total production among the qualified producers, would be a rationally organized price structure, wherein the price to be paid by the consumer is determined in free conference between producers, the government and the consuming interests, a price that fulfills the condition that the producer's existing capital, prudently managed by him, is shielded from dissipation and his ability to pay wages and taxes is preserved. As a support for this price structure a system of market control is set up to assure that the consumer actually pays the fixed price, no less and no more; this marketing arrangement may be patterned on one or another of half a dozen models of demonstrated workability, such as we have described.

These arrangements having been perfected, the government retires from the scene, reappearing only to punish violators, or to act as arbitrator when the processors and the suppliers of raw material, collectively bargaining through their respective organizations, have difficulty in reaching mutually satisfactory agreements. The simplest case is where a single agency acts as distributor to the wholesalers and paymaster to the producers, as, for example, the Australian Sugar Board, the Czechoslovak Central Committee of the Sugar Producers or the Mexican corporation *Azucar S. A.* There is here a minimum of overhead expense, a maximum proportion of the retail price is returned to the producer; and above all, there is no ponderous, indestructible, expensive and irritating bureaucracy; the whole mechanism remains in the hands of the integrated industry itself and there is no drain on the public treasury; all that is automatically taken care of in the fixed price that is paid when the product finally passes into the hands of the ultimate consumer.

The New Dealers accepted the general scheme outlined by the producers for prorating production, but rejected the producers' further suggestions for regulating the price. These suggestions may be summarized as follows: The sugar tariff was to be left practically as it was, except for an increased preference for Cuban sugar. A Board was to be set up and charged with the duty of fixing the official and legal price to which all sellers would have to adhere, under penalty. The price for the day was to be fixed by taking the world price as quoted on the London market the day before and add-

ing thereto the full amount of the American sugar tariff. The sugar producers would thereby obtain the full benefit of the tariff—which in theory at least the law intends that they shall have—while at the same time the prevailing world price would put a limit on what the consumer could be called on to pay. The share of the farmer in the retail price would be determined, as previously, by free agreement between the producers and the farmers' organizations, this being the prevailing method in most countries. This suggestion may be considered incomplete to the extent that it did not contemplate the centralized regulation of distribution that is a commendable feature of many smoothly working systems, and it may be open to criticism on other grounds.

But criticism of this scheme is superfluous; the New Dealers rejected it and set up their own unique plan. In working out their scheme they began far out on the circumference of things, digging back into the reaches of time in search of a mystical yardstick, called "parity price," that ruled in a supposedly golden age before the Great War and the great depression had in turn devastated the earth; to a time when three bushels of wheat would buy a pair of shoes and five pounds of bacon were the equivalent of a pair of kid gloves, or something like that. From such complicated relationships, prevailing in 1909-14, they expected to arrive at an estimate of the cost of plowing, planting, cultivating, harvesting and marketing in 1934, unmindful of the great gulf lying in between, filled with the wreckage of a dead and gone past. As determined for sugar beets,

for instance, this mystical base price turned out to be \$6.90, whereas in 1934 the factories could or would pay only \$5.20. The difference, \$1.70, was then assessed as a tax against the factory operator, who was left to absorb the tax or pass it on to the consumer as best he could. Whether the processors might have difficulty in collecting the tax from the public, or whether on the other hand they might find occasion for adding more than the tax to their prices, or shift part of the burden back on the farmers or their workers, was apparently not given a thought.

The ideology of the New Deal never quite rose to the point of viewing an industry as a whole, wherein production of the raw material, processing and marketing are intermeshing phases of an integrated operation in the service of the public. Whereas in all other proration systems with which we have become acquainted a definite arrangement for orderly marketing and price control is never absent (France is the solitary exception), the AAA attempted nothing of the sort. Instead of bringing those natural partners—farmers and processors—into an organization which would release the prorated sugar crop to the market in regular installments at a fixed price within the limit set and maintained by the protective sugar tariff, the producers were free to charge what they liked and to dump their product on the market when and as they liked. The result was that, in 1935, the first full year of proration, the price of sugar, though better than previously, fluctuated over a wide range (33 per cent). Although the farmer knew exactly

what he would get for his raw material the processor had no such accurate information and was compelled to shoulder, in uncertainty, the burden of financing the farmer's prosperity. On the other hand, the government took upon itself an onerous and costly burden which it might have easily avoided (*pace* the Supreme Court). It assumed the whole burden of attending to the business of acreage reduction incident on the prorating systems. This is a matter that in all other countries is easily and smoothly arranged by the farmers and the factories themselves. Instead, the government insisted on signing an acreage reduction contract with each individual farmer; machinery was created for collecting the processing tax, which was remitted to the farmer by individual check from Washington. With millions of such contracts to scrutinize and millions of checks to prepare and deliver, the creation of a great and costly bureaucracy was unavoidable. And in the end the government was caught in its own trap. With hundreds of millions of dollars of obligations outstanding on which no processing taxes had yet been paid, the whole scheme was invalidated by the Supreme Court, leaving the taxpayers to cover the deficit.

Contrast this ponderous arrangement with the Australian system, or any of the analogous systems that have come within our range, wherein the quotas are assigned by local authorities or by agencies created by the producers themselves without need for intervention of the central authority. The only contract the farmer signs is with his processor, who exercises an effective check on

the farmers' quotas because his own quota is fixed and is easily subject to control. The raw material is manufactured into the finished product, which is turned over to a central agency for sale at the fixed price. This agency pays the processor a lump sum, and the processor hands his check to the farmer. No bureaucrat appears anywhere in the picture, and no speculators or unnecessary middlemen are found hovering in the offing. If anyone is looking for an answer to the question of how to regulate commodity exchanges in the public interest, here is the complete solution: under a modern system of production and price control such exchanges completely disappear because they are entirely superfluous. The product being under single control there are no price fluctuations, hence there is no occasion for hedging operations; and there being no floating stock there is nothing to prompt bear raids, squeezes or corners. There is no danger of scarcity because the law requires the maintenance of a reserve amounting to 15 to 25 per cent of a year's supply, which is usually sufficient to cover ordinary differences in seasonal yields. The expense of fixing and administering the quotas is covered by a charge of a few cents per ton, deducted from the price paid for the raw material, and the marketing expense, now reduced to an absolute minimum, is self-liquidating. In the meanwhile the public treasury is not mulcted by so much as a cent.

Furthermore, if there is an exportable surplus the same central sales agency provides the best possible facilities for disposing of it to advantage. Much has

been said in admiration of the success of large producers' pools, the Canadian wheat pool, for instance; but the best of such pools, hampered by the inevitable hold-outs in a market that is treated as a free commons, cannot compare in efficiency with a pool that is nationwide and includes every single interest.

This singleness of control of production and price is an invention of inestimable value in foreign trade. In the first place it avoids the glaring blunder of New Deal economics of trying to make the world price equal to the domestic price. In all rational prorating systems the export business and the domestic business are kept in separate compartments between which there is no communication. The domestic business, being under complete control, is made to carry the load of supporting the producers in any event, this load being lighter or heavier in proportion as more or less additional income can be wrung from the export business. No attempt is made to achieve the impossible task of compelling the foreign consumers to pay more than is exacted by other suppliers. A sure way of ruining the export trade of any nation is to set up prices that will evoke foreign competition. For instance, the policies of the Hooverian Farm Board and of the Rooseveltian AAA have gone far toward ruining the export market for American cotton, besides hanging a valorization liability of hundreds of millions of dollars around the necks of American taxpayers. The great advantage of keeping the export business and the domestic business separate is that the export price can elastically follow the world price in a way

that will both capture new business and hold competition in check. This idea is already very well understood by many private exporters, and common sense requires that the same principle be introduced into collective business.

CHAPTER XIII

Economic Liberty vs. Economic Freedom

WE have now concluded an examination of a major industry that has been subjected to a directed economy on a grand scale in ten representative countries. It will be pertinent to review again what this record has to teach.

What we have had demonstrated to us—and it has been demonstrated with luminous clarity—is that the market for a basic commodity may exist in one or other of two radically dissimilar phases. There is a phase of *unsaturation* in which demand outruns supply, and a phase of *supersaturation* in which supply outruns demand.

The one fact that must have impressed the attentive reader is that the economics of one of these phases are wholly different from the economics of the other phase. In effect, we are here confronted by two separate economic worlds, wherein men in the mass respond to two differing urges, and display opposite qualities of their natures.

In the unsaturation phase men are, by choice and common consent, individualists *par excellence*. They are veritable hunters in a range that is still incompletely occupied and where, figuratively, the game is abundant and more than sufficient for all who give themselves to the chase. In such an open territory they have only to reach out and take, and so long as unsaturation persists there is substantially no harm to the body politic if one hunter captures more game than another. The unsuccessful are merely chided and advised to redouble their efforts to supply the unsatiated public. This is the phase that is the proper sphere of economic liberalism, the sphere in which it is not merely the right but the social duty of every man to be a rugged individualist and carve for himself a fortune in the service of the public. It is the proper sphere for the science of analytical economics, because here is the native habitat of the "economic man" who, in the presence of untrammelled opportunity, is ruled by no thought but to better himself by outdistancing rivals in the pursuit of private economic advantage.

But when the supersaturation phase is entered the situation is basically altered, and another attribute of human nature struggles up to dominance. In this phase

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men may ruin themselves and one another by their very success in satiating the market. In this phase there is no further room for expansion. To pursue our figure of speech, there is now no longer any game but such as is already in the clutches of some hunter, and he who would enlarge his possessions must now seek to appropriate what is already held by others. From an environment in which any man may thrive by exploiting a market that by common consent is regarded as a free commons and open to all, and wherein the "economic man" actually functions to create positive social-economic values, the industry passes into an environment wherein the "economic man" functions to depreciate the values created by himself and others. But by common agreement such depreciation of social-economic values is not to be endured. The urge to self-preservation rises, and men instinctively draw together in defense against the "economic man," who is disavowed and suppressed.

Not the least memorable of the phenomena we behold in this survey is the practical unanimity with which sugar producers all over the world, confronted by the perils of individualism on the one hand and the benefits of collectivity on the other, have surrendered their attributes as "economic men" and have sunk their characters as rugged individualists in the common cause. Again and again we see them coming together, agreeing to bury their economic hatchets and to exist side by side in amity, respecting one another's acquired status, willing to live and to let live. It is almost an ideal approach to the golden rule of doing to others as you would wish to be done by. To be sure, the unanimity is not quite

complete. There are always a few hold-outs. But it is certainly heartening to have a world-wide demonstration that at least nine out of ten men are socially-minded, and that at most only one in ten stands out as a predator. With odds of nine well-intentioned against one of contrary disposition there is no insurmountable difficulty anywhere in setting up a directed economy whereby individual interest is equilibrated with the general interest, to the legitimate advantage of both.

From this world-wide demonstration of solidarity, given by masses of men of such divergent backgrounds, we are entitled to conclude that the "economic man" has only a conditioned existence, and that economic doctrine founded on the reactions of this hypothetical individual have only a conditioned validity. There is an individualistic instinct in every man, and in every man there is also a social instinct. Either of these instincts will dominate under circumstances adapted to give it dominance, and while one of them is in the ascendant the other is recessive. In this drama as it unfolds before us we obtain a clear view of the two distinct springs of human conduct that are the fountain-heads of the two distinct economic sciences, the analytical and the social, which we have found to be as immiscible as oil and water. Statesmen-economists who pin their faith on deductions from individualism find that they tap few or none of the values that lie in the social instinct. On the other hand, reformers who essay to build on the social instinct find their structures collapsing upon them unless they first clear the ground of all circumstances that could sustain a noxious individualism. And we have

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before us ample evidence that it is both possible and practicable to make the cleansing thorough; that of their own accord men in the mass can and do encase themselves in economic structures that are proof against the assaults or burrowings of the "economic man," and that the design and functioning of these structures have no necessary dependence on geography, race or previous cultural background. Proration is the common feature of this varied picture, and in so far as the sugar producers of these ten nations can be taken to represent a fair cross-section of common men the world over, there is little room for doubt that proration as a foundation for production and price control in the joint interest of industry and the public is a social-economic invention of no small importance and promise.

Proration is the answer socially-minded sugar producers have made to supersaturation; and if we may generalize from the material set forth in this book, whenever supersaturation shows itself proration is indicated as the logical antidote. And now that proration has been invented and has withstood the crucial test of experience on a world-wide scale under the most diverse circumstances, we may ask whether there is or is likely to be occasion for its further extension. Since proration is born of supersaturation we may inquire whether and where supersaturation is now breeding. There are several kinds of supersaturation of social-economic importance.

There is, for example, the kind of supersaturation that has prevailed and is still prevailing in the agricultures of various countries, the United States, for in-

stance. As the author has lately had occasion to set forth in a book entitled *Reshaping Agriculture*, the agricultural establishment of the United States has a capacity more than sufficient to satisfy the domestic demand and has habitually produced a surplus for export. With the damming up of the export outlet during the great depression this surplus recoiled on the domestic market, producing therein an aggravated state of supersaturation which in the absence of any semblance of a directed economy had consequences too familiar to require description. At the present writing the situation is somewhat less acute, due to certain fortuitous circumstances and to more or less adequate farm legislation. But if we assume that no effective directed economy for American agriculture is to be forthcoming it is fairly easy to predict the future course of this branch of the national economy. Practical agriculture is not a static art. It is now crossing the threshold of a marvellous development. A new science of agrobiolgy has arisen to show, first, that the "quantity of life" or power for growth residing in useful plants is of vast and hitherto unsuspected extent; and secondly, to show what adjustments of environment and cultural practices are necessary and sufficient to develop this magnificent vital power to the utmost. This means that farmers who farm intelligently, making use of the knowledge that agrobiologic science now places at their disposal, can double, triple, or more than quadruple the present average yields of staple crops and at the same time reduce their unit costs by half or more. The inevitable result of any notable extension of the use of this science must be to enable a

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relatively small number of efficient and advantageously situated farmers to appropriate for themselves the inelastic market for farm products in the United States, relegating their less effective and more disadvantageously situated competitors to the economic scrap heap. How far this prospect might go toward upsetting the present none too stable balance of American agriculture has been set forth in the book just referred to. The substance of the argument is that what is now being produced by six million farmers might as well be produced by a third of that number on a fourth of the land now in use. And in proportion as the American agricultural establishment, limited as its outlet now is, shrinks toward this minimum dimension, millions of farmers must be competitively destroyed.

In other words, assuming the continued absence of a directed economy, American agriculture is facing perpetual supersaturation, and at the same time will be progressively contributing to supersaturation of a different order. In proportion as agrobiologic science is increasingly applied to the production of agricultural staples for a non-expanding market, the less efficient and those having no advantage of location must increasingly become marginal and submarginal until they finally drop out of the race, only to reappear as applicants for employment in other lines of industry. Supersaturation in agriculture is thus productive of supersaturation in the labor market. And this prospect is not altogether a matter of future development. Deterioration of the body of American agriculture has begun; in fact, it has already gone far, and an attempt has even been made to

apply the only logical counteraction. Whatever else may be said of the Rooseveltian AAA, that clumsy social-economic invention at least proceeded from the glimmer of a perception of realities. If supersaturation in American agriculture is not to remain as a perpetual canker of the body politic, the work thus haltingly and more or less blindly undertaken must be renewed in the construction of a system of proration with production and price control conceived in the light of experience, the record of which he who runs may now read.

Besides the actual and prospective supersaturation originating in agriculture, there is the actual and prospective technological unemployment now evident in the mechanical industries as the result of the introduction of labor-saving processes and equipment. To be sure, certain contemporary commentators are being heard to allege that inventions are not really responsible for unemployment, but for present purposes it is only necessary to fix attention on three points: (1) when a machine or a process is invented whereby 3 men can do the work of 100 men, 97 men lose employment and may or may not be reabsorbed in other activities; (2) there are supposed to be about 12 million unemployed workers in the United States; (3) where machinery or processes are now being operated to capacity by 3 men, under present conditions no employer will add 97 men to the crew. Without raising the question as to how the 12 million persons lost their employment, it is at least certain that improved machinery and processes are doing work that was formerly done and could be done by hands that are now idle. And this condition is not likely to remain

static. It is improbable that the womb of time is exhausted of labor-saving, men-displacing inventions. Assuming the continued absence of a directed economy based on a system of proration that will in the first place put a curb on the predacity inherent in the unregulated use of new inventions, and in the second place convert existing and future inventions into social-economic instrumentalities, we may expect further supersaturation of the labor market.

Then there is a third variety of supersaturation that is observed in such countries as Germany, where the population has increased to such an extent that the produce of the native soil is insufficient to provide all the inhabitants with a substantial average dividend of the material requisites of a comfortable existence, and where it is practically impossible to maintain a foreign trade that would bring in goods to supplement the deficiency of native production. In such cases a limited supply of goods is supersaturated with consumers.

We of the United States are mostly concerned with the first two of these three classifications: an overhanging surplus of commodities and producing equipment in agriculture, and an overhanging surplus of labor in industry. Both are consequences of trying to perpetuate an individualistic system of economics appropriate to a past era of unsaturation in an era that is heavily involved in supersaturation.

If we can bring ourselves to make a partial break with the past we might obtain a good deal of relief by setting up a directed economy on the following lines, based

on the precedents that have been chronicled in this book.

Every basic industry in which there is supersaturation in either goods, producing capacity, or labor, will be prorated and integrated, thus assuring to every producer his due place in the economic sun, from which he cannot be dislodged either by predatory individualism or by technological progress. The proration and integration will be attended to by the industry itself with a minimum of governmental assistance, the nine-in-ten socially-minded producers being given leave to override the one-in-ten predators. The proration and integration will be both horizontal and vertical, reaching through all the producers of the raw material to all the processors who put the final touches on the finished product, and beyond them to the distributors. There will be no such thing as freight differentials to give factitious advantage to fortuitously located producers and to subject remote consumers to factitious differences in cost of living. No restriction will be placed on the invention of improved machinery and processes, except that such inventions shall not be used to undermine the business or ruin the livings of those not having equal rights in the said inventions (the social misuse of inventions being in fact impossible in a strictly prorated industry); those using the inventions merely lower their own costs without capturing the trade of others, and without deteriorating the livings of their workers. The industry and the public (represented by the government) collaborate in fixing uniform prices for the finished goods. The prices agreed on will be based in the first place on what is necessary

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for the maintenance and functioning of the industry, and after this irreducible minimum has been established price spreads are ascertained that will impose the least possible burden on the consumers consistent with the assurance that employment will be given to a maximum number of workers who are qualified members of the industry.* The price the public must pay having been fixed, the price paid by the processors to the producers of the raw material is determined by free negotiation between the trade organizations or associations concerned; the wages of agricultural and factory workers may be determined either by free negotiation between the employers and the labor unions or by statutory enactment. The price of the finished goods being fixed, and the volume of consumption being known, the total income of the industry is known, so that negotiations between processors, producers of raw material and labor unions take the form of efforts to make an equitable division of a visible quantity, with the government as eventual arbitrator. Membership in processors' and raw materials producers' organizations is compulsory (that is to say, no free-lance hold-outs among the capitalists are tolerated!). And by the same token membership in labor unions is an indispensable condition for employment (the way to prorate is to prorate all along the line, else the system fails); to circumvent racketeering by labor leaders payment of the union's fee is regulated by law (as in Australia). In the division of the industry's total income the gross amount apportioned to labor is stretched so as to give at least a minimum wage to all qualified workers in so far as is consistent with the prin-

ciple that no industry shall be overcrowded with more hands than it can support on a fairly decent basis. The right to strike is preserved, but in strikes for higher wages the workers have to consider that the industry's total income is limited by fixed prices that cannot be altered except by a new agreement between the industry and the public; wage increases or reductions must therefore take the form of increases or reductions in the fixed prices, the increment or decrement being passed back to the workers while the producer's margin (which all along has been supposed to be no more than reasonable) remains intact.

We will reiterate that the foregoing program is not of the author's private devising. It is visible in life. In one form or another it is being carried out under democracies as well as under autocracies. It is a spontaneous growth, with its roots in the reasonable natures of enough men to give it effect anywhere.

The foregoing represents what may be considered as the minimum of change to be envisaged in any worthwhile revamping of the present social-economic structure. However, the program as thus far outlined represents only a partial break with the past. To be sure, the breach in the old order is rather wide, at that. The old notion that the market is a free commons is done away with, especially as regards saturated markets. The notion that the public has a right to the lowest possible prices, regardless of how these low prices come to be established, is emphatically rejected. Economic liberty is destroyed in so far as it has any connotation of predacity, which in saturated markets it always has.

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Ability to produce standardized goods more cheaply than competitors no longer confers a right to take business away from competitors. Property rights in industrial plant are shorn of any benefit accruing from advantageous location, and in general property rights in the means of production are reduced to equities having definite fractional relations to the total productive equipment of the nation as of a certain date, and these equities are not subject to enlargement by private initiative; neither are they necessarily subject to growth as demand increases, except by public consent, because increments of social-economic values are now vested in the public to be used for social-economic purposes as occasion arises. Still another old notion to go by the board is that nothing must stand in the way of progress represented by new inventions and discoveries; rights in intellectual property (such as inventions and patents are) are now held in suspense if they cannot be used without sacrificing existing social-economic values.

On the other hand, if economic liberty is abased, economic freedom is exalted. With the elimination of destructive competition the weaker producers are freed from the threat of extinction. Men exchange the license of *laissez-faire* for freedom to live under their own vines and fig trees; economic security becomes a reality for the whole body of producers, including labor.

But if the break with the past is limited to what has just been set forth, the social result will remain somewhat short of the possibility. A socio-economically perfect world will be one where an unlimited supply of all kinds of goods will be available at infinitesimal

prices; this may be an unattainable ideal, but travail to make as close an approach to it as possible will be effort well spent. Proration in its simplest form is little more than a congelation of the *status quo*, with each man confirmed in the possession of what he then has. The primary benefits of proration accrue in the first instance to the producers, apparently to the disadvantage of the consumers, who are deprived of the privilege of buying goods in a demoralized market at or below the cost of production. The first result of proration is therefore a raising of prices, and moreover the quantity of goods in circulation is diminished when the overhanging surplus is abolished. In such a case production is merely brought into line with consumption. However, if the public pays more for the product, it receives compensation indirectly and more or less perceptibly in the general improvement of the national economy resulting from the improvement in the economic positions of the producers. The typical example of this elemental proration system is the sugar industry of Argentina, where no possible use was found for the surplus and the industry was simply redimensioned to fit the national requirement. Under such circumstances the industry is forced to content itself with the income from a single use of its product, and such an industry is relatively least useful to the body politic. A simple arrangement of this kind may be called a proration system of the first order.

A more advanced type is observed where a place can be found for the surplus at a reduced price in some other branch of the national economy. This results in an extra benefit to both the producers and the body

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politic. The producers have their total income enlarged even though the average unit price they receive on the whole is reduced, and the public is directly benefited by the infusion of new life into sluggish cognate industries, or by the cheapening of a different category of goods that are consumed mostly by persons in the lower income groups. Under these circumstances proration becomes a directly profitable bargain for both the producers and the body politic, and we have an arrangement that may be called a proration system of the second order.

Let us fix our attention on the most pregnant feature of this development. Assume that a commodity has three possible uses, but that a relatively high cost of production imposes such a high selling price that it is excluded from two of these uses. Such a commodity is a fit subject for a directed economy. The industry is supposed to be just saturating its market for the product in its preferred use; for social-economic purposes it is now put under a well-managed system of production and price control. The selling price of the product going into the preferred use is moved up to the limit of maximum vendibility, and at the same time the industry is allowed (or required) to produce a surplus, the production of this surplus being financed by the difference between the competitive price and the maximum price that can be exacted from the public for the preferred use under the maximum vendibility principle. The producers are not mulcted in the least by this arrangement. They are still paid the old competitive price for all of the com-

modity they have been producing for the preferred use, and they are reimbursed for the cost of the surplus, which they place at the disposal of the body politic. Now let the surplus, thus paid for, be allocated to the two industries or sets of consumers who were previously excluded from its use by the high price. These new consumers will pay what they can; what they pay may in part be returned to the original producers as a bonus, and the rest used as a revolving fund in aid of other weak departments of the national household. The original producers thus have their own total net income raised, and production and consumption are awakened in dormant collateral lines.

What is here sketched may, in a sense, be regarded as a reversal of the usual phenomena of depressions. As we have repeatedly seen, overproduction in a *laissez-faire* market results in an economic crisis. Proration is invoked, first, to put the threatened industry on a secure basis and to give it a fixed price which is anchored in a preferred use at a level much above the competitive price; from this point of vantage the industry, with the assistance or at the behest of the government, is enabled to divert the surplus at a reduced price to where it will be of most service to the body politic. From being a disastrous public liability overproduction is thus converted into a public blessing. We have seen it done! In the reversed process an industry which by competitive attrition has been reduced more or less to a rock-bottom basis is deliberately caused to expand its production on a scale that would supersaturate its natural market,

but with precautions taken beforehand to see that the surplus confers a similar blessing on a dry-rotting *laissez-faire* economy.

The characteristic of a second-order proration system is that by such a system the principle of special stocks is worked in the public interest for all that it is worth. But the administration of such a system requires a somewhat more elaborate organization than a system of the first order. Where half a dozen prorated industries are not only able to maintain themselves but are also able to put otherwise inaccessible raw materials or finished products within reach of a dozen new circles of consumers, a certain amount of coördination will be necessary, particularly to allocate the surplus materials to the assisted industries and to regulate the prices these consumers must pay. The problem will arise of keeping the system under the administration of industry itself, i.e., to keep away from bureaucracy, although Australian experience (for instance) shows that in an enlightened democracy the government may very well attend to it. However, if the government is not to be trusted, bureaucracy may be avoided by integrating and prorating the assisted industry on the same basis as the assisting one, exchanges between the two being effected through a joint committee along lines laid down in the enabling legislation; such exchanges usually take the form of a written contract between the two industries, as in the Italian corporative system. It may be that there are readers who will damn any proposition that seems to be borrowed from Italian Fascism. But borrowing

some of the devices invented by Italians is not the same as accepting Fascism. As an instrumentality of directed economics a corporative system resembling the Italian model, one that will democratically integrate cognate lines of industry and consumption in the broad public interest under the immediate control of those most interested, appears to be indispensable for the successful operation of an assemblage of second-order proration systems.

How far an assemblage of second-order prorated industries may carry the body politic along the road to reëmployment and a real abundance will depend on the character and extent of the basic industries which can be set to producing surpluses in the manner indicated, and on the width of the spreads that can be established between prevailing competitive prices and prices at maximum vendibility. In the last analysis it will depend on the elasticity of the price for specific commodities, i.e., the extent to which the demand for these commodities is affected by price increases. This will have to be learned by experience. The fact is that there are many commodities the consumption of which is not appreciably affected by rather heavy price burdens. Consider alcohol, for instance. This commodity has a great variety of uses; from our present standpoint the preferred use of alcohol is as potable spirits, for which the public will pay many times the cost of manufacture, and many times the competitive prices at which denatured alcohol is sold for industrial purposes. As everybody knows, the government is not unaware of this situation; by im-

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posing high taxes on potable spirits the government is actually taking advantage, for public purposes, of the wide spread between the competitive price and the maximum vendibility price.

The whole problem of social-economic recovery by the use of second-order proration systems therefore resolves itself into a systematic exploitation of the elasticity of the price for as many commodities as possible in order to raise production and consumption in other directions. It may be regarded as a scheme for effecting a more uniform distribution of *currently produced* wealth outside the traditional price system. Paradoxically, it represents a system for bringing down the general average price level by increasing prices wherever practicable; in effect, it tends to drive into the current of trade a larger proportion of the incomes of those who are able to maintain their rate of consumption of relatively high-priced goods. If thereby the production and consumption of high priced goods are decreased a little, the production and consumption of lower priced goods are more than proportionally increased. At bottom, it means that the reductions in manufacturing costs that follow from an enlargement of the scale of production are in part turned into public account rather than into private account.

However, so far as the United States is concerned, there appears to be no possibility of putting into effect anything resembling this program without a change in the Constitution; that otherwise admirable document is evidently barren of provisions that would permit the

body politic to address itself to the problems raised by economic supersaturation. But in framing an appropriate amendment it should be seen that bureaucracy is avoided and industry be given the fullest possible measure of self-control.

So far as agriculture is especially concerned there is a double reason why the impotence of this great country to move in social-economic directions should be thrown off. As we remarked in the beginning, and have not failed to reiterate on all appropriate occasions, the discovery of the real limits of plant life and the consequent development of an authentic science of agrobiolgy have, in the words of Secretary of Agriculture Wallace, raised up a Frankenstein to confront us. The newly-demonstrated power of earth to yield her increase under the hands of skillful cultivators is of a magnitude to stun the imagination, and to inspire us with both a great fear and a great hope. Fear, because of the perpetual supersaturation and economic misery that must ensue from unlimited competition in the use of means of production that are far out of proportion to an economic system inherited from a past age. Hope, in that through a practicable reconstruction of our economic life to conform to the vast new potentialities of production no legitimate desire of humanity for security and comfort need go unsatisfied. These are the reasons that have inspired the author, an agrobiologist conscious of both the proven resources and the social-economic implications of his science, to write this book. And if in this connection we make specific mention of agriculture

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as something nearest our interest and competence it is not to overlook the obvious fact that in all basic industries the progress of science and invention have brought us into the presence of the same fears and the same hopes.

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