LEHFELDT

NATIONAL RESOURCES OF
SOUTH AFRICA

The National Resources of South Africa

BY

R. A. LEHFELDT, D.Sc.,

Professor of Economics in the University of the Witwatersrand, Johannesburg.

With a PREFACE by the

RIGHT HON. J. C. SMUTS,

Prime Minister of the Union of South Africa.

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PREFACE.

Professor Lehfeldt has done a public service by undertaking the preliminary economic survey of this country to be found in this little book. It is, I think, the first effort of its kind, but I feel sure that the interesting questions raised by Professor Lehfeldt and his lucid and suggestive treatment of the subject will induce others, in and out of our Universities, to follow his example in exploring the hidden possibilities of this great land.

The nations of the world are to-day feverishly taking stock of their resources, and most are finding to their sorrow how prodigal they have been. This, too, is a time for our own national stocktaking, when we may profit by a comparison of our own economic position with that of other countries. The story of our economic development in the past is a tale soon told, for the great economic revolutions of the last two centuries touched us only comparatively lightly. Professor Lehfeldt, however, shows us that by taking thought and active measures our own progress may be accelerated very considerably. As he says, "South Africa is passing away from a prevailingly mining stage of development, just as California and Victoria have done already." The test of our foresight and energy will be that we are able to carry over into other fields of activity the labour and other resources (so far almost exclusively exploited by the mining industry) without those economic disturbances—loss of trade, withdrawal of capital, and unemployment—which retard national progress.

It may be a trite saying that "we are the trustees of posterity," but it is, nevertheless, particularly true of us in South Africa, since we have enormous stores untouched and undiscovered. How these may be utilised to the best advantage is indicated in this book, in which the writer throughout takes the long view of our economic problems.

Professor Lehfeldt has made it abundantly clear that a nation's advance cannot be made at the expense of any one of its constituents, and no increase in our national "turn-over" will compensate us for a low standard of life. We are reminded, too, of the contributions made by the native and coloured races to our national wealth and of their place in our economic organisation.

The student of economics, the legislator, and the average citizen will read this book with profit, and I commend the author's views to the serious consideration of all.

J. C. SMUTS.

PRETORIA,

8th December, 1921.

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CHAPTER I.

INTRODUCTION.

South Africa presents certain singular features of economic development, due to historical causes, such that to apply to them the customary methods of economic analysis should yield results of interest. The following is an attempt to discuss the chief points in which production and distribution vary from the standards of other countries. The differences, it will be seen, arise almost entirely from the presence together of two races at different levels of civilisation, which do not mix readily, and from the characters of the population historically developed out of that heterogeneity.

The total wealth production of the country, or what is sometimes known as the "National Dividend"—the common source of wages and profits—is difficult to compare with that of other countries, because it is due to the combined efforts of the two races. The income per head of the whole population is, of course, much smaller than in a similarly situated country inhabited by white men only, such as Australia, whilst if we try to estimate the average income per head of the whites in South Africa—apart from the difficulty of making the estimate—we shall only get a figure comparable with that for a selected superior class of the inhabitants of another country.

It is very desirable to make an estimate, however, and this is done in the appendix. The result will no doubt be severely criticised on many points, and is frankly exposed to much uncertainty. But it appears to be the first attempt of its kind, and may, on that ground, be excused a greater inaccuracy than the estimates for England, and some other countries where the statistical information is older and more complete. The period chosen is the year ending 30th June, 1918. It is true that by that time the war had already caused a considerable rise in prices, but much less in South Africa than in the belligerent countries of Europe. The reason for choosing so late a date is the institution of a census of production, both in agriculture and in manufacturing; this provides more trustworthy information than was available in earlier years. The influence of change in price level will be considered in due course.

TOTAL INCOME.

The first point to be brought out is the total income of the country as divided between whites and coloured. A small number of the non-Europeans are engaged in well-paid occupations, and live in a style similar to that of Europeans; there are coloured workmen paid trade union wages, there are a few professional men, and there are some Asiatic traders well enough off to drive in their own motor cars. But this small minority is practically without influence on the totals; broadly speaking, the non-Europeans are unskilled labourers. Their total income is made up of the wages paid in mining, manufacturing, farming, railway work, and domestic service, and a few other situations, together with the yield of the native farms. In this way it has been separated from the income of the whites in each of the schedules appended to the present article; the remainder gives the income of the whites.

It will be seen that the total for whites provides an average of about £74 per head. Bearing in mind the price level, this is possibly a little higher than the average for England or Australia before the war, but certainly only a little. And the figures for those countries are genuinely national, whereas here every white man considers himself as belonging to the superior classes of the community. The first conclusion from the figures, then, is that the earning power of South African whites is low—much below that of a correspondingly selected portion of the inhabitants of England or Australia, not to say of the United States.

Economists have devoted considerable attention to defining the term "National Dividend." It is not necessary to repeat the discussion here, or to attend to all the niceties involved in getting an exact result; we may be content with an explanation on general lines. The national dividend is the sum of all the goods and services produced by the nation, and it is represented in money value, approximately by the sum of the incomes of all the indiviuals in the nation. In estimating the income of an individual, the principles adopted by the Inland Revenue authorities are supported, on the whole, by the analysis of economics—that is to say, a person is entitled to deduct from his gross receipts any expenditure that is necessarily incurred in earning them. For instance, a doctor is entitled to deduct the rent of his consulting room, but not of his dwelling-house; a merchant is entitled to deduct the salary of his business secretary, but not of his private secretary, if he keeps one.

In this way we obtain, correctly and without duplication, each man's contribution to the total of goods and services, as expressed by their price.

Several methods have been tried for estimating national dividends. One method, and probably the best, if it could be carried out, is the census—*i.e.*, obtaining a statement from every citizen. That has actually been done in Australia. In this country, however, such a census would be almost impossible to execute, and the use of the method is restricted to what can be done with the larger incomes—those of which the Inland Revenue department demands a return for taxing purposes.

Another method—that which is attempted here—is the inventory. This consists in making a list of the main goods and services produced—*e.g.*, farm produce, railway transportation, medical advice, and so on. In carrying it out, it must be remembered that to produce any of these classes of goods it is necessary to incur expenses which figure as receipts in some other class. Thus the cost of ploughs must be deducted from farming revenue, for it is an expenditure that does not support any persons engaged in farming; the cost appears as revenue in the ironmongery trade, and goes to support the merchants, mechanics, and others concerned in supplying ploughs.

On the other hand, farmers' expense for native labour is not to be deducted from the revenue of farming; for though it is expense from the point of view of the individual farmer, it does not go outside the farming community, which includes labourers as well as landowners. The question to ask in each case is whether the money goes to the support of the particular group we are considering; in each industry the group of persons concerned may include landowners, shareholders, workpeople, managers, and others.

Another way of putting the matter is to say that the income of any industry is to include what goes to the economist's four categories, rent of land, interest on capital, wages of labour, profits of enterprise, so far as these are engaged in that industry, but not payments for raw materials or anything purchased from another industry.

(I.) FARMING.

The quantities of produce are taken from the agricultural census, and so may be regarded as reasonably accurate. The prices should be those obtained by farmers, as any further price charged to consumers enters into the income of other classes of the community.

If, for instance, the price of cattle were taken from the returns of the Johannesburg live stock market, those prices would include the profit of those dealers who take the cattle there, some railway freights, and market charges. All these additions appear in the estimate of the national dividend as part of the income derived from merchanting, from transport, and from the rent of business premises; they must, therefore, not be duplicated by inclusion in the price of cattle. There is considerable risk of over-estimate on this account; it is well known that the prices paid in shops, and even in wholesale markets, are much higher than what the farmers receive: in some cases quite disproportionately so. It is difficult to learn the actual farm prices. Again, it must be remembered that quotations in public markets, and especially of produce for export, refer to qualities higher than the average.

The total revenue obtained in this way has to be reduced by the farmers' expenses for everything except labour, in accordance with the principles we have just discussed. The allowance to be made for seed, fertiliser, implements and the like is a mere guess, and further information on this point would be most desirable. It is taken at 25 per cent. of the gross produce in the case of white farmers, and 10 per cent. in the case of natives.

As regards the distribution of this amount, we may note, first, that somewhat over six millions was the net value of the produce raised by natives on their own farms. If we add to this the wages and the value of rations and quarters received by non-Europeans—about 220,000 in number—employed on white-owned farms, we shall arrive at a total of about eleven millions as the income that the natives draw from farming, leaving £29,000,000 to the white agricultural population. Now the number of whites (male and female) occupied in agriculture (*i.e.*, not including housewives and dependants, and omitting children under fifteen even if working for a living) according to the census of 1918 was 167,000. We may conclude that their average earnings were £174 per head. This, it must be repeated, was at a time when the war brought great prosperity to farmers.

Now the unimproved, or site, value of the agricultural land in South Africa is probably about £140,000,000 (*vid. inf.*). If we take 6 per cent. on this as representing the economic rent, it would be about £8,000,000 per annum, or, say, one-fifth of the net produce. This, however, is probably an over-estimate; the value of land in a new country is raised to a considerable extent by the speculative prospect of future profits—indeed, it has sometimes been said (in another new country) that farmers do not live on agriculture, but on land speculation. In these circumstances the true annual rent would be less than 6 per cent. (if that may be taken as the current rate of interest) on the site value.

(II.) MINING.

In this department official statistics give most of the information we require. We might take the record of output, and deduct the expenditure on stores and materials, but a more direct treatment is possible. Mines belonging to private persons and firms are negligible in extent, and in South Africa the land nearly always belongs to the mining company. Hence the only persons supported by the industry are the shareholders and debenture holders of the companies, and the officials and workpeople employed by them. Accordingly the net yield of mining is almost exhaustively given by the item of £18,600,000 for wages and salaries, together with that of £8,600,000 for dividends and debenture interest. But a great part of the dividends earned were paid to foreign investors—originally, indeed, nearly all the shares were held abroad. During the last three or four years many gold mining shares have been purchased by residents in this country, and in the case of some of the new mines on the Far Eastern Rand, which have turned out very profitable, a good part of the original capital was subscribed here. It is stated on good authority that more than half of the dividends from gold mines now go to South Africans. But at the date we have chosen, 1917-18, that was not so, and, including diamond and coal mines as well, one is probably safe in saying that quite 60 per cent. of the dividends left the country. This makes the net income from the mining industry, so far as South Africa, is concerned, some twenty-two millions. It will be noticed that this is little more than half the income from farming.

(III.) MANUFACTURING.

Here, again, official returns, while not providing all the information we want, put us well on the way of the enquiry. Manufacturers are required to give the gross value of their output and the cost of materials. The difference is supposed to give the "value created by the factory." There are, however, other expenses to be met, besides cost of materials. One of these—cost of fuel, light and power—is called for in the census return; but there are others as to which only a guess can be made, such as taxes, rates, sanitary services, and especially depreciation of buildings and plant. What remains after these deductions is available for paying the persons concerned in the industry, whether the payment take the form of salaries, wages, interest, profits or rent.

In the tables the depreciation allowance is made by taking 2 per cent. on the value of buildings (including land, as this is not stated separately, but must be small in amount) and 6 per cent. on plant and machinery; whilst for the other deductions a round million is allowed. This leaves just ten millions as the income of owners and shareholders of manufacturing businesses, whilst twelve and a quarter million go to the employees. It remains unknown how much of the former sum is paid to owners and shareholders overseas.

It should be noted that on account of the rapid rise in prices, manufacturing was abnormally profitable to owners in 1917-8. This is shown by the fact that the wage bill was only 46 per cent. of the "value added in process of manufacture," instead of 49 per cent., as it had been two years previously.

(IV.) TRANSPORT.

By far the most important part of this is railway transport, in which is included the services of the harbours, and the net earnings can be estimated in the same way as was done for mining. The wages bill is recorded, as also the surplus revenue, which represents interest and profits.

The surplus, as a fact, is only just about enough to pay the interest on that part of the national debt which was incurred in order to build the railways, so that the profits are *nil*. Further, the capital of the debt is nearly all held in Europe, so that it will be roughly correct to balance the surplus against the foreign debt, and say that the net income from the railways is shown by salaries and wages only.

(V.) MERCHANTING.

This is the most difficult item to estimate. The best available guide consists in the income tax returns, for we may assume that few traders of any sort make an income of less than £300 a year. But the category of trade, in the income tax returns, includes manufacturing, so that whatever amount is estimated under (III.) as being profits of manufacture must be deducted from the taxable income due to trading (in which we include the minor official headings of liquor trade, insurance, banking, and shipping). There ought to be a deduction from the amount so obtained for income that goes to the foreign capitalist and additions, not only on account of the small trader who does not pay income tax, but also for the incomes of commercial employees. The latter is of course a considerable amount. It is hardly possible to estimate how much, so we shall have to be content to balance the additions against the deductions. (But see note to Schedule V.)

(VI.) PROFESSIONS.

The income tax figures may be taken as substantially complete.

(VII.) GOVERNMENT SERVICE.

The salaries and wages paid by the national and provincial governments and municipalities are a matter of record.

(VIII.) DOMESTIC SERVICE.

According to the census of 1911, there were about a quarter of a million paid domestic servants in the country, nearly all of coloured race, of course. An estimate can be made of their average wage.

(IX.) RENT.

Some items of rent have been dealt with already. Thus the rental value of farms is included in the general revenue accruing to farmers, and is reckoned under (I.) ; the rental value of factories belonging to manufacturing companies is already dealt with under (III.), for it forms part of the dividends paid; the rental value of mines is included under (II.) for the same reason—that the land belongs to the shareholders. On the other hand, the rental value of most farmhouses has not been dealt with, for the farmhouse belongs to the farm, and the owner does not pay for the use of it, and the value of possessing a residence is not usually reckoned in money at all. Nevertheless, it exists, and is part of the national income.

Again, when a factory is rented, the rent does not appear in (III.). But as the capital value of rented factories was only three to four millions, this item is not important. The chief item is the rent of houses, shops, and offices in towns. Here we have to take into account the annual payment both for the site and the buildings, so that the amount is not identical with the "economic rent" of the text books.

The statistics that exist relate rather to capital than to annual value. There is a valuation for rating purposes in all the municipalities, yielding a total, in the year considered, of £m.131. This may be taken as substantially correct, and it probably includes most of the rented factories referred to above, so that it is only necessary to add an allowance for farmhouses. Now the census of 1911 states that in the rural districts there were 1,278,076 houses, but most were of one room only, which usually means a native hut. The houses of more than one room contained 627,016 rooms, and as they are mostly very roughly built of local materials, it would probably be enough to take an average of £50 per room, or a total of £m.31.

We may check this result by means of the 1918 valuation of the Cape Province—a valuation which, unfortunately, has no counterpart in the other Provinces. It gives £m.59 for all buildings, urban and rural, apart from the sites on which they stand. Now, the white population of the Cape Province is 43 per cent. of that of the Union. If we take the value of buildings to be in the same proportion, on the ground that the houses of coloured people and natives are of too little value to affect the result, we arrive at £m.136 for buildings in the Union.

In Johannesburg, the largest town, site value is about equal to building value; in the smaller towns it would be much less, and in the country districts the land on which houses stand is worth practically nothing. On this basis, and the municipal valuation figures, we may conclude that urban site values total about £m.40.

Thus we have two ways of making up the same total:—

	£m.		£m.
Land and buildings in towns	131	All buildings	136
Farmhouses	31	Urban site values ...	40
	162		176

The agreement is good enough to form the basis of an estimate of income. The annual value required is, of course, the net revenue accruing to the owner after deducting rates, repairs and other outgoings. Most of the houses, being occupied by their owners, have no recorded rent, but perhaps 7 to 8 per cent. of the valuation may be taken as an average for the whole country, urban and rural. This is approximately £m.13 a year.

Note.—The census of 1918 throws some light on this matter, although it deals with the white population only. Enquiry was made as to the rent of dwelling-houses in towns, of three to six rooms, when they were not occupied by the owner. Houses coming into this class amounted to about half the houses in towns, so that it is fairly safe to extend the information to urban dwellings generally. The average rent for a three-roomed house was £43 per annum, and for the larger sizes £51, £62 and £74 respectively. If we suppose these rents to apply also to houses occupied by the owner, if corresponding rents be assumed for the small number of one and two roomed houses (£27 and £35 respectively), and £12 per room for houses of more than six rooms, the total rental of urban private dwelling-houses comes to £6,720,000, for the accommodation of 590,912 white residents. There were also 98,291 persons resident in flats, dwelling-houses combined with business premises, schools, etc.; we shall not be far out if we take it that they paid rent in proportion to their number, or £1,120,000. In the rural districts there were 121,768 houses occupied by white people—a number about the same as that of the private dwelling-houses in towns. It is only possible to guess at their value—perhaps between one-half and one-third of that of the urban houses. The total for dwellings of white persons would thus be about ten millions a year. To this has to be added, on the one hand, the annual value of purely business premises in towns; on the other, that of the primitive dwellings of coloured and native people.

Evidently there are not data to complete an estimate of the total rental value; but the figures are in harmony with the estimates in the text, bearing in mind that the sums stated in the census are gross rents paid by tenants, but that what we wish to arrive at is the net income of owners.

The result of this investigation, as may be seen from the appendix, is to put the national income for the year considered at £m.137, of which £m.30 accrues to the native and coloured population. In arriving at the latter figure, some allowance has been made for the circumstance that some coloured farming is included in the returns of produce of white farms. The agricultural census distinguishes the produce of farms in native reserves, and these probably include all the farms owned by pure natives. But numerous coloured people are engaged in farming on their own account, especially as small holders near towns, so their income would be included among that of white farmers. We have no means of making a correction on that account, but the total involved is not large. Of course it does not affect the income of the community as a whole.

As the number of white persons at the average date considered (January 1st, 1918) was 1,442,000, their average earnings amounted to £74 per head at the price level of the time. The corresponding calculation for the coloured population (£m.30, divided by 5,520,000 persons) gives about £5½, and for the whole population of the country £18 per head.

The number of white persons over fifteen years of age, and classed as occupied—more correctly as income-earning, for the connotation does not include women working gratuitously in the household—is given in the census of 1918 as 478,000. Since they earned £m.107 between them (some boys under fifteen are "occupied," but their earnings do not count for much in the total), their average was £224 a year. It is hardly worth making a corresponding estimate for the coloured people, as the number who should be taken as income earning is too uncertain; probably nearly all the natives, male and female, except young children, contribute a little to farming production, but most of them are not regularly occupied.

A point that may be made in passing refers to the common practice of reckoning four coloured persons as equivalent to one white in consuming power. The figures just given show that this is not correct, so far as the whole native population is concerned; but it is probably not far from the truth for those natives who work for Europeans, in the mines and elsewhere, as also for Indians and half-breeds. Their income, including rations and allowances is often about £40 to £50 a year, so that four would have about the same spending power as the average white worker.

The economic importance of the nation may be estimated along those lines. The figures given above for the national income show that the earning power of the whole Union is about equivalent to that of two million whites of the kind who actually live here. It is of considerable value to have a rough rule of this kind, in order to compare South Africa with other nations. Thus the "equivalent population" of two millions is one twenty-third part of that of the United Kingdom, and rather more than one-third that of Australia; the weight which the Union exerts in the world, as an economic unit, is expressed by these figures.

In concluding this section, it must be remarked that there are two methods of defining the national dividend, both of which are legitimate. It may be regarded either as the sum of the incomes of the citizens of the country, or as the sum of the income produced in the country. We have adopted the former definition, which is probably the more generally useful one, though the latter has advantages in certain applications. We have therefore subtracted from the inventory of goods and services produced the value of dividends paid to foreign shareholders. To illustrate the point, suppose that a certain district is growing produce worth a million a year, but has no railway communication, and has no capital to make a railway with. A foreign capitalist then undertakes to construct the railway in exchange for an annunity of £300,000 a year; the railway is made and the produce then becomes worth a million and a half. It would, for most purposes at least, be misleading to describe the income of the district as a million and a half; following the Income Tax Commissioner's rule of deducting expenditure necessarily involved in earning the income, the latter should be put at £1,200,000.

Residents in South Africa own but little property outside their own country, whilst residents in England and elsewhere own a larger amount of capital in South Africa, and also supply a certain element of business enterprise in the case of undertakings managed from head offices in London and other leading cities. British capital invested in South Africa (including Rhodesia) was estimated as £m.351 in 1910 (Paish: J. Stat. Soc., 74, 180). A South African Treasury estimate for 1918 (U.G., 18-20, p. 5 gives the interest payments abroad as £14,200,000 from Government loans and company dividends, plus an unknown amount from private trading profits.

CHAPTER II.

PRICE LEVEL.

The national income we have been estimating is an amount of money, but that is only a step towards the national dividend of goods and services—the commodities actually enjoyed by the inhabitants. In order to effect the transition, it is necessary to take into consideration the level of prices in the country. In doing so, we shall, of course, meet with the usual difficulty involved in comparisons between different countries or different times, viz., that the goods which are of most importance in one country do not necessarily hold the same place in the other. This difficulty is exaggerated in South Africa by the circumstance that even within the country the urban and rural parts show remarkable discrepancies in habits, prices and standards of living. A brief discussion of this point, even though the facts may be familiar to most people in the country, is desirable.

In rural South Africa the standard of living is very low, and so long as the customary standard is followed, and imported luxuries are not asked for, living is very cheap. The food consumed is nearly all of local production—meat, poultry, eggs, dairy produce, mealie meal, and a few vegetables are raised on the farms, and usually not sold for money; for the purpose we have in view they must be reckoned at the prices they would fetch on the farms if offered for sale, prices much below those current in the towns. The difference from town prices is in fact much greater than in Europe, on account of the primitive nature of transport, the imperfect organisation of markets, and the high rate of profits. Flour is the most important article of food South Africa has to import; that is dear, and so are groceries, which are imported to some extent into the country districts, tea, coffee, sugar and minor articles. Generally we may say the feeding is poor in quality, but that such as it is, it is as cheap as in most farming districts of the world—probably cheaper than in Western Europe.

Clothing in the rural districts is of course rough, and on account of the mild climate much of the expense incurred in colder climates is saved. But as the clothes are nearly all imported, the prices are high—higher even than in the towns of South Africa, and much higher than in Europe.

Housing is of the most inferior description; the climate makes tolerable to white people buildings which the poorest peasant in Western Europe would hardly put up with. Houses of the type commonly met with are cheap; not it is true when corrugated iron and squared timber are used. but when made of local materials, such as sun-dried brick, rough timber and thatch.

Beyond the necessaries, food, clothing and housing, the average country dweller in South Africa, not belonging to the well-to-do, spends very little indeed. If anything out of the ordinary run is needed, the price is almost sure to be high—*e.g.*, the cost of medical attendance is much higher than in the towns, as a doctor has to be paid to come from a distance.

Contrast this state of affairs with that prevailing in the large towns. There food is expensive, judged by a European standard. South African produce fetches prices out of proportion to its value on the farms; for example, milk was sixpence a quart even before the war. Meat alone could be described as cheap; fruit and vegetables fetch a price more suitable to Iceland than to a fruit-growing country. Whilst flour, being an imported article, is dear both in town and country, bread, which is bought ready baked by most town dwellers, was (in Johannesburg) threepence a pound before the war—a price considered alarmingly high in England even now.

But whilst food for home use was rather dear, certain conventional necessaries, largely consumed by the town population, were still dearer; this was true of alcoholic drinks, restaurant teas, and of chocolates and other sweets. Such items must be considered seriously if we try to estimate the value obtained by the South African of the towns for his money income.

Clothing is much the same in price for similar qualities in the town and country shops, though different qualities are commonly sold; the price level before the war averaged about 50 per cent. above that of England, whence most of the supply comes.

Housing is extremely dear. The standard of building, though much better than that in the country, is not good, but the cost of building even before the war was far above that in Europe, and as the rate of interest expected on investments was also higher, there was a double reason for the excessive rents prevailing.

In view of the great disparity between town and country, it is not possible to give a numerical comparison applicable to the whole Union. For the towns certain figures are available. Thus a Government Commission in 1913 found that the cost of working class living in Johannesburg was about 50 to 60 per cent. above that in contemporary England. But the South African Census Department publishes monthly statistics of the cost of living in South African towns. From these it appears that in 1917-18 retail prices in South Africa were 31 per cent. higher than at the outbreak of war. In Johannesburg the index for 1917-18 was 136, as compared with 119 in 1913, the rise being less than in most parts of the country.

The most convenient standard to take is the level of prices in England shortly before the war. Taking this as 100, it appears that Johannesburg might at the same date be represented by 150-160; Johannesburg in 1917-8 by about 180, and the South African towns generally in the latter year by about 170. It should not be forgotten either that the disparity of price between England and South Africa is even greater for many small articles of expenditure, such as tramway fares, newspapers, bioscopes, and most personal services. If we say that living in the rural districts of South Africa is, with respect to the commodities ordinarily consumed there, slightly cheaper than in rural England (a favourable estimate), we have to combine that conclusion with what has just been stated about the urban districts, bearing in mind that the larger part of the country's income is earned and spent in the towns.

Whilst it is not possible to give anything that can properly be called a numerical estimate, it is clear that a million of South Africa's income brings in far less real value than a million in England did before the war; indeed, it would be fairly safe to say that quite a million and a half would have been needed in South Africa in 1917-8. Now the average income per head in the United Kingdom in 1913 was about £49. The South African figure of £74 per white inhabitant therefore represents no greater real purchasing power.

We thus come back with fuller information to the statement already made above: the earning power of the white South African is low. It is at most equal to that of the average Englishman, and is certainly much below that of such classes of Englishmen as correspond in occupation with the whites in South Africa. For if the whole unskilled labouring class be omitted from the British enumeration it is obvious that the average income of the remainder, the families of the skilled workman, the farmers, and the middle classes generally (including also the small number of the well-to-do) will be much higher than £49.

This conclusion is important, because there is a prevalent impression to the contrary. The wages of artisans in the towns have always been high; so much higher than in England that there could be no question of the excess being absorbed in the greater cost of living—*e.g.*, in Johannesburg before the war a pound a day was the standard rate, and this represented a style of living much beyond the reach of the British artisan at the time.

These high wages, being much in evidence, have produced the impression that white workers in this country are generally well paid. But really the artisans in the towns are unrepresentative of the people. They should rather be reckoned as members of the middle classes, along with clerks, school teachers, small shopkeepers, and the like. What is often overlooked is that there is a great mass of cheap unorganised labour in the towns below the artisan class, and that in the rural districts wage workers get only a small fraction of what town artisans are paid, and most farmers working on their own account are but little better off.

[NOTE: 1921.—Farm prices are on the whole lower than in 1917-18, but higher than in 1910. Farmers' expenses for implements, fertiliser, etc., are still high, being influenced by trade conditions in 1919 and 1920. Accordingly the net yield of farming is now much less than in 1917-18.

The value of mining has been raised by the gold premium to the extent of about eight or nine millions, but the output has fallen off, and the value of diamonds has fallen from seven millions (in 1917-18) to almost nothing. The total net yield of mining is probably a little smaller than in 1917-18.

Manufacturing has increased to a considerable, but at present unknown, extent as compared with 1917-18.

Commerce is at present badly hit by the depression.

Taken as a whole, the money income of the country is now rather below than above that in 1917-18, despite growth in population. The level of prices compares as follows (according to the publications of the Census Department):

	1910.	Mean of 1917 and 1918.	July, 1921.
Wholesale	100	164	169
Retail	100	127	148

According to either estimate, the buying power of the money income is decidedly less than in 1917-18.]

CHAPTER III.

THE SOURCES OF INCOME.

The next point that may engage our attention is the distribution of the national income as to origin. The proportion in which it is yielded by the main sources of production, agriculture, mining and manufacturing is a dominant influence on the country's development. South Africa, being a "new country," may be expected to depend chiefly on primary production, and only to a smaller extent on manufacturing; and as in certain other thinly peopled countries, mining—yielding a rich return, with comparatively little preparation—has played a specially important part. But of course not in the really early stages of this country, for South Africa had been settled centuries before the discoveries of Kimberley and the Rand.

MINING.

These discoveries accordingly took their place in a country already occupied with farming, and caused its development to become much more rapid. The impression produced has been that gold and diamond mining constitute the main resources of South Africa, but, important as they are, this is not true. For one thing, the gross output of mining is subject to larger deductions than that of agriculture; the expense for materials, machinery, etc., is great, and the capital has been so largely supplied from abroad that the mines pay a heavy tax to foreigners in the form of dividends. Quite recently that situation has been modified by the repurchase of mining shares from oversea, and by the development of new mines in which local capital plays the chief part, so that now it is estimated that not more than half the dividends go abroad.

But even the gross output of mining in 1917-18 was less than that of farming; probably it was not so a few years ago, and with the fall in the price of farm produce the situation may be reversed again. The mines, however, have about reached the limit of their productiveness, whereas the progress of farming is steady, and no limit to it is yet in sight, so that the relative predominance of farming will almost certainly increase.

For the year considered the gross output of the mines was given officially as forty-seven millions, whilst our estimate for farm produce, admittedly uncertain, is a little more than fifty. The recent fall in the price of farm produce has, no doubt, reversed the position even though, simultaneously, the output of diamonds has fallen off almost to nothing. Indeed the farm produce of 1917-18, if sold now, would probably fetch less than thirty-five millions, which is less than the value of the gold exports alone. But the matter of real importance to the country is the net income, found after deducting cost of materials; and even if the deduction for farming costs adopted here be insufficient, the error could not be so large as to make much difference to the conclusion. Thus for 1917-18 we estimate that farming yielded a net income of £m.40, mining £m.22, to persons in this country; no possible correction with regard to farming costs could bring the former figure down to the latter. [Now, in 1921, it is possible that the net revenue from mining may be the larger of the two, for it has been increased by the premium on gold, while the farming community has not only to stand very low prices for what it sells, but has not been able yet to effect corresponding reductions in its outlay for machinery and stores; presumably this abnormal situation will be righted after a while.]

It should also be remembered that mines are wasting assets, and it is not the custom of the mining companies in South Africa to make any allowance for depreciation. They waste pretty rapidly: in fact the gold mines of the Rand have a life of the order of twenty years. Hence, although the mine field is of much higher duration—there are vast stretches of auriferous country yet to be developed—the rate at which working capital is used up is rapid enough to make a sensible difference to the net income. On the other hand, the occupation of land for farming purposes not only tends to raise its "unimproved value," but leads to constant small improvements that hardly appear in statistics, but are none the less a real addition to the wealth of the country—improvements in roads and paths, fencing, tree planting, erection of outbuildings, water conservation, and so on.

Nor is the relative importance of the two industries correctly measured by the monetary value of production alone, for the number of persons supported by farming is relatively even greater than the net revenue. Mining income takes the form of high wages, spent in the urban districts in buying commodities at high prices. It is probably not too much to say that farming supports four times as many white families as mining, and contributes something like twice as much to the support of the native population.

It is often said that the importance of the mines is not to be estimated merely by their direct revenue, but by the support that they give to other industries—to the supply of food stuffs, to the production of mining machinery, to the railways, and so on. The argument is fallacious: everyone is everyone else's customer, but that is no more true of mining than of any other occupation. For instance, a farmer spends his income and so gives employment to manufacturers of implements, of clothes, to the railway; there is nothing peculiar to mining in the matter. It is true that the existence of minerals has afforded the opportunity to a large number of people to earn a living, and has therefore attracted population to the country, and made the development more rapid than it would otherwise have been, but that is not necessarily an advantage. Beyond the actual amount of income from the two sources there is another noteworthy difference; the income of those concerned in mining, being aggregated in larger amount, is more easily subjected to taxation—accordingly the State secures more revenue from mining than from agriculture. But we must not confuse with this the notion that mining is in any special way beneficial to railways, and hence to Government; the mines pay for the services of the railway, just like any other customer, and the revenue thus earned goes to cover the expenses of the railway system, and help to make a reasonable profit. Of course if the mines were to close down the effect on the existing railway system would be disastrous; but if there had never been any mines railways would have been developed to the extent required by other industries, and would have had an equal chance of financial success. Railways are quite flourishing in the Argentine, where there are no mines.

Whether the more rapid development that ensues from mineral discoveries—the immigration, the mixture of races, the dependance on foreign capital—is an advantage or not is a question that must be answered by each according to his social and political prepossessions, and cannot even so be answered securely until history has revealed itself much further than is the case at present. It need not be discussed here; we need only remark that South Africa is passing away from a prevailingly mining stage of development, just as California and Victoria have done already.

MANUFACTURING.

Manufacturing, as is to be expected, occupies an earlier and lower stage of development than mining. It received a great stimulus during the war by the difficulty of importing many classes of goods which were not formerly made in the country. The industrial census was instituted in 1915-16, just at the beginning of the period of expansion, so that records hitherto published indicate a rapid but rather misleading rate of growth. Since the peace there has, of course, been a setback, due to the resumption of manufacturing and export by the countries from which

South Africa was formerly supplied, and the local industries have now to endure much more severe competition. The census for 1920-21 will probably show a contraction in employment—such fluctuations are among the regrettable effects of war; if there had been no war progress would have been slower but sounder. The average rate of growth between 1915-16 and 1919-20, reckoned according to the number of employees, was 11 per cent. per annum. It is clearly not possible to keep this up long in a country whose population only grows at the rate of one and a half per cent.

The figure given in the appendix for 1917-18 is £m.22—*i.e.*, about the same as for mining, and only half that for agriculture. Employment in manufacturing is in the hands of whites to a greater extent than in mining, and the rate of wage is lower, so that although the total revenue derived is about the same, the number of white persons supported by manufacturing already considerably exceeds that supported by mining.

Manufacturing is obviously susceptible of expansion, and is a permanent industry, and has, moreover, the advantage of being more widely diffused than mining, so that in every way it should occupy a more important place in the future of the Union. To what extent this may become a manufacturing country is a difficult question, and one needing a great deal of technical knowledge to discuss; one or two broad considerations only can be introduced here. Manufacturing may be divided roughly into two classes: (*a*) small factory work intended for the local market; (*b*) work, done mostly in large factories, for the world market. The former springs up spontaneously in all countries, and is of more importance than is commonly supposed; it is not so spectacular as "large industry," and consequently gets less attention than it should. Its persistence is due to the advantage attaching to choice by the individual purchaser, and to the saving of cost and delay in purchasing locally: thus the making of furniture and clothes is found all over the world, and building (which is included in manufacturing) must be done on the spot, except for the preparation of materials. Again, the working up of local materials (milling, jam-making, bacon-curing, and the like) occupies many of the inhabitants of all countries.

It is, however, (*b*), the manufacture of staple goods, mainly for export that gives its character to the leading industrial districts; thus we have the great cotton industries of Lancashire, and the steel making of the Rhine country. The reason for the location and development of manufacturing of this class lies in the economy of production on a large scale. In many branches of manufacture of high grade it is impossible for the small, unspecialised factory to compete; not only does the large establishment possess important advantages in organisation over the small one, but an even greater influence is exercised by the aggregation of numerous factories in one district.

Few countries in the world can expect to possess an industrial district of this kind; it is just possible that the eastern portion of the Transvaal, with the north of Natal, may develop into one. The coal supply there is good; there is one first-rate harbour, though not within the Union, and some others of less natural advantage; but, on the other hand, the country is too mountainous for inland transport ever to be cheap. There is a supply of cheap and fairly efficient native labour; but in the export market this would have to compete against the labour of European countries, which is at an immensely higher level of intelligence, and against that of India, China and Japan, which is about equally cheap, and much more abundant and efficient. Further, the home market of South Africa must, for long, if not for always, remain small, so that there is not the same basis to build upon as in Britain, Germany, the United States, and the greater oriental countries.

It is, therefore, well not to expect too much from the future development of manufactures in this country; nevertheless, in certain directions the prospects are good—

perhaps in iron and steel, more than any other important line. Accordingly the lines of progress we may hope for are—

(1) Working up of local raw materials, both in greater variety and to a larger extent, as the agricultural production of the country grows. In addition to the examples already mentioned (milling, jam-making, bacon-curing), we may refer to the manufacture of wattle extract. Wattle bark is exported to Europe, but during the war, on account of the exorbitant freights ruling, an attempt was made to do the preparation of the extract here, and export that instead of the bark, thus securing for South Africa one stage of manufacture beyond the growing of the raw material. The attempt has met with reasonable success, as now a good proportion of the wattle produced is exported in the form of extract.

(2) Increased output of essentially local manufacturing, such as furniture.

(3) Extension of (2) to other classes of local demand in which the inferiority to the great world centres of manufacture is not too great (probably boot and shoe making comes under this head).

(4) Possibly the manufacture of certain staples for export.

Beyond this it does not seem likely that South Africa will go. Nor is it, to a mature consideration, any more desirable than probable. True the great manufacturing countries have been the world's leaders in wealth and influence during the last two centuries, and this fact may be at the root of the desire, so remarkably widespread, on the part of small countries to imitate their industrial achievements. But the disadvantages of industrial development are also very marked. It means aggregation of people into towns and cities in circumstances that tend to lower the standard of physique, and which do not offer any compensating cultural gain. In the most favourably placed countries the workpeople of the factories are beginning to get high enough wages to enjoy some of the amenities of life; but even there what they obtain in the way of better housing and feeding hardly compensates for the loss of the charm and healthiness of country life. Where industrial circumstances are not so favourable the outstanding fact of industrial development is that the workpeople live in overcrowded, ugly, noisy, and depressing suburban districts. It may well be doubted whether it is a real gain for any nation when this population grows at the expense of the rural classes, although the output of wealth is increased.

Considering South Africa specially, we have to bear in mind the distribution of races. A really large industrial growth would depend on the employment of coloured and native labour on a very large scale; the labourers would be concentrated in urban districts, and would be permanent residents there, with their families. The conditions of the Witwatersrand would not be typical, although even there a resident native population is growing up. But on the Witwatersrand the bulk of the native labour is imported for a few months at a time; this would not do for a manufacturing centre, because a much greater variety of labour is required. It is not quite satisfactory even on the gold mines to employ for the roughest work natives who return to their kraals after a short engagement, and have no home life where they work, but it would be impossible in factories; for factories need some training even on the part of their least skilled hands, and that means permanence of employment.

Accordingly, to understand what an industrial district would be like, we must look to the coast ports rather than to the Witwatersrand. We should expect to see a population of all shades of colour, engaged in occupations graded continuously from that of skilled mechanics to the roughest manual labour; and the white population will not necessarily be the best paid, for coloured workmen often win good positions for themselves by skill and industry. The situation may be studied in a small example in such a town as Port Elizabeth. The average wage of white employees cannot but be lowered by coloured competition; it was £111 per annum in 1917-18 at Port Elizabeth, and that implies, of course, that many whites are engaged at considerably lower wages. In view of the expensiveness of the South African towns, the standard of living corresponding to such wages is not such as to make it worth while pressing for a change in the direction of industrialism. There is no doubt that an increasing fraction of the people will come to live in towns in this as in all other countries; but it is a movement that should rather be watched and checked than one to be urged forward at all costs—so long at least as rural expansion is still possible.

FARMING.

We turn, then, to farming, which is the mainstay of all new countries (not to mention many old ones), and which, we have already seen, supports more of our population than any other industry. Farming of almost every stage and kind is to be found within the Union, from the primitive communal agriculture of the Kaffir village and the roughest pastoral farming of the back-velder, who practically farms for subsistence only, to highly developed estates managed on modern and scientific methods.

The white settlers began at the stage of rough pasture; when population is scanty this is the most profitable form, but with the natural increase in population the productive power of the land used in this way is insufficient. Unfortunately for the history of this country the settlers, living isolated lives and with no educational facilities, and morally weakened by dependance on the labour of a subjugated race, have failed to adapt themselves at all readily to changed circumstances. The descendants of the early pastoralists should have adopted new methods of farming which produce more from a given area; but usually they know no method of farming except what their fathers practised. Attempting this on inadequate pieces of land, many have been reduced to destitution.

There has, of course, been considerable advance, nevertheless. The production of cereals, tobacco, fruit and some minor crops is increasing pretty steadily, and in the last ten years there has been a marked development in the production of meat of quality good enough to export. This last is perhaps the most encouraging sign of progress to be noted at the present time. It has been brought about by the spontaneous efforts of farmers; it has not been subsidised by Government, which has confined itself to the legitimate service of promoting veterinary knowledge and enforcing safeguards against disease: thus there is no doubt that it is, in the economic sense, a natural and healthy industry, capable of large expansion. In 1910 the exports of meat were trifling, whereas in 1919 they amounted to 46,000,000 lbs., of value £1,171,000 (though 1920 shows a falling off from these figures).

The other leading new development in farming is sugar growing. This has increased from about 90,000 tons in 1910 to nearly double in 1920; but it has been fostered by an import duty on foreign sugar, so that it is not yet possible to say whether it can be classed as a "natural" industry, in the sense that it is capable of supporting itself, and making an independent contribution to the wealth of the country.

The progress in total output can hardly be traced yet, for want of statistics. An agricultural census was only instituted in 1917-18, and now it only gives quantities, so that values have to be estimated from other sources, and it is notoriously difficult to discover the actual prices received by farmers for their produce. Previously to the institution of the agricultural census the only figures available were those of the general census, and these were extremely inaccurate so far as agricultural production is concerned. An attempt by the present writer* to make use of the data from the census of 1911 (returns covering the year ending March 31, 1911), allowing for inaccuracy as far as possible, gave a gross output of £26,500,000 at the prices then prevailing. The same quantities if sold at the prices of 1917-18 would have yielded about forty millions. It is, however, unsafe to take these results as any guide to the rate of growth; the yearly agricultural census will, after a time, give much more trustworthy conclusions.

Besides increase in quantity, there is an improvement in quality to be taken into account. This is suggested by the trade in meat, just referred to; it is also evident in the fruit industry, and to a less extent in the case of more ordinary staple products. It is clear that a considerable increase in the value of the farming output would be attainable if the quality of all products were brought up to the best standard that the conditions of climate and soil permit of.

More accurate measurements of growth can be made on certain commodities because they are produced mainly for export, so that the Custom returns give information. Thus the most valuable of all our farm products is wool; the exports have been as follows:—

	Annual average. lbs.
1880-89	66,000,000
1890-99	88,000,000
1900-1909	85,000,000
1910-14	145,000,000
1915-19	145,000,000

The progress is satisfactory. In maize also the increase is considerable, for, in addition to supplying the needs of

* *S.A. Journal of Industries*, Vol. I.

the increasing population of the Union, the export has reached the considerable amount of 300-400 million lbs. a year, whereas before 1909 it hardly reached one hundred million.

Evidently, then there is normal and healthy growth in agriculture and in pasture in this country. To what extent it can be left to natural processes—in other words, to the action of self-interest—and how far the intentional effort of the nation, as represented by the Government, is needed, is outside the present discussion. But it is important to consider the probable limits of expansion. To answer such a question properly an agricultural survey of the Union would be required, and that does not yet exist. We can only attempt a first skeleton of such a survey, based on general knowledge of the country.

For this purpose we may divide the Union into the following geographical regions:—

(*a*) Coast belt, including the low-lying "Western Province" lands.

(*b*) Dry central region.

(*c*) Grass lands of the Southern Transvaal, Northern Free State, and Natal.

(*d*) Sub-tropical regions of the Northern Transvaal and the Natal coast.

(*a*) is a region of moderate fertility, and fair rainfall, reasonably distributed throughout the year. It is comparable with much of Southern Europe, and its products, such as corn crops, wine and fruit, are similar. It has been settled for a long time, and the population is denser than in most other parts of South Africa, though still very thin from the European point of view. The area, bounded by mountains on the north, and taken as far as the border of the Transkeian territories on the east, is about 25,000 square miles, and the population in 1911 about 600,000 (24 to the square mile). It could no doubt hold several times that number, as an agricultural district, with a fair proportion of local manufactures, and the trade that its maritime position ensures to it. There is some immigration of whites from the central region (*b*), but there is a preponderance of coloured—*i.e.*, half-caste—among the present inhabitants; those of pure Bantu stock being few in number. The coloured people are successful as farm workers, and are preferred by employers. There are considerable numbers of white small-holders in certain parts, and as the country should become more thickly populated and closely cultivated there is obviously room for many more. But so far as present indications go, it is the coloured population that is likely to prevail. There is much less social difference between white and coloured in this district than between whites and non-Europeans (who are mostly natives) in the other districts.

(*b*) is the largest section of the Union in area, but is little favoured by nature. If it be taken to include Cape Colony, so far as not included in (*a*), together with Bechuanaland, and the south and west of the Orange Free State, the area is 267,000 square miles, and the population 1,342,000 (5 per square mile). This region appears on the whole to be suited for little beyond rough pasture, carrying a closely limited number of sheep and cattle. The population is practically limited by the pastoral capacity, as there are no mines and no facilities for the development of industries. It is decidedly one of the poor districts of the earth's surface, but it includes certain riveraine stretches which can be converted into good irrigation settlements. If we may judge by recent censuses, the population has already nearly reached the limit of capacity, for there is emigration from many parts of this region to more favoured parts of the Union. Much of region (*b*) is unsuited to natives, and unattractive to them, so that the white population should have no difficulty in maintaining itself there as against native competition. But even here the coloured are in a majority, and in the eastern portions, where the climate and vegetation are better, and approximate to those of Basutoland or the Transkei, the native races are, to some extent, in possession.

(*c*) This region may be taken to consist of some 61,000 square miles of high-veldt in the north and east of the Orange Free State, and south of the Transvaal, and about 52,000 square miles, covering Natal, Zululand, and the Transkei. The first portion, which includes the industrial area of the Witwatersrand, had a population of 1,262,000 in 1911, and the number has grown rapidly since; the second portion had 2,088,000 inhabitants, of whom the whites form only a few per cent. It should be said that these figures for area and population include the coastal strip which belongs, climatically, to (*d*). Its area is ill-defined, but quite small; it includes, however, a considerable population, especially round Durban.

It will be noticed that (*c*) as a whole, while only one-fifth of the Union as to area, contains more than half the population. It is, in fact, the core of the Union, and its relative importance will almost certainly increase. The whole region has a fair rainfall, and is capable of great farming development; at present it is mostly used for pasture, but agriculture is growing steadily, and it may be estimated that a white family can support itself here on much the same area as in Western Canada or in Australia.

The whole region is suited to white occupation, but history has already practically ruled out the possibility of its becoming a "white" country; one part, the Transkeian territory (as well as Basutoland, which belongs to this region geographically, but is not under the Union Government), is reserved for a dense native population, already living there; another part, Natal, is chiefly in the hands of capitalist farmers, working with the aid of native labour. The remainder, the high veldt, is still open to colonisation; it contains a much larger proportion of European descent, and shows a more rapid increase than most parts of South

Africa, and there is still abundance of room for new farmers. At the same time it must be noted that the custom of dependance on native labour prevails here, too, so that the future of the white race as farmers even on the high veldt is uncertain, and is involved with questions of national policy.

There can be no doubt, however, that this area is destined to attain a moderately dense population and considerable importance. It may perhaps be compared with Spain, or with some of the middle United States—Kentucky, Tennessee, Arkansas. If inhabited as thickly as Spain, the population would be between ten and twelve millions.

(*d*) is mostly fertile country with a good rainfall; there is every prospect of development, but in the way of tropical plantations, where sugar, tobacco, cotton and similar crops are grown with the aid of native labour. It is highly improbable that white settlers will go there, other than a small number of well-to-do plantation owners, as in other tropical countries. The area is about 68,000 square miles, and the total population 653,000, not counting the Natal coastal strip of some two or three thousand square miles.

It is clear that the Cape coast belt and the High Veldt (region (*a*) and part of (*c*)) must be the stronghold of the white race in South Africa; it is by no means equally clear that the white race can maintain itself even here. Great agricultural development is to be expected in these regions, leading to a population of a good many millions. What share the whites will have in this development depends on the future history and policy of the nation.

Returning to the immediate subject, the possibilities of the national income, we may conclude in general that the income from farming is susceptible of increase to so great an extent that we need not at present attend to the question of an ultimate limit. The increase may be expected to result from progress in several directions, as—

(*a*) Fruit and wine culture, as well as general farming, in the Western Province and coast belt of Cape Colony.

(*b*) Irrigation settlements at many places in the interior.

(*c*) The development of the fertile High Veldt by closer settlement to yield larger corn crops, and at the same time to carry more stock, by more careful methods of farming, and the use of winter feed crops; hence extension of the dairying and meat industries.

(*d*) Plantations of tropical cultures in the north of the Transvaal and the coast of Natal.

Farming already, it may be repeated, yields a larger net revenue than either mining or manufacturing; and it is destined to great progress, while mining will probably remain nearly stationary, and manufacturing undergoes only a moderate development, limited, chiefly, by the progress of the farming population, who are the customers of the manufacturers.

CHAPTER IV.

FOREIGN TRADE.

South Africa is more dependant on foreign trade than most countries. This fact may be illustrated in different ways: thus, taking the "equivalent population" (see page 19) as one-twenty-third part of that of the United Kingdom, we may compare the total imports and exports of the two countries. It is not worth while to do this for the year 1917-18, which we have chosen for estimating the national income, for that was a year of war, and foreign trade, even more than any other economic circumstance, was upset by war conditions. But during the years 1911-12-13 the total imports and exports of merchandise averaged £m.101. For the same years the trade of the United Kingdom—a country whose foreign trade is well known to be of the first importance—was £m.1,220, so that if South African trade had been in proportion to this it would have amounted to about £m.53 only. Comparison with Australia or Canada yields a similar result.

Another way of putting the matter is to compare exports with total production. The average value of South African exports for 1911-12-13 was £62,000,000. We have not attempted to determine the total production of goods in the country at that date, but it was certainly less than in 1917-18, both in quantity and in price level. Hence the estimate of the national income (of goods and *services*) for the latter date enables us to see that more than half* of

* More precisely the goods exported have a value equal to more than half that of the total output of the country. If the gross total of goods turned out from farms, mines, and factories were taken, that would appear not to be the case; but that total involves duplication. For instance, explosives are manufactured in the country, but they are mainly used up in producing gold and other minerals, and, moreover, are manufactured out of imported glycerine. Clearly it would not do to count their gross value as part of the nation's income, or to compare exports with the total of goods (such as explosives) handled in the country.

the goods produced in the country are exported in normal times. It is hardly necessary to point out that this does not mean that they are lost to the country, for we get imports in exchange. However, it is an abnormal situation for a country that it should be dependant, to that extent, on selling its produce abroad.

It is well known that more than half of our exports consists of raw gold (60 per cent. in the years 1911-12-13), and that a good deal of the remainder consists of diamonds. The farm produce exported was worth some twelve millions sterling a year at the same date. It increased greatly in money value during the war, but not much in quantity. The manufactures exported are negligible in amount, and the imports, as is usually the case with a new country, consist mainly of manufactured goods. The most noticeable difference from other new countries lies in the fact that South Africa before the war still imported food to an appreciable extent. The situation has improved in this respect, but the country probably does not even now quite feed itself; since it does no manufacturing for export, this implies that other minerals or produce like wool, hides, and feathers must be sent abroad to pay for the food we need.

It is of interest to try and forecast the future course of foreign trade. Up till the beginning of the war the price of raw produce was rising more than that of manufactures—in the world generally—and this gave a growing advantage to the new countries. But now, although some parts of Europe are still under-cultivated as a result of war, the shortage of food stuffs and raw materials is, on the whole, past; it is, rather, manufactured goods that are relatively scarce, and it is very probable that for some time to come the advantage will lie with manufacturing nations rather than those occupied chiefly with farming and mining.

Since, however, this country depends to an extraordinary extent on the mining of gold, it will be worse hit than other new countries. The price of gold in the United

States, whose currency is still on the gold standard, is necessarily the same as before the war; in English currency there is a premium, but it scarcely exceeds 20 per cent., whereas the price of the manufactured goods that we wish to buy has risen to a far greater extent. South Africa will therefore be unable to obtain, by importation, as plentiful a supply of manufactured goods as before the war: the standard of consumption in clothes, furniture, motor-cars, railway equipment, etc., must be lowered. The proper remedy for this state of affairs is ultimately the transfer of enterprise, labour and capital from gold mining to other occupations; but it can only be done slowly, and necessarily involves a good deal of waste in closing down going concerns with unutilisable assets. For some time to come we must face the loss.

It is possible to make an approximate estimate for the years immediately ahead. Developing countries sometimes raise capital abroad, and import it in the form of goods—partly machinery and similar goods intended for permanent improvements, and partly stores to provide for the workmen during the period of construction of improvements: in this case there is an unbalanced importation. Apart from that, however, imports have to be paid for by exports; and of course even the imports obtained on credit have to be paid for eventually, though it may not be till after a number of years. There is no very marked development going on in South Africa at present: such new factories and farms as are being started are probably financed with local capital; there is hardly any new mining enterprise, and the construction of new railways is suspended. It does not seem likely, then, that there will be any large importation of capital yet awhile, except such as the Government is able to borrow in London—indeed Europe has little to spare; America is the country in the best position to finance foreign enterprises just now.

We may take it that the imports South Africa will receive in the next few years will be little more than the country can pay for currently. There was an excess of importation in 1920, due to temporary and, indeed, accidental circumstances, but that is already over. If we count up what we have to sell, we must take gold bullion first. It is hardly to be expected that this should reach 8,000,000 ounces;* some of the sources of supply are falling off through natural expansion, some are threatened by the least fall in the price of gold, though the stress of circumstances may bring about an improvement in efficiency that will partly compensate the fall. On the other hand, there are some new mines in course of development, but it is most difficult to secure new capital for them.

If we suppose the London price of gold to average 100s. an ounce during the next two or three years (and any recovery in European trade conditions would probably bring it lower), the value of this gold would be £40,000,000 per annum.

Next, there is the agricultural and pastoral produce, valued before the war at about twelve millions; this will, presumably, be somewhat increased in quantity, and, despite the extreme depression prevailing in the wool market at present, will fetch a higher price. Then there is coal, and that most uncertain article of trade—diamonds. With such an irregular demand as that for diamonds any forecast must be a mere guess; fortunately farm produce is coming to take a bigger place in the country's resources than diamonds. On the whole, we will suppose these minor exports to be worth thirty millions. Against them have to be set the so-called "invisible imports"—chiefly interest on debt and banking and insurance services, estimated at eighteen millions a year. Thus we have as our balance sheet:—

* Output of the Transvaal (fine ounces):—

1916 ...	... 9,297,000	1919 ...	... 8,331,000
1917 ...	... 9,018,000	1920 ...	... 8,158,000
1918 ...	... 8,418,000		

Gold	£40,000,000
Other exports	30,000,000
	70,000,000
Interest charges, etc. ...	18,000,000
	£52,000,000

This is all that South Africa has to spend. Now in the years immediately preceding the war imports varied between £36,000,000 and £42,000,000, so that if the amount now available is correctly estimated the goods that we can buy from abroad must be fewer than before, as the price of manufactured goods has risen by more than the proportion between (say) £39,000,000 and £52,000,000.

Without wishing to deal at length with the question of fiscal policy, which always arouses bitter controversy, we may point out certain conclusions of economic science that will perhaps meet with general acceptance.

It is possible by means of State action (in the form of Customs duties or of bounties) to promote the growth of manufacturing. This, however, does not prove that the wealth of the country will be increased, for the growth of manufacturing may be accompanied by a falling off in farming and mining. The protectionist case is not sound unless it is shown that there will not be a falling off in other industries large enough to balance the improvement in manufacturing. Now to show this it would be necessary to show either (i.) that protection will result in the employment of labour that is doing nothing useful, or (ii.) will result in labour working with greater intelligence and efficiency, or to better advantage.

In such a country as England argument (i.) is not possible, for more than 95 per cent. of the possible workers are at work in normal times, and the small balance includes many whose positions would not be affected by any industrial reorganisation.* It is, however, possible that in South Africa there is a class who find no useful work to do on the land, but who could be trained to be productive in factory work. If this is so—if there is a class who, through want of education, social prejudice, or other cause, are unemployable in farming or mining, but employable in manufacturing—that would constitute a very strong argument in favour of the artificial stimulation of manufacturing. Such a condition would be clearly abnormal, and would need to be investigated with care. There is some evidence that it does exist; one finds, for instance, white men doing work of a very humble character, in Port Elizabeth factories, who if offered corresponding jobs on farms might probably refuse them as "kaffir work." In so far as this is the case, the factories are performing a useful educative function. But it would not be safe to make much of this argument without detailed evidence.

The other argument involves showing that factories and the life of the factory worker provide a training in intelligence and industry that cannot be hoped for on the land, even on the part of those who are fully occupied there. This also is possible, but certainly is not to be assumed without proof; in other countries the peasantry are industrious, even to excess, and considerable advance in intelligence and technical knowledge are observed among them, so that the case for factory work as against farming is by no means clear.

The phrase used above was "with greater intelligence and industry, or to better advantage;" the latter clause was meant to refer to the use of more favourable natural resources. In general, if the natural advantages of manufacturing are greater than those of farming or mining, enterprise and labour will flow to the former spontaneously without State help, but cases occur in which a favourable

* It includes those moving from one job to another, some of those who are sick, and some who are taking a holiday.

ultimate result is hindered by difficulties in starting. Here a case for State aid may be made out—an "infant industry" may be helped until the workmen employed in it are working "to better advantage" than they would otherwise be (not necessarily "with greater intelligence and efficiency").

Claims for a protectionist policy should be criticised in the light of these principles; it must not be assumed hastily that increased production in one industry can be brought about without equal (or even greater) loss in others.

A particular instance may make this clearer. The sugar industry has grown up very successfully under the shelter of a tariff; that is the good side of the policy. It may eventually justify itself completely by providing South Africa with sugar as cheap as could be imported: but so far it has not done so; let us suppose that it fails to do so, in the long run. Then if, say, the workpeople on mines and farms consume 50,000 tons of sugar, and pay £5 a ton more for it than if it were obtained from Mauritius or Java this is a tax of £250,000 a year on mining and farming, which, of course, makes employment in those industries a little more difficult and tends to lower real wages in them; that is the bad side of the policy. It may be said that the tax is a small one, but we are only considering one item of protection; the lesson is not to dwell on the more obvious favourable results without noticing the less obvious drawbacks.

The same essential position may be put in a different way. If the ideal of the protectionist were attained, we should, presumably, manufacture for ourselves most things that are now imported—iron and steel, machinery, clothes, boots, and so on; leaving to import only a few materials that certainly cannot be produced in South Africa, such as quicksilver, and a few of the finer articles—books, Paris frocks, Zeiss microscopes, and the like, which are of an international character. But if this ideal were attained, how would our foreign trade account stand? If we do not buy, we cannot sell, for other countries will not buy of us if they cannot sell to us. So the export trades—gold, diamonds, feathers, and most of the wool—would eventually nearly vanish because they had no market; in other words, the change would be a transfer of enterprise, labour and capital to new activities in place of old, not a creation of new sources of wealth out of nothing. It would be necessary to consider very carefully whether we should be better or worse off in this state of economic self-sufficiency than at present. As remarked above (p. 33), the new countries seem to be dazzled by the wealth and power of the great manufacturing nations—England, Germany, and the United States—and to conclude too hastily that a similar line of development will raise their own position in the world.

CHAPTER V.

DISTRIBUTION OF INCOME.

The income produced by industry has to be distributed amongst the various persons concerned in producing it, and it is found in practice that there is a good deal of stability in the way the product is shared; thus, a successful strike may bring a rise in wages, or a rise in market prices may for a while yield abnormal profits, but in the long run the proportion between the different shares shows very little change. Again, when taxation is placed on one class of income, it tends to be diffused through the community, owing to its effect on prices, or whether, say, a scheme of sickness or unemployment insurance is based on contributions from employers or workpeople or both, makes very little difference to its ultimate incidence.

The feature of distribution that is most in the public mind is that between capital and labour, the income of the capitalist being loosely termed "profits," and put in contrast with "wages." We must, however, go somewhat more closely into the matter to arrive at any useful conclusions, and follow the more careful analysis of the economists, who distinguish four main agents or factors: (i.) Land and natural resources generally (*i.e.*, minerals, water power, etc.); (ii.) capital, using the word to cover material resources not included in (i.) (*e.g.*, buildings, railways, ships, machinery, etc., as well as money); (iii.) labour of all grades; (iv.) enterprise, distinguished from (iii.) not by its social status or remuneration, but merely by the fact that it takes the responsibility of producing, and employing labour. Thus the payment made to the owners of land for its use is called "rent;" to owners of capital, "interest;" to labour "wages" or "salaries;" and the term "profit" is restricted to the balance remaining in the hands of the enterpriser, who sells the goods he has produced, and pays rent, interest and wages out of the proceeds.

It is, of course, not implied that the different factors necessarily represent different persons; for example, a farmer may be owner of land, and also of the capital he employs, and at the same time is "enterpriser" of the business of producing crops and stock. Still, broadly, the different factors of production are associated with different social classes.

Now there is a well understood theorem of economics according to which abundance of any one factor increases the value (or remuneration) of the others. Thus in India the abundance of labour depresses its price, and makes the interest on capital and the profits of enterprise high. In England capital is especially abundant, so that it can be obtained at a low rate of interest (or could before the war), and the other factors were correspondingly favoured. Here in South Africa, as in other new countries, it is land that is relatively abundant; accordingly land is to be had cheap, and the distribution of the remainder of the wealth produced results in high wages (even native wages are high for the quality of work done), as well as high interest and profits.

This is the distribution to be expected in accordance with general principles, and it is found to hold. But there are certain features of it that call for notice.

The first of these regards the terms on which farm land can be obtained. Most of the farmers in the country own the land they work; accordingly sales of land are frequent, and the price of land sold may usually be taken as a correct indication of its value. But the terms of leasing or hiring land are unsatisfactory. If the owner of a farm desires to let it at a money rental, as is commonly done in Western Europe, he often has difficulty in finding a tenant who will pay a reasonably high rental (*i.e.*, a reasonable percentage on the selling price), for tenant farming is not properly understood in this country.

On the other hand, when a farm owner leases ground to his poorer neighbours on shares, as is so commonly the case, the fraction of the produce he receives—standing for the rent of the land—is very high, often as much as one half of the total. This is an abnormal state of affairs in a country where land is abundant, and is attributable to the ignorance and poverty of the share farming class, and the consequent prevalence of custom rather than reasonable competition. The South African countryman is very eager to possess land, and, like others with the same taste, wastes on the purchase of ground the scanty monetary resources he ought to employ as working capital. He is not altogether to be blamed, as it is so difficult to get the use of land at a fair price on any other terms than freehold purchase. The development of a proper system of leasing for a money rental, with due safeguards as to tenant's improvements and conditions encouraging the tenant to farm intelligently, might do a great deal to raise the position of the poorer members of the rural white population.

As it is, there seems to be a decided tendency for land to become aggregated into large holdings, at least in some parts of the country. Proper statistics on this point are, however, lacking.*

Much of the land of the country is held in an uncommercial way—that is, the ordinary commercial motive of making as large an income as possible does not regulate the dealings in it. The owner may be making an income that is very small in proportion to the selling price of the land, and yet be unwilling either to lease his ground to others or to sell it and invest the money in another way. The consequence of this is that the land does not yield as large a return as it might. Something of this conservatism is to be found in all countries, but probably nowhere to such a degree as in South Africa. Landowners are in a position to hold up land in this way because there is no taxation on

* See Census of 1918, Final Report, p. 19 [U.G. 56—1920.]

land, so that an owner living in primitive style can avoid all but a trifling amount of cash outlay. It is not to be expected that an adequate return from farming should be obtained until land is made freely accessible to persons of business enterprise.

Another point in which the distribution of income departs from the normal is the rate of trading profits. So far as can be judged by miscellaneous information of a more or less private character, the profits expected and obtained in ordinary business are higher here than in most countries, even in ordinary times: of course the period of rising prices caused by the war led to exceptionally high profits everywhere. Unfortunately it is most difficult to obtain any figures of general import.

A possible explanation lies in trade organisation, especially in the wholesale trades. It has often been remarked that retail traders appear to be able to combine to regulate prices in a way that reduces competition to a degree that can hardly be looked upon as healthy. This power of organisation seems to depend on the influence of the wholesale merchants in the background; they certainly exercise a great deal of control over retail trade, and combination, formal or implied, is, of course, much easier among the few wholesalers than among the many retailers, if the latter were left to themselves. Thus a considerable measure of monopolistic power is reached, with correspondingly large profits.

If the inventory of the national income given in Section (2) be examined it will be found possible to analyse it according to the economic categories of land, capital, labour and enterprise to a certain extent. There are many difficulties in the way: thus it is hardly possible to disentangle profits of farming (in the strict sense) from simple remuneration for the farmer's labour, except to say that the former must be quite small. Most farmers make a bare living—that must be put down as comparable with the wages of a farm worker—although there is no one to pay him wages, and the few farmers who dispose of large amounts of capital earn little more on it than the interest they might get by investing in government securities, so that the balance over, which can properly be called profit, is not important.

Again, in manufacturing and merchanting it is difficult (except in the case of limited companies) to distinguish profits from payment for managerial work, on the one hand, and from mere interest on capital, on the other (especially as the estimate of capital embarked in business is very uncertain).

Still it is worth while to make the attempt (see Appendix—Summary). Rent (of land) is discussed more fully below (p. 65), and appears to be some twelve or thirteen millions. Under interest the largest amount is rent of houses (apart from their sites); the next largest is interest on some seventy millions invested in manufacturing. Mining, of course, has absorbed much capital, but some of it gets a very poor, or no, return, and again much of the interest goes abroad.

Of profits, the only important items are those derived from manufacturing and trade, and these we estimate by deducting the foregoing allowance for interest from the total income of the proprietors. This is not quite correct, as it leaves nothing as wages for the services of working proprietors; but the over-estimate here may be allowed to balance the neglect of minor elements of profit, such as that of farmers. In this way we get a figure of 13 millions.

The remainder, no less than £m.91 appears as salaries and wages of labour, using the word to cover all grades of mental as well as manual work. This is just two-thirds of the income of the country. The proportion will probably appear high to those who are not familiar with such statistics; in order to grasp the fact better we may point out (i.) that there are certain categories of income which consist entirely of wages—the professions, government service, domestic service; (ii.) in mining and manufacturing far more is paid to the employees (and most of it to the manual workers) than the proprietors get for themselves; (iii.) the income of farmers in South Africa is mainly remunerative of their personal labour; (iv.) the native population has practically no source of income except labour.

The proportion that wages and salaries bear to rent, interest and profit is therefore about as two to one; this is not very different from the proportion holding in other countries (see *e.g.*, Professor Bowley's estimate for the United Kingdom).* It is, of course, very different from the fantastic estimates of writers who base their opinions on hasty personal impressions rather than on statistical evidence. One millionaire with his race horses, his costly entertainments, his wife's pearls, and his own gliding luxurious motor-cars, makes more impression on the popular mind than the modest comfort of a thousand families. But really the millionaires hold only a small part of the world's wealth; most of it belongs to the middle and humbler classes.

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* "The division of the product of industry" (Oxford Univ. press, 1919).

CHAPTER VI.

RANGE OF INCOMES.

What is of more interest to the ordinary person than the distribution of incomes between different occupations is the range of incomes in actual magnitude. Everyone tries to make as large an income as he can, irrespective of the method, and the social circumstances of the times result in a continuous gradation of incomes from the largest to the smallest. It is sometimes thought that incomes can be arranged in groups, such as those of capitalists, of professional men, of mechanics, of unskilled labourers; that each group is distingishable, and that there are marked intervals between them. Actually, however, the sources of income are so varied, and there is so much overlapping of rates of earning, that no break can be distinguished anywhere in the range of incomes—at least in a society that is racially homogeneous.

The information obtainable as to the distribution of incomes in magnitude is almost entirely derived from official statistics for purposes of taxation; this unfortunately limits the information to the larger incomes. Thus in South Africa everyone having an income of £300 a year or more is required to report it for purposes of income tax, and it may be assumed that only a small proportion of such incomes escape observation. The number evading the tax is doubtless larger in the case of incomes only just exceeding the limit than among those of, say, £500 a year and upwards; the schedule for these last would be nearly complete, as it would be more difficult to hide them from the authorities. But in the year 1917-18 the number of income tax payers was only 57,869 in a country of 7,000,000 inhabitants. The whites who are "occupied"—*i.e.*, have some definite income-earning occupation—numbered, according to the census of 1918 (omitting children under fifteen), 478,000, so that not one in eight of them, even, pays income tax.

Anything approaching exact information as to the smaller incomes is very difficult to obtain. The Government of the Commonwealth of Australia instituted an enquiry for the year ending 30th June, 1915. Returns were obtained from 2,195,065 persons, while the population over fifteen years of age was at that date about 3,300,000. Thus two persons out of every three (children excluded) made returns, and of the male sex about four out of every five. The census may therefore be regarded as reasonably complete: as to its accuracy, it is difficult to form an opinion. The returns did not receive the expert criticism of income tax officials; on the other hand, since no question of taxation was involved, there was no temptation to deliberate under-statement. But much carelessness and inaccuracy is to be expected.

No fewer than 315,936 persons reported either that they had no income, or had made a loss during the year in question. Putting them aside, we have 1,876,009 returns left to go upon, and of these only 381,558 gave incomes exceeding £156 (which was the income tax limit in Australia), so that four-fifths of the persons making returns stood below that very modest limit. If the limit were £300 a year, as in South Africa, it would have reduced the number of taxpayers to 94,186, or one in twenty.

These figures bring home the lesson taught in the first section of this work, as to the smallness of the average income. In so prosperous and democratic a country as Australia, among the persons earning a living (thus excluding children and women living at home) not more than one in twenty earns three hundred a year. In South Africa the proportion among whites is larger, but this is partly because living is more expensive here, so that three hundred a year is not really worth so much, and partly because to arrive at the proportion we are adopting the very arbitrary plan of ignoring all the coloured and black population—it is not that South Africa is really richer than Australia.

In the United States a good deal of information of the same kind is collected in the census, and W. I. King* has compiled from that and other sources an estimate of the number of families receiving incomes of various amounts. Whilst the estimate is hardly likely to be as accurate as the results of the direct enquiry made by the Australian Government, it is nevertheless a valuable contribution to a little known subject, and the general lesson to be learnt from it is the same: taking the South African income tax limit of three hundred a year as our standard, it appears that only one family in ten in the United States reached that level of income at the date of the enquiry, which was a few years before the great war.

To get a closer view of the facts, let us suppose we arrange all the income earners in the country into classes, say, first those who have from nothing to £10 a year, then those who have between £10 and £20, and so on. Then let us draw a diagram in which each of these classes is represented by a short piece of the base line of the paper, and over that base line put a dot for each person who has an income of that magnitude. We shall then observe that the column of dots in the first class is not very high, that in the second is higher, and the increase will continue for a few classes until that one is reached which corresponds with the most ordinary wage paid to workmen. As we go beyond that class of income the height of the column of dots will slowly fall off, till when large incomes are reached the number of dots will become very small. The dots will form a continuous figure, rising to a maximum height, and gradually falling away to zero. The maximum is technically known as the "mode"—*i.e.*, the income which is most common.

* "Wealth and income of the people of the United States" (New York: Macmillan, 1915).

The modal income is much below the income tax limit in most countries, and it is therefore usually impossible to say precisely what it amounts to. In Australia it appears from the wealth census already mentioned to be a little above £100 a year. This accords well with the fact that the " weighted average nominal weekly rate of wage payable to adult male workers " December, 1914, was 55s. 7d.* If we take 49 working weeks to the year, this means £136 per year.

At the date of our estimates, 1917-18, the wages paid to artisans in South Africa averaged between £5 and £6 per week, or, say, £270 per year; it must not be supposed, however, that the modal income even for whites was so high as this. The artisan occupies an exceptional position in South Africa, being largely a supervisor of native labour; consequently the number of artisans is a much smaller fraction of the total population than in a country like Australia or England, and their wages are higher relatively to the mass of the population. Moreover, as we saw above, there is a much greater disparity between town and country wages than in most countries, so that the bulk of the farming community stand considerably below the artisan class in income.

The average wages paid per white employee in factories in South Africa in 1917-18 amounted to £181 per year. Even this, however, is probably much above the model income, for the number of factory employees is much less than the number of persons engaged in farming: it is the latter class who must be regarded as setting the standard for the nation.

In the absence of proper statistics it is hardly possible to get closer to the truth in this matter. We can only conclude in a general way that among South African whites

* " Year-book of the Commonwealth of Australia." No. 9, p. 1061.

the modal income is probably not very different from what it is in Australia. A diagram of incomes such as was suggested above would probably show its highest point nearly in the same place as the Australian one; but because South African whites are not much engaged in manual labour, the fraction doing better paid work is probably larger than in Australia; in other words, the columns of dots indicating incomes higher than the mode would fall off rather more gradually in height here than there.

If the incomes of all the occupied persons in the country were considered it is probable that the series would show a discontinuity that is not observable in most countries. There would be two levels of income standing out as "modal"—that is, as occurring more frequently than others: one characteristic of white labour and one of black. Although the coloured artisans and factory hands constitute a bridge between the two groups, it is probable that there are not enough of them to fuse the two groups into a continuous series, such as is found in countries with a homogeneous population. Thus it is quite likely that incomes of £75 a year, which is well above the ordinary Kaffir wage (including the value of rations and quarters) is less frequent than a somewhat higher income, whilst it is certainly less frequent than the lower income earned by the ordinary native.

This want of continuity between the frequency of incomes of varying grade is the counterpart of the unnatural sharpness of the distinction between skilled and unskilled labour. In most countries skilled manual labour earns wages of from 50 per cent. to 100 per cent. above the wages of ordinary unskilled labour, and besides there is usually—especially in factories—a class of semi-skilled workers partly filling up the gap between. In South Africa, however, there is in mining an almost absolute partition into so-called "skilled" white hands, and "unskilled" black, and in manufacturing and other occupations the same distinction is observed.

though not quite so sharply. The consequence is that skilled men are sometimes paid 600 per cent. more than unskilled, and quite usually 300 per cent. to 400 per cent. This difference does not correspond with the value of their work. Even allowing for the fact that the unskilled workers belong to a race in a lower stage of civilisation, and may therefore be expected to compare much more unfavourably with the skilled white artisan than is the case between the two sections of the population in a European country, it can hardly be doubted that the discrepancy in wages is artificial and uneconomic. The position is complicated by the presence of a half-caste race, chiefly in Western Cape Colony, whose skill approaches that of the white race, while their standard of living is lower. Their competition is, of course, felt severely in all those industries whose product is easily sent from place to place.

The standard of white wages is accordingly very difficult to maintain. It is supported to a certain extent by law (the legal colour bar in the Transvaal), and to a larger extent by sentiment which opposes the admission of coloured workers in many trades. But all employers have a constant inducement to substitute coloured labour for white where no specially high degree of skill is needed, and the social opposition to the more economical labour is apt to fail in the long run, by indirect ways if not by direct. For instance, compositors in the Transvaal may exclude coloured workers from the printing works there, but they cannot prevent orders for printing being sent to Capetown to be executed by coloured labour unless the superior efficiency of the white compositor is great enough to make it as cheap to print in the Transvaal. It is extremely difficult to trace the changes in factory work that come about slowly through economic influences. It may be noted that since the industrial census was instituted in 1915-16 the number of white employees in factories has increased very fast, but the number of coloured employees has increased faster. The figures are:—

	Employees. White.	Employees. Coloured.	Employees. Total.	% of White.
1914-15... ...	39,524	61,654	101,178	39
1919-20... ...	62,483	113,037	175,520	35½
Increase ...	58%	83%		

The constant changes in manufacturing technique and organisation give opportunities for transfer of work from one class of worker to another, not by the crude process of dismissing one and engaging the other, but by the upgrowth of new groups of workers, and in all such changes the motive force is that of obtaining more economical labour.

Wages in skilled trades are at about the same level in real purchasing power as in Australia—possibly a little higher. Living is dearer in South Africa, and that is about made up for by the higher money wages paid. But, owing to the different organisation of industry in the two countries, the number of skilled men supported here is relatively less. Their work being to a considerable extent that of supervising, it is to be expected that their real remuneration should be higher; if it is not so, the explanation is to be found in a lower standard of efficiency. It is generally recognised that at the present time the efficiency of white labour in South Africa is not high—not so high, for instance, as in Australia. In that country good organisation, accompanied by hard work all round enables all concerned in production to be reasonably well paid. In South Africa a larger staff is required to turn out the same amount of product: most of them are coloured and native hands, receiving very low wages. It is to be expected that these wages will tend upwards rather than downwards, especially as there is a growing native population whose homes are in the towns, and who are consequently unable to live as cheaply as the natives from the kraals. They are, no doubt, improving in the quality of their work, so that improved wages will be earned; but that will make the competition with whites even more severe than at present, so that unless the output of the white workman increases, it is to be expected either that white wages (reckoned in real purchasing power) will tend slowly downwards, or that white men will be increasingly replaced by coloured, and employment become more difficult to find.

This leads naturally to a discussion of the possible changes in distribution, and the limits of such changes. The kind of distributional change that is likely to interest most readers would be an increase in wages at the expense of the other shares—rent, interest and profits—which, in the main, belong to the richer classes of society.

The question is not whether a small group of trade unionists, already comparatively well paid, can extract more from the particular industry they work for. There are, unfortunately, very large numbers even of the white population with incomes much below the artisan level, and the only way in which a rise in wages would be of real national importance would be if it meant an improvement in the life of the mass of the poorer classes.

Unhappily there is not wealth enough in the country to effect much change for the mass of the people. The opinion has often been expressed that if only the nation's income were distributed with less inequality there would be plenty for everyone. Some redistribution has been attempted by governments which are not at all of a revolutionary character: thus when parliament institutes old age pensions, maternity allowances, free education, and similar benefits to the poorer classes, it does so by means of taxation falling mainly on the richer classes. This is the policy of most governments nowadays, but it is a question how far the policy should go. Some have proposed vastly greater transfers; and we have before us the example of Russia, where a similar policy was pushed to a violent and hasty extreme. Bolshevik Russia is likely to remain, for long, a warning, for there the attempt to redistribute the whole income at once proved to be a case of killing the goose with the golden eggs.

More moderate methods pay better; it is worth while, therefore, to enquire to what extent it might be possible to appropriate the income of the richer classes, by the use of political power, without making the blunder of destroying more by the disorganisation of economic society than was gained by the poor in the transfer. We leave aside any question of the ethics of the matter, or whether in view of the political situation in the Union there is any likelihood of its being done. It is the bare possibility of transfer that we are enquiring into, and the result is instructive enough to justify a lengthy digression on a hypothetical policy.

We will suppose, therefore, that by a combination of parliamentary action and trade union pressure, but without any revolutionary violence, as much as possible of the revenue from land and capital is withdrawn from the present holders, with the object of helping the less prosperous members of society.

We may take first as the most likely subject for such experiment the income from natural resources (land). If all rent (or land value) were seized by the state there would be no reduction in the natural resources of the country, for the very reason that they are provided by nature, and not by man. There might be difficulties in other ways, as, for instance, in arranging for the development of the natural resources, but we will ignore these difficulties. The most prominent example of land value is that of the Witwatersrand gold mines, but it is not the largest. It is necessary to form a brief inventory, bearing in mind that "improvements"—*i.e.*, buildings, plant, etc.—do not come under the category we are now dealing with. The inventory, based principally on the valuation that exists in the Cape Province and in leading municipalities, is as follows (see also p. 16):—

Farm land	£140,000,000
Urban site value ...	40,000,000
Mines	30,000,000
	£210,000,000

Which at 6 per cent. would mean a rental value of £12,600,000 a year.

With regard to the last item, we may note that, probably, the whole Rand mining area could be bought for sixty to eighty millions, but at least half of this would represent actual expenditure on development and equipment. There is practically no "land value" except in the richer mines. Moreover, though it might be possible to seize the existing rich mines, and ignore the losses that have been incurred in others, it is obvious that should the State try to obtain the whole value of the ore deposits not yet worked, it would have to incur the risk of failure, like a private company: so that the actual value of the whole field, to the State as to anyone else, can only be arrived at by setting the losses off against the successes.

Urban site value is highly concentrated, and has yielded fortunes to many individuals, but the total of it is not great. It is clear that most of the land value of the country resides in its farms.

There would, however, be little gain if the State were to appropriate the smaller parcels of land, such as a small farm, or the site of a suburban house, and by means of its elaborate machinery try to distribute the value amongst the mass of the people, by remission of taxation or otherwise, for that would only mean taking from certain classes of poor folk to give back to them and others like them in another form. We may therefore conclude that the rent which is possibly transferable is limited to the rent of mines, of urban sites, and of large country properties: these might perhaps amount to £8,000,000 a year.

The next item to be considered is interest. This is in a different position from rent. It is comparatively easy to seize the interest on existing capital, by means of income tax, but if it be seized too ruthlessly it is quite impossible to make private persons provide any more capital. This country has been largely financed from Europe, and confiscatory legislation directed even at imported capital alone would strike a dangerous blow at its industries; whilst to seize capital that had been saved locally would be merely destructive unless the State were at the same time to undertake the organisation of all industry large and small, as well as the future provision of new capital: that we may fairly rule out as impracticable. The most that could be accomplished would be a small reduction in the rate of interest either through taxation or through pressure from working class organisations; but capital is so mobile that the rate of interest could not be reduced far below the level in other countries.

It must be repeated that we are not considering either the ethics or the policy of such redistribution, but only the bare possibility of accomplishing it. To illustrate the point, take house rent, which is the largest item of income from interest. It would be possible, no doubt, to levy rates on houses so heavy that there would be hardly anything left for the owner; but seeing that even the slight interference of the Rent Act has hindered the building of new houses, what would be the position if house-owners could make no appreciable interest on their investment? Clearly no new houses would be built at all,* so that the State would have to take over the whole building industry.

If, then, the estimate that interest amounts in all to about 21 millions a year is approximately correct, we can hardly suppose that more than a quarter of this could be extracted with any safety, and a good deal of that would have to come from people of very moderate means, such as workmen who have built their own houses, or people with small investments in industrial companies.

* In Germany the extreme depreciation of the mark, together with legislation prohibiting all but a trifling increase in rent, has not only had the effect of totally stopping the erection of new houses, but makes it impossible for house-owners to do any repairs; "will be necessary to reckon with a considerable rise in rents . . . otherwise the danger of houses being allowed to fall to pieces will become very real."—(Elsas: *Econ. Journ.*, Sept., 1921.)

Next comes the item of profits, which we estimate at 13 millions a year, mainly mercantile and a good deal from manufacturing—the other industries yielding trifling amounts. Profits are more vulnerable to attack, as if they were reduced in amount all round, the only possible reprisal by the enterpriser class would be to migrate to another country, and there is also the plan of substituting government industry for private enterprise. Still if enterprise be attacked too severely the loss to the country might easily be greater than the amount of income appropriated. For instance, it would be a very optimistic reformer who thought that the business of merchanting and manufacturing could be taken over by the Government with an equal degree of efficiency at half the present cost.

There is one other class who could conceivably give up some of their income to the lower grades of workers, and that is the higher salaried class; but the amount of income would be small, and the effect of discouraging brain work of all kinds, so obviously disastrous that this device may be dismissed as impracticable. We may therefore conclude that at the outside some twenty millions a year of rent, interest and profits could be appropriated without doing more harm to the working classes through disorganisation of society than the wealth to be seized was worth.

This estimate may be checked in another way. Probably not even the most ardent advocate of helping the poor at the expense of the rich would include in the latter category persons with less than £500 a year. Now, according to the income tax returns for the year ending 30th June, 1918, the number of individuals whose taxable income exceeded £500 was 28,038, and the aggregate of their incomes £32,270,000; if they each had just £500 that would amount to £14,019,000, so that actually they had £18,251,000 more than this. If it were possible to tax everyone the whole of his excess over £500 the yield would be £18,251,000, plus a certain amount of "company" income that is not included in the "taxable incomes" of individuals. The total "company income" was £21,925,000, but the amount distributed to shareholders was only two-thirds of this, the remainder being reinvested, so that adding this in, there appears to be thirty to thirty-five millions available for appropriation. But of course the assumption made is extravagant. Thus if an engineer or a farmer making a thousand a year knew all that he earned above five hundred would be confiscated, he would certainly not trouble to make more; and even merchants and directors of companies perform some useful services, even if the reward they obtain is out of proportion to the service. They would hardly do as much work as they do if they knew that they were not to receive any reward after having earned five hundred. Hence we may conclude that the former estimate of twenty millions as the extreme amount that could be transferred from the richer classes is fairly correct.

Now that sum divided among the 478,000 occupied whites in the country would yield £42 a year each. But of course it would be impossible to ignore the claims of the coloured people and natives, so that the yield would be much smaller. The attempt would not be worth while, for such extensive changes, though carried out, we suppose, by constitutional means, would raise the bitterest opposition, would involve considerable risk of disorganisation in industry, and might, after all, fail owing to the spontaneous compensating influences that are brought into play by an attempt to alter distribution. In fact, it would be much simpler and easier to increase the national income by twenty millions than to undertake the task of reorganising society sufficiently to transfer that much rent, interest and profits to the working classes. The national income being 137 millions, an increase of 15 per cent. in output, through harder work, more intelligence and better organisation, would make available as much new wealth as could on the most extreme suppositions be extracted from the well-to-do by a redistribution.

Now an improvement of 15 per cent. and more in output is by no means impossible. Obviously what is needed is not only to encourage increased output of real wealth by every means, but to see that the poorer classes get their fair share of it. In the case of the organised trades there is no practical doubt of this—they are in a strong enough position to look after their interests. The real difficulty arises in the case of the poorer classes; for, as we have seen, the bulk of the people unfortunately lie far below the income level of the members of the leading trade unions. The improvement of the earning capacity of this great mass of the people is the chief object to be aimed at: it can only come about by an improvement in their personal quality—in knowledge, skill, and character. It is sometimes objected that if the wealth of the nation were increased by the progress of intelligence, technical skill, and by harder work, that the average worker would not be the gainer; it is thought that by some jugglery it is the "capitalist" who would secure all the advantage. This view has nothing in either theory or history to support it; for instance, in England the average wealth per head grew about threefold in the long interval of peace between the battle of Waterloo and the outbreak of the recent great war. The richer classes have had their share of this increase in wealth, but so have the workpeople, whose wages have increased in much the same proportion, and who have at the same time been able to secure shorter hours and better conditions of work.

So it will be, we may trust, in South Africa. No one is satisfied with the existing distribution of wealth, which shows excessive inequality, and is not at all reasonably proportioned to social service rendered. But the gain to be got by redistribution is limited to a few per cent., while the possibilities of future increase in total production are almost unlimited.

APPENDIX.

Schedule Ia.

AGRICULTURAL PRODUCE, 1917-18.

Quantities are from Agricultural Census; prices from (*a*) Census Department statistics of wholesale prices; (*b*) Industrial Census (value of S.A. raw materials purchased); (*c*) Report on Trade and Shipping (export prices); (*d*) Chamber of Mines Report (stores purchased).

Name.	Unit.	Produce.	Price.	Value (£1,000).
Wheat	200 lb.	2,937,025	32/–	4,699
Rye	200 lb.	260,428	33/–	430
Barley	150 lb.	647,851	14/11	483
Oats	150 lb.	2,234,733	11/1	1,244
Maize	200 lb.	9,712,610	13/9	6,702
Kaffir corn	200 lb.	463,086	16/–	450
Potatoes	150 lb.	1,467,881	9/7	706
Peas and beans ...	200 lb.	161,306	45/–	403
Onions	200 lb.	185,000	14/4	131
Sweet potatoes ...	200 lb.	461,000	8/–	184
Tobacco	lb.	12,502,000	–/6	313
Cotton (seed)	lb.	796,610	–/5	17
Tea	lb.	5,065,500	1/–	253
Sugar cane	ton	1,231,158	31/9	1,958
[1]Citrus fruits and other tree fruits				1,160
[2]Grapes				750
[3]Other fruits				150
[4]Wattle bark				330
[5]Timber	Cu. ft.	19,803,000		1,030
	[6]Loads	104,000		50
Minor crops				200
Total				£21,633,000

[1]Roughly estimated at £20 per morgen ...	58,000 morgen.
[2]75,000,000 bearing vines, 2/6 each (includes 6,000,000 lbs. dried fruit)	22,000 ,,
[3]Chiefly bananas and pineapples	6,000 ,,
[4]Export value, less 20 per cent.	148,000 ,,
[5]About 1,000,000 sawn timber at 8/- ...	105,000 ,,
Remainder, fencing poles, mining props, etc., at 8d. per cubic foot.	
[6]Firewood, 10/- per load.	

Schedule IB.

PASTORAL AND FISHING PRODUCE.

This estimate is intended to cover (*a*) produce sold off the farms, either in its original state or manufactured (*e.g.*, milk in the form of butter); (*b*) food stuffs consumed on the farms; (*c*) horses and other live animals sold for use other than on farms; (*d*) value of fishery produce.

		Produce.	Price.	Value (£1,000).
Cattle (carcases) ...	No.	410,000	£10	£4,100
Milk	Gals.	150,000,000	-/8	5,000
Sheep (carcases) ...	No.	4,300,000	£1	4,300
Wool	lbs.	†115,000,000	1/4	7,670
Goats	No.	800,000	10/-	400
Mohair	lbs.	†10,000,000	1/3	620
Pigs	No.	150,000	£3	450
Ostrich feathers ...	lbs.	* 109,000		70
Poultry	No.			150
Eggs	No.	120,000,000		500
Bees—honey	lbs.	†550,000	1/-	30
Horses, mules & donkeys sold off farms				100
Fisheries				250
Total				£23,640,000

The stock of animals (May, 1918) was 5,172,000 cattle (including 868,000 cows in milk), 34,026,000 sheep and lambs, 6,900,000 goats and kids, 660,000 pigs, 6,000,000 poultry, 314,000 ostriches.

Stock slaughtered for consumption on farms, 44,000 cattle, 2,391,000 sheep.
Total of animals consumed is derived chiefly from the above, together with reports of abbatoirs.
† Quantities from Agricultural Census, 1918.
* Exports: Farm value taken as 20 per cent. less than export value.

Schedule Ic.

VALUE OF PRODUCE OF NATIVE LOCATIONS.

An estimate on similar lines gives a gross yield of £7,000,000, the largest items being—

Maize	2,900,000 bags
Kaffir corn	1,300,000 bags
Cattle	
Sheep	
Wool	9,000,000 lbs.

Total produce of farms and fisheries is, thus:—

	White.	Native.	Total.
Agricultural	£21,630,000	£3,830,000	£25,460,000
Pastoral and fishing	23,640,000	3,200,000	26,840,000
Total	45,270,000	7,030,000	52,300,000
Deduct expenses	25%	10%	
Net produce	£33,950,000	£6,330,000	£40,280,000

Schedule II.

MINING (Year ended 31st December, 1918).

Value of product (gold, diamonds, coal, base metals, minerals [including a small amount of manufacturing value—bricks, cement, soda, etc.]) for the year ending 31st December, 1918	£47,500,000
Less value of stores used	15,300,000
	£32,200,000

This net value is, however, subject to deduction for taxes and sundries. The true net yield appears to consist of—

Salaries and wages	£18,600,000	
Dividends and debenture interest	8,700,000	
		£27,300,00

About 60 per cent. of the dividends belong to shareholders abroad, leaving

£22,000,000.

(Wages of natives and coloured, £7,400,000.)

Schedule III.

MANUFACTURING (Year ended 30th June, 1918).

		1,000£.
Gross value of factory production (including railway workshops) ...		60,807
Less—Value of materials used ...	34,242	
Fuel, light and power ...	1,882	
Depreciation: 2% on buildings, 6% on plant	1,440	
Taxes and miscellaneous, say ...	1,000	
Net output		£22,243,000

The latter consists of—

Salaries and wages	£12,227,000
Profit, interest and rent ...	10,016,000

A considerable part of the profits and interest payable to foreign shareholders and partners.

(Wages of natives and coloured, £3,200,000.)

Schedule IV.

RAILWAY TRANSPORT (Year ended 31st March, 1918).

	1,000£.
Gross receipts	£14,316
Working expenses, including depreciation ...	10,818
Net revenue	3,498

Interest on (£92,926,714) capital (at 3·46%) ...	£3,217
Net profit	£281

As the interest on capital was nearly all payable to bondholders abroad, the income derived by South Africa from the railways consisted chiefly of salaries and wages (other than those of railway workshops included under manufacturing), £5,618,000, and the above net profit, or, say, in all

£6,000,000.

(Native and coloured wages, £700,000.)

Schedule V.

COMMERCE (Including Banking, Insurance and Shipping.)

Income (for year ending 30th June, 1918) assessed to normal tax	£25,062,000
As the above includes manufacturing, deduct profits as estimated in Schedule III. ...	10,016,000
	15,046,000
Add income of commercial employees (including many who do not pay tax), say ...	5,000,000
	£20,046,000

Deduct proportion of profits going to foreign shareholders and partners, leaving, say,

£15,000,000.

[Note.—There seems reason to think that trading profits must be larger than the above estimate. They are derived, chiefly, from the following classes of trade:—

	Mean of 1917 and 1918.
(*a*) *Wholesale.*—Imports sold to factories, mines, etc., about	£m.10
Imports sold to retailers ...	30
Agricultural produce sold to factories	15
Factory produce sold to retailers...	50
	105
(*b*) *Retail.*—Imports sold through retail shops	30
Factory produce	35
	65

If we suppose the profits of wholesale trade to average $7\frac{1}{2}$ per cent. and of retail trade 33 per cent., we should arrive at about £30,000,000 as the gross income of traders, without counting banks, insurance companies, etc.; of course, transport and other expenses have to be deducted.]

Schedule VI.

SERVICES.

		1,000£
Legal, medical and other professions (income tax returns)		£2,381
Government services (civil list)—		
Union Government	£6,989	
Provincial administration	1,580	
Municipalities	2,726	
		11,295
Domestic service—		
250,000 persons (nearly all coloured), say ...		5,000

£18,500,000.

(About one-third of the municipal wages bill went to coloured and native.)

Schedule VII.

RENT.

Rent of farms (included in farming income, Schedule I.).
Rent of mines (included in mining income, Schedule II.).
Rent of factories owned by occupier (included in manufacturing income, Schedule III.).

Value of land and houses in municipalities rateable valuation), 1918	£131,000,000
Estimated value of farmhouses	31,000,000
	£162,000,000

Net annual income, say, £13,000,000.

SUMMARY.

(In million £.)

	Total income.	Income of coloured population.	Rent.	Interest	Wages.	Profits.
Farming	40·3	11	7	2	31	—
Mining	22	7·4	2	2	19	—
Manufacturing	22·2	3·2	—	4	2	6
Transport	6	·7	—	—	6	—
Merchanting	15	—	—	3	5	7
Professions	2·4	—	—		12	—
Government service ...	11·3	·8	—	—	11	—
Domestic service	5	5	—	—	5	—
Occupation of houses...	13	—	3	10	—	—
	137·2	28·1	12	21	91	13

As the farming income of the coloured population does not allow for farms owned by them, outside native locations, the estimate is rather on the low side, and it may be taken, in round figures, that the income of the coloured population is thirty millions, leaving one hundred and seven millions to the whites.

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