

# **International Comparisons of Real Wages**

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The correct methods of comparing the real levels of the wages of different classes of workers in different countries have been frequently discussed. In July 1923 the British Ministry of Labour attempted to compare the real wages of workers in certain occupations in London with those in other capital cities, and their enquiry was continued and extended by the International Labour Office from July 1924. As the methods adopted aroused considerable interest, the subject was placed on the agenda of the second International Conference of Labour Statisticians held in Geneva in April 1925. Accounts of this Conference, and of the proposals made at it and the steps taken to give effect to them, were given in the International Labour Review for July 1925. In the following article Dr. Klezl, the Austrian delegate to the above Conference, develops at greater length the views which he expressed at the Conference.

A MONG the subjects considered at the Second International Conference of Labour Statisticians, which met in Geneva from 20 to 25 April of this year<sup>1</sup>, was that of international real wage comparisons, which the International Labour Office has for some time been investigating<sup>2</sup>. The results of the detailed discussions on this subject were embodied in a resolution which ran as follows:

The Conference recognises the great theoretical and practical importance of the international comparisons of real wages which were initiated by the British Ministry of Labour and the interest of the researches

<sup>&</sup>lt;sup>1</sup> Cf. the report on the Conference in International Labour Review, Vol. XII, No. 1, July 1925, pp. 1-22. Also The Second International Conference of Labour Statisticians; Studies and Reports, Series N, No. 8.

<sup>&</sup>lt;sup>2</sup> It will be taken for granted that the reader is acquainted with the course of these investigations, which have been fully described in this *Review*. Cf. especially Vol. X, No. 4, Oct. 1924, pp. 630-652 : "A Comparison of the Levels of Real Wages in Certain Capital Cities"; and Vol. XII, No. 1, July 1925, pp. 96-103, where an account is given of the steps taken to give effect to proposals made at the Second Conference of Labour Statisticians.

which have been subsequently carried on by the International Labour Office and which have certainly led to progress in this sphere. The Conference, however, expresses the opinion that, since these

The Conference, however, expresses the opinion that, since these figures cannot be considered as representative of the real differences in the workers' standard of living which exist from country to country, it is desirable that a second series of index numbers should be published along with the first, measuring the relative standards of living of the working classes in the different countries. In this case it would be necessary to base the calculations on the actual earnings of workingclass families and to take account of the differences in the physiological needs of the population due chiefly to climate and race.

The International Labour Office, in publishing these index numbers, should give in the greatest detail the original figures, the methods of calculation adopted, and any reservations necessary. The different countries should send to the International Labour Office the fullest information, together with a detailed description as to the nature and value of their figures.

For the theoretical aspect of international comparisons of real wages, the only paragraph of this resolution of real importance is obviously the second. It contains three main points :

(1) the negative assertion that the methods hitherto employed by the International Labour Office are not such as to indicate the real differences in the workers' standard of living;

(2) the recommendations that calculations for this purpose should be based on the actual earnings of working-class families;

(3) the further recommendation that account should be taken of differences in the physiological needs of the population, which are mainly due to climate and race.

This division will be adopted in the following pages, the chief object being to examine the resolution of the Conference with a view to clarifying as far as possible all aspects of the problem.

THE MEANING OF THE TERMS "WAGE" AND "REAL WAGE"

Before considering how far the methods hitherto employed by the International Labour Office in comparing real wages are suited to the nature and purpose of such comparison, it is desirable to examine more closely the conceptions fundamental to the subject. At first glance it may appear that there can be no difference of opinion as to the meaning of the terms "wage " and " real wage ", but on closer scrutiny it becomes evident that the source of all misunderstandings and divergences of view is to be found in inadequate definition of the terms used. If the wage is regarded solely as part of the cost of production, the results arrived at will naturally differ from those based on an identification of the wage with the income of the working classes.

What then is the wage ? In my opinion it is simply the price of a certain commodity, labour. The price of other commodities is not quoted absolutely but is related to a given unit of volume or weight. Similarly, the price of labour must be referred to a given unit of labour. This may be a unit of time (time wage for an hour, day, week, or month) or a unit of quantity of the commodity produced by labour (piece wage). In both cases the wage simply indicates that labour measured by a unit of time or output costs a certain amount.

International wage statistics are therefore international price statistics, the prices paid in different countries for the same kinds of work being compared. For purposes of the problem now under consideration, the international comparison of real wages, this leads to a number of conclusions which will be more fully dealt with in the course of this article.

It is quite correct to describe the wage as a peculiar kind of price, since in many cases it coincides with the income of a member of the community, who earns it in exchange for his sole source of income — i.e. his labour — over a given period, whether a day, a week, or a year. Labour as a commodity is also of a special kind, and its sale cannot be treated in exactly the same way as the sale of a material article.

The man who exchanges an ordinary commodity for money does not, except in very unusual circumstances, thereby earn his entire income for a given period<sup>1</sup>. In the case of labour, however, its price over a sufficiently long period of time (at least one day) can as a rule be taken as equivalent to the income for the same period.

While price is almost exclusively an economic problem, income is more a social problem. Thus enquiries into the income of the working classes in the various countries immediately raise the question of standard of living. But this question again is not to be answered by figures of money wages or money income. In order to measure differences in standard of living among the workers it is necessary to compare not money wages but real wages in the several countries.

Real wages, as generally understood, mean simply money wages

<sup>&</sup>lt;sup>1</sup> This might occur, however; for example, when a small investor who has been impoverished by currency inflation sells his last securities.

expressed in terms of goods. The value of money in each country varies as the quantity of goods exchanged for money varies owing to differences in prices. The determining factor in the standard of living, again, is not the volume of money, but the volume of consumption. For these two reasons the wage is measured not in money but in goods. So far everything is simple; but the almost insoluble problem is to decide what commodities in what quantities are to be used to measure real wages.

As is well known, it used to be customary to select single commodities, such as cereals or meat, which a worker could buy with his money wage. It was realised, however, that the consumption of the population was not limited to any one type of commodity, and a list of the most important articles of consumption was therefore drawn up. Eventually the separate articles were weighted variously and a complex of commodities constructed, corresponding to the consumption of a working-class family. This complex might be constructed either from the results of investigations into workingclass budgets or from theoretical estimates of the normal needs of The conception of the real wage thus changed. a family. Tt was no longer measured by selected quantities of goods, but by need, which varies with time and place, income, and the size of the family.

Here again there is a close analogy with price statistics. At bottom, in fact, the problem of real wages is simply that of the purchasing power of the money paid as the price of labour. Real wages can only be calculated from the prices of goods, and similarly changes in the purchasing power of money in general can only be calculated from the prices of goods. First of all the value of money is expressed by the quantity of a given commodity which can be exchanged for a given sum of money. Then a list of the most important commodities is drawn up, and these commodities are weighted according to the relative quantities in which they are consumed by the com-When this aggregate consumption is not known, the munity. consumption of single households may be used in order to secure some average budget, which is simply the same standard of measurement as that used in measuring real wages. Agreement has not yet been reached — if indeed it can be reached — on the consumption quantities which should be used as basis for the calculation of index numbers indicating price changes. Similarly, the problem of the standard budget by which real wages are to be measured is still unsettled.

The various experiments and investigations carried on in differ-

ent countries and at different times with a view to the construction of a standard of measurement obviously offer innumerable possibilities, but the standard of absolute necessity, i.e. the minimum of subsistence, seems the best measure. The idea of necessity implies something absolute, something valid for all nations and all times, and yet the conception of the minimum of subsistence itself is seen on closer examination to be purely relative. Certainly Nature has laid down certain standards, both for the individual and the community, in physiological conditions and environment. These standards, within certain limits at any rate, may be regarded as unconditionally valid. For example, for the maintenance of life a man requires a certain quantity of nutriment in certain propor-Similarly communities in a given region require a certain tions. minimum of warmth, to be supplied by clothing and heating. But these general standards can be satisfied with many undefined varia-The necessary nutriment can be supplied in innumerable tions. different combinations, and the need of warmth can be satisfied by the most varied kinds of clothing and methods of heating (sometimes coal is the only fuel, sometimes wood). What makes the problem of the minimum of subsistence even more hopeless is the fact that this conception varies from one place or time to another, not only according to the various normative standards of life, but also according to the conditions of life actually prevailing. The normative standard, i.e. what ought to be, is very largely if not exclusively determined by actual practice, i.e. what is. Similarly, demands for a minimum of subsistence are largely based on existing economic and social conditions. Where owing to the poverty of a country the majority of the population are satisfied with a handful of rice or maize for their daily fare, the minimum of subsistence is extremely low, while in another country, where the population is wealthier and the diet of the working classes is more plentiful and varied, the minimum of subsistence automatically rises. It is thus impossible to draw a distinction between the actual and the necessary standard of life, for experience has shown that the standard regarded at any time as the irreducible minimum of need is the actual standard at that time.

### METHODS OF THE INTERNATIONAL LABOUR OFFICE

By way of introduction to its comparison of the levels of real wages in certain capital cities, the International Labour Office makes the following fundamental statement<sup>1</sup>:

In comparing the wages of similar groups of workers in different districts or countries, one of two objects may be aimed at : either to determine the relations between the costs of labour as part of the costs of production of the employers, or to find the ratios between the standards of living of the workers. The results obtained may differ widely according as the one or the other of these objects is chosen. In this article the second object is adopted, the attempt being made to give indications of the levels of real wages, i.e. the purchasing power of the money wages of similar groups of workers in different countries over the goods and services ordinarily consumed by such groups of workers.

This quotation from the International Labour Review suggests that the object of the International Labour Office was to compare the standards of living of certain groups of workers by calculating the level of their real wages, i.e. the purchasing power of their nominal wages. In view of the definitions given in the preceding section, however, the standard of living can be measured by the purchasing power of nominal wages only on the following conditions:

(a) if the worker's nominal wage is synonymous with his income, for the standard of life depends not on the cost of labour (the wage) but on the total income of the worker's family;

(b) if the calculations of this income accordingly include not only the wage of the head of the family but the earnings, if any, of other members of it, as well as income from any other sources, such as investments, land, etc.;

(c) if it is possible to arrive at a single standard of consumption for comparison between different countries, for if purchasing power is measured by different standards of consumption equal purchasing power does not imply equal standards of living<sup>2</sup>.

<sup>&</sup>lt;sup>1</sup> International Labour Review, Vol. X, No. 4, Oct. 1924, p. 630. The British Ministry of Labour indicated the twofold nature of the problem in very similar terms (Ministry of Labour Gazette, July 1923, p. 236).

<sup>&</sup>lt;sup>2</sup> A simple, if extreme, example will show this. Let us suppose that the workers' standards of living in two countries A and B are to be compared. The nominal wage in country A is 80 per week, in B 40 (the figures for wages and expenditure are of course supposed to be expressed in the same currency for both countries). Country A is relatively wealthy and the workers have therefore a higher level of consumption (larger consumption of meat, larger dwellings, etc.). In A the average weekly expenditure of a worker is calculated as 40. In B, a relatively poor country,

With a view to judging how far the foregoing three conditions are fulfilled in the calculations of the International Labour Office, the method employed by the Office may be briefly recapitulated<sup>1</sup>. From various countries figures are collected giving the normal rates of wages per hour, day, or week (of 48 hours) paid to typical classes of workers in the capital cities. The comparison of the purchasing power of nominal wages is based on earnings for a week of 48 hours, at ordinary time rates, either as given in the original data or as calculated from the hourly or daily wage rates. The unit for measuring the purchasing power of these nominal wages is obtained from given quantities of various articles of food, selected and combined for each of several groups of countries in accordance with statistics of consumption or special investigations. For simplicity of reference the sum total of these quantities in each case is termed a "basketful of provisions", there being a separate basketful for Central Europe, Great Britain, Southern Europe, Scandinavia, etc. It is then calculated how many of each of these basketsful could be bought with the nominal weekly wage in each capital city. The purchasing power of the nominal wage in one of them (e.g. London) is reduced to 100, and that of wages in other cities is then expressed as an index number on this base. Thus for each city several different index numbers are obtained, corresponding to the different basketsful used for comparing real wages. Finally, to effect an international comparison the simple arithmetic average of the various index numbers is calculated.

Referring again to the three conditions set out earlier, the following comments on the above method may be made :

(a) The calculations are based exclusively on wage rates, which can only be identified with weekly earnings for the same group of workers in exceptional cases. Whenever the actual hours of work arc more or less than 48, weekly earnings will differ from the nominal wages here used, as they will also where weekly earnings on piece work are more than weekly time rates.

(b) The above method takes account solely of the earnings of a single worker in a given class, and thus ignores the possible earnings of other members of the family, which may have a considerable effect on this worker's standard of living.

this expenditure is only 20. If the purchasing power of the two nominal wages were measured by these different standards it would appear that the workers' standard of living in the two countries was the same, which is obviously incorrect in view of the real differences in consumption.

<sup>&</sup>lt;sup>1</sup> For full details of this method cf. International Labour Review, Vol. X, No. 4, Oct. 1924, pp. 630-652, and subsequent numbers.

(c) The use of different consumption quantities as units of measurement might make it appear that, in comparing purchasing power internationally, account is taken, of the variations in the nature and volume of consumption in different countries. On closer examination, however, it becomes clear that in reality a single standard of measurement is used. This is true both of the separate index numbers, where comparison is based on the consumption of a given group (e.g. the Central European basket of provisions), and of the arithmetic average of these indexes. For this average amounts to practically the same thing as the arithmetic average of the consumption quantities for the various groups, and thus represents an "international basket of provisions", which is the single standard of measurement postulated above.

To sum up, the calculations of the International Labour Office do provide a means of comparing the purchasing power of nominal wages in the various capital cities, as the unit of measurement is unchanged throughout. On the other hand, they can be used only within very narrow limits as an indication of differences in standards of living, for they refer solely to the wages of a single worker and not to the income of a working-class family. Strictly, therefore, these calculations deal not with a problem of production costs or of income, but with a problem of prices, i.e. the real value of the price of certain kinds of labour.

In comparing money wages it is essential to eliminate differences in external values by reducing all figures to a common money unit, and the same must be done with internal values, i.e. the purchasing power of the various wages. Here, too, a common unit of consumption is needed in order to indicate differences in the real value of wages. It will later be discussed whether and to what extent this unit of consumption can and should be sought in the actual consumption of the working classes.

The International Labour Office is fully aware that this is essentially a problem of prices, as is shown by the following statement: "The principle adopted is similar to that for calculating index numbers of the real wages of a given group of workers in one country at two different dates."

International comparison of real wages, in fact, simply involves measuring differences in the purchasing power of money between different places, in contradistinction to the index numbers of the several countries, which are intended to measure differences in purchasing power between different dates. It is obviously immaterial whether the comparison is between the real wages of workers at a given time in different parts of the same country, or in different countries. In comparisons between two dates it is essential that the unit of consumption should remain unchanged, and this applies equally to international comparison of real wages between different places.

## ALLOWANCE FOR ACTUAL FAMILY EARNINGS

The foregoing remarks have shown that the method employed by the International Labour Office is not such as to indicate the real differences in the workers' standard of living, and that the first point noted in the resolution of the Statisticians' Conference is thus justified. The next step is to ascertain how far the positive proposals contained in the same resolution can withstand detailed criticism from the theoretical and practical points of view.

The Conference considered it desirable, in order to measure the relative standards of living in the different countries, to base calculations on the actual earnings of working-class families. The question which immediately arises is whether an investigation of family earnings falls within the scope of real wage statistics.

At first the recommendation of the Conference appears too limited, for the standard of living is determined by the income of the family, which is not necessarily provided solely by the earnings of its employed members. Let us suppose, for example, that one country has a 10-hour working day and another an 8-hour day. and that in the first country the actual earnings of an average working-class family are higher than in the second, but only in proportion to the longer working hours. In the country with shorter hours the lower money earnings are compensated by the fact that many of the workers, thanks to their greater leisure, can augment their income by cultivating gardens or allotments. It would obviously be inaccurate to arrive at the relative standard of living by comparing simply the real value of actual earnings, leaving out of account the income in kind, which has a marked influence on the standard of living of the workers in one of the two countries.

It therefore follows that standards of living cannot be compared on the basis of mere statistics of wages, even of total earnings. What is required is information on the total income of workingclass families, i.e. statistics of family budgets (on the income side at least) or statistics of aggregate income.

There is a further point to be considered. The fact that earnings

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are equal but hours of work unequal is immaterial in comparing standards of living, but by no means immaterial in comparative wage statistics. The wage has been defined as the price of labour; therefore to equate the earnings of a 10-hour day to those of an 8-hour day would be as serious an error as to compare the price of a pound of flour in one country with that of 13 ounces in another. In wage statistics wages for the same unit of time only may be compared, while in considering the standard of life only the earnings and not the work done in exchange for them are of importance.

Emphasis on family earnings would in yet another way upset the premises from which the International Labour Office proceeds. The object of the Office at present is to compare the wages of similar groups of workers in different countries; but this is obviously impossible if the comparison is made between the earnings, no longer of given classes of workers, but of their families. If, for example, the earnings of locksmiths in different countries are to be compared in order to ascertain their relative standards of living, according to the recommendation of the Statisticians' Conference the total earnings of the locksmith's family must be taken into account. This would naturally have to include the earnings, if any, of the locksmith's wife, who may be employed as washerwoman or needlewoman, and those of his son, who may be a joiner or weaver. Thus eventually it would be not the earnings of locksmiths but those of most variegated groups of workers which were compared.

The restriction of comparison to certain classes of workers shows that the investigations of the International Labour Office deal primarily with the problem of wages, and touch on the standard of living only in so far as this can be estimated by means of wage statistics.

For this reason it is, in my opinion, impossible in international wage comparisons to allow for the fact that the services which are paid for by working-class families are not the same in all countries. At the Statisticians' Conference Dr. Wagemann, president of the German Statistical Office, drew attention to this, pointing out that the lower level of real wages in some countries was counterbalanced by the fact that many of the necessary domestic services in workingclass households were performed without payment by the housewife or other members of the family. This question seems to me similar to that mentioned earlier of the income in kind derived from allotments, etc. In connection with the standard of living it is of no little importance whether the necessary services, such as cooking, cleaning, mending, etc., are paid for, or whether they fall into the class of household work done on a non-financial basis. Apart from the fact that the time spent on such services means a loss of possible earnings to the person who performs them, their real value can certainly not be treated as remuneration for the labour of the head of the family and a part of his wage. It may, it is true, be argued that the real wage of a German worker, for example, is not so very much lower than that of a worker in the United States because the German worker, unlike the American, receives many necessary services free ; but it can with equal justice be urged that this addition to his income is at least balanced by the unpaid labour of the persons who do the domestic work.

From whatever side the problem is approached, therefore, the question of real wages is not to be confused with that of the standard of living. The real wage is the exchange value of a given unit of work, while the standard of life is consuming power which has no relation to the amount or nature of the work.

To these theoretical difficulties may be added even greater practical obstacles. Anyone who has any acquaintance with the complex problems involved in statistics of household budgets or of consumption will appreciate my view that it is hopeless to look for the compilation of really comparable international statistics of working-class budgets in the immediate future. The International Labour Office has justifiably pointed out how difficult it is to secure uniform and comparable wage data. All these difficulties would be multiplied many times if an attempt were made to ascertain not merely the wage rates or earnings of certain groups of workers but the total income of working-class families. In hardly any other branch of statistics are there such formidable obstacles to the satisfaction of the first requisite of all statistics, namely, homogeneity of data, as there are in statistics of consumption, which by their very nature reflect all the complexity of human life.

## ALLOWANCE FOR NATURAL DIFFERENCES IN CONSUMPTION

Enquiries into real wages may be stated in the form of a division sum, where the nominal wage is the dividend and the expenditure on consumption taken as unit of measurement is the divisor. While the first recommendation of the Statisticians' Conference indicates how the dividend should be formed, its second proposal, that account should be taken of differences in physiological needs, refers to the divisor. This recommendation has in effect been criticised already in the general remarks on the conception of the minimum subsistence and on the methods of the International Labour Office. At first glance nothing could be more natural in constructing a standard of measurement than to allow for the fact that the conditions and nature of consumption vary greatly in different countries. It would be ridiculous, for example, to construct a budget allowing for the need of warmth as well as for the average need of food when one of the countries covered has so warm a climate that no provision for heating is necessary. Even within the food group — as the International Labour Office has repeatedly and emphatically pointed out — there are such considerable differences that to eliminate them would be to distort the facts.

But the rules of logic are even more compelling than the special characteristics of any country. If the object is to measure the purchasing power of different nominal wages, this can only be achieved by using an unchanging unit of consumption. In comparisons between different dates within a country this has become a mere truism ; but it is no less obvious if differences in purchasing power between different places are being compared. The object aimed at is itself an artificial thing which has little connection with reality. Every index number of the cost of living affords an answer to the question : "What will my living expenses be provided my consumption is unchanged ? " Similarly, every international comparison of real wages raises the question : "What is the relation between the purchasing power of money wages in the various countries, assuming that there is a standard consumption valid for all countries ? " This question involves a certain contradiction --as already pointed out - since consumption is no more independent of prices than it is of real wages. Changes in real wages, like changes in prices, will lead to changes in consumption. There are thus only two alternatives : either to make a logically sound comparison of real wages, based on the fiction of a universally valid standard of consumption, while admitting that this general standard has no counterpart in reality, or else to give up any idea of comparing real wages at all.

The Statisticians' Conference, it might be argued, did not demand that account should be taken of all real differences in consumption, but only of those unalterable differences which are dictated by Nature. I fear, however, that it would be impossible to draw the line between natural and other differences. I am also afraid that even if allowance were made for natural differences a standard of consumption which was uniform in all other respects would still be none the less artificial. For example, the fact that in Great Britain tea is an important article of working-class consumption, while on the Connent of Europe its place is taken by coffee, is certainly not to be explained by natural differences. Nevertheless, it would be unsatisfactory to measure the real wages of a central European worker by his consumption of tea or those of a British worker by his consumption of coffee. Differences in habits of consumption as regards clothing are no less important; yet it would be difficult to decide which of these differences are due to natural causes and which to custom.

The conclusion to be drawn is either that comparison of real wages must be based solely on the consumption of one country or the average of the consumption of several countries, or that the measure of purchasing power should be not a given consumption but merely the prices of commodities. In the first case the fiction of a uniform consumption would be justified, for the basis of a calculation is always the point from which a change or difference is measured. It would be justifiable to ask what income would be needed to maintain unaltered a standard of life which in fact has long been altered by a rise in prices. It may similarly be asked what would be the real wages of a group of workers if they had to meet their own customary consumption not with their own money wages but with those of another country. But an average of a number of such real wage ratios, as calculated by the International Labour Office, has lost all connection with reality and merely represents comparison on the basis of an "international basket of provisions ".

The question therefore arises whether it would not be better to construct an international average not from national consumption quantities but from the indexes of purchasing power of nominal wages measured in commodity prices. This would mean adopting the method originally employed by the British Ministry of Labour, which first measured the purchasing price of nominal wages by the price of various single articles of consumption (e.g. the quantity of meat or bread which could be bought with the money wage) and then struck an average for all the more important articles of consumption<sup>1</sup>. It might seem that this method ignores the nature

<sup>&</sup>lt;sup>1</sup> The British Ministry of Labour in its first article on the subject published two series of index numbers, one unweighted and the other weighted according to consumption. Subsequently, however, the weighted average alone was calculated, this method being essentially the same as that used by the International Labour Office. [Editor.

and volume of consumption, but this is only apparent, since habits of consumption are allowed for in the choice of articles, while the price of each article is partly determined by the volume of consumption.

This raises the widest question of all, i.e. how far it is permissible to use the actual standard of living to measure the level of real wages. In the description of its methods the International Labour Office makes the following statement<sup>1</sup>:

From the ideal point of view a group of commodities should be formed including items not only of food but also of heating and lighting, clothing, house accommodation, and various miscellaneous items of consumption, for example, furniture, so that the group is representative of the consumption of the workers in the countries covered, and would serve as a common unit of measurement of wages.

This implies that theoretically real wages could be measured by the whole of consumption (standard of living) if it were possible to secure data on the consumption of articles other than food.

It is obvious, however, that such data would be very heterogeneous, and the resulting international standard of measurement would be even more artificial than the international basket of provisions. But it would be even more objectionable, since it would amount to arguing in a circle, to attempt to measure differences in standards of living by these different standards of living. The actual standard of living of the workers is nothing but their real wage, and to take account, in measuring real wages, of the actual differences therein is a *petitio principii*. To revert to the example of countries A and B given in a footnote learlier, it was there shown that to take account of the actual standard of living leads to the fallacious conclusion that real wages in the two countries are the same, whereas one of the premises was that the level of consumption in the two countries was markedly different.

This brings me to the last and the most weighty reason for not taking the total standard of living and the actual differences therein into consideration. In any process of measurement the measure must be entirely independent of the magnitude to be measured; since real wages and the standard of living are so closely connected as to be identified this essential condition of measurement is not satisfied. The only possible standard of measurement, therefore, is the uniform basket of provisions, which in spite of the drawback

<sup>&</sup>lt;sup>1</sup> International Labour Review, Vol. X, No. 4, Oct. 1924, p. 638.

of artificiality has the advantage of being independent of the level of real wages.

### Conclusions

The foregoing discussion seems to have led mainly to negative conclusions. It has shown that the figures published by the International Labour Office give no authoritative indication of differences in the standard of living, and that the construction of an international average inevitably involves ignoring national characteristics in consumption. I believe I have also proved that the requirements laid down by the Statisticians' Conference cannot be fully reconciled with the nature and purpose of international comparisons of real wages. They would involve, on the one hand, transferring the problem from the sphere of wages to that of income, and, on the other, by taking into account consumption habits of the individual countries to be compared, giving up the single unchanging basis for international comparison.

Nevertheless these conclusions, in my view, support rather than invalidate the work of the International Labour Office. For provided the object of the investigation is somewhat restricted and more closely defined its value and justification are fully confirmed. If the object of international comparison of the levels of real wages is recognised to be the measurement not of the standard of living but solely of the purchasing power of nominal wages, no objections of any great importance can be levelled against the methods of the Office.

The foregoing criticism has shown that such international comparison must start in the first place from the consumption of a given country, and the International Labour Office has in the first place measured the purchasing power of nominal wages solely by a typical national basketful of provisions. The limitation of the enquiry to the consumption of food is also in accordance with the principles here laid down, for if the basis of calculation were extended to cover all consumption it would be impossible to maintain a single standard of measurement. When the International Labour Office finally takes an international average of the index numbers for the national baskets of provisions, it has simply created the fiction, essential for such comparison, of a single international standard of consumption. Every index number of the cost of living — unless it refers to special classes of the population and their own peculiar habits of consumption — involves the same artificial

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abstraction, since it is based on the assumption that the budget on which it is calculated represents the average of all the peculiarities of different classes of the population.

The calculations of the International Labour Office thus give a satisfactory indication of differences in the real value of money wages in so far as those money wages represent the actual cost of the same quantity of labour and in so far as " real value " is taken to mean purchasing power measured by typical consumption of foodstuffs.

The problem to which the International Labour Office figures provide an answer is simply, in fact, the problem of differences in the purchasing power of money in the several countries. If I wish to know in which country I can most cheaply satisfy my habits of consumption with a given sum of money I must construct a kind of basket of provisions in accordance with my habits of consumption and calculate what it would cost at the prices of the different countries. The ratio between these prices gives me the relative purchasing power of money in the different countries and it is then only necessary to allow for differences in nominal or money wages to effect an international comparison of the purchasing power of wages.

The proposals of the Statisticians' Conference seem to me more open to objection. It is no doubt true that if the problem were widened to cover international comparison of the real income of working-class families valuable conclusions as to the workers' standard of living might be reached. But quite apart from the fact that every extension of the problem narrows the possibility of its practical solution, I personally do not consider that such comparison would afford an adequate basis for general assertions as to the standard of living. This is no doubt primarily due to the vague and elusive meaning of the term " standard of living ", which in the final analysis means nothing less than life itself. At the same time it seems to me quite impossible to base international comparisons on a standard of consumption varying in accordance with the characteristics of each country : first, because such shifting of the basis violates the first logical principle of comparison, and secondly, because real wages cannot be measured by the actual standard of living.

In an earlier article on "Methods of Constructing Index Numbers"<sup>1</sup> I pointed out that it is not necessary to weight price

<sup>1</sup> International Labour Review, Vol. X, No. 2, Aug. 1924, pp. 236-262.

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index numbers with coefficients of consumption, as any change in prices per se implies a change in consumption. To measure price changes by consumption, therefore, is to use a measure which always varies with the magnitude to be measured. There is the same interrelation between real wages and the standard of living. Price and consumption are not independent magnitudes which can be measured against each other like a vard rule and a log, nor are real wages and the standard of living. Everything goes to show that there can be no difference in real wages which does not show itself also in a difference in the standard of living, and therefore the actual standard of living is an unsuitable standard of measurement This interrelation of economic phenomena, which for real wages. defies all measurement, should justify the modern theory of economics and society in refusing to isolate or disintegrate individual economic phenomena, while seeking rather to grasp and understand the whole.