minimum wage fixing and economic development

INTERNATIONAL LABOUR OFFICE

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The scope of this report is rather broader than its title indicates. It is very much concerned with the bearing of minimum wage fixing on economic development, but it is concerned with other aspects of minimum wage fixing too.

Part I, together with Appendices 2, 3 and 4, constitutes a revised version of a document entitled "Minimum Wage Fixing and Related Problems, with Special Reference to Developing Countries" prepared for a meeting of experts on that subject convened by the Governing Body of the International Labour Office in September-October 1967. The report has been revised in the light of the discussion at the meeting, but it does not engage the responsibility of the experts.

Part II reproduces the greater part of the report of the meeting of experts to the Governing Body, and for this part of the report the experts are responsible.

The report of the meeting was considered by the Governing Body at its 170th Session (November 1967). At the same session the Governing Body decided, in accordance with a recommendation of the meeting, to place the question of minimum wage fixing and related problems, with special reference to developing countries, on the agenda of the 53rd (1969) Session of the International Labour Conference with a view to the adoption of a new instrument (a Convention or Recommendation) on the subject.

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2 The terms of reference of the meeting were to examine and report to the Governing Body on—
   (a) problems of minimum wage fixing and related problems, with special reference to developing countries; and
   (b) ways in which the international labour Conventions and Recommendations on minimum wage fixing machinery might be revised if revision is considered desirable.

The Conventions and Recommendations referred to are the following: the Minimum Wage-Fixing Machinery Convention, 1928 (No. 26), the Minimum Wage-Fixing Machinery Recommendation, 1928 (No. 30), the Minimum Wage Fixing Machinery (Agriculture) Convention, 1951 (No. 99), and the Minimum Wage Fixing Machinery (Agriculture) Recommendation, 1951 (No. 89).
Part I of the report is arranged as follows:

Chapter I contains a very brief discussion of the purposes and limitations of minimum wage fixing. The following chapter is devoted to a discussion of the types of effects that minimum wage fixing may have. This clears the way for discussions of criteria for minimum wage fixing (Chapter III), the scope of minimum wage fixing (Chapter IV) and certain institutional aspects of minimum wage fixing (Chapter V). Chapter VI is concerned with the adjustment of minimum wage rates to changes in economic conditions, including the cost of living. Chapter VII discusses the data needed for sound decisions on minimum wage fixing. A brief summary of the findings of these various chapters concludes Part I of the report.

Appendix 1 contains a quantitative analysis prepared by Mr. Dudley Jackson, Department of Applied Economics, University of Cambridge (the results of which are summarised in Chapter II), of the effects of minimum wage fixing on wages actually paid in certain countries. Appendix 2 discusses some theoretical models that have been constructed with a view to analysing the effects of wage increases on employment. Appendix 3 examines the application of quantitative methods of research into wage questions in developing economies. Appendix 4 discusses the selection of employers’ and workers’ representatives to participate in the application of minimum wage fixing procedures.

Throughout, the report gives special attention to developing countries, but its scope is not confined exclusively to these countries.

The report suggests that, in the present state of knowledge, dogmatic assertions about the effects of minimum wage fixing and other wage decisions, particularly in developing countries, are out of place. But at least equal stress needs to be placed on the fact that policy decisions on wage questions have to be taken somehow, and are being taken all the time. It is important that these decisions should take full account of what is known about the effects of minimum wage fixing, and that our knowledge of this important subject should be enlarged as rapidly as possible. In accordance with a recommendation of the meeting of experts, the I.L.O. plans to carry out further studies of the effects of minimum wage fixing in selected developing countries.
PART I

MINIMUM WAGE FIXING
AND RELATED PROBLEMS
CHAPTER I

INTRODUCTION: PURPOSES AND LIMITATIONS OF MINIMUM WAGE FIXING

The term "minimum wage fixing" as used in this report means the fixing of a rate or rates of minimum wages by a process invoking the authority of the State. The report is not concerned with situations in which the payment of wages below a given level constitutes a breach of contract but only with situations in which the minimum rate or rates have the force of law.

PURPOSES OF MINIMUM WAGE FIXING

Four possible purposes of minimum wage fixing may be distinguished. The first is to eliminate the "sweating of labour" through very low wages and bad conditions of employment generally. This seems to have been the primary purpose of the earliest examples of modern minimum wage fixing legislation. State intervention to prevent the "sweating of labour" was considered necessary because of the relatively weak bargaining position of unorganised labour.

This conception of the purpose of minimum wage fixing is the one that seems to underlie the Minimum Wage-Fixing Machinery Convention, 1928 (No. 26). Article I of this Convention provides for the creation

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1 This definition is in accordance with that implicit in the international labour Convention concerning the creation of minimum wage fixing machinery, 1928 (No. 26), but not with that implicit in the Convention concerning minimum wage fixing machinery in agriculture, 1951 (No. 99). In the latter but not in the former Convention one of the ways in which minimum wages may be fixed is through collective bargaining. A definition which included collective bargaining as one of the methods of fixing minimum wages would, however, be inconvenient for purposes of the present report, leading to confusion in the discussion of such topics as the relationship between minimum wages and wages actually paid, or the machinery for minimum wage fixing.

2 These would include situations in which the force of law has been given to provisions of collective agreements fixing wages; many governments have powers to make adherence to the terms of such agreements obligatory for all employers and workers in an industry.

3 The first of these examples seems to have been a New Zealand law of 1894. This was followed by the setting up of wage boards in 1896 in the Australian state of Victoria. The boards established under the first British Trade Boards Act of 1909 were based on this prototype, and in their turn served as an example for similar institutions in other countries and territories.
or maintenance of minimum wage fixing machinery "for workers em¬
ployed in certain of the trades or parts of trades . . . in which no
arrangements exist for the effective regulation of wages by collective
agreement or otherwise and wages are exceptionally low ". The meaning
of this phrase is further clarified in Part III of the Recommendation
concerning the application of minimum wage-fixing machinery (No. 30)
adopted in the same year—

For the purpose of determining the minimum rates of wages to be fixed, the
wage-fixing body should in any case take account of the necessity of enabling
the workers concerned to maintain a suitable standard of living. For this
purpose regard should primarily be had to the rates of wages being paid for
similar work in trades where the workers are adequately organised and have
concluded effective collective agreements, or, if no such standard of reference is
available in the circumstances, to the general level of wages prevailing in the
country or in the particular locality.

The implication seems to be that if, on account of the absence or
weakness of organisation among workers in a particular trade or sector,
wages are low compared with those of better organised workers, or with
the general level of wages, minimum wages should be regulated with a
view to bringing the lowest wages nearer to the general level for similar
work so as to prevent "sweating" and remove manifest anomalies in the
wage structure. This does not call for absolute standards for minimum
wage fixing such as the determination and satisfaction of the needs of the
workers, with or without a family, but for comparison of wages prevail­
ing among different groups of workers performing similar work—i.e. it
envisages a relative standard for minimum wage fixing.

In practice one would expect this principle to result in the fixing of
minimum wage rates at, or somewhat below, the rates prevailing in the
occupations serving as a basis for comparison. A formal prescription to
this effect is found in the 1931 Labour Code of Chile, in which the
minimum wage is defined (in section 44) as "a wage not less than two-
thirds nor more than three-quarters of the usual or current wage paid for
the same kind of work to wage earning employees with the same
qualifications or of the same category in the town or region where the
work is performed ".

But—and this leads to a second and apparently different conception
of the purpose of minimum wage fixing—it may be argued that prevailing
wages are not a suitable standard for statutory wage fixing. It may be
argued that the general level of wages is too low to meet the needs of
workers and their families, or that it gives to workers an inequitable
share of the national income, or that it has failed to keep pace with
increases in the cost of living, and that the purpose of minimum wage
fixing is not so much to bring unduly low wages up towards the general level as to exert upward pressure on the general level itself. For example the Government of Argentina, in a message accompanying a Minimum Wage Bill submitted to Congress in 1964, declared that—

... there has been a progressive decline in real wages owing to the constant increase in the cost of living ... periodical adjustments in nominal wages have failed to offset the steady fall in workers' purchasing power. ... This situation undermines workers' living standards and is a source of despair and unrest, particularly among those in the lower income groups where this process forces many people below the subsistence level. The minimum wage is designed to protect the wage earning population from vicissitudes of this kind.¹

A third purpose of minimum wage fixing (in market economies) is a desire to eliminate "unfair" competition. There is strong support for the view that, while producers should be free to compete in matters of price, design and quality of product and so on, such competition should not be at the expense of workers and should not involve unfair labour standards whether in some absolute sense or in a relative sense. Minimum wage fixing may thus be deemed to be in the interests of, and may be welcomed by, not only the workers who benefit from higher wages but also those employers who provide better wages and conditions.

There is a fourth conception of the purpose of minimum wage fixing which is that, while still serving as an instrument to improve conditions for low paid workers, it should also be used as an instrument of a more general policy aiming at rapid growth and equitable distribution of the national income. The success of a country's plans or policies for economic and social development may be jeopardised if there are substantial unplanned changes in incomes, including wages. Governments may seek to encourage movements in the general level and structure of wages that are in harmony with their development plans and policies and to discourage movements that are in conflict with them. Unless decisions regarding wages are co-ordinated with development planning there is the danger that (i) many important wage issues will not be attended to for want of adequate machinery; and (ii) that, when a government does feel it necessary to make a decision on key wage matters, it will do so without an adequate analysis of the implications for the economy as a whole.

This fourth conception of the purpose of minimum wage fixing is reflected in various discussions of criteria for the fixing of minimum wage rates and in, for example, the Japanese Minimum Wages Law, in which

several purposes of minimum wage fixing are distinguished, including that of promoting "the sound development of the national economy."\(^1\)

How far are these different conceptions of the purposes of minimum wage fixing compatible with each other?

Though the first two points of view—(i) that minimum wage fixing should be used to raise the lowest wages towards the general level, and (ii) that minimum wage fixing should be used to exert upward pressure on the general level of wages as a whole—may appear to embody quite different conceptions, the differences between them in practice should not be exaggerated. The evidence quoted at the beginning of Chapter II suggests strongly that action to bring low wages up towards the average tends to raise not only the mean but also the median level because of resistance to compressing differentials. Thus promoting either purpose means in practice promoting a rise in the general level of wages, though from the second point of view this is explicitly sought while from the first it is an incidental consequence of seeking a more limited objective. The difference between the two points of view is largely one of attitudes to the maintenance of existing differentials, which will tend to defeat the objectives of the first and to promote those of the second.

The third purpose of minimum wage fixing distinguished above—that of eliminating "unfair" competition—is clearly compatible with either of the first two purposes; it appears to be especially closely related to the first purpose inasmuch as it is by raising the lowest wages that what would appear to be the clearest cases of unfair competition are eliminated.

What of the fourth purpose? If the effect of raising minimum wages is to raise the general level of wages, this would seem to make it all the more important that such action should not be pursued without regard to other economic and social objectives which a country has set itself in regard to such matters as the growth of national income and employment, the balance of payments and price levels. Recognition of the fact that decisions regarding minimum wages affect a country's prospects of attaining its other social and economic objectives is conducive to acceptance of the view that minimum wage fixing should be used as an instrument of a more general policy aiming at rapid growth and equitable distribution of the national income. There is a difference of emphasis but no real incompatibility between this view and that which stresses the role of minimum wage fixing in raising the incomes of wage earners and especially of low-paid wage earners. There can be a useful dialogue and co-operation between those who say: "We want to

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\(^1\) Law No. 137 of 1959, section 1.
use minimum wage fixing as a way of getting better wages for low-paid wage earners, but we recognise that this has to be done with due regard to the broader social and economic consequences”, and those who say: “We want to use minimum wage fixing as one among a number of instruments to be applied in a co-ordinated fashion in the fight against poverty and underdevelopment; improving the position of low-paid wage earners is an important element in this policy.”

Thus differences of view as to the purposes of minimum wage fixing, even if they cannot be wholly reconciled, need not be so sharp as to prevent practical co-operation in administering minimum wage systems.

LIMITATIONS OF MINIMUM WAGE FIXING

It may be well to recall certain limitations on the effectiveness of minimum wage fixing as an instrument for any of the purposes distinguished.

Conceived as an instrument for relieving or overcoming the poverty of workers with low incomes, the effectiveness of minimum wage fixing is limited in all countries by the fact that low wages are only one of many causes of poverty; others include a large size of family (or rather a large number of dependants per breadwinner), sickness or death of the breadwinner, old age and infirmity, unemployment or underemployment (in turn perhaps associated with lack of education or training) and, among rural communities, low or fluctuating prices for farm produce. In developing countries there are two further factors limiting the results that can be expected from minimum wage fixing: first, only a relatively small proportion of the economically active population is engaged in wage-earning employment, the rest being self-employed in agriculture, services or handicrafts; second, a low general level of wages is for the most part a symptom rather than a cause of poverty—most other incomes besides wages are also low.

Conceived as an instrument for eliminating “unfair competition” minimum wage fixing encounters the difficulty of determining what is unfair, particularly in developing economies, which usually include both employers and workers at very different levels of prosperity, sophistication and development. A wage that might be considered unfairly low if paid by a large-scale established employer to committed experienced workers in the modern sector of a developing economy might seem inappropriately high if it were fixed as the lowest wage that could legally be paid to an inexperienced worker badly in need of a job by a small man struggling to establish a modest business. The notion of fairness has to
extend to workers and employers in less favourable as well as in more favourable circumstances.

Conceived as an instrument of broader economic and social policy, the effectiveness of minimum wage fixing is limited by the fact, first, that it is concerned with wages only and not with other incomes (though to the extent that wage increases are paid out of profits it may affect profit incomes too) and, secondly, that it directly affects only wages that are or otherwise would be below the levels fixed. Wages above the minimum are determined by collective negotiations or individual decisions and in market economies are not normally subject to government control. Indirectly, it is true, to the extent that wage differentials are maintained, minimum wage fixing may affect other wage incomes as well. But the extent to which a government can directly affect the level and structure of wages through minimum wage fixing will be more limited when the minimum wage system merely spreads a safety net substantially below the prevailing level of wages for most workers than when most workers are paid at or near the minimum rates. In any case minimum wage fixing is only one of a number of instruments of wages or incomes policy. Others include (i) the decisions taken by the government in fixing the wages and salaries of its own employees—these decisions are likely to be particularly important where, as in most developing countries, central and local public authorities employ a substantial proportion of all wage earners; and (ii) guidance, if any, formulated by governments for the use of arbitrators or mediators in industrial disputes. In addition, of course, there are various ways in which governments may influence the evolution of non-wage incomes—including price control measures, anti-monopoly measures and taxes on profits or dividends.

The purpose of recalling these familiar points here is not to suggest that minimum wage fixing is unimportant but to stress the importance of seeing it in perspective as one among a large number of instruments of social and economic policy—and as one which has to be studied and evaluated not in isolation but in the context of a government’s broad social and economic objectives and the other instruments available to it and used by it for attaining these objectives.

This means, more specifically, bearing in mind such considerations as the following:

(1) A country’s choice of and prospects of attaining social objectives (in the sense of improvements in the current standard of living and well-

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1 The term "wages" is used in the rest of this report to include salaries.
2 Under the definition given at the beginning of this chapter, a wage awarded by an arbitrator in a case of compulsory arbitration would be regarded as a form of, and not as an alternative to, minimum wage fixing.
being, particularly of the poorer sections of the community) are subject to economic limitations. The causes of the low standard of living in poor countries must be sought among the factors that have checked the economic development of these countries, and the remedy for poverty must be sought in measures to promote rapid and successful economic growth and development as well as in a fair sharing of the proceeds.

(2) The objectives of minimum wage fixing are important social goals, but have to take their place among other policy objectives including not only economic growth but also other social objectives, which may include relief of poverty among non-wage earners, improvements in health and education and the development of collective bargaining and free trade unions. Moreover, some of the ultimate goals of minimum wage fixing may sometimes be achieved equally well or better by other means—for example effective policies to promote the growth of productive employment and public measures for plentiful food supply, health, housing, education and social security.

(3) Though economic growth provides the means for social progress, these are not always used for this purpose, and sacrifices—particularly wage restraint—alleged to be necessary for economic development are sometimes called for from poor sections of a community by governments that in fact do little to promote economic development. If a government decides that the national interest requires a wage policy calling for some patience and forbearance on the part of workers, asking them to adapt their demands to the pace and requirements of economic growth and to make special efforts to improve their qualifications and performance before any substantial increase in their earnings is possible, such a policy will be felt to be inequitable, and unacceptable to workers and their representatives, unless accompanied by two things—first, an equitable fiscal policy to ensure that any wage restraint is matched by similar restraint in the growth of other incomes, at least after payment of taxes; and, second, an effective policy to promote the economic growth in the name of which wage restraint has been called for. Trade union movements in many countries at different times have shown willingness to cooperate in policies that do not promote the short-term interests of their members when such policies have been demonstrated to be in the national interest. But to obtain the support of an independent trade union movement for such policies the demonstration has to be a convincing one. Hypothetical and uncertain advantages for the community as a whole are not likely to be considered an acceptable
alternative to the tangible and visible benefits of higher wages for trade union members. If a government calls for wage restraint, then the more specifically it has worked out and the more clearly it can explain (i) what it plans to do with any savings it may make in its wage bill as compared with what that wage bill would have been without wage restraint, (ii) what it expects private employers to do with any savings in their wage bills, and (iii) why it thinks its expectations are reasonable and what it will do if they are disappointed, the better are its chances of avoiding conflict on wage questions.
CHAPTER II

CONSEQUENCES OF MINIMUM WAGE FIXING

To the extent that minimum wage fixing raises wage levels it is liable to have repercussions throughout a country's economy. Particular interest attaches to the effects of minimum wage fixing on (i) economic growth; (ii) employment; and (iii) the distribution of incomes.

We may start by discussing the effects of minimum wage fixing on actual wage rates, and then proceed to a discussion of the effects of higher wage rates on the three variables just distinguished.

EFFECTS OF MINIMUM WAGE FIXING ON ACTUAL WAGE LEVELS

It is not difficult to assemble quotations from well-qualified observers expressing the view that in the countries of which they have special knowledge increases in minimum wages lead to substantial increases in wages actually paid. A number of such quotations follow, preceded by the name of the country to which they relate.

Argentina. If the levels which the minimum wage has reached in course of time are compared with the wages set by collective agreements for the lower grades . . . it is apparent . . . that the minimum wage has helped to force up contractual wage rates as well . . . in some cases these changes in the wages of the lower grades produced corresponding increases further up the scale.1

Brazil. There is a tendency at all levels to keep demands for wage increases commensurate with minimum wage increases, so as to preserve existing differentials.2

Congo (Kinshasa). An analysis of wage trends . . . during the period from 1950 to 1958 shows that . . . while other factors may have helped to speed up the increase in earnings . . . the improvement in the statutory minimum had a dominating influence on the evolution of wages actually paid.3

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1 Arnaldo R. Campaño, op. cit., p. 251.
2 United States Department of Labor, Bureau of Labor Statistics in co-operation with Agency for International Development: Labor in Brazil, B.L.S. Report No. 191 (Washington, Jan. 1962), p. 16. (But a table on p. 18 of the same report shows that in Rio de Janeiro the average monthly wage rose steadily from 325 cruzeiros in 1940 to 1,220 cruzeiros in 1951, though the minimum legal wage was changed only once, in 1944, from 240 to 380 cruzeiros—in other words, average wages may increase substantially even when minimum wages do not.)
France. The S.M.I.G.\(^1\) (inter-occupational guaranteed minimum wage) was intended to be no more than a sort of subsistence wage, and to have no appreciable influence upon other wages. In fact, it has come to be regarded by everyone as the pivot of the whole French wage structure. Every increase in the S.M.I.G. (except the latest) has almost immediately been followed by a general wage increase. The rise in the over-all index of wage rates has in fact been proportional to the rise in the S.M.I.G. Employers' associations frequently refuse to negotiate a wage revision until the government has increased the S.M.I.G. The trade unions demand a revision of the whole wage structure every time the S.M.I.G. is raised. Many collective agreements now provide for automatic and proportional increases of all rates should the S.M.I.G. rise.\(^2\)\(^3\)

French West Africa (before Independence). . . . the wage scales of skilled labor . . . are very closely tied to the interoccupational minimum wage rate, which is fixed by the governor of each territory. If, for example, the Governor of Senegal raises the minimum wage rate by 10 per cent., the unions (or management) will insist on the same increase for graded labor in the negotiations in the Joint Councils.\(^4\)

India. When there is considerable delay in the periodic revision of minimum rates . . . the actual rates required to attract labour tend to go above the minima fixed and the prevailing rates thus become higher than the minima fixed. This is understood to be the case in many rural agricultural pockets. But, by and large, the prevailing rates and the minimum rates fixed under the Minimum Wages Act appear to be equal.\(^5\)

Mexico. In most major industries, wages are well above the minimum rates. Raising the minimum wage, however, does tend to elevate all wages, as workers generally demand wage raises commensurate with the increase over the old minimums. Minimum rates for 1962-63 were increased by an average of about 20 per cent. over the previous minimums. Labor contracts signed during 1962 granted wage increases averaging around 13 per cent.\(^6\)

\(^1\) Salaire minimum inter-professionnel garanti.

\(^2\) This statement is no longer true. Ordinances of 31 December 1958 and 7 January 1959 prohibit, in collective or individual agreements, provision for an automatic revision of wage rates (other than those below the S.M.I.G. level) when the S.M.I.G. is raised. These ordinances, following action in 1954 to circumvent the effects of the law by substituting a flat-rate hourly bonus (indemnité horaire non-hiérarchisée) for a normal increase in S.M.I.G. (by keeping the price index on which S.M.I.G. was based at an artificially low level), show the concern of the Government to prevent an increase in S.M.I.G. from having the inflationary effect on the whole wage structure which would otherwise have been experienced. But in fact an examination of wage series shows no substantial difference in the behaviour of the wage structure vis-à-vis the evolution of S.M.I.G. before and after the 1954 decree or the 1958 and 1959 ordinances were passed.


\(^5\) Information supplied to the I.L.O. in reply to a questionnaire, from which it appears that prevailing wage rates are for the most part close to the minimum rates.

Puerto Rico. There is convincing evidence that minimum wage regulation, rather than labor supply conditions, is mainly responsible for the advance of real wages over the past 15 years.¹

Ruanda-Urundi. It seems ... that in Ruanda-Urundi, even more than in the Congo, wages actually paid are closely determined by the level of the statutory minima.²

Turkey. Any increase granted to workers in any branch of activity in a particular region, on the basis of the minimum wage, involves automatically, in effect, claims on the part of wage earners covered by the minimum wage scheme in other branches of activity in the same region, then in other regions, and demands for adjustments on the part of workers in higher graded occupations.³

An attempt was made to see whether statistical analysis in certain countries would lead to a similar conclusion. The following countries were covered in the analysis: Brazil, Ceylon, India, Ireland, Mexico, New Zealand and Trinidad and Tobago.⁴ The hypothesis, or "model", on which the analysis is based, the statistical methods employed, and the detailed quantitative results are fully explained in Appendix 1 below.

In nearly all cases it is shown that average earnings are linked with the minimum wage and that this link is usually quite strong.

From the table overleaf it may be seen that the increases in average earnings which accompany a 10 per cent. increase in the minimum wage are over 5 per cent. in virtually every case, and in the case of 24 non-agricultural occupations in Ceylon a more than equi-proportionate change

³ Information provided to the I.L.O. in reply to a questionnaire.
⁴ These countries were selected because of the availability of data. It should be noted that, since only cross-sectional data were available for Brazil, India and Mexico, presentation of the results for these countries is limited to Appendix 1. As pointed out there, the cross-sectional approach does not lend itself as well as time-series analysis to the same interpretation. Unfortunately the countries reviewed include no African country. Reference may, however, be made to D. Chesworth: "Statutory Minimum Wage Fixing in Tanganyika", in International Labour Review, Vol. 96, No. 1, July 1967, pp. 43-66. This shows that in the year following the fixing of minimum wages in Tanganyika there was a substantial increase in the rates of wages actually paid and in the total wage bill. The same author has shown that in Mauritius, too, the fixing of minimum wages (in the sugar industry) was followed by a substantial increase in wage rates and in the total wage bill. ("Statutory Minimum Wage Fixing in the Sugar Industry of Mauritius", in ibid., Vol. 96, No. 3, Sep. 1967, pp. 252-279.)

Reference may also be made to a study of minimum wage fixing in the United States, based on a model (more ambitious than that used in Appendix 1 below) in which wage series depend on a number of quantifiable variables including minima fixed by law. The importance of minimum wage fixing as a factor contributing to movements in wages actually paid is estimated by means of multiple regression analysis. The conclusion is that even in the United States, where average wage levels are much above the minimum rates fixed, successive increases in minimum rates appear to have had appreciable effects on wages actually paid, especially to workers in lower paid regions and sectors. See C. St. J. O’Herlihy: "Measuring Minimum Wage Effects in the United States", in I.L.O. document D. 16/1967 (Geneva, 1967) (roneoed).
in average earnings apparently tends to be associated with a change in the minimum wage.

In addition, it should be noted that the results for Ireland refer to the relationships between the agricultural minimum wage and average earnings in other sectors; this provides some evidence that a minimum wage can have an effect on average earnings in sectors not covered by that minimum wage.

The following increases in average earnings tend to accompany a 10 per cent. increase in the minimum wage:

<table>
<thead>
<tr>
<th>Country</th>
<th>Sector</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW ZEALAND</td>
<td>Whole economy</td>
<td>7.2</td>
</tr>
<tr>
<td>IRELAND</td>
<td>Industry</td>
<td>9.7</td>
</tr>
<tr>
<td></td>
<td>23 industrial occupations</td>
<td>8.4</td>
</tr>
<tr>
<td>TRINIDAD AND TOBAGO ¹</td>
<td>7 non-agricultural sectors</td>
<td>Median: 5.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High: 10.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low: 4.9</td>
</tr>
<tr>
<td>Ceylon ¹</td>
<td>7 agricultural occupations</td>
<td>Median: 8.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High: 10.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low: 7.9</td>
</tr>
<tr>
<td></td>
<td>24 non-agricultural occupations</td>
<td>Median: 16.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High: 38.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low: 10.5</td>
</tr>
</tbody>
</table>

¹ Whereas the data for New Zealand and Ireland refer to a general minimum wage, those for Trinidad and Tobago and Ceylon refer to a minimum specific to a particular sector. See Appendix 1 for the detailed results, sector by sector.

"High" and "Low" refer to the high and low ends of the range, respectively.

But we cannot directly conclude whether this relationship between movements over time in average earnings and movements over time in the minimum wage exists because minimum wages are forcing up the level of average earnings—a "minimum wage push" situation—or because minimum wages are merely passively following increases in average earnings which are due to other factors—a "wage leadership" situation.

However, there is some indirect evidence as to which situation obtains. If the relationship between changes in minimum wages and changes in average earnings is less than equi-proportionate (for instance if an increase of only 7 per cent. in average earnings tends to accompany a 10 per cent. increase in the minimum wage), then it is almost certain that percentage wage differentials (between workers of different skills)
will be narrowing over time. When percentage wage differentials are being compressed it would be reasonable to argue (particularly in the case of countries with no shortage of unskilled labour) that this is because the level of average earnings is being raised by pressure from below and that this pressure could be ascribed to changes in the minimum wage.\(^1\) Thus, where the relationship between changes in the minimum wage and changes in average earnings is less than equi-proportionate, it can reasonably be argued that this is a “minimum wage push” situation.

If the relationship between changes in minimum wages and changes in average earnings is considerably more than equi-proportionate (for instance if an 18 per cent. increase in average earnings tends to accompany a 10 per cent. increase in the minimum wage) then percentage wage differentials will almost certainly be widening.\(^2\) In this case it is reasonable to argue that the level of average earnings is being pulled up from above rather than being pushed up from below. Thus where the relationship between changes in the minimum wage and changes in average earnings is considerably more than equi-proportionate, this can reasonably be considered to be a “wage leadership” situation.

This leaves us with an indeterminate set of cases where the relationship between changes in the minimum wage and changes in average earnings is more than equi-proportionate but not greatly so. In this set of cases it is not possible to judge between the minimum wage push and the wage leadership situations without further investigation.

Most of the relationships shown in the table opposite between changes in average earnings and changes in minimum wages are less than equi-proportionate. Thus, in these cases the minimum wage appears to be one of the forces raising the level of average earnings.\(^3\)

The major exception is that of the non-agricultural sector in Ceylon, where “wage leadership” is apparently taking place. But a close look at this sector suggests that “wage push” may be taking place in those occupations where the minimum wage effect is close to 10 per cent. (see Appendix 1 for further discussion of this case).

\(^1\) Other causal factors could be adduced to explain such a result; for instance a compression of skill differentials could result from a shortage of unskilled labour, or from a relative reduction in the demand for skilled labour due perhaps to its replacement by machinery, or from deliberate government policy implemented by measures other than minimum wage fixing.

\(^2\) The reasons for this assertion are given in Appendix 1.

\(^3\) The interested reader may observe in the detailed tables in Appendix 1 not only that the regression coefficients for minimum wage change are generally highly significant but also that the multiple correlation coefficients are very high (typically above 90 per cent.) This would suggest that minimum wage change has “high explanatory power”.

Appendix 1 also discusses the effects of some other factors affecting average earnings.

Statistical analysis, so far as it goes, tends to confirm the opinions of observers, such as those quoted at the beginning of this chapter, that the fixing and periodical raising of minimum wages tend to have substantial effects on wages actually paid. We see, furthermore, in the table on page 16 that these effects differ in magnitude over a wide range. The reasons for such a range depend upon circumstances which may not all lend themselves to exact measurement or quantitative analysis.

In considering such circumstances it is useful to distinguish between direct and indirect effects of minimum wage fixing, the term "direct effects" being reserved for those increases in actual wages that are necessary to comply with the law. The direct effects, defined in this way, of minimum wage fixing will evidently be greater the greater the number or proportion of workers whose previous earnings were below the new minima.

The indirect effects of increases in minimum rates on higher rates or on the earnings of workers not covered by the minimum wage provisions will depend on the strength or weakness of the forces making for the maintenance of existing differentials. These include market forces, traditional views as to what are appropriate differentials for different types of work, the role of collective bargaining and perhaps leadership given by the government. Differentials that are needed in order to provide incentives and rewards to workers for acquiring needed skills or taking jobs in regions or sectors where labour is in short supply would seem more likely to persist than differentials that serve no such purpose. However, there is a good deal of evidence of a strong conventional element in wage differentials, particularly in developing countries. A man working at a desk usually enjoys a higher social status and is often considered as being entitled to higher pay than a man working at a bench. There may be strong resistance to the compression of differentials between the earnings of manual and non-manual workers even though such differentials may be economically irrational or perverse. Where wages are determined by collective bargaining, some groups are better organised than others and in a stronger position to maintain differentials favourable to themselves. In some countries where the government employs a large proportion of the labour force, private enterprise may be heavily influenced by the example set by the government in regard to the structure as well as the level of wages of its own employees. Finally, the effects of minimum wage fixing on wages actually paid are likely to depend to some extent on the precise objectives with which the government has in mind in fixing minimum wages and the zeal and powers with which these objectives are
pursued—for example, on whether it is the government's wish and intention to use minimum wage fixing only or mainly as an instrument for raising exceptionally low wages towards the general level, or as an instrument for raising the general level itself, and on whether the government desires mainly to adapt wage movements to development policies or to fix wages regardless of development policies.

The relationship between minimum wages and wages actually paid is thus an exceedingly complex one, depending upon many variables which are subject to different degrees of government control or influence. But the evidence above suggests that conditions in which increases in minimum wages exert a substantial influence on wages actually paid are widely encountered. This influence is particularly strong where minimum rates are the going rates for large numbers of workers, which seems to be the case in most African and in many other (but not all) developing countries. But even where many actual wages are substantially above the minimum, the wage structure often seems to be strongly resistant to change. Thus, minimum wage fixing may be a more powerful instrument for raising the general level of wages, with more pervasive effects, than has sometimes been thought.

**Effects of Increases in Actual Wages**

*Methods of Investigation*

In discussing the effects of wage increases it is important to distinguish between wage increases spontaneously paid by employers confronted with a shortage of labour and wage increases which employers are required to pay as a direct or indirect consequence of the fixing or raising of minimum wages. Some effects are common to both types of wage increase; others are not. It is with the consequences of the latter that this report is concerned.

Many things have been confidently, not to say dogmatically, asserted about the effects of wage increases, but these are for the most part "theoretical" propositions based on the construction of simplified models of what goes on in the real world and on reasoning about the behaviour of these models. Valuable insight may be obtained in this way, but there are familiar dangers in applying in practice conclusions based on simplified theoretical models, and particularly in using such conclusions as a basis for advice to policy makers. First, the model may be so unlike the real world that what happens in it may throw little light on what happens in the real world. For example a model incorporating a competitive labour market may throw little light on reasons for the "stickiness" of wages in many real world situations; or a model may
exclude some relationships that may be important in the real world, such as the effects of higher wages on the efficiency of management and workers. Secondly, even if the model is close enough to reality to throw light on real situations, it may tell us only the direction and nothing about the magnitude of the effects to be expected.

It is scarcely necessary to recall that the effects of higher wages depend very much on the particular conditions of the country, the industry or the undertaking concerned. A country's economy, or any particular industry or firm, may be expanding or contracting, buoyant or depressed; wages may be a small or a large proportion of total costs; the demand for the product may be more or less elastic; competition from abroad may be strong, weak or non-existent; profits may be high or low, rising or falling; there may be a surplus or a shortage of labour.

What is important for policy purposes is not to be able to describe the effects of higher wages in general terms; the object of inquiry should be to identify—in "operational" terms—the circumstances in which particular effects can be expected to manifest themselves, and to know how important these effects will be. Many governments are anxious that wages should rise as rapidly as the economic circumstances of their countries permit, but are apprehensive about the effects of "excessive" wage increases. Countries seeking rapid economic development and fair sharing of the proceeds need to be able to determine as accurately as possible the "room" for wage increases—to know how far and how fast wages should rise, given the objectives of economic and social policy, and the means and resources available for achieving these objectives.

If progress is to be made in helping policy makers towards sound decisions on wage questions, much more needs to be known about what effects wage increases have in particular circumstances. It is true that one cannot generalise from particular cases, but even a few quantitative studies may prove suggestive, and a growing body of such studies built up over a period should, in time, permit certain generalisations based on observed experience to supplement and if necessary to correct propositions based on \textit{a priori} reasoning.

Quantitative analyses of relations between wage series and other series—production, employment, productivity, investment, growth, and so on—are not always easy to interpret, and in any case can be carried out at a sophisticated level only for countries that have relatively abundant and reliable statistics. Reference has already been made to one such recent study for the United States.\footnote{C. St. J. O'Herlihy, \textit{op. cit.}} For most developing countries available data do not at present permit any thorough quantitative studies
of the effects of wage increases. Suggestions regarding quantitative analysis of wage questions are, however, made in Appendix 3 below. As statistical data and research techniques improve, one may expect continued progress to be made in this area. But there are very few such studies as yet.¹

Where limitations of data preclude rigorous analysis, valuable light can nevertheless be thrown on the effects of wage increases by studies of a more descriptive character, bringing common sense and judgment to bear on such facts as can be made available through careful searching.²

While reference will be made in the following discussion of the effects of wage increases to such few quantitative studies as have come to the notice of the authors of this report, the literature on the subject is very largely based on a priori reasoning, and this is inevitably reflected in the discussion.

For convenience of arrangement we shall try to discuss separately the effects of wage increases on economic growth, on employment and on income distribution. But these effects are all interrelated.³

Effects on Economic Growth

The various ways in which wage increases may affect the rate of economic growth (to take this topic first) are also interrelated and difficult to disentangle. The main ways in which wage increases affect economic growth are through their effects on costs and prices and thus on the incentives and opportunities to produce. In discussing these effects it is convenient to begin by disregarding the possible effects of wage increases on productivity and on the supply of labour and capital, and to introduce these complications at a later stage.

¹ Special mention should, however, be made of Lloyd G. Reynolds and Peter Gregory: *Wages, Productivity and Industrialization in Puerto Rico* (Homewood, Illinois, Richard D. Irwin, Inc., 1965). See also Peter Gregory: *Industrial Wages in Chile* (Ithaca, New York, New York State School of Industrial and Labor Relations, Cornell University, 1967).


³ They are also complex and difficult to discuss very briefly. The rest of this chapter may thus have the appearance of a somewhat lengthy digression on the economic consequences of wage increases before the report returns in Chapter III to questions more closely related to minimum wage fixing as such. There does not seem to be any way of avoiding this. It is believed that the considerations examined in the rest of this chapter are important for an understanding of the implications of minimum wage fixing, and that a relatively systematic discussion of these considerations at this point in the report will make it possible to save a good deal of space in subsequent chapters.
Costs, Prices and Demand.

If productivity is unchanged, a given wage increase will raise costs of production by an amount depending upon the proportion of labour costs in total costs of production.

Figures showing a rather low proportion of wage costs in total costs of production may at first sight suggest that even fairly substantial wage increases would often have only rather moderate direct effects on cost levels in the industrial sector. However, since the products of undertakings at early stages of production are often the materials or the bought-out components of other undertakings at later stages of production, a general increase in wages may, for the latter category of undertakings, raise the costs of materials and components as well as of labour. Since money costs (apart from indirect taxes) are in the last analysis the incomes of the suppliers of productive services, the share of "compensation of employees" in national incomes can be regarded as a measure of the share of wage costs in total costs of production in a national economy as a whole. This ranges from about 55 to about 75 per cent, in developed countries and is usually considerably lower in developing countries with a smaller proportion of the economically active population in wage-earning employment.

Higher costs usually make for higher prices eventually. So far as the managements of private undertakings are concerned, higher prices are a necessary consequence of higher costs in a situation so competitive that profits are at the minimum levels needed to call forth the existing supply of products and cannot be squeezed; but monopolists, including firms administering prices in an imperfectly competitive situation, can use some discretion and will not always raise prices to a level that will maximise short-run profits.

In the public sector of market economies and in centrally planned economies there is not the same necessity as in private business to compare money returns with money costs, but the fact that publicly owned undertakings may not have to operate at a financial profit does not mean that they are under no constraints. If consumers of their goods or services are not required to pay higher prices when costs of production go up, the increased costs have to be covered in some other way. If specific increases in the prices of particular public goods or services are

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1 Producers for an internal market, if they are all simultaneously required to pay higher wages, are in a better position to raise prices without losing their markets than producers for export facing competition from other countries, or than producers for a home market who have to meet competition from imports. In these two situations higher wages tend to place producers at a competitive disadvantage which will threaten to reduce the country's export earnings or increase its import bill.
not made in response to increases in their costs of production, there will have to be, instead, a diffused increase in the price of public services in general, taking the form either of an increase in taxes with no change in the volume of public services provided or a reduction in public expenditure and hence in public services without a reduction in taxation.

If producers, private or public, cannot or do not raise prices to compensate for an increase in costs of production, there is likely in most cases to be some curtailment in the volume of production, or at least in its rate of growth, since some production that was practicable or worth while at the former lower level of costs is likely no longer to be so at the new higher level. This will of course be bad for economic growth. But even if prices rise to compensate producers in full for higher costs, there is still likely to be some check on economic growth, for higher prices reduce the quantities that people can afford to buy and, accordingly, the quantities that it is worth while to produce.

There is, however, a qualification to be made to this last statement to take account of the possibility that higher wages may have another effect, namely that of increasing the effective demand for goods and services of a community as a whole. It would not be enough if wage increases were merely to transfer purchasing power from one section of the community to another without increasing aggregate demand; but if wage increases were to have the effect of bringing into existence a new source of effective demand, that would be a different story.

There seems to be one situation in which wage increases may sometimes have this effect. This is a situation in which a community is suffering from unemployment due to a deficiency of demand or a lack of markets. This is perfectly conceivable both as a cyclical and as a secular phenomenon. If a community tries to save more than its entrepreneurs, public and private, are willing to invest, there will be a deficiency in aggregate demand leading to a low level of production and income and to unemployment. It is generally considered that this is quite an illuminating way to describe what happened in industrially advanced market economies in the early 1930s. In such a situation a transfer of purchasing power from groups with a lower propensity to consume to groups with a higher one—e.g. from entrepreneurs to wage earners—may lead to a net

1 It is important to recall that higher wages do not always involve a transfer from entrepreneurs to wage earners. If prices rise immediately by the full amount of a wage increase, profits per unit will be maintained, and the transfer will be at the expense of consumers. If prices rise to absorb higher wage costs fully, but only after a time lag, any boost to aggregate demand is likely to be temporary. Finally, if employers demand less labour when they have to pay higher wages, so that some workers lose or fail to get jobs, a part of the income transferred to the wage earners who keep their jobs comes in effect from these other less fortunate workers.
increase in aggregate demand which can be satisfied by bringing unem­ployed resources back into use. Higher wages would lead to more, not less, employment. They would not be the only way of dealing with the situation—deficit public spending would be another and more certain way—but they would be a way.

There has been no major cyclical depression since the Second World War, but as a secular trend there is evidence that the productivity of capital in industrially advanced countries such as the United States has been increasing.¹ If this is, or ever becomes, an established trend, it will be possible to maintain a given rate of growth with a falling investment ratio or an accelerating rate of growth (so long as the productivity of capital continues to increase) with a given investment ratio. The former option would mean that government current expenditure and consumer expenditure together must expand faster than the national income if full employment is to be maintained. Again, one way, but not the only way, of bringing this about would be to increase the wage and salary bill.

But all this seems a far cry from the contemporary problems of developing countries. Because of the urgency of public and private needs, the typical situation in most developing countries is not one of a deficiency of aggregate demand causing unsaleable stocks of goods to pile up, but rather the opposite situation of shortages of goods and inflationary pressures. It is true that many developing countries have a surplus of unskilled labour, but this is not at all the same thing as the kind of surplus of productive resources in general that characterises a deficiency of aggregate demand. It is also true that, despite a general shortage of capital, there is often a good deal of unused industrial capacity in developing countries. Even where this is the case, it is not certain that the reason for it is lack of demand—it may be evidence rather of a lack of balance in a country’s investment programme, some equipment having been brought into existence before it can be utilised because materials, power or complementary equipment or skilled labour are not yet available in the quantities needed. And if there is a deficiency of aggregate demand it is not certain that higher wages will help. They will do so only if (i) the propensity to spend (on consumer and capital goods taken together) of the workers who now have larger incomes

¹ John W. Kendrick, in his Productivity Trends in the United States (Princeton, N.J., Princeton University Press, 1961), found that the average rate of return on capital had risen from about 6 to about 7 per cent. between 1919 and 1957. Edward F. Denison, in his The Sources of Economic Growth in the United States and the Alternatives before Us, Supplementary Paper No. 13 (Committee for Economic Development, 1962), p. 146, has a table showing a rising trend (with, however, marked cyclical fluctuations) in the United States real national product per unit of input of reproducible capital. See also Bert G. Hickman: Investment Demand and U.S. Economic Growth (Washington, D.C., The Brookings Institution, 1965), especially Appendix A.
exceeds the propensity to spend of those (entrepreneurs, consumers or the jobless) who now have smaller incomes, and (ii) the increased propensity to spend of the community as a whole is not thwarted by an inelastic supply of money.

This subject is discussed further in Appendix 2 below. We may conclude that, in certain rather special circumstances that do not appear to be typical of developing countries, higher wages may be good for growth by promoting increased demand. This is because wages (within a closed economy) are an element in incomes as well as in costs. But higher wages in export industries which raise costs without raising the incomes of potential purchasers can only have an unfavourable effect on sales prospects. Effects in internal and external markets would have to be considered together in assessing the effects of wage increases on the level of demand.

Except in the special circumstances where there is a deficiency of aggregate demand (and sometimes even in these circumstances), the effects of wage increases on prices and costs are likely to be unfavourable to economic growth, whether or not prices rise to compensate producers for higher costs. This seems to be true at least if we disregard possible repercussions of wage increases on productivity and on the supply of labour and capital—repercussions which we have now to consider.

*The Productivity of Labour.*

The effects of a wage increase on costs and prices may be offset in part or in whole (or conceivably be even more than offset) by an increase in labour productivity resulting directly from the wage increase.

It is highly desirable that more should be known about the conditions in which and the extent to which higher wages may be expected to lead to higher labour productivity. A good many studies have shown that high wages tend to be associated with high productivity in some firms and low wages with low productivity in others. This is not conclusive evidence that higher wages lead to higher productivity. In the first place the high-wage, high-productivity firms may employ more capital per worker; in the second place they may attract and retain the pick of the labour force. For them, a high-wage policy may be good business, but this may only show that there is room for a certain number of high-wage firms in the line of business concerned and not that all firms would make higher profits if they paid higher wages.

Higher wages may make for higher productivity through their impact on managements and/or on workers.
The Impact on Management.

A distinction may be drawn between those increases in labour productivity that are costless (apart from the wage increase) and those that are achieved only through increased capital or managerial inputs.

It is well known that wage increases give entrepreneurs an incentive to substitute capital for labour. The scope for such substitution varies enormously but is usually considerably greater in the long run than in the short run. In a similar way, to the extent that higher wages mean a rise in the price of operative labour as compared with managerial and supervisory labour, it may pay to substitute some of the latter for the former, or at least to increase the input of managerial and supervisory labour so as to achieve better training and better planning, supervision and control of the work of the now more highly paid operative workers. To the extent that management was previously not fully extended, this may be achieved without additional money costs by means of harder and more intelligent work on the part of an existing managerial and supervisory staff, but more often increased managerial inputs seem unlikely to be costless even in the monetary sense.

If higher labour productivity is achieved through larger capital or managerial inputs, or both, the higher costs resulting from these as well as from the payment of higher wages will have to be offset by the higher productivity if wage increases are not to lead to increases in costs of production. And since capital and managerial and supervisory skills are scarce resources in developing countries, the absorption of larger amounts of these in particular undertakings in response to higher wages is likely to raise costs in other undertakings that now find themselves unable to obtain, or obliged to pay more for, these scarce resources.

The Impact on Workers.

Besides providing incentives to management to increase the inputs of capital and managerial skill, higher wages may strengthen both the physical capacity and the willingness of workers to improve their performance.¹

Physical capacity. The argument that higher wages make for higher productivity by improving the physical capacity of workers breaks down into the two propositions that, first, higher wages make for improved physical capacity and, second, improved physical capacity makes for greater output. It is important to try to identify the conditions in which these two propositions are true.

¹ There may, however, be a negative counterpart to this; see pp. 33-34 below.
Higher wages will make for improved physical capacity if the physical capacity of the workers concerned is impaired by poverty and if the higher wages are spent partly at least in ways that improve their health, including nutrition.

There is no doubt that the physical capacity of many workers in developing countries is impaired by malnutrition, disease, bad housing and sometimes by inadequate protective clothing. It is more difficult to know how widespread these conditions are. These are, for the most part, symptoms of poverty, but they cannot all be overcome by paying higher wages alone. Freedom from disease and squalor requires public expenditure on health, sanitation and housing.\(^1\)

Another question is how far higher wages will be spent in ways that will make for better health, and particularly better nutrition. It is difficult to generalise about this. As a rule, when family incomes increase, expenditure on food also increases, though usually in a smaller proportion. Higher expenditure on food does not necessarily make for better nutrition (some foods preferred for their flavour may, in fact, be less nutritious than cheaper substitutes) but would normally tend to do so. Several studies have shown that the intake of the nutritive components of diet (calories, proteins, fats, calcium, iron, etc.) increases with income.\(^2\) But if higher wages restrict employment opportunities, they may mean that family meals have to be shared with a larger number of dependants.\(^3\)

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\(^1\) And while, if higher wages are spent on more and better food, this may put an end to the debilitating effects of short-term malnutrition that has not permanently impaired a worker's physical capacity, if present physical weakness is due to organic disabilities arising from chronic malnutrition in childhood, the effects of better current food intake by adult wage earners may be slight or very long term—Cf. Elliot J. Berg: "Major Issues of Wage Policy in Africa", in Arthur M. Ross (ed.): \textit{Industrial Relations and Economic Development} (London, Macmillan & Co. Ltd., 1967) (publication of the International Institute for Labour Studies), Ch. 9, pp. 191-192. This, of course, is in no sense an argument that because people were badly fed as children they should go on being badly fed.


\(^3\) Leibenstein (op. cit.), taking a rural model in which employers and landlords are the same people, has argued that, as wages rise (from a level at which workers are not adequately nourished), work units supplied per man are likely, up to a point, to increase proportionately more than wages, so that up to this point higher wages mean lower unit costs of production. There is not one marginal productivity of labour curve but a family of such curves, one for each wage level. If landlords are indifferent as to how many workers they employ, they will pay a wage that will maximise their net revenue. But the model is so constructed that at this point there is considerable sur-
The second proposition—that improved physical capacity makes for greater output—will tend to be true in all circumstances in which impaired physical capacity is the limiting factor on output. This must be true of a great many workers in developing countries but it is impossible to know to what proportion of wage earners it would apply.

Malnutrition is probably the most pervasive factor making for impaired physical capacity. Inadequate diet reduces working capacity and impairs output for several different reasons—

(a) the body tends to protect itself from the effects of the lack of proper food by avoiding effort, with resulting lethargy and lack of initiative and drive;

(b) a poor diet lowers resistance to debilitating disease;

(c) sickness and consequent absenteeism are more frequent;

(d) when workers are undernourished, and consequently tire quickly, accident rates tend to be higher.¹

Calorie intake seems to be the most important nutritional factor influencing work output. A well known study of this factor over the period 1939-44 in coal mines in the Ruhr district of Germany, which experienced no major changes affecting the workers or output per worker except the decline in calorie intake due to wartime conditions, showed that, in addition to the 2,200 calories required for the maintenance of metabolism and for various activities not directly related to work, a further 1,200 "work" calories were required per ton produced. Over different periods of decline in calorie intake, either output fell according to this ratio or, at times when it fell less than proportionately, the worker's body weight was reduced because, under the pressure to produce, the body could keep insufficient calories for non-work requirements. Similar findings were obtained in a German steel plant during the same period and, in both studies, it was demonstrated that, over the whole period during which calorie intake declined very substantially, this decline resulted not only in an absolute fall in output but also in reduced output per unit of food consumed.²

The converse effect of dietary improvement on production further illustrates the relationship. An example may be taken from the Central plus labour. Leibenstein argues that the existence of this surplus labour will depress wages below the optimum level from the landlords' point of view. It is not easy to see why the existence of workers willing to accept lower wages makes it necessary for landlords to reduce wages. A reason might be that, when the employed workers have to share their wages with many unemployed, their levels of nutrition and productivity fall off.

American public road programme in Costa Rica. For the road work which was undertaken by United States contractors, local labour was employed and proved to be extremely inefficient at work. After some time the organisation of the construction camps was changed, sanitation was improved and the management began to supply substantial meals, including large portions of meat, to the workers, who had formerly been subsisting on a poor and mainly vegetable diet. The resulting improvement in working efficiency was striking—

When the work was started in 1943 a labor force consisting of 30 per cent. United States laborers and 70 per cent. Costa Ricans moved 240 cubic metres of earth per man per day, with modern equipment. A year later, with 33 per cent. United States laborers and 67 per cent. Costa Ricans, the daily average had risen to 388 cubic metres per day. By January 1945, with 28 per cent. United States laborers and 72 per cent. Costa Ricans, 1,025 cubic metres were moved per man per day; and by January 1946, with only 12 per cent. United States laborers and 88 per cent. Costa Ricans, the average had risen to 1,157 cubic metres per man per day.¹

A number of other illustrations are given in the same publication of the Food and Agriculture Organisation of the United Nations, but none is very recent. More recently, in 1961-63, an I.L.O. productivity mission in India was able to undertake a careful study of factors affecting productivity in earth-moving in the construction of a large dam in the Sharavathi Valley project in the state of Mysore. One of the main conclusions was that the best workers were the 10 per cent. of the labour force who came from Malabar, whose output was 80 per cent. higher than the rest; after careful comparison of their tools and methods, skill, stature, age and other relevant aspects with those of the other workers, it was found that: “The only significant difference is that they are customarily fed communally by their employers as part of their emoluments . . . the Malabari workers were consuming an average of 4,500 calories per head per day, as against 2,880 by workers who bought and cooked their own food.”²

These are impressive examples, but it is not always certain that workers will work harder just because when better fed they can work

¹ Myron Stearns: “The Road that Food Built”, in Harpers Magazine, June 1950, as quoted in F.A.O.: Nutrition and Working Efficiency, op. cit., pp. 24-25. Of course, there must have been learning effects, and possibly improved equipment, as well as nutritional effects. There may also have been differences in the difficulty of moving different types of earth.

harder. They may have no special motive for doing so unless manage­ment provides adequate incentives.

To sum up, it seems likely that when wages are very low, higher wages will often, though not always or automatically, lead to higher productivity by improving the physical capacity of workers to work. This is not to say that higher wages are necessarily the most efficient way of bringing about this result. The provision of nutritious meals by em­ployers at the workplace might be a more efficient way of doing so. The potentially beneficial effects of higher wages on the physical capacity of workers may be wholly or partly lost through continued exposure to debilitating diseases unless a policy of raising wages is accompanied by progress in public health and sanitation. And the potentially favourable effects of better health on output may be lost if management fails to provide the organisation and incentives needed for higher productivity.

The willingness to work. The likelihood that higher wages will lead to some increase in productivity is strengthened when one takes account of their potentially beneficial effects on the willingness as well as on the capacity of workers to work. Here again, however, a favourable effect is not certain or automatic but depends upon circumstances which it is important to try to identify.

First, higher wages may reduce labour turnover—a major source of waste and low productivity in many developing countries. This may be particularly true and important in countries at an early stage of indus­trial development, where a large proportion of urban workers retain close links with the countryside and return periodically to rural homes. Higher wages, making it possible for such workers to establish them­selves and their families in towns, may help to build up a stable “committed” industrial labour force. The belief that such a labour force is more productive, and is indeed indispensable to carry a country through a successful transition from a primitive to a modern economic system, has led to much sympathy in a number of African and other countries for the idea that wages should rise rather fast. One would expect that higher wages would have some effect in promoting greater stability of the labour force, but the wage level is only one of many complex forces at work. Higher wages for unskilled work would seem in themselves to provide little or no incentive for a worker to sever his tribal connections and become a “committed” urban wage earner, since higher wages can be earned whether or not workers settle in towns. Elliot Berg has argued that—

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1 They may provide some incentive by increasing the amount of income foregone during spells when workers leave their jobs to return to their tribal homes.
A high wage policy, in any event, will not by itself bring stabilization of the work force. It may increase the desire of employers to have stabilized workers, but it will not necessarily increase the desire of villagers to be stabilized. For even at higher wages the villager still finds his family income is maximized when he migrates temporarily, leaving his family behind. This will change when permanent commitment to wage earning promises special advantages—such as the chance to obtain skilled employment and much higher income. It will also require decent housing, and possibly some kind of social security now provided in the village. The abolition of migrancy, in other words, implies massive public investments in social overheads.¹

But there is evidence that in a good many African countries the process of "commitment" of the urban wage-earning labour force has gone farther than some authorities recognise.² Many observers believe that conditions in which migrant labour maximises a family's income have in many places given way, and are in others rapidly giving way, to conditions in which workers consider that they are more likely to maximise their incomes by staying longer in employment, acquiring skills and increasing their productivity. For example, annual labour turnover in the Zambian copper belt was 60 per cent. in 1952, 43 per cent. in 1958, 18 per cent. in 1962 and 8 per cent. in 1965.³

But even when higher wages have only limited effects on the "commitment" and stability of a labour force, they may make for more favourable attitudes to work in other ways. They may lead workers to value their jobs more highly and to be more anxious to retain them and to give satisfaction in them. This may result in some reduction in

² See, for example, Bruce KAPFERER: The Population of a Zambian Municipal Township (Lusaka, University of Zambia, Institute for Social Research, Communication No. 1, 1966); Report of the Commission of Inquiry into the Mining Industry (Brown Report, 1966) (Lusaka, Government Printer, 1966); A. BARYARUHA: "Factors Affecting Industrial Employment", East African Institute of Social Research Conference Papers, No. 362, Jan. 1966 (mimeographed); and P. C. W. GUTKIND: "African Responses to Urban Wage Employment", in International Labour Review, Vol. 97, No. 2, Feb. 1968, pp. 135-166. In his survey of the stability of African labour in 1964 in Broken Hill (a town which offers less favourable employment and wage opportunities than some other Zambian urban areas such as the copper belt townships or Lusaka), Kapferer found that, as compared with the results of an earlier study in 1953, there was a considerable increase in the adult male population resident in the municipal township; both in terms of the average length of time spent away from a rural area and in terms of the proportion who said that they intended to remain in town indefinitely or permanently (77 per cent. compared with 46 per cent.). In case studies of five major companies in Uganda, Baryaruha found that "There is quite a noticeable staying on among many employees. Apart from [one firm] where length-of-service figures could not be made available, at other firms, figures show that generally two-thirds of their employees have been with them for over two years. At [a firm in] Uganda, for example, over 90 per cent. of the employees have been with the firm for at least five years. The average ... for the factory is about 12 years" (loc. cit., Part A, p. 5). Gutkind declares that: "Today ... the migrant labour system, as we knew it 10, 20 and 30 years ago, is on the decline. Africans are drifting to the towns in huge numbers to establish themselves there more or less permanently" (loc. cit., p. 149).
absenteeism and to steadier and better performance on the job. And at the time a wage increase comes into effect the management may be able to convince the workers that an increase in output would be reasonable, and perhaps necessary, to the competitive position of the undertaking and the security of their jobs. Job performance is, however, perhaps more likely to be responsive to appropriate changes in methods of wage payment than in wage levels.

It seems reasonable to conclude that, while higher wages may in certain circumstances lead to higher labour productivity by increasing both the capacity of workers for work and their willingness to accept the discipline and make the effort needed for a higher level of output, higher productivity is unlikely to come about spontaneously in response to higher wages—at least to any very significant extent. In most circumstances it seems likely that knowledge of how to raise productivity, and the initiative needed to do so, will have to be deployed on the management side too if potential productivity gains are to be realised. There may also have to be appropriate public policies in matters of health and environment.

A Case Study.

There has been a good deal of speculation in the preceding paragraphs. We have discussed reasons why higher wages may or may not lead to higher productivity. There is a shortage of empirical studies of a kind that would throw light on the conditions in which the various forces do or do not operate. But in an interesting and valuable study of the impact of higher wages in one developing economy—that of Puerto Rico—many of the factors potentially making for higher productivity to which reference has been made were found to be at work.¹

In Puerto Rico, partly it seems as a result of rising minimum wages—... the average productivity of labor has risen since 1950 with unusual speed. The new industries established ... have moved up quite rapidly to productivity levels comparable to those on the mainland. ... Starting from a low productivity base, they have been able to show larger percentage increases than one would find in well-established industries in mature economies. In large part these productivity increases have been captured by labor with the help of aggressive minimum wage administration.²

Partly, these productivity increases have been brought about by increased capital intensity ("Older, smaller, hand operations have been

¹ It may be noted, too, that D. CHESWORTH ("Statutory Minimum Wage Fixing in Tanganyika", op. cit.) has shown that very substantial increases in productivity followed the fixing of minimum wages in Tanganyika at the beginning of 1963. Though the evidence is less clear-cut, a similar result seems to have occurred in the Mauritian sugar industry.

² REYNOLDS and GREGORY, op. cit., p. 80.
CONSEQUENCES OF MINIMUM WAGE FIXING

succeeded by newer, larger plants with much more capital per worker . . . "1, but the authors of the study place greater emphasis on increased managerial effort and skill, and considerable emphasis on increased worker effort and skill. A passage summarising a lengthy discussion of the sources of higher man-hour output is worth quoting in full—

1. The gradual stabilization and maturing of the labor force, resulting partly from increased management effort, has brought substantial gains. There was general testimony that workers with even a year or two of experience produced substantially more than newly hired workers. With competent personnel management, the mere aging of a plant increases the ratio of long-service employees in its work force.

2. Given adequate training methods and a rising wage level, it has been possible to raise standards of expected output very substantially. Sharp increases in the minimum wage have often been used as the occasion for adjustment of standards. Workers who might otherwise have resisted these adjustments have been impressed by the argument that it would be reasonable, or even necessary from a competitive standpoint, for them to produce more in return for their larger wage. In many cases higher output standards have been accompanied by improved work flow and tighter supervision and discipline.

3. Various types of manpower saving have proven possible with no loss of output. Reduction of turnover and absenteeism rates has reduced the number of spare hands needed for fill-in purposes. The number of people used for materials handling, packing and shipping, plant protection and maintenance, and other supplementary operations were reduced as labor became more expensive. In some plants the abnormally high ratio of supervisors to workers which prevailed in the first years has been reduced gradually as the initial training task was completed. For the most part, these economies have not involved substitution of capital for labor; they have involved mainly a substitution of managerial ingenuity plus a higher level of effort by the supervisors and workers retained in the plant.

4. In branches of manufacturing where materials are expensive and quality of product is important, reductions in waste of materials and percentage of seconds and rejects have added materially to the value product of labor.

5. Finally, . . . plants which were unable to make progress in these directions have failed and passed from the scene . . . [There has been] . . . substantial mortality. Unless new inefficient plants have been established as rapidly as older ones were being eliminated, which seems unlikely, this would by itself raise the average productivity level of the manufacturing sector.2

Possible Negative Effects.

When one is concerned with the effects of wage increases on growth in an economy as a whole, it is important to note that there may be a negative counterpart to the positive effects on productivity in certain sectors, in the form of negative effects on the capacity and motivation of other sectors of the labour force.

1 Reynolds and Gregory, op. cit., p. 80.
2 Ibid., pp. 193-194.
Those who lose or fail to get jobs are most obviously liable to be adversely affected in this way. But, in addition, if governments raise taxes or cut down public services in order to meet a higher wage bill, those who pay the higher taxes or suffer the reduction in public services may have less incentive to produce more or to accept changes in their way of life. In many developing countries governments rely rather heavily on indirect taxation and particularly on import and export duties which are relatively easy to collect. The burden of these taxes is apt to fall heavily on rural populations. In economies based largely on peasant production of export crops non-wage earners do most of the spending and pay most of the taxes. They may receive less for their exports, since export taxes imposed in individual countries are not likely to raise prices in world markets when there are many sources of supply. So far as import duties are concerned, though luxury goods imported by the few well-to-do may be heavily taxed, a heavy burden is again apt to fall on the farmers, not necessarily individually, but in the aggregate, because they are the most numerous group and need some imports. Berg has argued that—

Reductions in the real incomes of peasant farmers, especially those in or on the margin of entry into cash crop agriculture, have negative incentive effects. They diminish the willingness of peasants to undertake the changes in ways of life, the risks, the uncertainties, the harder work and in some cases the cash outlay required to make a fuller commitment to the market economy. Since the transfer of peasant energies and land from subsistence production and other activities to production for the market is the heart of the process of agricultural transformation, these indirect and seemingly remote consequences of wage policy are of great potential significance.

It is not certain, however, that all forms of increased taxation have these effects. An increase in a flat-rate poll-tax, though it may be considered inequitable, is quite likely, by leading to an increased need for money, to stimulate rather than discourage cash-cropping.

The Supply of Labour.

Wage increases may increase not only the productivity but also the supply of labour.

The view has sometimes been expressed that substantial numbers of workers in developing countries are “target workers” with relatively

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2 These two concepts are not always clearly distinguished. Some writers have suggested that the supply of labour can most conveniently be measured in terms of work units, a work unit being a measure of performance such that if worker A performs twice as much work as worker B in the same time he is said to have supplied twice as many units of work. But it would be more usual to say that his productivity is twice as great. For purposes of this report the supply of labour can be taken to mean the number of workers willing to work, or the aggregate number of hours of work that they are willing to do.
fixed wants who, if offered higher wages, would work for shorter spells. Some individuals may react in this way, but the highly inelastic demand for income in terms of leisure which this reaction presupposes seems likely to be widely encountered only among people in the earliest stages of familiarising themselves with the things that money can buy, to whom money is useful mainly for the payment of taxes and the purchase of a very few basic articles that are strongly desired even at very primitive levels of living—for example, blankets, matches and salt. People in most cultures soon come to desire, once they become acquainted with them and their uses, many other things too, such as clothing, bicycles, sewing machines and other more sophisticated articles. It is only if and for so long as people with relatively fixed wants predominate over those with an elastic demand for money that wage increases will have a negative effect on the supply of labour as a whole. Moreover, even in such a situation, individual employers are likely to be able to attract more labour by offering higher wages.  

It seems reasonable to conclude that in most situations higher wages are more likely to increase than to reduce the supply of labour for wage-earning employment. This is important for growth in circumstances in which there is a shortage of labour for wage-earning employment. But if one is thinking of the effects of minimum wage fixing on economic growth there are two points to be borne in mind. The first is that in developing countries there is usually a surplus, not a shortage, of unskilled labour, and it is unskilled labour that tends to be most directly affected by minimum wage increases. The second is that when there is a shortage of labour, employers tend to raise wages anyway in order to attract the labour they need, without being required to do so by minimum wage

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1 Cf. Elliot J. Berg: “French West Africa”, in Walter Galenson (ed.): Labor and Economic Development, op. cit., p. 197: “Testimony to the African’s sensitivity to differences in earnings and conditions can be found in the long history of labor shortages in the Ivory Coast. In this territory many European plantations and other enterprises experienced a perennial shortage of manpower before World War II. Operating on a very definite theory of the economic motivation of African workers, these employers offered working conditions and wage rates which were generally inferior to those obtainable elsewhere, for either wage work or sharecropping. They argued that it did not pay to raise wages since the labor force was made up of ‘target laborers’—men who want to earn a specific amount of money for a given purchase; if their wage rates were increased, they would work proportionally shorter periods of time: the supply curve for labor was backward-sloping, so that the supply of labor would shrink if wages were increased. The fact that European employers in the Ivory Coast suffered labor shortages while the employers in the Gold Coast (and African planters in the Ivory Coast) were being plentifully supplied with migrants is itself evidence that this view is of questionable validity. It overlooks the fact that in West Africa the migrant who leaves the village for income earning outside has many alternatives before him, knows about the differentials that exist in the different kinds and places of work, and tends to migrate where (other things equal) returns are greatest and conditions best.”
fixing authorities—though there may be some cases in which wages stick for a long time at traditional levels.¹

*The Supply of Capital.*

The effects of wage increases on economic growth via their effects on the supply of capital or the rate of investment are difficult and important to evaluate. Two questions may be asked: (1) How do wage increases affect the rate of investment? (2) How important is the rate of investment as a factor in economic growth?

Taking the first question first: if higher wages were always paid out of profits, if workers spent the full amount of their wages on consumer goods, and if all profits were reinvested, the effects of wage increases on investment would be clear—investment would be reduced by the full amount of any wage increases.

None of these assumptions is completely true, and the amount of truth they contain varies greatly in different circumstances. The second is certainly, in general, the most nearly true—most wage earners, especially in developing countries, are able to save very little.²

Higher wages are by no means always paid out of profits. The burden may be shifted in whole or in part to consumers in the form of higher prices; or, if there is any elasticity in the demand for labour, to workers who lose jobs or fail to find them. Such shifts do not, however, necessarily mean that investment will be maintained. At higher prices there may be less demand both for the goods whose prices have been raised and for the equipment needed to make them. With less employment there may be less production of capital goods as well as of consumer goods.

Nor is it at all certain that, if higher wages are paid out of profits, this will be at the expense of domestic investment—it may be at the expense of conspicuous consumption or of the growth of private bank accounts abroad. These, and especially the latter, are no doubt among the considerations that have induced trade unions in a number of countries, sometimes with and sometimes without the support and sympathy of the government, to press for the highest wage increases they can get in the belief that this will simply reduce the amount of money going out of the country.³

¹ Cf. pp. 50-51 below.
² Wherever such a scheme can be administered, higher wages could, however, enable some part of wages to be contributed to a national provident fund (as in Tanzania), thus making resources available for development and giving the contributors long-term benefits in the way of pensions.
³ For example, trade union pressure for higher wages in the Zambian copper mines has been motivated partly by the fact that in years of high prices very large
It is also relevant to note that in developing countries, where wage earners are a small proportion of the total labour force, a given percentage increase in the general level of wages will absorb a smaller percentage of the national income than it would do in countries in which most workers are wage earners.

However, it is in the modern sector that most investments and growth take place, and wages constitute a much larger proportion of the income of that sector than they do of the total national income. If the population is increasing rapidly it may be difficult to maintain, still more to increase, the average amount of capital per worker in the economy as a whole if wage increases take a substantial bite out of the annual increment of production. Effects of wage increases on the supply of capital (and enterprise) from abroad have also to be taken into account, though no one would wish to see developing countries competing for capital from overseas by keeping wages unduly low.

Another important point to be borne in mind is the effect of wage increases on investment in the public sector through their effects on the government’s wage bill. In most, if not all, developing countries the government is at the same time much the largest entrepreneur (a high proportion of all investment, particularly of the infrastructure type, is public investment) and much the largest employer. In developing countries governments often pay as much as 30 per cent., and sometimes as much as 50 per cent., of the entire national wage bill. “The most immediate, obvious and painful effects of a higher minimum wage are felt in the public treasury.”¹ Berg has spoken of a “brutal dilemma”. Save to the extent that higher wages pay for themselves in the form of higher productivity, the higher the level of wages the fewer the roads, schools, hospitals and factories that the State can afford to build and maintain²—unless, of course, it raises taxes or borrows money, but this may simply mean that other investment is curtailed, low-income consumers are hit or inflation occurs, which often entails some social hardships.³

It seems reasonable to conclude that wage increases in developing countries do normally have some tendency to divert resources from investment to consumption.

We turn now to the second question posed on page 36. How important is investment for growth? This subject has received a good deal of attention in recent years.

In earlier discussions of this question there was what now looks like a tendency to over-simplify and perhaps to exaggerate the importance of investment. If one thinks in terms of a more or less fixed capital-output ratio, a shortage of capital occupies the centre of the stage as the key bottleneck in economic and social development. More investment means more output and more growth; less investment means less output and less growth. Lack of knowledge and skills may also appear as a bottleneck, but as no more than a temporary one if one believes that, provided only capital for development is available, private enterprise and/or governments will furnish the necessary training facilities. Technological progress and investment are also tied together both because the application of technical knowledge usually requires capital investment and because in economies where techniques of production are stagnant savings are not so readily applied to increasing the stock of productive capital—they are more likely to be used for building pyramids or cathedrals. Thus, lack of knowledge and skills and lack of technological progress tended to be regarded merely as facets or manifestations of the key shortage of capital.¹

More recent research has shown that development models that assume a fixed capital-output ratio leave out of account some of the most interesting and important variables. Such research seems to show that the larger part of the economic growth that has occurred over lengthy periods in a number of countries must be attributed not to increased physical inputs of capital, labour or natural resources but to other factors broadly described as technical progress or increases (including those due to economies of scale) in the productivity of the physical factors. Education, training and the adequate motivation of the men and women engaged in production as entrepreneurs, managers, scientists, technicians and skilled or less skilled workers no doubt play a large part in this. But the conclusion to be drawn seems to be not that investment is unimportant but that investment, at least in physical capital, however important it may be, is not a sufficient condition for rapid economic growth and needs to be accompanied by adequate attention to human factors, including adequate investment in developing human knowledge, skills and capacities. Few, if any, authorities doubt that the role of investment (in a broad sense including investment in "human capital")

is a very important one in economic and social development, even if the relationships involved are more subtle and complex than those depicted in simplified growth models. Certainly, a number of governments have taken the view that a substantial part of the increments of production must be reinvested if a country’s economic and social development plans (on which the prospects for long-term wage advances depend) are to be fulfilled. The Government of Ghana, for example, has expressed this view in the following terms:

The long-term strategy that we are choosing now will mean that, especially in the intermediate period between now and, say, 1975, while Ghana’s industrial capacity is being built up, most of the increases in the nation’s output each year will have to be reinvested in new manufacturing capacity and will therefore not be available for raising the standards of private or public consumption.¹

One must conclude that if and to the extent that higher wages divert resources from investment to consumption this will be bad for growth in circumstances in which growth is limited by a shortage of capital—and there is no doubt that this is the case in most developing countries most of the time.

Balance-of-Payments Considerations.

Many developing countries suffer from a shortage, often critical, of foreign exchange, and anything that makes it more difficult for them to sell goods abroad, or that tends to increase their import bill, is liable to be bad for their economic growth. Wage increases may have these effects by creating specially difficult problems for employers who have to meet competition, whether in export or domestic markets, from foreign producers whose wage costs have not risen.

A high proportion of exports of many developing countries are products of plantation agriculture or mines—mostly products produced also by competitors in other countries or regions. There is thus apt to be considerable price-elasticity of demand for the products of any one country. Indeed, it may not be feasible for a single supplier to raise his price at all if he is producing a graded product for which there is an established world price: “... plantations are in general highly vulnerable. Minimum wage pressure can push many of them to the wall, and slow the expansion of most.”² The Territorial Minimum Wage Board in Tanganyika recognised that the tea industry might be placed in serious difficulty by the application of a statutory minimum wage above the prevailing rate in the industry, and the Government decided to exempt

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¹ A Perspective Plan for Ghana, pp. 15-16.
the tea industry from the national minimum wage. Among mines, gold mines are in a rather special position because of the fixed price of gold; in Ghana most of the gold mines were first subsidised, then nationalised, as they found themselves unable to pay the national minimum wage. In Tanganyika the gold-mining industry like the tea industry was exempted from the minimum wage legislation.¹

Wage increases can also jeopardise exports of manufactures. This was seen in a rather special case in which a minimum wage appropriate to a country with much higher income levels was applied for a time in a developing economy. The United States Fair Labor Standards Act of 1938 established a minimum wage of 25 cents per hour for all firms engaged in inter-state commerce, and the provisions of the Act applied to Puerto Rico as well as to the United States mainland. At this time the general level of wages in the island was well below 25 cents an hour, and the wage increase threatened the survival of many firms, particularly in the tobacco-stemming and needleworking industries. The hardship imposed by the statutory minimum induced Congress to make special provision for minimum wage determination in Puerto Rico. In the meantime, however, exports of needlework manufactures declined from 15.6 millions dollars in 1939-40 to 5.8 million dollars in the following year.²

This leads to a more general question of considerable interest and importance—that of the role of minimum wage fixing in connection with certain problems of competition in international trade. It is sometimes felt that some countries have an unfair competitive advantage in international trade because of their low wage levels, and that such countries should be called upon to raise wages before other countries can be expected to admit imports from them freely. Various implications of this view were discussed in an article entitled "Labour Cost as a Factor in International Trade" published in the International Labour Review.³ One difficulty is that of giving a precise "operative" meaning to the concept of "unfair" labour standards.⁴ One may take the view either that the

¹ In Tanganyika both the gold-mining industry and the tea industry were later (1965) subjected to prescribed rates of minimum wages.
² REYNOLDS and GREGORY, op. cit., pp. 42-43.
⁴ It has been suggested in International Confederation of Free Trade Unions: Economic and Social Bulletin, Vol. XV, No. 2, Mar. 1967 (Special Issue), p. 24, that "fair labour standards are the standards which a strong free trade union, having taken into account all relevant factors, would agree to accept and which it cannot achieve because of its limited strength...". No fewer than 12 possible meanings of the term (most of which seem quite unmeasurable) are distinguished by Robert B. SCHWENGER: "Fair Labor Standards for World Trade", in United States Department of Labor, Bureau of Labor Statistics: Monthly Labor Review, Vol. 90, Nov. 1967, No. 11, pp. 27-31.
incomes of wage earners in general in a certain country are unfairly low or that this is true of the incomes of certain groups of wage earners. The former, broader view encounters the difficulty that it is not at all clear that average wages as a percentage of the average of all incomes (i.e. in relation to the general standard of living) are lower in developing than in developed countries—indeed they seem more often to be higher. In regard to the possibility of applying the argument to the wages of particular groups of workers, the article referred to concludes that—

... except perhaps in certain cases where wages in exporting firms or industries may be below the “going rates” in the countries concerned [1], attempts to put special pressure on governments or employers to raise wages in exporting firms or industries do not offer a very useful approach. ... There does not seem to be any good reason to be less concerned about low labour standards in firms or industries that do not export than in firms or industries that do. The objective must be to raise the levels of living of the mass of the people as fast and as far as economic development permits, and priorities should be determined by the needs and possibilities of the countries concerned rather than by the accidents of whether or not certain products give rise to difficulties when they compete in international markets.2

Another possible relationship between a country’s system of wage determination (or lack thereof) and its balance of payments was suggested in a United Nations report some years ago.3 In this report an alleged long-term deterioration in the terms of trade of developing countries (described as “the periphery”) with the developed countries (described as “the centre”) is associated with a lack of symmetry in methods of wage determination in the two groups of countries. There are fluctuations in the prices both of manufactures exported from the centre to the periphery and of raw materials exported from the periphery to the centre, and when prices are high, good profits are earned by producers in both groups of countries. But at the centre—

During the upswing, part of the profits are absorbed by an increase in wages, occasioned by competition between entrepreneurs and by the pressure of trade

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1 It is argued elsewhere in the article that this state of affairs tends to be rather exceptional.

2 International Labour Review, Vol. LXXXIX, No. 5, May 1964, pp. 441-442. This is not to suggest that one should be indifferent to the interests of the employers and workers for whom such competition creates difficulties; it is only to suggest that there are better ways of looking after their interests—notably by measures of active manpower policy to help those who would otherwise be the victims of change to share in the benefits of progress by getting better jobs in expanding sectors and regions; measures for the redevelopment of areas that may be heavily hit by structural change, including shifts in the currents of world trade; and income maintenance measures for workers undergoing retraining or forced into early retirement.

unions. When profits have to be reduced during the downswing, the part that had been absorbed by wage increases loses its fluidity, at the centre, by reason of the well-known resistance to a lowering of wages.¹

Thus, the prices of the developing countries’ imports from the developed countries rise in times of boom but do not fall back to their previous levels in times of slump. If workers in developing countries fail to secure higher wages in periods of boom, or if their wages are flexible downwards when boom gives way to slump, no corresponding “ratchet” effect operates in these countries—nothing stops the prices of their exports from dropping right back to previous levels. Thus, over a succession of cycles the developing countries will find themselves needing to export progressively more, or import progressively less, if they are to keep their balances of payments in equilibrium.

It might be inferred from the above reasoning that, if workers in developing countries could capture in the form of higher wages a share of the profits of producers in good years, and keep these higher wages in bad years, these countries would derive more benefit from their trade with developed countries and their balance-of-payments problems would be easier than they are. In fact, this inference would not appear to be warranted; it seems to be the view of the authors of the report that greater price-wage rigidity at the periphery would not alleviate the difficulty—

... since, when profits in the periphery did not decrease sufficiently to offset the inequality between supply and demand in the cyclical centres, stocks would accumulate in the latter, industrial production contract, and with it the demand for primary products. Demand would then fall to the extent required to achieve the necessary reduction in income in the primary producing sector.²

In other words, the periphery cannot maintain the centre’s demand for its exports by raising or maintaining prices and wages, and if prices and wages are maintained, income at the periphery will be forced down by means of unemployment instead of lower prices and wages. As has been pointed out ³, it is not at all clear why this should be supposed to happen only at the periphery and not at the centre—if prices and wages are maintained at the centre despite a fall in demand from the periphery one might expect unemployment to play the same role at the centre as is

³ M. J. Flanders, op. cit., pp. 312-313.
assigned to it at the periphery. Perhaps the answer to this objection might be that there may be differences in the magnitude of the impact of a fall in demand in the two cases and greater possibilities of dealing with a threat of unemployment by Keynesian methods at the centre than at the structurally less diversified periphery.

In the article by Dr. Prebisch in the *American Economic Review*, referred to on page 41, the alleged process of transfer of real income from the periphery to the centre through the shift in terms of trade is explained in terms of “productivity ratios” and “technological densities” rather than in terms of the “ratchet effect” described above. And in this version the thesis is no longer relevant to this report. A modified version of the argument about the greater difficulty of raising wages in developing than in developed countries appears in the report by the Secretary-General to the First Session of the United Nations Conference on Trade and Development, but without any discussion of the difficulties found by Flanders in the earlier version of the argument and without any suggestion that a more aggressive wage policy in developing countries would help to remedy matters.

Wage increases may also affect a country’s balance of payments through their effects on the demand for imports. They may result in an increased demand for imported consumer goods or for domestically produced goods with large components of imported inputs. The income-elasticity of demand for imports is likely to be quite high.

**Effects on Employment**

The importance, from the point of view of economic and social welfare, of a rapid increase in the number of productive jobs can scarcely be exaggerated, particularly in countries with much underemployed labour and a rapidly growing labour force. In most developing countries the marginal productivity of wage earners in the modern sector of the economy is much higher than that of workers engaged in subsistence agriculture or in precarious self-employment as hawkers or pedlars, whose marginal productivity may be little above zero—not that they produce nothing at all but that what they do produce, whether goods or services, could, in some cases, be produced by others if they were

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1 M. J. Flanders, op. cit., pp. 321-322, finds at the heart of the thesis here briefly examined not differences in market structure and the wage-price mechanism but a greater income-elasticity of demand for the manufactured exports of the centre than for the raw material exports of the periphery.

not there, with little or no loss to total production. Thus, a main method of raising general levels of living is to promote the rapid absorption in wage-earning employment of large numbers of workers underemployed in traditional activities.\footnote{In many developing countries wage-earning employment is not the only productive alternative to traditional subsistence agriculture—substantial gains in productivity and in national and per head incomes may also be achieved by encouraging and promoting cash-cropping.} Governments that have subscribed to the United Nations Charter and to the Constitution of the International Labour Organisation have recognised an obligation to do all in their power to provide productive work for all who need it, and the International Labour Conference at its 48th Session in 1964 adopted a Convention and a Recommendation concerning employment policy which call on member States to declare and pursue as a major goal an active policy designed to promote full, productive and freely chosen employment. The problem of finding productive work for school-leavers and others who need it is causing a great many governments a great deal of anxiety. The effects of higher wages on employment opportunities are among the most important considerations to be borne in mind in fixing minimum wage rates.

In discussing the effects of higher wages on employment we are, of course, interested in the functional, not the historical, relationship between the two. In an expanding economy with a growing labour force there will be a tendency for employment to rise year by year. The relevant basis for assessing the effect of a wage increase on employment is not a comparison of employment before and after a wage increase but a comparison between actual employment after a wage increase and the amount of employment there would have been but for the wage increase, if and in so far as that can be ascertained.

The long-run effects of wage increases on employment depend mainly on how they affect the pace of development. However, wage increases may affect employment through their effects not only on the pace but also on the path or pattern of development. By giving employers an incentive to substitute capital for labour they may make for a more capital-intensive pattern of development in the modern sector of a country’s economy and for a slower growth of employment opportunities in that sector, at least in the short run, than would otherwise occur.

Other things being equal, when employers are required to pay higher wages this is likely to reduce their demand for labour. It may do so in four ways—\footnote{Though sometimes this has to serve for lack of a better basis for comparison and sometimes we may feel reasonably sure that a wage change has been the main, though probably never the only, factor making for a change in the level of employment between two dates.}
(a) there may be a short-term "shock" effect—with existing methods and equipment, managements may tighten up work organisation and eliminate marginal workers;

(b) over a longer period they may change their methods and equipment, substituting capital for labour;

(c) some firms may be forced out of business;

(d) some potential undertakings may never get started.

On the other hand, it may be pointed out, as it has been, for example, by R. A. Lester, that there may be many weak links in the causal chain running from higher wages to less employment. Managements may not be interested exclusively in maximising profits, and this may affect their reaction to a wage increase. They may attach weight to their convenience and reputation or to the growth and reputation of the firm. Even if they are concerned primarily with profit maximisation, they may take a long-term view of this and avoid action that they consider bad for long-run profits even though good for short-run profits. Managements will, in any case, have to take account of institutional factors which may include union and other pressures, provisions in union contracts, the company's experience and climate of industrial relations and its personnel programme and practices. The nature of the product market and the markets for supplies will have a bearing on management decisions: managements may shift a part of the burden of higher wages to customers in the price or composition of products, or to suppliers by paying them lower prices; or they may increase their sales efforts to achieve operations more closely approaching plant capacity; or they may increase capital investment to maintain their competitive position (it will be observed that not all of these courses of action are alternatives to employing less labour). Other economic factors will also affect a firm's adjustment to a wage change: the character and relative importance of the firm's labour costs, its ease or difficulty in varying the proportion of labour used per unit of output, in improving the quality of the labour force or in moving to some other area not affected or less affected by a wage increase. "With so many variables and possible variations in particular cases, the combinations and permutations of adjustment may seem almost limitless."\(^1\)

In short, Lester argues in favour of avoiding dogmatic assertions

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about what will happen to employment when wages rise, recognising the multiplicity and diversity of possible management responses.¹

"Managements", of course, include the managements of public as well as private undertakings. But, as noted when discussing effects of wage increases on prices, the fact that managements in the public sector of market economies, and in centrally planned economies, are not subject to the profit motive, or are subject to it in a modified form, does not mean that they are not under constraints rather similar to those applying to private enterprise. Public managements may decide to maintain employment in certain situations in which private enterprise would not do so, and such decisions may be in the general interest, but they will not be costless and the money to pay for them will have to be found from somewhere.

Attempts to resolve differences of opinion about the employment effects of wage increases by means of empirical studies encounter formidable difficulties.² Some of these are discussed in Appendix 3 below, in which, also, some suggestions are made regarding procedures and priorities in empirical research in the field of wage questions.

¹ Some of his points, however, seem to postulate managerial inefficiency (which is also undesirable) as a reason why adverse employment effects of a wage increase may be weak or absent.

² In an expanding economy one would expect real wages and employment in most sectors to increase together in response to increasing demand, but one would also expect that wage increases exceeding what was needed to call forth a sufficient supply of labour would be associated with a slower rate of growth of employment than would otherwise occur. But in order to estimate what the growth rate of employment would otherwise have been, it is desirable to have a complete and correct model of the various forces influencing employment and to proceed by means of regression or multiple correlation analysis to estimate what part of the change in employment is to be attributed to each of these forces. This approach requires data on all the main factors that influence employment—data on production and capital investment are particularly important—in sufficient volume to permit regression or multiple correlation analysis either on a time series or a cross-sectional basis, or both. Such data are seldom available in developing countries.

To attempt to draw conclusions from wage and employment series alone (which, although scanty are more often available than some other series) would be a very questionable procedure. On a country basis one might rank economic sectors (or years) in accordance with rates of increases in wages and compare the employment experience of these sectors (or years). Where rapid wage increases were associated with rapid employment growth, one would not know how much more rapid, if at all, the latter would have been but for the former (where labour supply is a limiting factor, rapid wage increases may be a necessary condition for rapid employment growth), though one would know that higher-than-average wage increases had not prevented higher-than-average employment increases. Conversely, in sectors (or years) in which low wage increases were associated with slow or negative employment growth, one would not know how much worse, if at all, the employment experience would have been with higher wage increases, but one would know that relative wage stability had not been a sufficient condition for good employment performance. Negative associations would suggest prima facie an unfavourable effect of wage increases on the demand for labour, but they might be explained by the conditions of labour supply, a very inelastic supply making for high wage increases and slow employment growth and a very elastic supply making for the opposite combination.
Among developed countries a substantial number of such studies have been made for the United States, where data are relatively abundant, but there is considerable disagreement about the conclusions to be drawn from these studies.¹

Empirical attempts to estimate the effects on employment of wage increases in a certain number of developing countries have also been made. Among descriptive studies, one of the most interesting is the article on Tanganyika by D. Chesworth already referred to.² Total employment of persons covered by the labour enumeration (broadly speaking, those in wage-earning employment other than peasant farming and domestic service) showed the following changes between 1962 and 1963:

<table>
<thead>
<tr>
<th>Sector</th>
<th>1962</th>
<th>1963</th>
<th>1963 index (1962 = 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>289,824</td>
<td>245,153</td>
<td>84.6</td>
</tr>
<tr>
<td>Public</td>
<td>107,204</td>
<td>95,191</td>
<td>88.8</td>
</tr>
<tr>
<td>Private and public</td>
<td>397,028</td>
<td>340,344</td>
<td>85.7</td>
</tr>
</tbody>
</table>

The author observes—

Although the major stimulant to employers to create a smaller and more efficient labour force must undoubtedly have been the coming into effect [on 1 January 1963] of the Wage Regulation Order, there were two subsidiary factors working in the same direction. The Employment Ordinance was amended with effect from January 1963, abolishing the traditional “kipande” or African labour “ticket contract”, which had allowed 42 days in which to complete 30 days' work, and replacing it with a requirement that regular workers should work on a monthly basis of 26 days with four days' rest. Secondly, the gradual taking effect of the Severance Allowance Act, 1962, must also have helped the trend towards more efficient wage employment. . . . As an employer’s work force runs down . . . there is a clear incentive to recruit no more workers than are absolutely necessary, so as to minimise liability for severance pay which occurs after a brief period of employment.³


³ Ibid., pp. 56-57.
The fall in numbers employed occurred unevenly but mainly in agriculture and construction. In part, the reduction in employment in construction resulted from a reduction in building operations probably not associated with the Wage Regulation Order.

It has been estimated that in Ghana half the workers employed in the gold-mining industry would have been unemployed if the Government had not taken over the mines which had decided to close down following an increase in minimum wages.¹

It has been estimated that in Puerto Rico, if wage increases had not accelerated, 35,000 to 55,000 additional jobs might have been created in plants promoted for development purposes during 1955-59 and that private investment per worker, stable from 1950 to 1954, might not have doubled as it did. Rising wage levels may have turned some mainland companies against investing in Puerto Rico altogether and others towards greater capital intensity.² In addition, as Reynolds and Gregory have shown, a number of firms that failed to make the necessary adjustments went out of business.³

Baldwin has discussed the effects of awards to African workers in the copper mines of what was then Northern Rhodesia of substantially increased wages in the early 1950s in inducing the companies to begin a far-reaching deliberate programme of mechanisation and rationalisation designed to reduce the relative importance of African labour, and has claimed that, if the same ratio of African labour to copper output had prevailed in 1959 as in 1949, African employment in the industry would have amounted to 69,000 persons in 1959 instead of 35,000.⁴

However, it is reported that in Argentina—

Despite the employers' predictions that the minimum wage would lead to higher unemployment, household surveys show that in fact the unemployment rate has actually fallen.⁵

Elsewhere in the same article, however, it is stated that "the first minimum wage rate was not in the best interests of the north-eastern area of Argentina, which grows tea for sale in the international

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² H. C. BARTON and R. A. SOLO: "The Effect of Minimum Wage Laws on the Economic Growth of Puerto Rico" (roneoed), pp. 36-42. In the manufacturing sector only, REYNOLDS and GREGORY have estimated the amount of employment foregone as a result of wage increases at 9,000 jobs between 1949 and 1954 and 29,000 jobs between 1954 and 1958 (op. cit., p. 101).
³ Cf. the passage quoted on p. 33 above.
⁴ Robert E. BALDWIN: "Wage Policy in a Dual Economy—The Case of Northern Rhodesia", in Race, Vol. IV, No. 1, Nov. 1962, p. 79.
CONSEQUENCES OF MINIMUM WAGE FIXING

market ". 1 By means of a rearrangement of area differentials "the index figure for the area in question, as well as for the northern area, was lowered, since it appeared to have been set too high in the initial assessment ". 2

More examples could be given of estimates of the effects of wage increases on employment in individual countries, but it is impossible to generalise from these. It may be of more general interest to note that there are two sets of conditions in which, in theoretical models 3, higher wages may lead to more and not less employment and to inquire how far these conditions seem likely to be present in developing countries. These conditions are (1) that there is no effective competition among employers for the services of workers and wages are below the level that competition would establish (this condition includes, but is broader than, "monopsony ", in which there is a single hirer of labour); and (2) that there exists general surplus capacity that can be brought into employment by action to raise aggregate demand, coupled with a situation in which the payment of higher wages will increase aggregate demand and not merely transfer purchasing power among different groups.

So far as the latter point—the existence of Keynesian unemployment—is concerned, the view has already been expressed in this report that this situation is not typical of developing countries. It may be that in certain countries in certain years stabilisation policies designed to bring inflation under control have been carried to a point at which they have led to stagnation and unemployment associated with a deficiency of demand, but in most, if not all, such cases, inflationary pressures seem to have reasserted themselves within quite a short time, and it does seem to be the case that developing countries more often need to be on their guard against inflation than deflation.

So far as lack of competition among employers is concerned, P. T. Bauer has expressed the view that—

Monopsony, though not unknown, is exceptional in under-developed countries, as elsewhere. The high degree of concentration in an industry or trade often encountered in under-developed countries does not imply even effective monopoly power, since such power is also affected by ease of entry and access of customers to alternatives, and these are not measured by the degree of concentration. And even monopoly in the product market does not

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1 Arnaldo R. Campaño, op. cit., p. 254.
2 Ibid. Wages were, however, not actually reduced, since the new index coincided with an upward adjustment in the minimum wage rate.
3 See Appendix 2 below. For completeness, one should perhaps add a third condition, namely that higher wages increase (by more than the amount of the wage increase) not merely the total or average productivity of a group of workers but the marginal productivity of a group of workers of a given size. This is a more restricted condition than the condition that wage increases raise average productivity. A reorganisation of work that will raise average productivity may well make marginal workers redundant.
indicate monopsony in the labour market, since industries producing widely
different commodities compete for the same factor of production, so that a
monopolistic industry may have no monopsony power whatever. . . .

Monopsony is clearly absent in most of the sectors in under-developed
countries in which wages are regulated. Throughout the under-developed world
wages have been regulated in many highly competitive industries into which
entry is easy and in which producers act independently. . . . They have also
been introduced in areas in which there are many alternative forms of
employment. . . . Thus, wage regulation in under-developed countries is neither
required to counteract the effects of monopsony, nor is it designed for this
purpose. . . .

Thus, although in principle a case may be made out for wage regulation to
counter the presence and effects of monopsony, it is essentially irrelevant to the
actual establishment and operation of wage regulation in under-developed
countries.1

Monopsony, in the strict sense of a single hirer of labour, is no doubt
rare. It is true that the extent to which one or a small number of
companies, particularly foreign-owned companies, may dominate the
labour market in some small countries heavily dependent on one or a few
export crops, with an undiversified economy offering little choice of
employment, should not be underrated. A small group of employers can
act as a monopsonist if they agree to ration supplies of labour among
themselves instead of bidding up against each other by offering
higher wages. In South Africa the Witwatersrand Chamber of Mines,
influenced partly perhaps by the belief that most workers would
work for shorter spells if higher wages enabled them to earn “ target ”
sums more quickly, made no secret of behaving in this way in the early
days of the gold-mining industry 2, and the gold-mining companies still
do not compete against each other for labour. The Zambian copper
companies also do not compete against each other for labour. The
Copper Industries Services Bureau carries out wage negotiations with the
trade unions on behalf of the whole industry and the wage rates for each
job category are uniform throughout the industry. In a similar way the
Tanganyika Sisal Growers’ Association, until comparatively recent
times, organised the distribution of recruited labour and set wage rates
throughout the industry.

1 P. T. BAUER: “ Regulated Wages in Under-developed Countries ”, in Philip
D. BRADLEY (ed.): The Public Stake in Union Power (Charlottesville, University of

2 Cf., for example, the following passage from the first report of the Chamber
(1889): “ So long as the total supply is deficient, it is to be feared that eager competi­
tion between managers to secure labourers will be inevitable. This competition has
in some cases taken the regrettable form of overt attempts to bribe and seduce the
employees of neighbouring companies to desert their employers. Even without resort
to actual attempts to bribe, a manager finding himself short of labour which is urgently
required has, standing alone, scarcely any other remedy than to raise his rates of pay. ”;
quoted by Sheila T. VAN DER HORST: Native Labour in South Africa (Cape Town, Juta
and Co. Ltd., 1942), pp. 128-129.
But, whatever may have been the case in the past, it seems difficult to find contemporary examples of powerful foreign-owned firms exploiting monopsonistic or quasi-monopsonistic situations to depress wages below competitive rates—at least in the sense of commonly-prevailing rates—in developing countries. Modern foreign investors, such as the international oil companies, the principal ore-extracting firms, large-scale manufacturing concerns and in many cases large-scale plantation owners, sensitive to the political risks of appearing as "exploiters of labour", generally tend to pay wages above rather than below those paid in indigenously owned businesses.

Low wages are more often paid by small employers or by large employers in remote areas where there is little or no competition for labour. In some situations where there is at least potential competition for labour it may be that employers tend to behave like a monopsonist even though they are scattered and not easily organised. Conditions that might be conducive to this would be (i) a strong conventional element in wages, particularly a strong sentiment on the part of employers that a certain wage is the proper or sanctioned wage for certain work, so that employers who try to entice away each other's workers by offering more incur a certain opprobrium, and (ii) a high degree of immobility on the part of workers, making their response to financial inducements to change jobs limited and uncertain. Conditions approaching these seem to have obtained for many years in the farming sector in South Africa, where persistent complaints of a shortage of labour failed to result in wage increases sufficient to cut back the demand and enhance the supply to a point at which the shortage disappeared.¹

The analogy between this sort of "stickiness" of wages and monopsony in the textbook sense should not be pushed too far. "Stickiness" means that wages are very unresponsive to market forces, whereas a monopsonist may be highly responsive to such forces—he simply pays less than he would have to do in a competitive situation. But the two situations resemble each other in that wages may be raised up to a certain point without reducing employment (in either situation, of course, it may be difficult to judge how far wages can be raised without reducing employment).

In the more usual situations, in which higher wages have unfavourable effects on employment, it is important to know how unfavourable these effects will be, i.e. to be able to estimate the elasticity of demand for labour.

¹ Sheila T. Van der Horst, op. cit., pp. 147, 234 and 285. But adequately documented current examples of this sort of wage "stickiness" have not been easy to find.
R. A. Lester, writing with United States conditions primarily in mind, has set forth a number of relevant considerations, distinguishing between two extreme cases, in the first of which one would expect a highly elastic and in the second a highly inelastic demand for labour in response to wage increases.

... At one extreme the employment effects of a wage increase are likely to be fairly direct and marked. This is generally the case where the firm:

1. Is relatively small and insecure and operating on narrow profit margins, so that short-run profit maximization is the dominant company objective.
2. Is selling its product and buying its materials in highly competitive markets, so that not much of the incidence of a wage increase can be shifted to customers or suppliers through prices.
3. Has a cost structure in which labor costs are a relatively large proportion of total production costs and piece rates are a prevalent method of wage payment.
4. Is unorganized and likely to remain unorganized, so that management is not restricted by the provisions of a labor agreement or by the threat of organization.
5. Is in an industry that is not growing and has relatively low investment in equipment per worker, so that the management need not be greatly concerned about retaining a well-trained work force.
6. Is relatively mobile, so that migration of operations to another location would not be very costly.

Many of the cotton textile and hosiery mills in the South that produce gray goods approach the extreme at which wage changes are likely to have the most marked employment effects. Also in this same general position, except for their inability to migrate, are many firms in extractive industries, which have a structure of increasing costs.

The other extreme position is that in which the employment effects of a wage increase would be minimal or obscure, particularly in the short run. That situation is likely to prevail where the firm:

1. Is a large concern with well-protected profit margins and a good reputation both with customers and in industrial relations.
2. Enjoys a strong position in its product markets and in dealing with suppliers, so that market imperfections may permit the shifting of some of the burden of a wage increase forward to customers or backward to suppliers.
3. Has a cost structure in which time rates are the prevalent method of payment, labor costs are a small percentage of total costs, total costs do not increase per unit of output until operations approach plant capacity, and technical limitations prevent much variation in its labor-to-equipment ratio.
4. Is organized, or threatened with organization, so that restrictions exist on the short-run adjustments that can be made in the firm's labor force.
5. Is part of a dynamically growing industry, so that expansions in labor force occur frequently and retention of a well-trained work force is an important competitive factor.
6. Is relatively immobile because of large sunk investments as well as material, market and transportation ties to the locality.

The large firms in the oil and chemical industries meet most of these specifications rather well.
Most firms occupy a position between those two extremes. During recent decades, American industry has probably moved somewhat toward the extreme of minimal or obscure employment effects represented by the large firms in the oil and chemical industries. Some developments pointing in that direction are increased capital investment per employee and expanding use of automation, greater emphasis on employment regularization and good labor relations, reduced flexibility of adjustment as the result of union agreements and established personnel practices, and greater stress on research and sales efforts.¹

So far as the developing countries are concerned, indigenous firms are in general probably closer to the first extreme, while foreign-owned companies are in general probably closer to the second, though there may be exceptions. Raising wages often creates more problems for the former than for the latter, and sometimes minimum wage laws are not well enforced among the former.

P. T. Bauer analyses the factors affecting the elasticity of demand for labour as follows: the decrease of employment in response to higher wages will vary directly with (a) the readiness of consumers to turn to other products (the elasticity of demand in the product market); (b) the readiness of other productive resources employed in an activity where wages are regulated to withdraw from that activity if their rewards are reduced (elasticity of supply of co-operant factors); and (c) the ease of substitution of other productive resources for labour when its cost is raised (elasticity of substitution). The influence of these factors is accentuated when labour costs are a high proportion of total costs. He adduces reasons why all these elasticities are often considerable in activities with regulated wages in developing countries.²

Very few empirical studies of the elasticity of demand for labour in developing countries have been attempted. One of the most valuable is that relating to manufacturing in Puerto Rico in the volume by Reynolds and Gregory to which reference has already been made. The procedure adopted was to regard the difference between the rate of change in output and the rate of change in employment as a function of the rate of change in wages—i.e. to assume that if wages had remained unchanged employment would have expanded in the same proportion as output. Separate calculations were made for two periods, 1949-54 and 1954-58. The elasticities of demand were estimated on the basis of regression analysis at -1.1375 for the earlier period and -0.939 for the later period, neither of which was significantly different from unit elasticity. "So a change in the wage could be expected to be associated with an

approximately equal proportionate change in employment in the reverse direction, with the wage bill remaining roughly constant \(^1\).

The authors point out that their procedure tends in some ways to underestimate and in others to overestimate the effects of wage changes, and do not venture to guess which bias predominates in the result. On the side of underestimation they compare actual output and employment at the beginning and end of the two periods without taking account of the fact that higher wages probably deterred some plants from locating themselves in Puerto Rico—indeed the authors refer to a study which suggests that this may have happened on quite a substantial scale. On the other hand, they neglect the effects of economies of scale and technical progress. It is almost certain that even without wage increases these two factors would have caused some increases in productivity—i.e. a faster growth of output than of employment—and that not all of the difference between the rate of growth of output and that of employment should properly be attributed to wage increases. The authors claim, however, that this assumption may not do excessive violence to reality, most Puerto Rican industries being of a labour-intensive nature with only limited economies of scale.

It seems highly desirable that more studies should be made of the elasticity of demand for labour in developing countries—though it will always be difficult to generalise from these.

One further aspect must be touched on briefly before leaving the question of employment effects. This is that wage increases will affect the employment prospects of some workers more adversely than those of others. Those who feel the effects most will be those who find it most difficult to get and keep jobs.\(^2\) The fact that juveniles and handicapped workers cannot be expected to compete on equal terms with able-bodied adults is usually recognised in minimum wage legislation by making provision for lower minima for juveniles \(^3\) and for exemption of, or lower minima for, handicapped workers. A policy of rapid wage increases

\(^1\) REYNOLDS and GREGORY, op. cit., p. 100.

\(^2\) Some observers consider that the recent increase in and extension of the coverage of minimum wages in the United States have added to the difficulties encountered by Negroes, and particularly by teenage Negroes, in finding jobs.

\(^3\) In the former Belgian Congo there was originally no differentiation in minimum wage rates according to age. The rates for light work were, however, 10 per cent. less than those for normal work, and these rates were applied to work carried out by young workers and women. An I.L.O. team found that the 10 per cent. differential was not sufficient to compensate for the lower productivity of young workers and that the system tended to aggravate unemployment among the young. Legislation later fixed the minimum wages of young workers aged from 14 to 16 years at 60 per cent. and of those aged from 16 to 18 years at 80 per cent. of adult rates. In Argentina the National Minimum Wage Board has established minus differentials of 10, 20, 30 and 40 per cent. respectively for young workers of 17, 16, 15 and 14 years of age.
combined with equal pay for men and women may also make it particularly difficult for women to get or keep jobs.¹

Effects on the Distribution of Income

We have been concerned thus far mainly with the effects of higher wages on the efficiency of an economic system, though the main reason for attaching importance to effects on employment as distinct from output or growth has to do with equity rather than efficiency. If higher wages reduce employment opportunities in the sectors covered by the wage regulations, at least a part of the increased incomes of workers who benefit is transferred to them at the expense of other workers who lose jobs or who fail to get jobs in these sectors. Such transfers are likely to make for greater inequality of income distribution.

But other effects of wage increases on income distribution also need attention. To the extent that higher wages are paid out of profits, they are likely to make for greater equality of income distribution. The extent to which profits can be squeezed depends on the degree of competition in the product market. Export markets are usually highly competitive ², but there may be little competition in internal markets for many products in many developing countries.

To the extent that the cost of higher wages is passed on to consumers in the form of higher prices, the effects on the equality of income distribution will depend on whether consumers of the product in question are on the average better or worse off than the wage earners concerned. If the product is a luxury good, the distributive effects will probably be in the direction of greater equality; if the product is an article of mass consumption, they will depend on whether the standard of living of the wage earners concerned is above or below the general average.

¹ In Tanganyika the number of adult African males employed decreased by about 13 per cent. between 1962 and 1963 following the coming into force of the Wage Regulation Order in January 1963, while the number of women and young workers fell by about 30 per cent. In the sisal industry the employment of workers classified as dependants (i.e. wives and children of adult male workers) dropped from 13,437 in 1962 to 5,025 in 1963 and 2,764 in 1964—i.e. by nearly 80 per cent. Between 1962 and 1963 the employment of women and young persons dropped by 37 per cent. on tea plantations, by 31 per cent. on coffee plantations and by 86 per cent. on sugar plantations (D. CHESWORTH, “ Statutory Minimum Wage Fixing in Tanganyika ”, op. cit.). The author observes that “ as general redundancy was considerable it was felt appropriate that women and young persons should be amongst the first to be made redundant in the interests of other workers with family responsibilities ” (ibid., pp. 54-55). In the state of Mysore in India it has been reported that “ fixation of a single rate of wages for both males and females has caused shrinkage in the demand for female labour ” (Indian Labour Journal, Vol. II, No. 7, July 1961, p. 611).

² Though in the case of primary commodities with volatile prices large profits may be made in years when prices are high.
There is evidence\textsuperscript{1} that income distribution tends to be more unequal in developing than in developed countries, despite the facts that \((a)\) agriculture plays a larger role in the economies of developing countries and \((b)\) in both developed and developing countries income distribution tends to be more equal in the agricultural than in the non-agricultural sector. Thus, the greater inequality of income distribution in developing countries is associated with a greater discrepancy between agricultural and non-agricultural incomes. The latter, of course, include incomes from (non-agricultural) property as well as wages, but allowing for this it seems clear that average wages tend to be higher in relation to the average of all incomes in developing than in developed countries.\textsuperscript{2} This is not surprising when it is recalled that the general level of wages in developing countries has to be, and tends to be, high enough to attract into wage-earning employment in the modern sector people who usually have some means of support in the traditional sector. It is true that those at the lower end of the wage scale might be among the poorest of the poor or might find themselves in this position if it were not for the protection afforded by minimum wage legislation. This, coupled with the hope that higher wages will pay for themselves out of higher productivity and with the fact that it seems impossible to legislate against the poverty of the rural masses, whereas minimum wage legislation does seem to provide a means of combating poverty among the wage earners, at least in the towns\textsuperscript{3}, provides in many people’s view the main justification for minimum wage legislation. But care is needed lest such legislation, instead of bringing about a transfer of income from well-to-do entrepreneurs and property-owners to poor wage earners, should serve to depress income levels of the non-wage-earning masses.

**Conclusions**

This has been a long chapter, and the argument in places may have been somewhat involved. A summary is given on pages 135-138. Two conclusions seem to stand out. The first is that in fixing minimum wages, and raising them from time to time, very careful consideration needs to be given to the effects on economic growth, employment and income

\textsuperscript{1} See, for example, A. D. SMITH: “Minimum Wages and the Distribution of Income, with Special Reference to Developing Countries”, in *International Labour Review*, Vol. 96, No. 2, Aug. 1967, pp. 129-150.

\textsuperscript{2} Though in so far as this comparison involves a comparison between urban and rural living standards, statistics may tend to exaggerate the difference by understating both the value of rural income in kind and the difference in costs of living between rural and urban areas (see pp. 72-73 below).

\textsuperscript{3} The enforcement of minimum wage legislation covering agricultural workers presents serious problems in many countries.
distribution. The second is that, while it is possible to describe in general terms the kinds of effects that are likely to occur, very little is known about the quantitative importance of these effects in different circumstances. More empirical studies are badly needed, particularly of the relationships between wages and productivity on the one hand, and between wages and employment on the other. Statistical deficiencies have made it extremely difficult hitherto to carry out worthwhile studies of these relationships in developing countries. It would be rash to expect rapid improvements ¹, but statistics are slowly improving in quantity and quality, and it is hoped that the next decade will see substantial progress in the empirical testing of hypotheses about the effects of wage increases.

¹ Cf. p. 206 below.
CHAPTER III

CRITERIA FOR MINIMUM WAGE FIXING

Many governments have sought to give guidance to those responsible for minimum wage fixing by formulating certain criteria to be borne in mind when deciding what rates to fix. Such criteria are sometimes embodied in legislation (either in general labour codes or in laws specially providing for the fixing of minimum wages), sometimes in regulations framed under such legislation, sometimes in the terms of reference or instructions given to minimum wage fixing bodies. Criteria need to be examined and interpreted in the light of the purposes and consequences of minimum wage fixing discussed in the previous chapters.

Most of the criteria formulated in different countries are variants of one or other of three propositions, namely that account should be taken of—

(a) the needs of workers (with or without special mention of the needs of their families);
(b) capacity to pay;
(c) wages paid for comparable work elsewhere in the economy or, more generally, the standard of living of other social groups.

Some other criteria sometimes mentioned, for example the cost of living or productivity, are related to one or other of these propositions—changes in the cost of living will affect the adequacy of a given wage for meeting the needs of workers; changes in productivity will affect capacity to pay.

The meeting of experts recognised the importance of these three criteria, and added (its report having special reference to developing countries) that—"Recent discussions have emphasised the importance of a fourth criterion, namely (d) the requirements of economic development."

In countries in which minimum wages are fixed not only for unskilled labour but for different grades of skill it may be considered desirable to

1 Or sometimes even in a country's Constitution.
2 See below, para. 45, p. 154.
formulate further criteria to guide the authorities in determining appropriate skill differentials. In the socialist countries of Eastern Europe the system of fixing basic wage scales for different sectors is tantamount to fixing a series of minimum wage rates graded according to skill and other considerations. Criteria used in setting up wage scales include, besides skill requirements, the need to compensate workers for adverse working conditions, special hazards if any, and so on. The criteria employed seem in fact very similar to those employed in market economies in setting up job evaluation schemes. The problem of grade differentials can, however, more conveniently be discussed in the next chapter. Here we shall be concerned with the four basic criteria distinguished above.

THE NEEDS OF WORKERS

Since those responsible for fixing minimum wages are commonly enjoined to take account, among other things, of the needs of workers, it has often seemed logical to start by trying to determine what the needs of workers are, as a basis for determining "a living wage". The idea that everybody who works full-time in a job should receive at least a living wage in return, with the corollary that any industry or firm that cannot pay a living wage should go out of business rather than pay less, has a strong appeal, but it raises at least three questions—

(1) What is meant by a living wage?

(2) For how many people should the minimum wage serve as a living wage?

(3) Granted that the suppression of poverty is one of the most urgent objectives of policy, how far should this objective be sought through raising minimum wages, and how far through other measures?

(1) If a living wage means a wage that will enable people to satisfy their minimum needs, it is necessary to define minimum needs of individuals and families. In a recent survey of a number of attempts to

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2 In India a distinction is drawn between a "living wage", a "minimum wage" and a "fair wage". The "living wage" represents a standard of living providing not only for a basic minimum subsistence but also for the maintenance of health and decency, a "measure of frugal comfort" and some insurance against misfortune. The "minimum wage" offers a somewhat lower standard; it might be termed a long-run subsistence wage in that it includes physical subsistence needs and, in addition, some measure of education, medical requirements and amenities. The "fair wage" has the minimum wage as its lower limit, and the upper limit is set by the capacity to pay of the industry concerned (Government of India, Ministry of Labour: Report of the Committee on Fair Wages (Simla, Government of India Press, 1949), p. 32). The
measure the costs of satisfying an individual's minimum needs it was found that estimates vary within a very wide range, from about 30 per cent. more than the cost of a minimum adequate diet to more than three times this cost—and that there is room for a great deal of argument about the cost of an adequate diet itself. These differences of view are partly explained by a historical evolution in the treatment of minimum needs. In the earliest attempts to measure these, and in some more recent attempts in poor countries, the emphasis was placed largely on biological or physical needs, but, as living standards rise, increasing emphasis is placed on social or conventional needs. "... Conceptually the notion of minimum social needs seems to be related to that of human dignity... a family should not be obliged by poverty to live in a manner that sets it apart from other families in the social group to which it belongs and that makes it unable to live according to the established customs of the community." ¹

(2) Apart from the difficulty of defining a living wage for an individual, there is that of deciding for how many people the minimum wage should serve as a living wage.

... different wage earners have different numbers of dependants. In some countries the minimum wage is supposed to cover the needs of an "average", "standard", or "synthetic" family considered to be in some way representative. Often this is taken to be a family consisting of a man, wife and two children. ... The average family is, in fact, an exceptional family and a wage that would just meet its minimum needs (if we could agree on what these minimum needs are) would be too high or too low to provide exactly for the minimum needs of most families.²

(3) This leads to the third question, namely how far should governments try to solve problems of poverty by means of minimum wage systems alone, and how far by means of other instruments such as family allowances. It is clear that minimum wage fixing can be no more than, to use the words of the report of the meeting of experts, "one of a battery of measures in the strategy of an attack on poverty".³

These questions give rise to differences of view regarding the interpretation of the "minimum needs" criterion for minimum wage fixing. One view stresses the difficulty or impossibility of measuring social needs, and even some physical needs such as the need for clothing, in

minimum wage fixing authorities are not required to fix a "living wage" in the sense just indicated but should adhere to norms laid down in a formula for estimating minimum needs contained in a resolution of the India Labour Conference in 1957, or should justify themselves if circumstances lead them to depart from these norms.

¹ N. N. FRANKLIN, op. cit., p. 272.
² Idem: p. 295. See some statistics of population by size of household quoted in the article.
³ See below, para. 14, pp. 148-149.
absolute terms. It holds that needs are essentially a relative concept and can only be measured in relation to the established customs of a community. The corollary of this is believed to be that there is no scientific and objective way of resolving differences of opinion as to what should be included in minimum needs, or how high a "living wage" has to be, and that it is therefore not very fruitful for minimum wage fixing authorities to spend a great deal of time debating this question. This does not mean that the needs of workers should not be carefully considered, or that there should be any disregard, for example, for "the solemn obligation of the International Labour Organisation to further among the nations of the world . . . policies in regard to wages and earnings, hours and other conditions of work calculated to ensure a just share of the fruits of progress to all, and a minimum living wage to all employed and in need of such protection". But it is held that the relative character of needs means that the minimum needs criterion lacks precision as an operative criterion for minimum wage fixing.

Adherents of this view, while recognising that minimum wages have a place in the armoury of weapons against poverty, insist that they cannot be expected to do the whole job of overcoming poverty, even for wage earners, as a number of countries have found. Attempts to close, by means of minimum wage fixing alone, the gap between actual levels of living and levels considered desirable, or in some sense necessary, by absolute standards have led to difficulties in a number of countries. In Mexico, after a family budget based on legal stipulations had proved to be far in excess of any practicable minimum wage, the Government declared in 1941 that, under the economic conditions prevailing in the country, the minimum wage system had to be extremely simple and precise. It had to be "designed chiefly to improve the living standards of the poorest classes, without for the moment taking into account other factors". In Uruguay a family budget was published in 1953 under the auspices of the Ministry of Industries and Labour to serve "as a basis

1 Cf. Shreekant A. Palekar: Real Wages in India, 1939-1950 (Bombay, International Book House Private Ltd., 1962), p. 202: "The search for a . . . living wage standard in India is like the philosopher's quest for a black cat in darkness where it is not! The innumerable and widely different estimates of such a standard given by medical practitioners, diet experts, economists, employers' associations, unions and in the various reports of committees in different States only serve to give one the desperate feeling: 'As many men, as many minima'. All such estimates and counter-estimates have led to confusion worse confounded in the sphere of wage policy in India".


for requests for wage increases" before the wages councils. The cost of this budget was several hundred per cent. of the earnings of unskilled workers. In India economic conditions have been such that it has in many cases not been possible to apply the provisions of a resolution concerning wage fixing, adopted by the Indian Labour Conference in 1957, containing norms for the guidance of minimum wage fixing authorities.

A final example may be cited from Pakistan. The East Pakistan Minimum Wage Board in its first report (on the cotton textile industry), after taking medical advice, concluded that satisfaction of the minimum nutritional needs of a worker at prevailing prices would cost some 43 Rs per month. Taking account of the size of families and the number of earners, this would involve a monthly expenditure on food alone of about 118 Rs per earner. Minimum wages paid in the cotton mills investigated ranged from about 32 to about 53 Rs per month. Some of these mills were bound by an award of an industrial tribunal to pay a minimum wage of 52 Rs per month. The Board concluded that it could not recommend a minimum wage higher than 57 Rs per month—i.e. less than one-half of its estimate of the amount needed per wage earner to provide wage earners and their dependants with an adequate diet alone.¹

Allowing for the smaller food needs of children, the cost of what the Board considered a minimum adequate diet might be put at an average of, say, 35 Rs per month or 420 Rs per annum for the entire population, as compared with the Board's estimate of 43 Rs per month or 516 Rs per annum for an adult worker. But the average income per head at the time was estimated by the Planning Commission at about 318 Rs per annum.² In other words, to meet what was accepted by the Board as minimum nutritional needs of the whole population would have cost some 30 per cent. more than the entire national income. There is great poverty and much malnutrition in Pakistan, but it does not seem helpful or realistic to define minimum nutritional needs in such a way that their cost would considerably exceed the entire income of a rapidly growing population.

Adherents of this view point out finally, as noted in Chapter I, that pioneer minimum wage measures did not involve estimating needs in absolute terms and fixing minimum wages on that basis; they involved only a comparison between the earnings of different groups of workers. This approach avoids many difficulties which some countries that have tried to fix minimum wages on the basis of estimates of absolute needs

² Reply to an I.L.O. questionnaire.
have not been able to overcome. In some countries there is a wide gap between what the law prescribes and what is actually done in the matter of minimum wage fixing. With a more realistic and practical approach, minimum wage fixing might have made a more valuable contribution to the suppression of poverty.

There is another view which insists that, notwithstanding the difficulties of measuring minimum needs, the concept of a minimum living wage is an essential element in the protection of workers. If there is no strictly objective and scientific way of measuring minimum needs, this is true of a great many other concepts in the field of social sciences (for example that of an individual’s intelligence quotient) to which it is nevertheless found useful to attach an approximate measure. Adherents of this view question whether it is necessary, or even important, for purposes of minimum wage fixing that the measurement of minimum needs should have a rigorously scientific character. It is usually accepted that needs are relative in the sense that social needs at least have to be evaluated in relation to the established customs and standards of a community, but it is held that in a community with given customs and standards the concept of minimum needs has a recognised operational value—that through various means (estimates of physical and social needs, studies of family budgets showing the level and distribution of expenditure of families at different income levels, confrontation of the views of trade unionists and employers, economists and sociologists) it is possible in very many cases to reach practical operational decisions on the evaluation of the minimum needs of workers. As for the difficulties resulting from variations in family size, these are attenuated in practice by various measures such as tax rebates for dependants, family allowances and, in some countries, the establishment of a distinction between two elements in the incomes of workers—income from work and income from social security (*salaire lié au travail et salaire social*), of which the latter may constitute a very large part, perhaps even the greater part, of the total income for a worker with many dependants.

It would perhaps be useful to explore the possibility of bringing about some reconciliation of diverging views by stressing the importance of developing ways of supplementing income from work by appropriate forms of social security benefits (*salaire social*), chiefly family allowances, adapted to the economies of developing countries and designed to satisfy the requirements of those in need.

One aspect of the “needs” criterion which it is especially important for minimum wage fixers to bear in mind is the cost of living. Increases in prices not compensated by wage increases are liable to cause serious
hardship and have done so in many countries.\(^1\) This subject is discussed further in Chapter VI below.

**Capacity to Pay**

Many minimum wage laws require the wage fixing authorities to take account of capacity to pay, in more or less explicit terms, by prescribing that account shall be taken, for instance, of “the economic capacity of the activity concerned” (Argentina, Costa Rica), “general conditions within the industry and special conditions within the undertaking” (Chile, Colombia), “the price of the commodity produced, and economic conditions of the undertakings” (Dominican Republic), “the market conditions affecting the products in question” (Mexico).

Most trade unionists are mistrustful of the “capacity-to-pay” criterion, at least unless adequate and precise information is available about the evolution of profits, wages, employment and other relevant variables, and it is therefore of the greatest importance that such information should be collected and made widely available. It is particularly essential that such information should be put at the disposal of the representatives of workers, as of employers, in tripartite wage fixing bodies. We shall return to this point in the following chapters.

Capacity to pay is an extremely elusive and difficult concept to define. Among the questions that arise are the following:

1. At what level should capacity to pay be evaluated—at the level of the economy as a whole, of a particular industry, or of individual undertakings?
2. What should be the test of incapacity to pay?

As regards the first of these questions, it is seldom suggested that different levels of minimum wages should be set for each firm in an industry to take account of the differing capacity to pay of different undertakings.\(^2\) For practical purposes the choice is usually between trying to evaluate capacity to pay at the level of the industry or at the level of the economy as a whole.

A strong argument for evaluating capacity to pay at the national level is that an industry may be able to shift the incidence of the costs of higher wages to consumers, the jobless or the suppliers of factors of

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\(^1\) Cf., for example, the statement by the Government of Argentina quoted on p. 7 of Chapter I above.

\(^2\) Though the exemption of firms below a certain size from the requirements of minimum wage legislation in some countries may sometimes be motivated partly by recognition of their generally lower capacity to pay as well as by difficulties of enforcing minimum wage legislation in very small undertakings. And there are some countries, e.g. Uruguay, in which wages councils have been set up for individual firms.
production other than labour. But shifting a burden does not make it disappear, and it is only at the national level (or at the world level if we are concerned with the problems of an open economy) that the full effects of a wage increase can be seen and assessed.

If capacity to pay is evaluated industry by industry and if some industries are more prosperous than others, as will almost certainly be the case, the capacity-to-pay criterion will make for different minimum wages in different industries. Some people consider this desirable as a way of making sure that workers share in the prosperity of a country's more prosperous industries. In many developing countries manufacturing industries, sheltered by tariff protection, and certain extractive industries, tend to be especially prosperous. Other people think it preferable that high profits in certain industries should be taxed and the proceeds used to promote economic development or general social welfare or both rather than that the high profits should be shared only with the workers who happen to be employed in the particular industries concerned.1

This preference can be defended on grounds both of equity and of economic efficiency. To take first the argument based on equity: wages (for comparable work) in most countries tend in any case to be somewhat higher in prosperous than in unprosperous industries—there is of course nothing to stop employers in prosperous industries from paying more than minimum rates. To impose such differentials by law would seem likely to encourage the development of a highly distorted wage structure—

It is very frequently suggested that wage increases should be linked in some way to the growth of productivity, but those who make this suggestion are generally careful to add that they have in mind the growth of over-all productivity throughout the economy, and not the rate of growth of productivity in particular industries. The reason for this is that the scope for increased productivity is vastly greater in some branches of production than in others, and the extent to which productivity increases in different industries over a period of time often bears little or no relation to the efforts or sacrifices made by workers in them. It would not make sense to pay workers in the highly capital-intensive chemical industry 20 times as much as workers in the clothing industry merely because net value added per worker employed may be 20 times as high in the former as in the latter.2

1 Cf. W. Arthur Lewis: "The appropriate way to treat industries with excess profits is not to raise their wages but to levy taxes on them (export taxes, excise duties, or royalties in the shape of special profits taxes) if they are producing for an export market, or to control their prices (directly or by lowering import duties) if they are producing for the home market under monopolistic conditions." (Development Planning—The Essentials of Economic Policy (London, George Allen and Unwin Ltd., 1966), p. 92).

Secondly, it is argued that different minimum wages based on differences in the capacity to pay of different industries are not only inequitable but also liable to be bad for economic growth and efficiency and it is claimed that high minimum wages in the most prosperous industries will tend to check the growth of production and employment in precisely the sectors where it is most desirable to encourage expansion, but at the same time, through their effects on the general level of wages, may create serious difficulties for the less prosperous industries.

But if the above arguments seem to favour evaluating capacity to pay at the national rather than at the industrial level in a well governed, democratic country, these arguments are not at all persuasive in countries in which governments lack the will or the strength to tax high profits or to control prices that would otherwise permit high profits to be earned. These arguments are persuasive only if the alternative to higher minimum wages in prosperous industries is that the high-profit potential of these industries would be used for the general good.

If capacity to pay is evaluated at the national rather than at the industrial level, the capacity-to-pay criterion, as the report of the meeting of experts pointed out, largely merges with the criterion of the requirements of economic development, to which further reference is made below.

It remains to discuss, briefly, problems of evaluating capacity to pay at whatever level is considered appropriate. What should be the test of incapacity to pay?

To the extent that the costs of higher minimum wages are borne by an industry and not passed on to consumers or shifted in other ways, these costs are likely to take the form of some combination of (a) lower profits, (b) a reduction in the scale of operations of some firms, and (c) the forcing out of business of some firms. A number of difficult problems arise in this connection concerning how much lower profits must

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1 This assumes that the limiting factor on the growth of employment in the prosperous industries is the demand for, not the supply of, labour. Higher wages offered to attract labour to prosperous industries in which there is a shortage of labour are a different matter. In a market economy it is doubtful how far employers need to be compelled to pay higher wages in such cases. But, in countries with central planning, industries that are considered specially important for the national economy usually have higher basic wage scales fixed by law than other industries.

2 "One industry can pay higher wages than another, whether because it can more easily pass wages on to the consumer (or the taxpayer) in higher prices (or taxes), or because it is using natural resources which it has obtained too cheaply (ores, fertile land) or because the opportunities for mechanization are specially good. Raising wages in such an industry may have little effect on investment there, but it pulls down investment in the rest of the economy, as wages are driven up there, or pulls down employment by turning investment in the labour saving direction." (W. Arthur Lewis: Development Planning—The Essentials of Economic Policy, op. cit., p. 91.)

3 See below, para. 58, p. 157.
be, how drastically how many firms must be forced to curtail the scale of their operations, and/or how many firms must be forced out of business, before the point of incapacity to pay should be considered to have been reached. Unless they have taken decisions or been given rather precise guidance or instructions on the answers to be given to such questions as these, minimum wage fixers will derive little or no help in the task of applying the capacity-to-pay criterion from, for example, examining company balance sheets and profit and loss accounts.

The evaluation of capacity to pay is not easier at the national level. In this case account has to be taken of any costs imposed on any other sections of the community besides employers, and of effects on the balance of payments, growth, employment and other variables discussed in Chapter II. But it would scarcely be possible (at least without developing a number of more specific criteria) to define a precise point at which costs or unfavourable effects would come to exceed an economy's capacity to pay.

The matter was summed up in an earlier I.L.O. report in the following words:

Any judgment concerning capacity to pay must necessarily be based on some explicit or implicit set of standards pertaining to (a) the anticipated effects of the introduction of a given minimum wage rate on prices, profits, employment, etc., and (b) the evaluation of these effects in terms of social and economic policy. For example, in one case it might be found that a given increase in wages would lead to a rise in wage earners' consumption inconsistent with the level of savings required for the economic development programme, and hence that the proposed increase would be beyond the country's capacity to pay. In another case it might be found that, while a given increase in wages would raise the costs of a particular industry to such an extent that production would have to be curtailed, it would be possible to shift the workers thereby becoming redundant to other more productive industries, so that the proposed wage increase would be economically feasible.

It thus appears that, in the final analysis, the problem of determining capacity to pay consists in deciding what weight can be attached to the social objective of raising the living standards of the worst-paid workers in the light of other objectives of economic and social policy, notably the level of employment and the rate of economic development.¹

In short, it seems clear that "capacity to pay", like "minimum needs", is not an absolute concept.

One other point about capacity to pay that minimum wage fixers may wish to bear in mind is that the raising of minimum wages seems more likely to benefit the workers concerned, and to avoid serious economic dislocations, if it proceeds rather gradually and experimentally, probing to see how far wages can be raised without adverse repercussions on

Markets and employment \(^1\), and giving employers time to absorb the effects of higher wage costs through higher productivity, than if large increases in minimum wages are imposed suddenly.

**Relative Living Standards**

A third, widely formulated criterion is that account should be taken, in fixing minimum wages, of wages paid for comparable work elsewhere in the economy, or, more generally, of the standard of living of other social groups.

As noted in Chapter I, the Minimum Wage-Fixing Machinery Recommendation, 1928 (No. 30), provides that "regard should primarily be had to the rates of wages being paid for similar work in trades where the workers are adequately organised and have concluded effective collective agreements, or, if no such standard of reference is available in the circumstances, to the general level of wages prevailing in the country or in the particular locality".\(^2\) Similarly the Minimum Wage Fixing Machinery (Agriculture) Recommendation, 1951 (No. 89), provides that—

Among the factors which should be taken into consideration in the fixing of minimum wage rates are the following: the cost of living, fair and reasonable value of services rendered, wages paid for similar or comparable work under collective bargaining agreements in agriculture, and the general level of wages for work of a comparable skill in other industries in the area where the workers are sufficiently organised.\(^3\)

Many authorities recognise that account should be taken not only of wages prevailing elsewhere in the economy but of the standard of living of other social groups besides wage earners. From the point of view of social justice this seems clearly desirable. In countries in which the greater part of the labour force is not in wage-earning employment but in peasant agriculture, special importance attaches to comparisons between the living standards of wage earners and of peasant farmers—both because some equivalence in the living standards of these two groups seems desirable on grounds of equity and because the level of wages sufficient to attract unskilled workers from the countryside to enter wage-earning employment will tend to a large extent to be determined by the level of agricultural incomes. For workers to be induced to accept wage-earning employment, they will have to be offered a wage which,

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\(^1\) That is, without adverse repercussions as compared with the past; this does not mean that there may not be adverse repercussions when the relationships are considered in a functional sense (see p. 44 above).

\(^2\) Part III.

\(^3\) Part I, para. 2.
when allowance is made for differences in the cost of living, in the intensity of the work and in the amenities of the two ways of life, will rather more than compensate them for what they give up in terms of income and amenities as a result of exchanging, temporarily or permanently, the life of a peasant cultivator for that of a wage earner. It seems likely that the higher the level of agricultural incomes and amenities, the higher will have to be the wage offered to attract peasants to wage-earning employment.\(^1\)

This relationship between agricultural incomes and wage levels has a very important consequence for economic and social policy in general, namely that one of the most effective ways of raising the levels of living of urban wage earners\(^2\) may be to promote increases in the living standards of peasant cultivators. The combination of rapid population growth and stagnating agriculture is the worst possible one for urban wage earners. Poverty and distress in rural areas will lead to a rural-urban exodus even at very low wage levels, the supply price of labour will be low and attempts to fix minimum wages at a substantially higher level are likely to lead to massive unemployment.\(^3\) But measures to encourage family planning, combined with effective agricultural extension work and investment in irrigation, pest control, better seeds and fertilisers, to the extent that they succeed in raising agricultural incomes, will tend to induce spontaneous increases in urban wage levels and to create conditions in which increases in minimum wages to look after the

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\(^1\) It is sometimes argued that primitive people are not "economic men" and do not balance satisfactions in a rational way. There seems to be little evidence to support this argument and a great deal of evidence to support the opposite view that, given their scales of preference (which may be different from those of more sophisticated people), primitive people are often very careful and rational in choosing preferred alternatives. Cf. for instance, the statement by Elliot J. Berg quoted in Chapter II, p. 35; evidence assembled by P. T. Bauer and B. S. Yamey in *The Economics of Under-developed Countries* (Cambridge, Cambridge University Press, 1957), pp. 91-98; Sol Tax: "Penny Capitalism—A Guatemalan Indian Economy", in Smithsonian Institution, Institute of Social Anthropology: *Publication No. 16* (Washington, D.C., United States Government Printing Office, 1953); and Peter Kilby: "African Labour Productivity Reconsidered", in *The Economic Journal*, Vol. LXXI, No. 282, June 1961, pp. 273-291.

\(^2\) The use of the term "urban wage earners" does not of course imply that all wage earners live in towns. In many developing countries there are many rural wage earners too. But the urban-rural comparison is of special interest.

\(^3\) W. Arthur Lewis has observed that: "The fact that the wage level in the capitalist sector depends upon earnings in the subsistence sector is sometimes of immense political importance, since its effect is that capitalists have a direct interest in holding down the productivity of the subsistence workers. Thus, the owners of plantations have no interest in seeing knowledge of new techniques or new seeds conveyed to the peasants, and if they are influential in the government, they will not be found using their influence to expand the facilities for agricultural extension. They will not support proposals for land settlement, and are often instead to be found engaged in turning the peasants off their lands." (*Economic Development with Unlimited Supplies of Labour*, op. cit., p. 149).
interests of those who do not benefit from spontaneous increases can be brought about with much less risk of unemployment.

It was stated above that, for workers to be induced to enter wage-earning employment, they will have to be rather more than compensated for what they give up. W. Arthur Lewis has suggested that—

Urban wages will always exceed farm incomes, partly because the cost of living in towns is higher, partly because a more rapidly growing sector has to offer higher real earnings in order to attract labour, partly because working eight hours a day for five or six days a week throughout the year requires a greater input of food than working the farmer's year [1], and partly because working eight hours every day for wages in towns is less pleasant than working on one's farm, and therefore demands higher compensations. The equilibrium wage for unskilled workers is therefore normally about 50 per cent. higher than the average agricultural income.  

He further suggests that—"If it were feasible to regard the level of profits as a matter mainly between the Government and the employers, in the sense that the Government will set tax rates or control prices at whatever gives the appropriate level of profits"...then one of the main elements of an incomes policy would be to keep unskilled wages about 50 per cent. above average agricultural incomes.  

Similarly, H. A. Turner considers that—

The basic reference standard for the level of minimum wages should...be an estimation of the actual living standards of cultivators in the traditional sector of the economy.  

Without committing himself to any percentage, he adds that generally there should be a certain margin in favour of wage earners "to compensate for the reduced leisure involved in full-time employment and as an inducement to the cultivator to leave his traditional way of life".  

Reference to average or actual agricultural incomes, however, may make the problem seem easier than it is. There is a wide diversity of agricultural incomes from region to region and from family to family, as well as wide variations from year to year. It is necessary to think in terms not of a single "supply price" of labour but rather of a supply curve

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1 For example, a manpower survey in 1956 found that independent and unpaid family members worked 18 per cent. less hours in East Pakistan and 9 per cent. less hours in West Pakistan than wage and salary earners (Nurul Islam: "Concepts and Measurement of Unemployment and Underemployment in Developing Economies", in International Labour Review, Vol. LXXXIX, No. 3, Mar. 1964, pp. 240-256).


3 Ibid., p. 94.


5 Ibid.
such that at low wage levels only the poorest peasant cultivators (or those particularly dissatisfied with the traditional rural way of life or particularly attracted to the towns) will be attracted to wage-earning employment, while at successively higher wage levels more and more will be so attracted. And if one asks "How many is it desirable to attract?", the answer would seem to be "As many as can be provided with jobs at wages that they find attractive". But there does not appear to be any easy way of finding out what level of wages will attract this number and no more, other than by trial and error. Substantial unemployment would be evidence that the minimum wage had been set too high; a shortage of unskilled labour would be evidence that the minimum wage could be raised without restricting employment.

In short, the diversity of agricultural incomes means that authorities who may wish to establish a relationship between urban minimum wages and agricultural incomes have to decide which agricultural incomes they will use for purposes of comparison. The fact that there is no easy answer to this question means that this criterion, like the others we have examined, lacks precision as an operational policy guide. Minimum wage fixing authorities who seek precise rules of thumb are seeking a will-o'-the-wisp. There is no alternative to using their judgment.

The meeting of experts concluded in its report that sample surveys of the consumption of a country's rural population should exclude smallholders and tenants with plots of land too small to keep them fully occupied, as well as landowners having what are by local standards large properties.

Even when they have decided what agricultural incomes to take as a basis for purposes of comparison, authorities using this criterion will, however, encounter other difficulties too. These difficulties are a good deal more manageable than those encountered in trying to measure minimum needs or evaluate capacity to pay but are not to be underrated. One difficulty is to know how many people (including members of

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1 At least if it persisted; a trial-and-error approach would be complicated by the fact that in years of drought or very low prices for cash crops many more cultivators than usual might be forced to seek wage employment.

2 Few governments in these circumstances would wish to reduce minimum wages, but some might wish to try to hold them at current levels until, with economic progress or rising prices, the demand for labour had caught up with the supply.

3 See below, para. 65, p. 158.

4 For a good brief discussion in this connection see Government of Kenya: Report of the Salaries Review Commission, 1967 (Nairobi, Government Printer, 1967), pp. 20 ff. This report gives emphasis to relative income changes rather than to absolute income levels, making the point, in paragraph 54 on page 21, that: "It may be difficult or illegitimate to say how much better off one group is than another group, in terms of income at a moment of time; but it is not illegitimate to say that one group's income is increasing more or less rapidly than another's." This form of comparison can be very useful for policy purposes.
large families) are dependent on urban and rural incomes respectively. Another is to estimate the quantities of the different items of income in kind produced and consumed on peasant farms. These quantities are more likely to be underestimated than overestimated. For example unpaid services reciprocated within a rural community may be totally neglected. A third difficulty is to know what prices to attach to these items of income in kind for purposes of comparison with similar but usually not identical goods consumed by townspeople. To value food produced and consumed on a farm at some small fraction of the value of the same food sold in an urban retail shop is to forget that food does not become more nutritious but rather the reverse for having to be sold in urban shops at prices that cover packing, transport, wholesale and retail margins and all the intermediate handling that has to be paid for when the consumer is no longer also the producer. A fourth difficulty is to make an appropriate allowance for the fact that some of the things on which people living in towns spend money, either individually or collectively through rates and taxes, are better regarded as costs of living in a town than as elements of income. The services of middlemen engaged in transporting and selling food in towns are a case in point, and in the same category one may put transport to and from work and at least a part of expenditure on housing, lighting, sanitation, paved streets, etc. These factors, which make for under-valuing of rural incomes in rural-urban comparisons, tend to be partly but probably not wholly offset by the generally superior educational and health services available to people living in towns. Finally, in view of the considerable fluctuations from year to year in the standard of living of peasant cultivators as a result of variations in harvests and prices, it would seem necessary in making such comparisons to think in terms of the average standard of living of peasant cultivators over a period of time, taking good years with bad ones.

Social justice calls for some reasonable relationship not only between different kinds of incomes from work but also as between incomes from work and incomes from property. In all countries in which private ownership of the means of production is allowed, there are a few large

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1 Great as is the difficulty of making accurate comparisons between urban and rural living standards including all elements, it should be possible to obtain from medical officers of health fairly reliable comparisons of one very important element in living standards, namely nutritional levels. A district surgeon quoted in a South African report stated that in his experience, based on many post-mortem examinations and other evidence, while African children were better nourished in rural than in urban areas, this was not true of adults (Union of South Africa: Report of Native Economic Commission 1930-32 (Pretoria, The Government Printer, 1932), Part VII: "Addendum by Mr. Lucas", para. 108, p. 189). Such evidence as was available to the Tanganyika Minimum Wages Board suggested that in general there was more malnutrition in Dar-es-Salaam in 1962 than in rural areas not affected by drought.
incomes from property. There is evidence that extremes of wealth and poverty tend to be greater in developing than in developed countries. Higher minimum wages, to the extent that they are paid out of profits, do something to redistribute incomes. But, as we have seen, they are often paid not out of profits but by consumers or (in effect) by people who lose or fail to find jobs. In any case the problem of excessive inequality between incomes from property and incomes from work is not one to the solution of which minimum wage fixing can make much contribution, since the employers who pay the lowest wages tend on the whole to be the poorer and smaller employers. This problem has to be tackled primarily by means of fiscal policy, discussion of which falls outside the scope of this report. But it is relevant to say that governments which do not try to ensure that the rich are made to contribute in an equitable and reasonable manner to national development cannot expect the co-operation of trade unions in matters of wage policy.

THE REQUIREMENTS OF ECONOMIC DEVELOPMENT

As pointed out above, when "capacity to pay" is interpreted to mean the capacity to pay of an economy as a whole, the capacity-to-pay criterion largely merges with that of the requirements of economic development. There is accordingly little that need be added to what was said on this subject on pages 65 to 69. The following important points were, however, made in the report of the meeting of experts:

Although an objective standard based on the human needs of workers should be established as a guide for wage fixing authorities, the conditions in the country concerned and its development needs and possibilities must in the last resort determine the choice of standard and its exact definition. Minimum wages cannot be set without taking account of the total social and economic context, including the amount of unemployment, the size of the peasant population and the existing relationship between peasant incomes and wages, both rural and urban.

Because of the importance of a country's economic development to its wage earners no less than to other classes, the process of wage determination must take into account the proper role of wages in creating markets for mass production of consumer goods, as well as the likely impact of wage changes on the volume of employment. All this has, moreover, to be seen against the background of the government's development strategy, especially its plans for promoting exports and encouraging the production of substitutes for imports.¹

CONCLUSION

The criteria we have examined point to considerations that should always be in the minds of minimum wage fixers, but they do not yield

¹ See below, paras. 69-70, p. 159.
precise answers to the question of how to determine the level at which minimum wages should be fixed in any particular situation in order to contribute most to the general welfare, nor do they provide precise yardsticks in this connection. This is a matter of judgment and of weighing the gains to workers who will benefit from higher wages against the various kinds of costs which higher wages may impose on industries and on the economy as a whole. There is some danger that attention may be diverted from this crucial question, and discussion sidetracked on to barren issues, if a disproportionate amount of time and effort is devoted to arguments about precisely what a minimum needs budget should contain or precisely how a certain figure in a balance sheet should be interpreted.

A good starting point for minimum wage fixers may be to try to assess how far higher wages can be expected to pay for themselves through higher productivity, while remembering that if higher productivity is brought about through increased capital investment in the firms concerned it will tend to make capital scarcer and to reduce employment opportunities in the rest of the economy.\(^1\) Secondly, it seems reasonable to attach a good deal of weight to the "relative living standards" criterion, which is emphasised in the relevant international labour Recommendations and the application of which gives rise to fewer questions and difficulties than the minimum needs and capacity-to-pay criteria. So far as the wage structure is concerned, this would mean giving priority to raising wages that are specially low and bringing them up towards the general level. So far as the general level of wages for unskilled labour is concerned, it would mean, in countries in which the bulk of the labour force is engaged in peasant farming, aiming at a reasonable equivalence in the living standards of wage earners and peasant farmers, due allowance being made for differences in the cost of living, the nature and intensity of the work and the amenities of the two ways of life.

This does not in any way imply that the needs of workers and the capacity to pay of industry and of the economy as a whole should be lost sight of. Indeed, the relative living standards criterion represents at least a partial synthesis of the other criteria. So far as workers' needs are concerned, it means that in fixing minimum wages regard should be had primarily to meeting the needs of workers whose needs are the greatest because their wages are the lowest. On the other hand, attaching

\(^1\) Save to the extent that the raising of minimum wages might induce some foreign-owned companies to invest in labour-saving equipment some capital that they would not otherwise invest in the country at all. It would seem unwise to expect this to happen on a large scale.
importance in minimum wage fixing to the generally prevailing levels of living of wage earners and the self-employed means attaching importance to the standard of living that an economy has the capacity, at any particular time, to provide for the mass of its people. A formula that implicitly takes account both of needs and of the capacity to pay of industry and of the economy as a whole, that does not lend itself to unrealistic interpretations and that recognises the relativity of both these criteria, calls for "the payment to the employed of a wage adequate to maintain a reasonable standard of life as this is understood in their time and country ".¹

CHAPTER IV

THE SCOPE OF MINIMUM WAGE FIXING

The main questions to be discussed in this chapter are, first, the relative merits of what may be called, for short, national or sectoral minimum wage systems and, secondly, the question whether minimum wages should be fixed only for unskilled labour or for other grades too.

NATIONAL VERSUS SECTORAL MINIMUM WAGE SYSTEMS

Some countries have a national minimum wage, usually with regional differentials to allow for differences in the cost of living between different regions or between urban and rural areas. Others have a system that provides for the fixing of different minimum wage rates for different sectors or industries. In a third group of countries the two systems are combined.

The term "national minimum wage systems" is here used to mean a system under which a uniform minimum wage (subject only to regional variations) applies to all workers covered by the system. It does not necessarily imply that all wage earners are so covered.

Among developed countries the United States was until recently a classical example of a country with a national minimum wage. The Fair Labor Standards Act of 1938 imposed a uniform minimum wage of 25 cents per hour, rising to 30 cents in 1939 and 40 cents in 1945, for all workers covered by the Act. Coverage was limited to a majority of private employees engaged in inter-state commerce or in producing goods for inter-state commerce; intra-state employment was excluded, as well as executive, professional and administrative employees, government employees and agricultural employees. Amendments in 1949, 1955, 1961 and 1966 successively raised the minimum rate and the later amendments also extended the scope of the Act. The 1966 amendment raised the minimum rate to 1.40 dollars from February 1967 and to 1.60 dollars from February 1968 for those already covered by the Act.

1 Regional differentials may serve other purposes too, for example to take account of regional differences in capacity to pay resulting from the concentration of certain industries in certain regions.
Coverage was broadened to include an additional 9 million workers, raising the percentage covered to about 80 per cent. of all private employees. Newly covered employees, with one exception, will also have to be paid a minimum of 1.60 dollars per hour, but this rate becomes effective only in 1971, lower rates rising by instalments being applicable during a five-year transitional period. The exception is agricultural workers on large farms, whose minimum was fixed at 1.00 dollar per hour from February 1967 rising in two instalments to 1.30 dollars in 1969 (agricultural workers on small farms are still not covered). In other words the United States now has two national minimum wages, one for agricultural employees (on large farms) and the other for non-agricultural employees, but there are transitional arrangements which differ for employees previously covered, for non-farm employees newly covered and for farm employees, and during the transitional period different minima will be in force at the same time.¹ Many individual states have minimum wage legislation independent of the federal law. But there are no regional variations in the federal minima.

France is another example of a developed country with one national minimum wage for non-agricultural employees and another for agricultural employees, but the country is divided into three wage zones with different minima, though the maximum differential has now been lowered to 4 per cent. (compared with 18 per cent. in 1950). Workers not covered include those employed in public or semi-public undertakings (who are covered by special laws and regulations), domestic servants and caretakers (concierges) and commercial travellers and agents.

The United States and France may now consequently be considered examples of developed countries with mixed national and sectoral systems, though, since there is differentiation between two sectors only, their systems may be said to approximate more closely to the national-uniform type than to that of countries with a multiplicity of sectoral minima.

In the United Kingdom, under the Trade Boards Act of 1909 and the Wages Councils Act of 1959, minimum wages have been fixed separately for numerous industries on the recommendation of tripartite wages councils. Inadequacy of voluntary collective bargaining, combined with standards of remuneration considered unreasonably low, are the grounds on which a wages council may be established.

All the Socialist countries of Eastern Europe have sectoral minima and some of them have a national minimum as well. In these countries

basic wage and salary scales have been established for employees in different sectors. The lowest rate in each basic scale is the minimum wage that may legally be paid in each sector, but the scales establish higher minima for workers in higher grades. In Bulgaria, Czechoslovakia, Poland and the U.S.S.R. scales are fixed for each industry or economic sector; in Hungary industry is divided into three groups, each with a different scale, and other scales are set for other sectors. In Bulgaria, Hungary, Poland and the U.S.S.R. there is also a national minimum wage for all workers and employees bound by a contract of employment, which sets a lower limit to the minima that may be prescribed in sectoral scales. In Yugoslavia, also, there is a national minimum wage.

Among developing countries, most of the French-speaking African countries have systems belonging or approximating to the national-uniform type, though most of them, like France, have separate minima for agricultural and non-agricultural employees, and some of them have supplemented the national minima for unskilled occupations by imposing higher minima for skilled and semi-skilled occupations. Most of the English-speaking African countries have sectoral systems, but some, for example Ghana and Tanzania, have mixed systems. Most of the Latin American countries have national systems, or mixed national and sectoral systems, though some of them, for example Bolivia and Guatemala, have legislation that is applied only to some regions or sectors. In Asia, the Republic of China, the Philippines and the Republic of Viet-Nam may be regarded as having national systems; Burma, Ceylon, India and Malaysia have sectoral systems. In Pakistan there is an ingenious compromise: the Minimum Wages Ordinance, 1961, provided for the setting up of two minimum wage boards, one for each province. If so instructed by the provincial government, the board shall recommend minimum rates for adult unskilled workers, and, when appropriate, for juvenile unskilled workers, for general application uniformly throughout the province or with local differences. But the boards may also be instructed to recommend minimum rates of wages for unskilled and other grades of labour in specific industries. Thus the ordinance empowers the provincial governments to adopt either a national (provincial) or a sectoral approach or both.

What can be said regarding the relative advantages and disadvantages of the different systems?

Among advantages claimed for systems belonging or approximating to the national-uniform type, the following may be noted.

First, because of the more extensive coverage of these systems it may be claimed that there is less danger of people who do not get or keep jobs in covered sectors being forced to take up less preferred and less
productive employment in uncovered sectors. But it has to be remembered that national-uniform systems are not always very extensive. In practice, difficulties of enforcement are such that governments often either do not try, or do not manage, to regulate minimum wages in agriculture, domestic service or in very small firms in other sectors. And, even if more or less comprehensive coverage of wage-earning employment is achieved, there remains the danger that some people may be forced out of wage-earning employment altogether into subsistence agriculture or precarious self-employment in services.

Secondly, it is claimed that a national system of minimum wage fixing facilitates co-ordination both with general development policies and within the system itself. Of course even under a sectoral system it is perfectly possible, and indeed usual, to provide for co-ordination. It is usual to provide that minimum wage boards or other sectoral bodies shall make recommendations to the Minister of Labour or other appropriate minister, the government itself taking the responsibility for the actual fixing of minimum wages. But a minister may hesitate to substitute his judgment for that of a body which has special knowledge of the industry in question, which includes representatives of employers and workers in that industry and which has often made its recommendations on the basis of a special investigation of the conditions prevailing in the industry. Moreover, in some countries the minister lacks the authority to fix minimum wages at rates other than those recommended to him. This is the case, for example, in the United Kingdom—

An outstanding feature of the British system of statutory wage regulation has always been the restriction of the Minister's power over wages to a limited right of veto. A Wages Council decides, by voting if necessary, what legal minimum wages to propose; the Minister has no power to alter these proposals. He can either ratify them or refer them back to the Council with his

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1 In a memorandum prepared for a seminar held in New Delhi in 1965 a vivid account is given of difficulties encountered in India in the enforcement of various provisions of the Minimum Wages Act of 1948 and of rules framed under the Act in so far as employment in agriculture is concerned. Difficulties enumerated include—(i) inadequacy of inspecting staff; (ii) illiteracy, poverty and ignorance of workers about the provisions of the Act/Rules; (iii) small, casual and scattered nature of farms; (iv) non-maintenance of registers and records and non-display of notices having extracts from the Act/Rules by illiterate employers and small cultivators; (v) absence of workers' organisation; (vi) lack of proper means of communication and transport facilities, especially during the rainy season; (vii) vagaries of nature preventing the proper enforcement of working hours; (viii) hesitation by workers in making claims due to fear of losing their jobs; (ix) payment of wages in kind and variations in local weights and measures making it difficult to evaluate amounts received; (x) temporary and casual nature of much agricultural employment. (Government of India, Ministry of Labour and Employment: Agenda with Memoranda—Papers, All-India Seminar on Agricultural Labour, New Delhi, 2-4 August 1965 (New Delhi, Government of India Press, 1967), pp. 215-242). Many of these difficulties are not confined to agriculture but are encountered also in trying to enforce minimum wages in small service and industrial establishments and in domestic service.
comments for their reconsideration. In practice the Minister very seldom refers back any Council's proposals. . . . On almost all occasions the Minister finds that the same proposals come forward after his "reference back" and, as a rule, he then accepts them.¹

A much discussed example of this procedure occurred in April 1967. The Wages Council for the retail drapery trade had recommended certain wage increases. The Government referred these proposals to the National Board for Prices and Incomes for examination in the light of the criteria for wage increases formulated under the Government's incomes policy. The Board took the view that the proposed increases should be reduced and confined to the lowest paid workers in the industry. The Minister of Labour referred the proposals back to the Wages Council, which did not, however, modify them, and the Minister then made an order giving effect to the full increases.

On the whole it seems likely that, even if machinery for co-ordination exists, provision for fixing separately a substantial number of different minima will make it more difficult for the government to use its influence to ensure that the level and structure of wages are in conformity with other economic and social objectives that it may have set before itself, such as avoiding dangers of inflation or balance-of-payments difficulties, maintaining a desired investment ratio, promoting appropriate geographical and occupational labour mobility or promoting equal pay for equal work. In Ceylon the wage structure is reported to have "developed haphazardly because wage regulation has not been based on any consistent principles".² An I.L.O. report to the Government of Uruguay contains a discussion on complications considered to have arisen there from lack of co-ordination of the work of numerous wages councils.³

Thirdly, it is claimed that a national system is likely to make for equity and the avoidance of anomalous wage differentials. This argument was discussed in the previous chapter in connection with the question whether "capacity to pay" should be evaluated at the national or at the industry level. To the extent that minimum wage fixing is regarded as an instrument for raising the wages of the lowest-paid workers towards the general level, a national approach may be more equitable, provided its coverage is sufficiently extensive. For it is quite possible that there may be some very low-paid workers in industries in which the general level of

wages is well up to or above the average and which, therefore, do not qualify for coverage under a sectoral system.

Finally, it is argued that a national system makes for simplicity and ease of administration. If there is a single national minimum wage that is not often changed it should be perfectly possible for every employer and every worker in the country, even if illiterate, to know what it is. And enforcement is made very much easier if there is no problem of ascertaining to which of a number of minima a worker is entitled. Ease and effectiveness of administration are not greatly impaired if there are just two minima, one for agricultural and the other for non-agricultural employees, or if there are different rates for each of a few regions. But if there are many different sectoral as well as regional minima, and if in addition there are different occupational minima and, as in some countries, different minima also for firms of different sizes, a system can become so complicated as to make it impossible to ensure, particularly in a country with much illiteracy, that employers know their obligations and workers know their rights. The task of enforcement is further complicated by the need to ascertain which of a number of minima is payable to an employee before ascertaining whether it is in fact being paid.

Under a sectoral system administrative difficulties may be encountered not only in enforcing the payment of minimum wages once they have been fixed but also in fixing minimum wages for all workers intended to be covered. In some countries in which legislation (in some cases adopted many years ago) embodies an intention and an obligation

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1 Under the system prevailing in Mexico until 1962, minimum rates in all except a few states were fixed by individual townships (municipios), of which there are 2,300. This resulted in the establishment of hundreds of different minimum wage levels. In some townships individual minima were set for specific categories of workers, varying, for example, according to the size of the establishment, the branch of the industry and the level of skill of the workers. The system was simplified considerably as a result of a constitutional amendment and a subsequent revision of the Labour Act which became effective at the end of 1962, but it is still a complicated system. Minimum wages are now established for geographical economic zones, of which there are 111. The revised Act provides for the establishment of occupational minimum wages in addition to general minima for urban and rural workers. Occupational minima may be established for occupations, trades or special jobs in a particular branch of industry or commerce. The Act specifically mentions four types of work or occupations for which occupational minima should be established, namely (a) work of apprentices, (b) home work, (c) work of domestic servants, and (d) work in hotels and other catering establishments.

It is reported that in Paraguay in some occupations there are fewer workers than there are separate minimum wage rates (of which, for example, there are seven for mechanics and five for stokers on steamboats navigating the Paraguay River, which are rapidly being replaced by motorboats). It is reported that the great majority of workers in Paraguay, and even some trade union leaders, do not know the exact amount of the minimum wage to which they are entitled, that many employers, especially in small firms, do not know the rates which they are required to pay and that labour inspectors tend to know only the most common rates.
to provide general coverage, minimum wages have in fact not yet been fixed for all workers because the personnel and financial resources available to the wage fixing authorities have been too limited to enable them to fix the whole network of minimum wages called for by an attempt to provide general coverage by means of a sectoral approach.

In favour of a sectoral system it may be argued, first, that a country not yet ready to administer a national system may make a start and acquire experience by fixing minimum wages in some appropriate sector or sectors. Reasons for not being ready to administer a national system may include lack of administrative experience or machinery or lack of employers' or workers' representatives capable of participating effectively in such a system. It may be easier to investigate conditions and to fix minimum wages considered appropriate to these conditions in a single sector or industry than at the national level.¹

Secondly, it may be argued that, since in many developing countries there are workers at very different levels of development, a national minimum wage high enough to afford any protection in the industries and occupations in which the more sophisticated workers are employed may be too high for the less sophisticated and may greatly limit their chances of getting jobs.

Thirdly, if it is hoped that the participation of employers' and workers' representatives in minimum wage fixing procedures will help employers' associations and trade unions to become stronger, will give them experience valuable for collective bargaining and will in time lead to the development of collective bargaining, these aims seem more likely to be achieved by a sectoral approach than by a national approach to minimum wage fixing.²

These arguments may help to account for the prevalence of mixed national-sectoral systems. The balance of advantage will depend upon the circumstances of different countries. On the whole the arguments for sectoral systems seem stronger in countries at rather early stages of industrial development and it seems desirable that minimum wage systems should evolve in the direction of becoming more unified, though

¹ It may be noted that in Pakistan where, as explained above, the provincial governments may adopt either a quasi-national (i.e. provincial) approach or a sectoral approach, they have preferred to adopt a sectoral approach. By 1964 the East Pakistan Minimum Wage Board had issued awards covering jute textiles, jute pressing and baling, cotton textiles and the match industry. The West Pakistan Board had established minimum wages for workers in the steel re-rolling industry and the cotton and wool textile industries, mineworkers, road transport workers and ice industry workers.

² But experience does not seem to encourage the belief that the development of collective bargaining is a likely result of minimum wage fixing even under a sectoral approach. This subject is further discussed in the next chapter.
some other differentials besides regional ones may be necessary or appropriate at least for a long time to come.

In conclusion, it may be noted that, while in some circumstances the contrast between the two systems is quite sharp, in others a sectoral system may give results not very different from those of a national system. In the United Kingdom there has been a tendency for the rates recommended by different wages councils to converge, so that, despite the fact that there are some 60 such councils, minimum wages fixed in accordance with their recommendations have tended to be close enough together to constitute if not a single national minimum wage rate at least a fairly narrow national minimum wage zone.\(^1\)

**MINIMUM WAGES AND THE WAGE STRUCTURE**

Under this heading we shall discuss briefly the advantages and disadvantages of fixing minimum wages not only for unskilled workers but also for workers of higher grades of skill. This can be done by fixing, for all work classified as semi-skilled or skilled, standard minimum rates higher than the minimum rate or rates for unskilled work. Or it can be done by fixing separate minimum rates for a more or less large number of semi-skilled and skilled occupations.

Practice varies considerably. The United States and France may again be cited as examples of countries in which minima are fixed only for unskilled work. In Tunisia basic rates for semi-skilled and skilled workers are fixed at levels up to 80 per cent. higher than those fixed for unskilled workers. In Uruguay different minimum rates are fixed for vast numbers of occupations ranging from those of sweeper and night-watchman to those of air pilot and managing director. In Costa Rica the National Wage Board is required to fix a minimum wage in every branch of white-collar, industrial, agricultural and commercial activity in the various zones of the country. In principle it is possible to carry out such an instruction by fixing the same minimum wage for all occupations and the Board's policy has, in fact, been to fix only basic wages, leaving wages above the minimum to be freely negotiated. In the U.S.S.R. and the Socialist countries of Eastern Europe, as noted earlier in this chapter, basic wage scales are fixed for different economic sectors, and include different minimum rates for workers of different grades.

It is a matter of common observation in all countries that the wage structure does include skill differentials and other differentials that tend

to compensate workers to some extent for differences in the arduousness of, or the working conditions in, different jobs. Such occupational differentials are expedient in that they provide workers with incentives and rewards for acquiring skills or accepting arduous jobs or adverse working conditions. They serve the further purpose of discouraging employers from making careless or wasteful use of highly paid labour. To the extent that they compensate workers for genuine efforts or sacrifices, such differentials also embody a certain rough justice. But this is not, of course, to claim that all the wage and salary differentials that are observed in practice are to be regarded as equitable. Salary earners, besides earning more, usually have more agreeable work as well as better working conditions than wage earners, and considerations of equity might suggest that they should receive less rather than more pay. If they are scarce a good deal of weight may have to be attached to the reasons of expediency for giving them high pay—notably to promote efficient use of their services and to give others an incentive to acquire similar skills. But if they are not scarce these reasons of expediency do not apply.

Skill differentials exist, then, whether or not minimum wage rates fixed by law are graded according to skill. At least this is true in all countries in which employing establishments are free to offer higher wages to more highly skilled labour and to conclude collective or individual agreements with workers regarding the level of wages to be paid. The question whether it is useful to fix a hierarchy of minimum wages graded according to skill thus turns on the question whether it is expected that a more satisfactory wage structure can be achieved in this way than by leaving skill differentials to market forces and collective bargaining. The most widely accepted argument for minimum wage fixing, namely that it may serve to raise the levels of living of the lowest-paid wage earners, has little relevance in this context.

It is not easy to define a satisfactory wage structure, but the considerations of equity and expediency already mentioned seem to constitute the main criteria for evaluating a wage structure.

Particularly in developing countries, few observers would award very high marks to the labour market, supplemented by such collective bargaining as has developed, as an instrument for bringing about a satisfactory wage structure. From the point of view of promoting economic development by giving people incentives to acquire needed skills, to accept jobs in sectors and regions where labour is in short supply and to perform well in the jobs they have, there is widespread evidence that the wage structure in developing countries tends to overvalue mere literacy and certain types of administrative work traditionally
carrying considerable prestige, and to undervalue technical skills and knowledge.

For example, at the time when an I.L.O. wage mission visited the former Belgian Congo in 1960, the Government, with a view to rationalising the wage and salary structure in the public sector, was in the process of trying to apply to its own employees a job evaluation system that had already been successfully applied by several important private employers. One-hundred-and-fifty manual occupations and 40 so-called intellectual ones were analysed and evaluated on a point rating system. The method applied was exactly the same for the two kinds of occupations but it would have been impossible to give equal pay in non-manual occupations carrying the same number of points as manual ones because the non-manual ones were in fact considerably better paid. Two different scales had to be adopted, but the objective was accepted of progressively bringing the rates for the manual occupations into line with the others.

Another example may be quoted from another I.L.O. technical co-operation report. In the civil service in Ghana at the time of preparation of the report there was an undervaluation of the labour of technical as against clerical and administrative personnel.

In general, the pay structure in Ghana provides a desirable degree of pay progression, offering the incentive of rising career prospects to the able and industrious. The notable exception relates to technical and professional personnel in the Civil Service, whose prospects are inferior to those in clerical and administrative jobs.

These are examples of an unsuitable wage-salary structure in the public sector, which might perhaps be thought to be due to a failure by governments, in determining the wages of their own employees, to attach enough importance to economic considerations and market forces. It seems likely that private enterprise, because of its dependence on profits, is on the whole more responsive than governments to these considerations and forces, but there seems to be a good deal of evidence that in many developing countries the wage structure even in the private sector tends to be heavily influenced by traditional considerations that may have lost their relevance, and to respond only slowly to emerging needs and changing conditions of supply. And when there are changes in the course of time in the relative magnitude of different types of skill differential, it seems that these changes are sometimes in a perverse

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direction. With literacy becoming more common and an increased need arising for technical skills as more advanced technology spreads to the developing countries, one might expect that as compared with unskilled manual labour the differential for clerical skills would become narrower and that for advanced manual skills wider. Yet H. A. Turner believes that—

For Africa south of the Sahara . . . such general evidence as can be collected suggests that in recent years the average skilled manual differential has been narrowing while the clerical differential has been widening.¹

Emphasising the grip of tradition, S. A. Palekar has suggested that—

It is the man who is paid, not the job. A man sitting behind a desk is paid more than a man working behind a machine, not because the latter's contribution to national output is less than that of the former nor because the desk-workers in India are in short supply, none of which is true, but mainly because the man doing paper work belongs to a social group which has traditionally enjoyed a higher standard of life than the group to which the manual worker belongs.*

K. Taira has commented—

Searching for explanations of these tendencies which sound rather irrational from a purely economic point of view, one is led to place them in the broader context of considerations that are political and social as well as economic.*

One may be very much aware of the deficiencies of market forces or collective bargaining as instruments for ensuring a satisfactory wage structure without feeling at all confident that detailed government intervention, taking the form of fixing a whole hierarchy of graded minima, would improve matters. The arguments in favour of simplicity and against complexity of the minimum wage system referred to in the first part of this chapter are very relevant in this context too. To attempt administrative regulation of the detailed structure and composition of wages for all grades of labour would require a large staff and elaborate machinery for control and enforcement. Moreover, a question arises as to whether minimum wage fixers will have sufficiently detailed knowledge of the conditions of an industry to be able to decide on appropriate wage differentials in as responsible a way as representatives of employers and workers in the industry engaged in collective bargaining would do. It is true that minimum wages are often fixed on the recommendation of

tripartite bodies including representatives of employers and workers in
the industry concerned. But it is not at all unusual to find that the views
of employers' and workers' representatives who know the industry
cancel out, leaving decisions effectively in the hands of independent
members who do not know it.

A compromise between leaving the wage structure to be settled
entirely by market forces or collective bargaining on the one hand and
intervening to fix a whole hierarchy of minimum wages on the other
would be for the authorities to select a very few semi-skilled and skilled
occupations and either to fix or to recommend for these occupations
separate minimum rates or minimum percentage differentials over mini­
mum rates for unskilled occupations. This compromise has been sug­
gested in certain I.L.O. technical co-operation reports, notably in the
report on the former Belgian Congo cited above. A passage from that
report seems worth quoting at some length.

The mission observed that... established traditions have a great influence
over the structure of wages and are difficult to eradicate. . . . It seems that these
anomalies will disappear only with great difficulty unless the authorities
intervene directly or indirectly.

The mission does not consider, however, that it will be necessary to install a
system of detailed regulation or control over the structure of wages. In the
conditions prevailing in the Congo the mission considers that limited direct
intervention or perhaps even indirect intervention by the authorities respon­
sible for wage policy should suffice. This result might, for example, be attained
by the fixing of a typical wage \((salaire-type)\) higher than the statutory
minimum and applicable to certain well chosen skilled occupations. These
should be easily identifiable and common to most sectors of activity. One
might, for example, choose the occupation of chauffeur-mechanic for manual
work and that of stenographer for office work. The rates for these typical
occupations could be expressed in the form of percentages to be applied above
the statutory minimum. They could be presented as a statutory supplement for
the workers in question, or more simply as wages recommended by the
authorities. These rates could serve as points of reference in the negotiation of
wage agreements or collective bargaining. They could be utilised by employers
in the elaboration of their wage scales in the absence of more general
agreements. . . . Since the typical wages would be fixed by the same authorities
who fix the statutory minimum wage, this system would have the additional
advantage of obliging these authorities to take into account the repercussions
on the whole wage structure of their decisions concerning statutory minimum
wages.\(^1\)

Making a similar suggestion in a more recent publication, and
recalling that "margins" for the selected occupations might merely be
centrally recommended rather than legally enforced, H. A. Turner has
observed that—

\(^1\) I.L.O.: "Rapport sur les salaires dans la République du Congo", op. cit.,
pp. 85-86.
There are many economies where—in the absence of other criteria for detailed wage-fixing—a recommendation of this kind, coming from a body of sufficiently authoritative appearance and applied in practice to public employees, could expect to have a very considerable influence on private employers and unions . . . there are, of course, countries in which no broad legal minimum wage exists on which "margins" of this kind could be legally superimposed . . . the prescribed differentials for typical skills might take the form of "brackets", rather than "margins"—i.e. of upper and lower limits within which the authority concerned with wage-fixing would indicate that rates for these skills should be fixed. This variant might be used, for instance, where it was thought that both the existing diversity of wage-rates for comparable occupations in different sectors of the economy, and the likely effect of any centrally-promulgated standard rate, would be such that the latter would result in too drastic a re-alignment of wage-differentials to be tolerable. Or it might be used where it was desired to indicate that a certain room existed, and should be used, for collective negotiation to adjust wage-rates in individual plants and industries. Or, again, it might be used to make some allowances for differences in the relative scarcity of skilled labour in different regions or industries. . . .

The authors of the present report are not aware of any country in which this approach to the problem of promoting a satisfactory wage structure has been tried, though it has some affinity with the Australian system. If margins for skill, fixed or recommended, were very different from the margins actually prevailing, serious tensions would be liable to be set up. On the other hand, if they differed little from prevailing margins it might be argued that they would make little contribution to the achievement of a more rational and satisfactory wage structure in countries in which the existing wage structure was highly anomalous. There is clearly some truth in this contention, but it is not necessary and perhaps not even possible to try to convert an anomalous wage structure into a satisfactory one all at once. It is quite conceivable, for example, that a government might wish to try to correct what it considered an anomalous wage structure over a period of, say, from three to five years, mainly by encouraging successive increases in the wages paid for under-valued skills while encouraging the wages paid for over-valued skills to remain stable or nearly so. Annual announcements regarding fixed or recommended minimum rates or ranges for a very few key manual and non-manual semi-skilled or skilled occupations might be a useful adjunct to a system of minimum wages for unskilled work, enabling minimum wage fixing to exert a planned influence over the structure as well as the level of wages without unduly complicating the system or rendering it unduly difficult to administer.

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CHAPTER V

SOME INSTITUTIONAL ASPECTS OF MINIMUM WAGE FIXING

In this chapter it is proposed to discuss, first, types of minimum wage fixing machinery; secondly, the role of employers' and workers' representatives and independent persons or government officials in minimum wage fixing; and thirdly, the relationship between minimum wage fixing authorities and those responsible for over-all economic and social policy.

TYPES OF MINIMUM WAGE FIXING MACHINERY

In some countries, though not many, minimum wages are fixed by statute. A well-known example is the United States Fair Labor Standards Act, the provisions of which have already been summarised.\(^1\)

Secondly, minimum wages may be determined by order, regulation or decree of the government, the executive and its services being responsible not merely for the ultimate decision on wage fixing proposals but for the preparation of the proposals themselves. This method is characteristic of, but is not confined to, the U.S.S.R. and the Socialist countries of Eastern Europe.

Thirdly, in a large number of countries minimum wages are fixed by the government after taking into consideration recommendations made by a central wages board (e.g. France and most of the French-speaking African countries), local or regional wages boards (e.g. Pakistan), or trade boards or wages councils set up for particular trades or industries (e.g. Burma and the United Kingdom). Sometimes, regional or sectoral boards report to or through a central wages board or council which has some responsibility for co-ordinating their activities, like the Minimum Wages Council in Pakistan. Sometimes, for example in the United Kingdom, as mentioned earlier, the Government has power only to accept or reject or refer back a recommendation by a wages board or a wages council; in other cases it has power to fix minimum wages at rates other than those recommended.

\(^1\) Pages 77-78.
If government approval of recommendations made to it regarding minimum wages is more or less a formality, as it sometimes is, this type of machinery shades off into a fourth type in which national, regional or sectoral wages boards or councils are empowered to fix minimum wages themselves without needing the approval of the government. For example, the Argentine National Minimum Wages Board is required to set the minimum wage every year, with plus or minus differentials for each area and minus differentials for apprentices, young workers and workers whose capacity to work is appreciably diminished.

This type of machinery in turn shades off into a fifth type, in which, as in Australia, wage rates are fixed by means of quasi-judicial or arbitration procedures in an industrial or labour court or tribunal.

It will be noted that the last two types of machinery differ from the other types in that the government does not take responsibility for the minimum wage fixing decisions. This may be thought to have the advantage of taking wages out of politics, and some governments may welcome this. Elsewhere it might be regarded as an abdication of political responsibility for an issue vital to the lives of citizens.

Finally (as in Australia, Austria, Belgium, France, Portugal and many French-speaking African countries) minimum wage rates awarded by arbitration procedures or agreed to through collective bargaining may be extended to cover, and be given the force of law in respect of, other employers and workers besides those to whom the award initially applied or on whose behalf a collective agreement was signed.

**The Role of Employers and Workers and Independent Persons in the Operation of Minimum Wage Fixing Machinery**

Effect can be given in various ways under each of these different types of machinery to the provisions of the international labour Conventions and Recommendations on minimum wage fixing relating to the consultation and participation of employers, workers and other persons in connection with, and in the processes of, minimum wage fixing.¹

¹ Article 3, paragraph 2 (1), of Convention No. 26 provides, as one of the general principles to be observed in the operation of the minimum wage fixing machinery, that before the machinery is applied in any trade, representatives of the employers and workers concerned, including representatives of their respective organisations, shall be consulted, as well as any other persons specially qualified for the purpose by their trade or functions whom the competent authority deems it expedient to consult. These provisions are elaborated in Recommendation No. 30. Similar provisions are to be found in Convention No. 99 (Article 3, paragraph 2) and Recommendation No. 89 (Paragraph 3).
In countries in which minimum rates have been established by legislation, interested parties may be enabled to put forward their views at hearings prior to the enactment or amendment of legislation, as in the United States\(^1\), or to submit their views to the competent ministry and/or to Parliament. In countries in which minimum wage rates are fixed directly by government decision, consultations can be held with employers and workers. In the U.S.S.R. and in the Socialist countries of Eastern Europe central trade union organisations are not only consulted on wage regulating measures but also participate in their preparation.\(^2\)

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\(^{2}\) Usually, in practice, decisions are taken by the ministry concerned in agreement with the trade unions and are approved by the State Labour and Wages Committee and by the Council of Ministers. In Poland, for example, the revision of wage scales prepared by a particular economic ministry and the corresponding trade union are finalised by the State Labour and Wages Committee, in agreement with the Central Council of Trade Unions. In Czechoslovakia the wage policy is directed and implemented by the State Finances, Prices and Wages Commission in full co-operation with the trade unions. The draft wage adjustments prepared by the ministry concerned and the trade unions require the approval of the State Finances, Prices and Wages Commission. The approved version of the adjustment is issued by the ministry concerned in the form of an ordinance which is binding.

Recently, changes in planning methods and in wage and incentive systems have been observed in almost all Socialist countries. As decentralisation of economic decisions has been gradually brought into practice, the role of trade unions and collective agreements in wage fixing machinery has been increasing. In some countries trade unions have come to play, recently, a major part in fixing and revising minimum wages. In Poland, for instance, in accordance with a decision of the Trade Unions' Congress, the Central Council of Trade Unions played a major part in securing an increase in the level of national minimum wages from 700 to 750 zloty in 1963 and from 750 to 850 zloty in 1966 (Glos Pracy, 30 May 1967, p. 3).
In countries with some form of wage board machinery, arrangements for consultation of employers and workers and their organisations before minimum wages are fixed in a particular trade or industry exist in almost all cases, and frequently independent persons may likewise be consulted. The interested parties may be consulted directly or given an opportunity to submit evidence and proposals to the wage fixing body; the latter may be empowered to summon witnesses, call for information, or co-opt qualified advisers; a public hearing may be obligatory; draft proposals may have to be published and time allowed for representations; or the interested parties may have a right of appeal against the wage fixing decision.

In addition, in countries with this type of machinery, the representation of employers and workers on the wage fixing bodies appears to be general. The respective representatives seem invariably to be equal in number, and in most cases the representatives are appointed directly by the employers or workers (or their organisations), or from lists submitted by them, or following consultations with them. All the bodies appear to have at least one independent member.

Three types of bodies stand out: joint committees with only one independent member (normally an official) who acts as chairman; boards composed of a stated number of public officials or representatives of various ministries or other public bodies and (frequently numerically inferior) representatives of employers and workers; and tripartite boards comprising representatives of the public (i.e. persons independent of official agencies) and of employers and workers.¹

In countries where minimum wages are fixed by courts or tribunals which do not include representatives of employers or workers among their members, interested parties are given opportunities to submit evidence and proposals to the court.

Of more general interest, perhaps, than the question of the form of consultation and participation of interested parties is the question of the substantive role that representatives of employers and workers, and independent persons or government officials, can play in minimum wage fixing.

The reasons for associating representatives of employers and workers with the process of minimum wage fixing are well known and powerful. First, they are the people most closely and directly affected by minimum wage fixing decisions. It is essential that their views should be known to, and fully taken into account by, those who fix minimum wages. Secondly, they are the people who have the closest first-hand knowledge of the needs of workers and the conditions and problems of the industry in

¹ Glos Pracy, 30 May 1967, p. 12.
which they work. It is important in the general interest that this knowledge should be made use of in the wage fixing process, particularly if what is involved is not merely a national minimum wage but a series of sectoral minima and/or a hierarchy of occupational minima. Serious mistakes may otherwise be made, resulting from lack of knowledge of relevant considerations. Thirdly, while any minimum wage is liable to be considered too low by workers and too high by employers, this is particularly likely to be the case if they, or their representatives, have not participated in the process of fixing the wage. A minimum wage is more likely to be acceptable if it has been arrived at through a democratic process of discussion in which each side knows that its views have been made known and taken into account, and each side has heard the views of the other. This may have important effects on the motivation of both sides, their performance and job satisfaction.

Finally, participation in the operation of minimum wage fixing machinery can be a valuable educative experience for employers' and workers' representatives, and also for those whom they represent, in so far as the representatives are able to communicate to the represented the reasons that have motivated a decision. To be brought into contact with the viewpoints of the other side, and of independent members or government representatives participating in minimum wage fixing, can help to broaden the knowledge and understanding of representatives of both sides. One reason for setting up tripartite minimum wage fixing machinery in some countries has been the hope that this would lead to the development of collective bargaining—in the sense of bilateral negotiations between the parties concerned—in countries or sectors where this has not yet happened. Thus far such a development does not seem often to have taken place, and some observers consider this an unlikely consequence of minimum wage fixing. But this does not mean

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1 H. A. Turner, for example, after reviewing briefly the experience of compulsory arbitration which has developed into the regular form of minimum wage fixing in Australasia, the French national minimum wage procedure, and the United Kingdom trade boards/wages councils system which, first conceived as a temporary protective device for workers in a few "sweated" occupations, has in fact extended until it covers nearly a third of all manual workers, has suggested that—"One might almost formulate a general rule that where a method of wage-fixing which provides some public sanction to wage-decisions becomes at all decisive in wage-movements—and where it does not exclude some influence by organised workers and employers on its results—then it will tend, not to encourage the development of collective bargaining, but to discourage it" (Wage Trends, Wage Policies and Collective Bargaining: The Problems of Underdeveloped Countries, op. cit., p. 32). F. J. Bayliss writes that: "The present system [in the United Kingdom] encourages employers and trade unions to hang on to the Councils although they have become strong enough to make agreements for themselves" (British Wages Councils (Oxford, Basil Blackwell, 1962), p. 154). The preference of trade unions in Indonesia in the later 1950s for having wages and other conditions of employment fixed by arbitration awards possessing binding force rather
that the latter does not have valuable educative effects. And even if it does not lead to the development of collective bargaining it may tend to promote organisation among both employers and workers. In Uruguay for example it has been claimed that one of the most important benefits of the minimum wage system has been its contribution to the development of the trade union movement.¹ In Mauritius there was a substantial increase in union membership after the fixing of minimum wages in the sugar industry.

The selection of worker and employer representatives for participation in minimum wage fixing processes sometimes presents certain problems which are discussed in Appendix 4.

What of the role of independent persons or government officials in minimum wage fixing?

International labour Recommendation No. 30 provides that independent members "should be selected from among men or women recognised as possessing the necessary qualifications for their duties and as being dissociated from any interest in the trade or part of trade concerned which might be calculated to put their impartiality in question".² But there appear to be at least two quite distinct conceptions of the duties for which these members should have the necessary qualifications. The first is that their role is to serve primarily as mediators, helping the two sides to reach agreement.³ This has been the British tradition and that of a number of other countries whose minimum wage system has been modelled on the British system. It is a role that fits in with the view that statutory wage fixing is a prelude to collective bargaining and that, with the assistance of the independent members, proceedings should resemble collective bargaining as closely as possible.⁴

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² Part II, Paragraph (2) (c).

³ It is sometimes suggested or implied that the sole or main raison d'être of independent members is to ensure that decisions can be reached when representative members are equally divided.

⁴ It is worth noting, however, that, while the proceedings of a minimum wage board in which independent members confine themselves to a mediatory or conciliatory
There are at least two ways in which independent members may seek to fulfil a mediatory role, which may be illustrated by comparing the typical procedure in Uruguayan and British wages councils respectively.

The typical procedure in Uruguay is that the workers' representatives table their demands as soon as the council is installed. These demands almost invariably are much in excess of what the most optimistic negotiator could hope to get accepted and are merely intended as a first basis for bargaining. The employers may begin by offering nothing at all or an increase proportionate to the rise in the cost of living since the date of the previous award. Sooner or later the public members will put forward a proposal of their own which in the end may be accepted by both parties, but which in many cases is accepted by only one of them, so that the council has to take a majority decision. The dissenting group will often appeal against the decision.

This procedure differs from that followed in the United Kingdom in two major respects: the initiative taken by the independent members and the possibility of appeal. Under the British system the minister may refuse to sign a minimum wages order on some special grounds, but this happens very rarely and there is in any case no appeal. In countries where an appeal is allowed it would seem that this may seriously reduce the effectiveness of the work of wages boards or councils. Representative members may refuse to agree to a proposal put forward because they may hope to obtain a more favourable outcome on appeal.

The other major difference is that in the United Kingdom it is not customary for independent members formally to put forward proposals of their own. Instead they usually vote in the end for a proposal put forward by one of the two sides (which is then often also supported by

role have some affinity with collective bargaining, they also differ from it in important ways. There is no need to convince, or to reach agreement with, the other side—it is the independent members who have to be convinced. This may tend to make for a wider difference of views and less flexibility in tactics than real collective bargaining, where the negotiators have to reach agreement or accept a breakdown of negotiations. Another important difference is that decisions or recommendations of a minimum wages board do not have the morally binding character of an agreement. Parties to collective bargaining are responsible for the decisions taken and for their implementation. The negotiators have to defend the agreement before the groups on whose behalf they sign. When, however, a decision can be represented as having been imposed by a third party (even though the result is more favourable to one side or the other than a negotiated agreement would have been) the negotiators can disclaim responsibility.

Some of these problems are discussed in an Australian context by Kenneth F. Walker: "Arbitration in a New Key", in The Economic Record, Vol. XXXIII, No. 64, Apr. 1957, pp. 60-71.

1 On the role of independent members of British wages councils, see F. J. Bayliss: British Wages Councils, op. cit., Ch. 7, and C. W. Guillebaud: The Wages Council System in Great Britain (Digswell Place, Welwyn, Herts, James Nisbet and Co. Ltd., 1958).
the other side). Once the two sides have stated their initial positions, one or more of the independent members will meet them informally for discussions and indicate whether they could vote for a particular proposal which the side with which they are discussing may wish to make. The independent members will not say, however, whether they would vote for a proposal of the other side, or make advance statements about the sort of proposal that would be acceptable to them. Especially since there is no appeal it is important for both sides to make such adjustments in their initial proposals as may enable them to secure the support and the votes of the independent members. As long as the independent members make it clear that they could not vote for any specific proposal of one side, each side will fear that they will end up by voting for a proposal of the other side which will be less favourable. Skilful independent members may thus succeed in bringing the positions of the two sides very close together—in fact a high proportion of the decisions of the British wages councils has been unanimous. The position of the independent members as "conciliators with a casting vote" is more powerful than that of conciliators without a vote. Under the Uruguayan system and in other countries in which a similar procedure is followed there seems to be less incentive for the workers' and employers' representatives to adjust their positions to a point at which unanimous agreement can be reached.

The second conception of the role of independent members is that they are representatives of the public interest and should bring to bear in the wage fixing process considerations relating to the well-being of the community as a whole. According to this conception their role could be described as a judicial rather than a mediatory one—they have to judge, in the light of all the relevant considerations, what constitutes an appropriate minimum wage in any particular circumstances. As a matter of tactics they may again either put forward proposals of their own or reserve their position in the expectation that one side or the other will eventually put forward proposals that they can support. However, the purpose of their tactics will no longer be to secure agreement on any terms acceptable to the two sides but, if possible, to secure agreement on terms considered by them (the independent members) to be most conducive to the public interest.

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1 GUILLEBAUD (op. cit., p. 15) says that if neither side will propose terms which the independent members are willing to support, the latter "may then put forward an alternative figure of their own and persuade one side or the other to sponsor it—i.e. to move it as that side's own motion at the full meeting of the Council".

2 In practice the distinction between the mediatory and the judicial conceptions of the role of independent members is not always very sharp, and they may try to combine the two approaches to the best of their ability.
Under the first conception of their role, what is required of independent members is mainly to be skilful conciliators or mediators. This kind of skill is also highly desirable even if their duties are considered to be primarily of a judicial rather than of a conciliatory character (since many of the advantages of tripartite participation in minimum wage fixing will be lost if either side is left with the feeling that decisions have been imposed in a roughshod manner); but in this case they will need other qualifications too, particularly the knowledge and experience required to form a judgment of what is in the public interest, or at least to apply in specific situations general guidance or directives, if any, provided by the government. In view of the importance of wages (i) in economic development and (ii) in industrial relations, it seems important that public members of wages boards, or some of them, should have a good understanding (i) of the working of economic forces and of the economic situation and needs of the country and (ii) of the state of industrial relations in the country, of how good industrial relations can promote, and bad industrial relations can impair, not only industrial peace but also economic and social progress, and of the probable impact on industrial relations of particular decisions regarding minimum wages.

This leads us to the third question listed at the beginning of this chapter.

**RELATIONS BETWEEN MINIMUM WAGE FIXING AUTHORITIES AND GENERAL ECONOMIC AND SOCIAL POLICY MAKERS**

A first question under this heading is whether it is desirable that there should be any special relationship of any kind between minimum wage fixing authorities and those responsible for general economic and social policy making. Hitherto in most countries there has been little in the way of formal links between minimum wage fixing and government departments administering general economic and social policy. Indeed the mandate of minimum wage fixing authorities has often been defined in such a way that their job is to fix minimum wages and leave other people to worry about economic and broader social consequences. It is of course not easy for those accustomed to this type of approach to minimum wage fixing (particularly if, as has often been the case, the procedures and techniques employed have emerged only gradually and with difficulty) to adjust to a new conception. Especially if the accepted methods have yielded results considered satisfactory according to the criteria applied and have led to a rise in the real living standards of wage earners, trade unions in particular will be most understandably suspicious of the effects that co-ordination of minimum wage fixing with
broader economic and social policy making might have on minimum wage levels. Is there any sufficiently good reason, in countries that have had this kind of experience of minimum wage fixing, for making special efforts to co-ordinate minimum wage fixing with other government preoccupations?

This subject was touched on briefly in Chapter I, where certain dangers associated with failure to co-ordinate action on wage questions with other policy decisions were pointed out. So far as developing countries are concerned, colonial governments, and initially their independent successors, possessed very little planning machinery, and it was consequently natural that those concerned with minimum wage fixing should have been left largely to their own devices. But the situation has been changing rapidly. Many governments are now committed to substantial development programmes and have set up various planning institutions. In many countries it has been felt, or is beginning to be felt, that wage questions have too important a bearing on the success of general economic and social development policy to be left outside the framework of the general policy-making machinery.

If the argument at the end of the previous section is accepted, it seems desirable that three vital areas of policy making should be represented in the process of minimum wage fixing—industrial relations, economic planning, and finance. In some countries it may be felt to be unnecessary or undesirable that departments with responsibilities in these areas should actually be represented on minimum wage fixing bodies—particularly when wages boards do not themselves fix minimum

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1 Page 7 above.
2 H. A. Turner has argued that: "The problem of the choice between 'planning' for social purposes and 'freedom' for the pursuit of group interests is... much sharper for the underdeveloped [than for the developed] countries. In the developed economies it may mean, say, at most the difference between a rate of growth of 2 per cent. in national income per head combined with 4 or 5 per cent. of unemployment, and a growth rate of 4 per cent. combined with 2 per cent. of unemployment—or between the latter situation combined with stable prices and living costs, and the same situation combined with moderate inflation. (It is notable that the degree of inflation that has led to the recent introduction of various forms of guidance or control over wages in advanced countries has rarely exceeded 5 per cent. per year; in several underdeveloped countries, however, this would almost be regarded as an idyllic state of price stability.) But what the choice involves in the underdeveloped countries is often the difference between a rate of growth which may just provide a perceptible and gradual improvement in living standards while slowly absorbing the surplus labour—against one which hardly keeps pace with the upsurge of population, thus exposing the economy to the repeated risk of unemployment crises, hyper-inflation, or even in some cases actual famine; to say nothing of the risk of political upheavals arising from the failure of newly-independent governments to fulfil popular expectations of improvement." (Wage Trends, Wage Policies, and Collective Bargaining: The Problems for Underdeveloped Countries, op. cit., p. 45).
3 Pages 98-99 above.
4 There are some difficulties in civil servants being full voting members of wage
wages but make recommendations to the government, and the government is free to reject them or refer them back for further consideration. Before accepting recommendations the government would have the opportunity to consult its economic advisers and others, and in the case of an unacceptable recommendation could indicate to the board the grounds on which revision of the rates recommended was considered necessary.

In other countries in which it is desired to associate departments of labour, planning and finance with the processes of minimum wage fixing, it is considered preferable, for two reasons, to have representatives of these departments actually participate as public members of the minimum wage fixing bodies. The first reason is that it is not at all easy for a minister of labour or other member of a government to reject or substantially amend recommendations of a wages board—particularly if they are unanimous—even if he has the power to do so. Once a report has been produced the contents of which are of course known to the parties and may have been agreed to by them only with difficulty and after considerable efforts, its rejection by the government is likely to do more harm to industrial relations than would be done by efforts of government spokesmen to influence the contents of the report in the course of its preparation. This is linked to the second reason, which is that it seems preferable that government representatives should take part in the discussion in minimum wage fixing bodies, where they may both influence the views of other participants—providing them with information about national needs and problems that is not available to them—and be influenced by those other participants, rather than that their advice should be sought in respect of decisions already taken by minimum wage fixing bodies on the basis of discussions which they have not heard (though such decisions may be, and it seems desirable that they should be, motivated, i.e. accompanied by a written statement of reasons).

For reasons such as these it is established practice in a number of countries where minimum wages are fixed or recommended by machinery of the wages board type that government officials of the departments most closely concerned sit as public members of tripartite central fixing bodies: different departments may have different views; and it would be somewhat invidious for those directly representing the government to be outvoted. On the other hand, in what were formerly colonial territories of the British Commonwealth it was a common administrative practice to appoint bodies composed partly of officials and partly of non-official members, all with votes.

1 For the rest of this chapter these terms will be used as a convenient shorthand device for describing whatever departments or other government agencies have policymaking responsibilities in the areas of industrial relations, economic planning and finance.
minimum wage fixing bodies. In Argentina, for example, the National Minimum Wages Board set up under the Minimum Wage Act of 1964 consists of four government representatives (two from the Ministry of Labour and Social Security and two from the Ministry of Economic Affairs), four workers’ representatives and four employers’ representatives. The Minister of Labour and Social Security appoints a chairman from among that Ministry’s representatives. In France the national minimum wage (S.M.I.G.) is fixed by the Government after taking account of the advice of the Collective Agreements Board (la Commission supérieure des conventions collectives), composed of 16 workers’ representatives, 16 employers’ representatives, three persons representing family associations and three representatives of the State (the Minister of Labour, who presides, the Minister of the National Economy and the President of the Social Section of the Council of State).

A national minimum wages board or council may well have regional subdivisions, particularly in a large country. Provincial, state or regional counterparts of the central departments referred to above may be represented on such regional bodies.

If it is desired to use minimum wage fixing as an instrument in a broader policy for promoting rapid growth and fair sharing of the national income, it may be desirable to supplement the existing minimum wage fixing machinery with machinery including representation from employers, workers and other sections of the community such as farmers, and with or without representation from departments of labour, planning and finance, to advise on the objectives and instruments of wages and incomes policy. The I.L.O. Committee of Experts on Social Policy in Non-Metropolitan Territories at its Fourth Session (Dakar, 5-16 December 1955) recommended that—

Apart from the normal operations of minimum wage fixing machinery, there is in many non-metropolitan territories a pressing need for a more fundamental examination of territorial wages policies in relation to economic development programmes.

In territories where no such fundamental examination has recently been made, consideration should be given to the desirability of undertaking it. It may be found necessary to entrust this task to a specially appointed body which, in addition to representatives of employers and workers, should contain representatives of the authorities responsible for territorial policy in social and economic fields. Alternatively, representatives of such authorities might be specially added to the central minimum wage fixing body for this particular examination.

The object of such an examination would be to make a realistic assessment of what the levels and structure of wages should be. The examination should have regard to the reasonable needs of workers, the capacity of the territory to bear any advances necessary to achieve a satisfactory position and the needs of

1 Cf. Arnaldo R. CAMPANO, op. cit., p. 244.
further economic development, and bearing always in mind the aim of raising standards of living and securing to workers a fair share of the prosperity of the territory as a whole.¹

Independence does not seem to lessen the need of countries for this kind of machinery, and it seems desirable that there should be periodical and not merely ad hoc reviews, with the help of expert staff, of the growth and distribution of the national income. These reviews would provide an opportunity for a high-level advisory body to indicate its views on the room for, and the distribution of, wage increases in the period ahead. Preferably it might issue its findings and recommendations shortly before budget time, annually or biennially. The reason for this recommended timing is the affinity between incomes policy issues and the budget, and the need to relate one to the other and to produce what might be described as a co-ordinated incomes-social security-economic development policy.

Taking account of the views and recommendations of such a high-level representative advisory body, a government might wish to issue from time to time statements of broad principles (including, perhaps, indications of its views regarding appropriate margins for rates for skilled as well as for basic unskilled occupations), for the guidance of minimum wages boards and perhaps also of arbitrators or industrial courts engaged in the settlement of industrial disputes.² Such advice and recommendations might also be useful to a government in connection with decisions by it regarding the wages and salaries of its own employees, having regard to the importance of the public sector in developing economies and the influence on wage questions of the example set by the government.

To carry out duties such as those indicated above a high-level advisory body would have to be empowered to examine and make recommendations concerning other matters besides wage questions. This is implicit in the notion of integrating wage fixing into broader economic and social policy making. The advisory body would have to review the evolution of incomes other than wages as well as wage incomes, and be empowered to make recommendations, if it saw fit, on matters relating to price control, fiscal policy (in order to ensure that any wage

² It is often said that the role of arbitrators is to find terms on which a dispute can be settled, and that in this role they cannot be briefed or instructed by governments without forfeiting the confidence of one or both of the parties to the dispute. It is for governments to decide whether they wish to use arbitration machinery to promote the settlement of disputes on any terms acceptable to the parties most directly concerned, or whether they wish to use it to bring wider considerations of public interest to bear in the search for a settlement.
restraint that it might consider necessary would be matched by corresponding restraint in the growth of other incomes) and social security policy. Initial acceptance by trade unions of the notion of integrating minimum wage fixing into general economic and social policy making, and of machinery for this purpose, could scarcely be expected without assurances that matters of this kind would receive attention; and their continued acceptance of these developments would, no doubt, depend a great deal upon how much and what kind of attention these matters received.

In view of the close relationship between wage questions and employment questions, there would also be a good deal to be said for having the same body examine and advise the government on questions of employment policy. Such a body might constitute the main channel for the "... participation of employers and workers in the formulation and implementation of economic plans" which was envisaged by the I.L.O. African Advisory Committee in its report on its Second Session (Tanana­rive, 3-13 April 1962).

It also seems necessary to consider the relationship between minimum wage fixing and the procedures for settling disputes, including disputes on wage questions, particularly arbitration procedures. This relationship varies in different countries. In some countries the two functions of fixing minimum wages and of settling disputes relating to minimum wages are combined, as in Australia; and no need is felt for a separate minimum wage fixing authority. In other countries, for example India and Pakistan, minimum wages fixed by arbitration awards exist side by side with others fixed by minimum wages boards or councils. The work of an industrial tribunal needs, in any case, to be closely co-ordinated with that of the minimum wage fixing authority; its chairman, who should be a man of standing and unquestioned integrity, might well be the chairman or vice-chairman of a national wages board or council in countries where both pieces of machinery exist.

In some countries general statements have been issued for the guidance of courts, tribunals or arbitrators in dealing with industrial disputes, including wage disputes. The Trinidad and Tobago Industrial Stabilisation Act, 1965, for example, established an industrial court and provided that—

In accordance with the principle . . . that the operation of the economic system should result in the material resources of the community being so

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distributed as to subserve the common good, the Court in its judgments shall, in addition to taking into account... [views or information presented by or on behalf of employers and workers and "the people of Trinidad and Tobago"]... be guided by the following considerations:

(a) the necessity to maintain a high level of domestic capital accumulation with a view to increasing the rate of economic growth and to providing greater employment opportunities;

(b) the necessity to maintain and expand the level of employment;

(c) the necessity to ensure to workers a fair share of increases in productivity in enterprises;

(d) the necessity to prevent gains in the wages of workers from being affected adversely by unnecessary and unjustified price increases;

(e) the necessity to preserve and promote the competitive position of products of Trinidad and Tobago in the domestic market as well as in overseas markets;

(f) the necessity for the establishment and maintenance of reasonable differentials in rewards between different categories of skills;

(g) the need to maintain for Trinidad and Tobago a favourable balance of trade and balance of payments;

(h) the need to ensure the continued ability of the Government of Trinidad and Tobago to finance development programmes in the public sector.\(^1\)

To function efficiently, all three bodies suggested—a high-level national advisory body, a minimum wage fixing authority, and an industrial tribunal—will need the services of competent staff capable of carrying out investigations and reporting objectively on the results. In view of the many demands for and the limited supply of people possessing the necessary qualifications in developing countries and the desirability of avoiding duplication, it might be that the same staff, cooperating closely with the national statistical services and encouraging and aiding the latter to develop labour force statistics, could serve all three bodies in countries in which each type of body exists.

To summarise—four functions have been distinguished in the preceding paragraphs which it seems important to have carried out in some way: (i) the formulation of advice to governments, with the participation of employers and workers who have special knowledge of many of the problems involved, on broad principles of policy relating to economic and social development and particularly the rapid growth and equitable distribution of the national income; (ii) the fixing of minimum wages in harmony with these broad principles; (iii) the settlement of industrial

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\(^1\) Trinidad and Tobago Act No. 8 of 1965, section 9 (2). This is an interesting example of a broad statute reflecting recognition of the need for dealing simultaneously and in a co-ordinated way with a number of separate but closely related aspects of economic and social policy making. Besides establishing and providing guidance for the work of an industrial court, the Act among other things provides for the regulation of commodity prices and for the establishment of an office of economic and industrial research.
disputes; and (iv) the collection and development of data and the conduct of investigations needed for the three preceding purposes. The machinery set up in any country to carry out these functions, or such of them as it is desired to carry out, will have to meet the special needs, conditions and traditions of that country. No uniform pattern can be suggested. Different pieces of machinery can be combined in different ways to meet different needs and conditions. At the international level it is perhaps more fruitful to focus discussion on what needs to be done than on precisely how things should be done in the differing circumstances of different countries.
CHAPTER VI

ADJUSTMENT OF MINIMUM WAGE RATES

The main reasons for adjustments in minimum wage rates from time to time are (i) increases in the cost of living and (ii) economic growth or increases in average incomes per head.

MINIMUM WAGE RATES AND THE COST OF LIVING

Unless money wages rise at least as fast as the cost of living\(^1\), workers suffer a drop in living standards. Of course, wages actually paid may rise in response to the forces that generate a rise in the cost of living without any increase in minimum wages. With the general tendency towards rising prices and money incomes that has prevailed in most countries for most of the past 30 years, minimum rates in countries and sectors in which they have remained unchanged for substantial periods of time have tended to fall so far below prevailing rates that the minimum wage system ceases to serve the purposes it was meant to serve.

There is general agreement (except among those opposed to any minimum wage fixing at all) that there should be some relationship between increases in minimum wages and movements in the cost of living\(^2\), but some people favour a close and automatic relationship, others a looser and more flexible one.

Several forms of relationship can be found. In some countries an automatic relationship (similar to a so-called escalator clause in collective bargaining) has been established, linking the minimum wage rate or rates to a cost-of-living index. This is the case, for example, in Belgium, France, Luxembourg, and the Australian state of New South Wales. Usually, in order to prevent wage rates and wage scales from being

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\(^2\) International labour Recommendation No. 30 (Part III) provides for the review of minimum rates when this is desired by the workers or employers who are members of the wage fixing bodies. Recommendation No. 89 (Part III) recommends that provision should be made for a procedure for revising minimum wage rates at appropriate intervals.
disturbed by transitory—for example seasonal—fluctuations, a certain
time has to elapse before a change in the cost of living is reflected in
minimum wage rates. In France the national minimum wage (S.M.I.G.)
is now automatically increased in proportion to an increase in the cost-of-
living index whenever the latter remains for two consecutive months as
much as 2 per cent. higher than it was when the minimum wage was last
fixed (previously the index had to rise by as much as 5 per cent.). In
Gabon, as in most French-speaking African countries, a similar system is
in force. The guaranteed minimum wage is raised automatically whenever a consumers’ price index based on the consumption patterns of
African wage-earning households in Libreville registers an increase of as
much as 4 per cent. recorded on two successive dates separated by at
least a month. Sometimes workers in receipt of minimum wages are fully
compensated, sometimes less than fully compensated, for increases in the
cost of living. Sometimes there is asymmetry between the effects of an
increase and of a decrease in the cost of living on minimum wage rates.

Then there are countries in which there is provision for the review of
minimum wage rates at regular intervals. In some of them the regular
interval is reduced in length if the rise in the cost of living is very rapid.
In Argentina, for example, the minimum wage is established for a period
of one year but, at the request of any of the members of the tripartite
National Minimum Wages Board, it may be reviewed at intervals of not
less than six months whenever the cost of living varies by 15 per cent.
But though the review of minimum rates is legally automatic, their
adjustment is not. The National Minimum Wages Board is required to
take account not only of variations in the cost of living but also of the
economic situation in each area of the country and the need to prevent
any increase in unemployment.

In a third group of countries (comprising, among others, Burma,
Ceylon, Ireland and the United Kingdom) provision is made for the
review of minimum wage determinations at the request of the employer
or worker members of the wage fixing body, or of a specified number of
members, or on the application of specified numbers of employers or
workers or of organisations of employers or workers.

Finally, there are countries in which the adjustment of minimum
rates is undertaken in a sporadic ad hoc manner when the government or
the responsible body has been convinced that it is due. This naturally
tends to occur more frequently when the cost of living is rising rapidly.

1 Though the “indexing” is automatic, the cost of living is not the only element
on which the level of the S.M.I.G. depends: the authorities are also required to take
into account general economic conditions and the evolution of the national income.
2 Law No. 16459 of 1964.
ADJUSTMENT OF MINIMUM WAGE RATES

There has been a good deal of discussion of the advantages and disadvantages of escalator clauses or "wage indexing" in collective bargaining¹ but little published discussion of the "indexing" of minimum wages. To the extent that a country's minimum wage system covers those categories of wage earners who are most in need of protection and least able to protect themselves through collective bargaining, the case for establishing a close and direct link between minimum wages and the cost of living is a strong one—this link may be necessary in order to prevent serious hardship when the cost of living goes up. It seems reasonable to suggest that minimum wages should not, except in certain special circumstances, be allowed to lag behind rises in the cost of living for longer than whatever rather short period may be considered necessary in order to make sure that a rise in the cost of living is not merely transitory (a short lag for this purpose seems justified because of the resentment that is felt when money wages are reduced and the desirability of avoiding the disturbance involved in raising and then lowering money wages again after a short interval).

Can any special circumstances be identified in which it may be reasonable to impose on low-paid wage earners the sacrifices involved in a more substantial lag of minimum wages behind rising prices?

In the first place a country might find itself in the grip of an inflationary spiral with strong cost-push elements—a situation in which rising prices automatically entail higher minimum wages and these in turn, by increasing the amount of money chasing limited supplies of goods, push prices up further. It may be difficult to deal with such a situation by tackling demand or prices alone, if only because there are so many thousands of prices to be controlled and so many opportunities, even in countries with highly developed administrative machinery, let alone in countries without such machinery, for evading price control measures. In such circumstances a temporary wage freeze might be considered a necessary part of a more comprehensive series of measures aimed at bringing the situation under control.²


² The I.L.O. meeting of experts on minimum wage fixing, however, concluded that "the danger of inflation should not in itself be regarded as a sufficient justification for allowing a deterioration of any magnitude (say, more than 10 per cent.) in the purchasing power of a national minimum wage, and that governments should control inflationary pressures by other methods, rather than by reducing the already very low standard of living of those in need of the protection afforded by a national minimum wage". (See below, para. 83, p. 162.)
Secondly, there may be a national emergency, such as a famine or a war, or even a sharp deterioration in a country's terms of trade, which will call for a temporary reduction in the standard of living of the country as a whole, and the question will then arise as to whether low-paid wage earners should be exempted from this or called upon to share in it.

Thirdly, it is conceivable that a government might consider it essential in the public interest that investment and/or public consumption—education, health services, agricultural extension work, etc. (all of which can, however, be regarded as forms of investment in "human capital")—should be stepped up so fast as to involve a reduction in private consumption per head; and that it might also decide that such a policy should be financed, in part at least, not by increasing taxes but by letting prices rise faster than wages, i.e. compelling wage earners, unable to buy as much as before, to release some real resources for investment or public consumption. There are two, or even three, separate decisions involved here, each of which is controversial. First, is it really necessary to step up investment and/or public consumption (which the governments of all or almost all developing countries want to do) so fast as to involve an actual reduction in private consumption per head? In countries in which real income per head is rising year by year, even if only slowly, there is a strong case for devoting a large part of the increment of annual income to investment and/or public consumption; but there is also a strong case for permitting limited increases in private consumption per head, so that people are able to feel that they are becoming better off and will be the more willing on this account to face the efforts and sacrifices needed to ensure continuing progress. In countries, however, that have been, as it were, living beyond their means and investing so little that increases in the national income do not keep pace or barely keep pace with increases in population, a more drastic policy of enforcing some actual reduction in private consumption per head for a limited period in order to step up investment and restore growth to the economy might sometimes be considered necessary. It is still not at all certain (and this involves a second policy decision) that an inflationary method of financing such a policy will be a good method. Discussion of this issue is beyond the scope of this report, but most authorities seem more impressed by the disadvantages than by the advantages of inflationary methods of financing economic development efforts. Thirdly, even if it is decided that prices should be allowed to rise faster than some wages, there could still be a separate decision as to whether minimum wages should be held down. Instead, the government might try to use its influence to bring about some temporary compression of wage differentials, thus putting
that part of the cost of the national effort that falls on wage earners mainly on to the higher-paid wage and salary earners.

A fourth possible situation should be mentioned. A government might decide on review that it, or perhaps a previous government, had been unduly generous or weak in conceding increases in minimum wages greater that the country could afford, and that minimum wages would have to remain fixed in money terms for a certain time despite increases in prices, in order to restore the minimum real wage to a more appropriate level.

The four situations described above may, of course, be combined in various ways.

The fact that a country may, from time to time, run into one or more of these four situations is an argument against establishing an automatic link between minimum wages and the cost of living and in favour of a more flexible system. Another such argument (which has been of little practical importance in countries that have faced almost continuously rising prices in the past 30 years, but which might become more important if greater price stability ever returns to the world) is that if an automatic link is established it seems difficult to claim that this link should operate only in an upward and not also in a downward direction; but reductions in money wages are painful and apt to cause a great deal of resentment even when prices are falling. There can be different reasons for falling, as for rising, prices. In some situations a reduction in money wages in response to falling prices seems reasonable, in others not. When prices are falling, as when they are rising, a government or other minimum wage fixing authority may prefer to retain the flexibility of being able to review minimum wages in the light of all relevant current circumstances rather than to have its hands tied by a prior decision to establish an automatic link with a cost-of-living index.

If no automatic link is established, are there any other ways of safeguarding the interests of low-paid wage earners? Two of the alternatives provide assurances that the situation will at least be kept under review. These are provision for the review of minimum wages (i) at regular intervals which may be speeded up at times of rapidly rising prices, and (ii) at the request of the workers' members of the minimum wage fixing body, or of a specified number of workers or workers' organisations. There is, of course, no assurance that the workers will be satisfied with the outcome of a review. Their position could perhaps be strengthened if the government issued a policy statement or directive establishing a presumption that minimum wages should at least keep pace with the cost of living (subject to a short time lag justified on grounds of expediency, as noted above), a presumption that could only be rebutted by
convincing arguments invoking special circumstances such as those listed above. Such a statement would not seem unreasonable in view of the purposes that minimum wage fixing is designed to serve and the danger that rising prices may prevent it from doing the job it is meant to do.

**Minimum Wages and Economic Growth**

When the governments of developing countries feel obliged to call for wage restraint, this is nearly always presented as something that is needed temporarily in order to permit the economic growth which is a necessary condition for higher wages in the future. But workers do not want to wait indefinitely for wage increases. They want wages to rise as fast and as far as economic growth will permit; and they believe that periodical adjustments of minimum wage rates as economic growth proceeds will facilitate this process. In some countries—France and Argentina were given as examples in the earlier part of this chapter—economic conditions or the evolution of the national income are mentioned explicitly among the considerations to be taken into account when minimum wage rates are being reviewed. In the U.S.S.R. and the Socialist countries of Eastern Europe, where changes in the level and structure of wages are planned to a greater extent than in market economies, the levels of minimum wages and basic wage rates are commonly reviewed every two or three years, account being taken both of changes in the cost of living and of increases in national income per head.\(^1\)

One way of discussing the relationship between minimum wages and economic growth is to break the topic down into the following three questions:

1. In what sense can it be said that economic growth creates a certain amount of "room for wage increases"?

2. What would have to be known or estimated in order to determine the "room for wage increases" between, say, one year and the next?

3. If a government had made such an estimate, taking a position as to the desirable evolution of the level and structure of wages, what implications would this have for the fixing of minimum wages?

The first of these questions can be dealt with very briefly. Economic growth, or an increase in real income per head, might be said to create

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\(^1\) This is not to say that periodical revisions of minimum wages and of the structure of basic wage rates are the only means of ensuring that wage earners share in the benefits of economic progress in these countries. In some of them (Bulgaria, Eastern Germany, the U.S.S.R.) increases in real wages have been brought about largely by means of price reductions. Another method that has been quite frequently used for this purpose, particularly in Poland and the U.S.S.R., has been tax exemption or reduction in tax rates for low-wage groups.
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“room for wage increases” in the following sense. Growth has the effect of increasing the total volume of resources that can be devoted to wage incomes without requiring that the absolute level of other functional types of incomes should be reduced. In exactly the same way we say that growth creates “room” for greater investment expenditure, education, public services, etc. Generalising these statements, growth provides a greater volume of resources for satisfying competing individual and social needs.

Turning to the second question, there exist no simple rules for determining the “room for wage increases”. How much “room” exists depends first and foremost on the nature of the social priorities and goals that have been set for a society. If the only articulated priority were the redistribution of income in favour of the sector covered by the minimum wage, then the “room” available for increasing the wage would be indefinite—it could not be defined. “Room” would exist even in a society with zero or negative growth in per head income, the upper limit on wage increases simply being the willingness of other social groups to suffer continued losses of income. This approach to economic policy making, in effect, would choose the wage objective as the primary one, and accept any consequences this might have on other dimensions of the economy’s performance. In other words the wage would be a parameter of the economic system, given from outside the system, to which all other variables of the system would then have to adjust.

This demonstrates the impossibility of determining the “room for wage increases” without reference to a country’s social priorities; but it is not suggested that governments are in fact likely to wish to set minimum wages without regard to their consequences for a considerable number of other economic variables. Governments ordinarily pursue a number of economic and social goals simultaneously.

Since an economy is a network of interacting relationships, any change in one variable unavoidably touches off a series of responses in other variables. This argues for the simultaneous consideration of various goals, including wage objectives, and the measures necessary to their attainment.

The fact that most developing countries seem hitherto to have set minimum wages with only cursory regard for their consequences probably reflects either a lack of knowledge of the wider repercussions that wage changes may have or the absence of adequate economic data to permit the estimation of these repercussions within sufficiently small margins of error to give them any operational value. Or it may reflect virtual autonomy of the minimum wage setting mechanism, absolving the
wage setters of any responsibility for the wider effects of their decisions.

While the current intuitive or pragmatic approach to minimum wage determination may not have disastrous consequences, there is no reason to suppose that the result will be optimal either. Optimality can be approached only if, given a precise statement of national priorities, a rigorous analytic attitude is applied to the estimation of the ramifications of a wage change on a selected number of variables of primary importance. If the coefficients governing the relationship among the key variables can be estimated, then various consistent solutions can be derived which give values for each of these variables, including the wage level. Which of these consistent solutions will actually be chosen then depends on the ranking of the national priorities and the popular acceptance of the stated priorities.

The implication of this approach to minimum wage determination is that the notion of the "room" available for wage increases is reduced to a statement in which the cost of alternative wage decisions, in terms of any necessary sacrifice of some part of the attainability of other objectives, is clearly specified. The "room" is thus defined by the willingness of the authorities to "trade off" some other objective in return for the realisation of some wage objective. Obviously, it is only as progress is made toward measuring in precise quantitative terms the effects of wage increases on other variables of primary importance that further study and research can be expected to clarify, in operational terms, the notion of the "room" for wage increases. Thus, what has to be known or estimated in order to determine the "room for wage increases" is first a country's social goals and second the quantitative effects of wage increases on the different variables involved in the pursuit of these goals.

There are two important consequences of considering wage policy within the context of broader socio-economic goals. First is the realisation that a change in the wage variable alone will not ordinarily suffice to bring about the desired end result. Rather, policy moves on several fronts, especially on the fiscal and monetary fronts, will be required to ensure that the desired result will be achieved and that the effects of the wage decision remain consistent with the other major goals that have been specified. For example, if a degree of price stability figures among a country's social and economic objectives, a government that raises minimum wages may have at the same time to ensure restraint on increases in the money supply in order to prevent the wage increases from being financed out of new credit.

Second, it becomes clear that the employment of a minimum wage procedure represents only one of a number of various different measures
which are available for realising any particular set of goals. Indeed, it may even prove to be less effective for realising some of the frequently stated objectives of governments than other measures. To illustrate the point, let us consider the following.

Let us imagine that there is a developing country which has had an average rate of growth in output per head of 4 per cent. per annum. However, growth has not occurred evenly throughout all sectors. Not only are incomes in the peasant sector well below those in the industrial sector but output per head in the former sector has remained stationary; all growth has occurred in the industrial sector at an 8 per cent. rate. Minimum wage regulation extends only to the industrial sector. Let us assume for convenience sake that any increase in the legal minimum wage is followed by an equivalent proportionate increase in wages above the minimum so that the industrial wage bill in the immediate short run could be expected to rise in the same proportion as the minimum wage. Finally, let us assume that the socio-economic priorities include the realisation of the highest possible rate of growth in personal incomes consistent with (1) a continuation of the current rate of growth, (2) avoidance of inflation, (3) an expanding level of employment in the industrial sector, and (4) a gradual reduction in income disparities among various social groups.

If in this country there existed no social objectives other than that of the highest possible wage for those currently employed in the industrial sector, then the "room" for wage increases would be ample; an 8 per cent. increase, equal to the increase in productivity, would be compatible with a similar increase in income from capital in the industrial sector and with stability of income in the peasant sector. The intrusion of the other above-stated priorities, however, leads to various possibilities of conflict. First, some part of the increased output may be required for allocation to investment purposes in order to ensure the continuation of the current rate of growth. Second, the supply of wage goods which will be forthcoming from domestic production and permissible imports may limit the size of the increase in total wage incomes that can be accommodated without price increases. Third, a higher real wage level, by distorting the relative price of substitutable inputs, might tend to limit increases in employment in the industrial sector to less than would otherwise have occurred. Fourth, a rise in wage incomes in the industrial sector would tend to increase the disparity between these and the

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1 Of course, if the obstacle to increasing employment in the industrial sector lies in an inadequate differential between rural and industrial incomes which discourages an adequate level of labour mobility, minimum wage increases might very well be called for.
lower, stagnant peasant incomes. Thus, the acceptance of each additional priority has the effect of placing an additional restraint on the "room" available for wage increases.

Let us now assume that the authorities have deemed that some rise in living standards is feasible after the conditions imposed by the first three priorities stated above have been satisfied. The fourth priority now becomes an effective restraint in the choice of the means by which this rise in living standards is to be distributed over the population. The choice of an increase in the minimum wage for this purpose may now appear inappropriate if its effect would be to heighten the disparity in incomes between the covered sector and the peasantry. Rather, an alternative measure may be preferred—for example the passing on of productivity gains in the form of lower prices, which would ensure the widespread sharing of increases in real income over a more substantial segment of the population and avoid an increase in the income gap between the rural and urban sectors.

One might object that, left to themselves, industrial prices will not decline, owing to imperfect markets. In that case governments still possess a powerful tool for forcing price reductions. Since much industrial development in newly developing countries is of the "hot-house" variety, i.e. takes place within the protective walls of very high import levies, the gradual reduction of tariff barriers could effectively determine domestic prices for a wide range of industrial goods.¹

An alternative tool available to governments is the fiscal mechanism. The increased incomes obtained from the rise in productivity could be taxed away from the recipients and then reallocated in a manner consistent with the established priorities.

In brief, there is no reason to view minimum wages as the only or even as the most important measure available to governments intent on achieving both growth and a measure of immediate improvement in living standards. How much a government will wish to rely on the minimum wage mechanism will depend on its estimate of the various positive and negative quantitative effects its employment might involve and on the efficacy of other measures that are available to it for achieving a similar purpose.

As regards the third question posed at the beginning of this section, once an amount available for distribution as wages has been determined, the question may remain of the way it should be distributed among the

¹ For countries which place a high priority on increasing their exports of processed and manufactured goods, such a step would also hasten the day when they might be able to compete in international markets.
wage-earning labour force, and how, if at all, minimum wage fixing should be used to influence this distribution. While there may be some scope for effecting a redistribution of income within the wage-earning sector, it is likely to be rather limited. Let us consider some of the questions that should be asked if an attempt is to be made to alter the distribution.

(a) Suppose that, on grounds of equity, a government would like to provide higher wages for the lowest-paid workers. Should minimum wages be increased at a faster rate than other wages will be "permitted" or "encouraged" to rise? The following considerations seem relevant:

(i) How serious are unemployment and underemployment? Since minimum wages will be the wages of entry for many workers into the industrial sector, their level may have real implications for the rate at which surplus unskilled labour will be absorbed there. Thus the benefits of redistribution of wages within the employed wage-earning labour force must be weighed against the cost of excluding others from potential employment.

(ii) What is the relationship of the minimum wage to non-wage incomes and to wages in uncovered sectors if any—i.e. to incomes in the alternative employment opportunities for potential industrial workers? Is the minimum already high enough to attract workers from other activities into an army of waiting hands? If so, an even higher minimum may aggravate the urban problems of overcrowded slums and unemployment. The resulting social costs may thus cancel out the benefits of any redistribution of wages achieved.

(iii) If a disproportionate share of the resources available for wage increases is applied towards raising the minimum wage, it is on the assumption that other wages can in fact be restrained so that the desired narrowing of differentials can be achieved. Whether this assumption is correct depends on the reasons for the existing differentials, the responsiveness of above-minimum wages to changes in the minimum, and the state of the labour market. Where differentials are "very wide" relative to the minimum supply price of the various classes of labour paid at more than the minimum, it may be possible to bring about some compression simply by raising minimum wages. However, this would be relatively more difficult to achieve in a context of vigorous industrial expansion than in one of stagnation. In the former situation the demand for skilled labour is likely to outstrip supply, so that one might expect to see adjustment of other wages to changes in minimum wages occurring rather quickly. Furthermore, the possibility of adjusting differentials by
taking action on minimum wages alone would seem slim where existing wage differentials are believed to be "just" by both workers and employers. Only shifts in relative supplies of the different classes of labour over the longer run are likely to alter such convictions.

To sum up, it is generally likely to be quite difficult to achieve a substantial narrowing of wage differentials within the wage-earning labour force where market forces and established values operate against this. In such situations a more effective way of narrowing real income differentials may be through the provision of social services, subsidised housing, etc., to the lowest wage groups.¹

(b) It may appear to some wage administrators that certain wage differentials are too narrow and that efforts should be made to widen them. Is the minimum wage procedure suited to "correcting" differentials which are too narrow? Initially, one should consider the reasons for the existence of the "narrow" differentials.

(i) What is the precise nature of the evidence that the differentials are too narrow? Is difficulty experienced in recruiting or training workers for skilled positions at the current wage? A negative answer would cast doubt on the assumption that the differentials are too narrow except in the sense that will be discussed below in (iii).

(ii) It may be that vigorous increases in minimum wages in recent years have been too rapid to permit the re-establishment of differentials at their long-run equilibrium size. Employers may have financed the increased minimum wages "at the expense of" wage increases of the more highly skilled, thus bringing about excessive narrowing of differentials. Where this has happened it is likely that the mere relaxation of upward pressure on the minimum may suffice to bring about an adjustment of wages of skilled occupations in which the occupants may be showing signs of low morale and restiveness or there may be evidence of actual shortages developing.

(iii) If skilled workers are thought to be in short supply, it would be useful to try to determine why differentials have not increased (if they have had time to do so). Normally it is difficult to conceive of employers refusing to pay the wage which is required to hire or train the classes and quality of labour they want—except in the short run. Over the longer run a continued existence of "narrow" differentials

¹ One might note the case in which blue-collar/white-collar differentials are very large and sustained by widely separated minimum wages for the two classes of labour. If the differential is greater than seems reasonable in the circumstances, then it might very well be possible to alter the relationship between the average earnings of the two classes by raising the blue-collar minimum relative to the white-collar one.
may simply reflect the low level of skills actually possessed by the so-called "skilled" worker.

Not infrequently, administrators advocate an increase in skilled wages to encourage an upgrading of skills. Whether this approach has ever worked successfully cannot be established empirically; it is possible that the existence of a supply will create its own demand. However, the opposite is equally possible—that a sufficient effective demand for a higher level of skills does not exist.\(^1\) The assignment of higher minimum wages for skilled grades may thus have the perverse effect of limiting the employment of workers in the higher-skill grades or of breaking up the job content in such a way that it may be performed by workers of a lower skill. Wherever the limiting factor is lack of demand, not lack of supply, it would seem that a more effective way of securing the employment of higher quality skills would be by encouraging the demand for them—i.e. demonstrating to employers their value. Once high-quality skills are coveted by employers, and the means for actually producing such skills exist generally, then higher differentials should emerge through the operation of market forces.

Finally, it may be well to recall the caveat suggested in Chapter IV about the establishment of numerous minimum wages in an attempt to shape the wage structure.\(^2\) There seems little reason to have confidence that wage administrators will be capable of establishing the "proper" wage structure for an economy. The simpler the system and the fewer the specific rates that are set, the better it is likely to be.

To recapitulate, there is thus no rule of thumb to tell minimum wage fixing authorities by how much it would be appropriate to raise minimum wages in response to an improvement in the general standard of living in a country, or how a sum considered to be available for wage increases should be distributed over different groups of wage earners. The periodical adjustment, like the initial fixing of minimum wages, is a matter that calls for informed judgment of the probable effects of different

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\(^1\) For example in Chile estimates of manpower requirements called for a sharp increase in the supply of agronomists as being vital for future growth. Yet the evidence shows that Chile produces many more agronomists than it currently employs, and that, furthermore, their current salary levels are very low compared to those in other professions. As a result, Chilean agronomists are to be found staffing many of the international agricultural organisations or pursuing other occupations in their own country. The root of the problem is that not enough agricultural landholders are interested in hiring them even at the going wage; evidently they are not convinced that it "pays". Raising the minimum wage of agronomists is hardly likely to improve their employment situation or the volume of skills demanded. Rather, agricultural information services need to convince farmers of the high value of the services of agronomists

\(^2\) Page 82.
decisions and a weighing of expected advantages for some against expected disadvantages for others in the light of the over-all social and economic objectives that a country has set itself.

However, knowledge of the government's economic and social objectives and of the recent progress of the economy does provide certain guidelines.

With regard to the "room for wage increases", as was pointed out in a recent I.L.O. report—

The main source of wage increases is, of course, increased production. Unless there is an increase in the supply of goods that wage earners buy, higher money wages will not lead to higher living standards—they will raise prices, or reduce employment. Governments that have adopted economic development plans or programmes have necessarily, in the process of so doing, taken a view as to the rate of increase which they expect or intend to promote in the national income and in its main components. Plans often go wrong, and unrealistic plans may be of no help in making sensible decisions on wage questions. But a plan that is realistic at the time it is drawn up (even though it will have to be modified later to take account of unforeseen changes) can be a great help. The planned or projected increase in average income per head provides a starting point for a rational decision as to the rate at which wages should be encouraged to increase.

This does not mean that governments will necessarily favour equal rates of increase for all incomes. A government might, for example, decide that average wage incomes should be encouraged to increase rather faster than the average of all incomes. It might favour this because of evidence that wages were in many cases too low to cover the cost of living at a level satisfying the basic needs of workers and their families or because it believed that the share of national income going to entrepreneurs and landowners was more than was needed in order to call forth a sufficient supply of enterprise and investment capital. Or a government might decide that in the national interest wage incomes, for a time at least, should preferably rise rather more slowly than the average of all incomes. It might consider that its growth targets could not be attained without raising the rate of investment, using for this purpose a high proportion of annual increments of production; or it might consider that the main feature of a policy for minimum living standards should be the provision of productive employment for unemployed or underemployed workers, and that this should have priority over a policy for raising the wages of those already employed. It seems important in any case that governments, having determined their major policy objectives in terms of investment, employment, the balance of payments, and so on, should ascertain what these objectives imply as regards the room for wage increases. Or a certain rate of increase in wages may be taken as one of the policy objectives, in which case other objectives will have to be accommodated to it.

1 No government, of course, would regard wage policy as the only instrument for ensuring an equitable distribution of the fruits of economic progress; fiscal policy, including the progressive taxation of large incomes and perhaps capital gains taxes and land taxes, has an important part to play.

2 It will be important to know, for example, whether wage incomes may be allowed to rise more rapidly or must be prevented from rising as rapidly as in the recent past.

As regards the distribution of wage increases, there seem to be two main criteria to be borne in mind: equity and productivity. Ideas of equity are largely subjective, but it is generally considered inequitable that certain workers should be paid less than the "going rate" in a country for work of a given degree of skill and difficulty. Considerations of equity may also favour raising the wages of unskilled workers more than those of skilled workers. Though minimum wage fixing may often serve to promote equity in these ways, it cannot, as we have seen, be relied upon to do so in all circumstances. The productivity criterion will favour the distribution of wage increases in whatever way will promote economic growth and the social progress made possible thereby. Broadly speaking, this means seeking to adapt the structure of wages and the methods of wage payment in such a way as to give workers the strongest possible incentives (i) to acquire needed skills; (ii) to take jobs in which there is a shortage of labour; and (iii) to improve the quantity and quality of their output in their chosen jobs. It is not obvious that minimum wage fixing will be of much help (at least in market economies) in attaining these objectives, but in some countries it is also important to provide incentives for a larger number of workers to commit themselves to an industrial way of life, and in this context minimum wage fixing may be important.

In any case, if they are to make sensible decisions regarding the adjustment of minimum wages as economic growth proceeds, minimum wage fixing authorities will need as much information as possible about the economic conditions of the country. The meeting of experts concluded that—

To ensure that those in receipt of minimum wages achieve improved standards of living through a share in the fruits of economic progress, periodical surveys should be made of a country's economic conditions, including trends in per head income, industrial productivity, employment and unemployment. Such surveys would show when a rise in minimum wage rates, particularly national minimum wages, if any, would be compatible with development objectives.

The frequency with which such surveys should be taken depends on local conditions, especially the pace of development, but for most developing countries intervals of from three to five years would probably be appropriate.¹

¹ See below, paras. 85 and 86, p. 162.
CHAPTER VII

DATA FOR MINIMUM WAGE FIXING

INTRODUCTION

The quality of minimum wage fixing decisions is likely to depend a great deal on the amount and quality of relevant information, statistical and other, available to the minimum wage fixing authorities.

We shall be concerned in this chapter mainly with statistics, but among the realities with which minimum wage fixers are concerned there are, of course, some that can be measured only imperfectly or not at all by statistics. For example, if they have under consideration a proposal for raising urban wages which may limit employment opportunities in the towns, they need a good knowledge of how people live in rural areas and of what opportunities they have for employing their time productively in subsistence or cash-crop agriculture. There can be no statistical measure of the extent of alternative employment opportunities—at best there can be a guess expressed in quantitative terms (numbers of people who could be absorbed in such-and-such sectors at acceptable standards of living); but it is important that minimum wage fixers should be well enough informed to be able to make a good guess.

They also need, if minimum wage fixing is to be integrated into general economic and social policy making, to be fully informed of the government’s social priorities and objectives, and for this purpose general directives or policy guidance statements may usefully be issued to them from time to time, perhaps after having been considered in draft form by a high-level advisory body of the kind discussed in Chapter V.

It is important that at the outset of every statutory wage fixing exercise consideration should be given to what statistical and economic information is required. Though other requirements may well emerge during the process, collecting information is often time-consuming, and the sooner this is started the better.

A first requirement is to establish a close and effective link with the government statistical and economic services. This has sometimes very satisfactorily been achieved by the composition of wages boards and councils. A government statistician is sometimes appointed as one of the
"independent members", or the Ministry of Labour or appointing authority may arrange for the designation of a government statistician as an assessor. In effect assessors (sometimes one is also appointed from the Ministry of Labour) sit as non-voting members of the wage fixing authority. Appointments of this kind either as independent members or assessors have proved of great value. However, should a formal designation of this kind not be regarded as appropriate, and if a looser arrangement is preferred, the board or council should invite the central statistical bureau to nominate a statistician for liaison purposes and for subsequent statistical analysis.

The normal method of work of a statutory wage fixing body is set out in international labour Recommendation No. 30: "The minimum wage fixing machinery, whatever form it may take (for instance, trade boards for individual trades, general boards for groups of trades, compulsory arbitration tribunals), should operate by way of investigation into the relevant conditions . . ." ¹

Whatever arrangements are made for the closest co-operation with the statistical service, a wage fixing body should ask for a bibliography at the outset of its work. There will usually be a series of documents such as census reports, annual statistical series on, for example, earnings and employment, and reports from the Ministry of Labour or the ministry handling labour questions. Sometimes there is a substantial time-lag between collection and publication of information, in which case wages boards and councils can usually, on request, arrange to get the most up-to-date information prior to normal publication.

In addition to data available in regular series there have in many countries been special ad hoc inquiries into wages, employment, unemployment or underemployment, family budgets or other relevant subjects.

Once what is available is collated, it is often found that it has serious limitations. The minimum wage fixing authority should then consider what further data it will need or would like to have, and what possibilities exist for obtaining these.

It may be helpful to illustrate the kind of data limitations that may be encountered by statutory wage fixing authorities: the following practical example relates to Tanzania and the work of the Territorial Minimum Wages Board in 1962.

The main source of information available to the Board was the so-called "labour enumeration" entitled Employment and Earnings in Tanganyika, published annually some ten months after a survey of

¹ Part II (1).
employment and earnings undertaken each year by the Central Statistical Bureau during the month of June. Persons employed in peasant farming, as domestic servants or in the armed forces were not included. Annual earnings statistics were produced by multiplying the June figures by 12. There was no means of knowing whether June was, either in general or in particular years, an average month. Events in a particular June might easily affect the comparability of the annual statistics. Some important industries cannot offer employment throughout the year, but seasonal employment not taking place in June would not be included in the annual statistics. For instance tea picking takes place mainly in the six-monthly period between September and February, and the cotton-ginning industry employs four times as many workers at its peak as in June.\(^1\) The figures themselves are inevitably at first provisional and liable to amendment.

On account of the difficulty of enumerating persons engaged as wage earners in peasant agriculture and domestic service, a labour enumeration may only show part of the number of those working for wages. Again taking Tanzania as an example, a recent survey of the labour scene produced for the Ministry of Economic Affairs and Development Planning by Robert Ray (the Ray Survey) gave estimates of the position at 31 March 1965. This survey, based on sample household interviews, concluded that there were some 740,000 employees in Tanganyika (19.4 per cent. of the labour force). Of these, only 334,000, or 8.8 per cent. of the labour force, were included in the labour enumeration of the same year.

The incompleteness of a labour enumeration does not mean that it is not useful. It throws light on the pattern and trends of employment and earnings of an important sector of the labour force, but it does not purport to cover the whole wage-earning labour force. As the Ray Survey was the first national inquiry in tropical Africa based on sample household interviews (urban 1.25 per cent., rural 0.45 per cent.) of the whole population, it is likely that large differences between the numbers covered by labour enumerations and the actual number working for wages will exist elsewhere too. Where there are grounds for suspecting that this is the case, consideration should be given by the minimum wage fixing authority to urging that an ad hoc inquiry with a comprehensive coverage should be carried out.

Lack of adequate data is by no means confined to developing countries. Thus a United States Department of Labor study of problems involved in applying a federal minimum wage to agricultural workers

\(^1\) D. Chesworth: "Statutory Wage Fixing in Tanganyika", op. cit., p. 47.
commented: "This is not an area of discussion in which there is a large body of relevant statistics that can be analyzed objectively to provide a commonly accepted starting point".\footnote{United States Department of Labor: Problems Involved in Applying a Federal Minimum Wage to Agricultural Workers, Vol. 1 (Washington, D.C., 1960) (offset), p. 254.} Recently the United Kingdom Prices and Incomes Board recommended that "the Ministry of Labour as a matter of urgency should collect and supply to Wages Councils far fuller information than is now available on the earnings of the workers they cover, including distributions of earnings as well as averages".\footnote{National Board for Prices and Incomes: Pay of Workers in the Retail Drapery, Outfitting and Footwear Trades, Report No. 27 (London, H.M.S.O., Cmnd. 3224, Mar. 1967), para. 59, p. 24.}

**Types of Data Needed or Desirable**

Minimum wage fixing authorities require a good knowledge of the basic economic conditions and problems of the country, and they need also a basis for estimating the effects of different decisions that they might take regarding minimum wages on key economic variables such as costs of production, productivity, prices, the balance of payments, the rate of economic growth, employment and the distribution of income. The types of data required are those which will help to meet these needs.

The following sections describe in brief terms the kinds of statistics which are in general most important for statutory wage fixing purposes.\footnote{Cf. I.L.O.: "Basic Labour Statistics—Elements of a Minimum Programme", document ASLS/1/C, prepared for the African Seminar on Labour Statistics, Addis Ababa, November 1964 (roneoed).}

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**The Labour Force**

A first essential is to have details of the size of the labour force and its breakdown (a) by status (e.g. employees, the self-employed and family workers), (b) by economic sector (agriculture, manufacturing, construction, and so on), and (c) by region. All this information can be asked for in population census returns, but it is not feasible to have a complete population census more often than about once in ten years. Moreover, there are important limitations to the amount of detail that can be obtained by the system of full enumeration involved in a complete census.

Aside from the difficulty of making a complete enumeration in areas where communications are poor and where there has been little experience of census techniques, a census does not yield reliable information on the occupations and skill levels of the labour force. In fact, estimates of
the effective or potential labour force derived from census data may be subject to a wide margin of error, partly because the census enumerators are unable to probe sufficiently into economic and family status and the interest of the respondents in obtaining jobs. Moreover, it is often found that a gain in economic activity is accompanied by an increase in the number counted as unemployed because persons who were formerly not listed in the labour force are induced by the improved prospects for employment to become active job seekers. This change in status is more clearly identified through repeated sample surveys than by the census method.

If no recent census data are available, rough estimates of the size of the labour force and its breakdown may be made largely by guesswork. In some instances data for adjacent countries may provide some help in making such estimates. Thus, for example, information on population density, the ratio of urban to rural population, labour force participation rates, etc., for a contiguous area may be used, with modifications based on the best judgment of experts, in deriving rough-and-ready estimates. It must be recognised, however, that such estimates will almost certainly be subject to radical revision when more exact data become available.

To supplement population census data, two other types of statistical inquiry can usefully be undertaken at regular intervals. One is a census of production or of industrial establishments. In a number of countries this is conducted annually. So far as the labour force is concerned, establishments can be required to show their numbers of wage earners and salaried employees with a breakdown by sex and perhaps by broad occupational categories, and amounts paid in wages and salaries. But a great deal of other information is normally called for as well, which is of great value to minimum wage fixers in assessing economic conditions in the different industries. This may include the value of land and buildings occupied, the value and motive power of machinery installed, the value of materials used and of goods in stock and the gross and net value of output, capital expenditure and profits. If a complete census of production cannot be conducted every year, information can be collected in intervening years on, for example, numbers of employees, hours worked and wage payments from a sample of establishments which should be as representative as possible.

Secondly, labour force sample surveys may be conducted. Investigators obtain information from a sample of households, which again should be as representative as possible, about the employment status and incomes of the members of the household, and the industries and occupations in which they work. It may be noted that information about unemployment and underemployment is of special importance for mini-
mum wage fixers and that skilfully conducted household surveys may provide the only reliable source of information about underemployment (and about unemployment too) in countries where registration of unemploy­ment is very incomplete, as it tends to be in all countries in which it has not yet been possible to institute comprehensive unemployment insurance or relief. It is important to know the basic characteristics of the unemployed, including their age, sex, family status and any previous work experience. It is most valuable to have this information when considering the possibility of creating redundancy as a result of wages orders.

The size and characteristics of samples, both of establishments and of households, will, of course, depend upon the situation in the particular country. It is generally desirable to have some measure of the trends in employment in different regions and among the different industries. For countries at an early stage of industrial development, however, it may not be practical to attempt to classify beyond broad categories such as manufacturing, mining, construction, transport and trade.

An employment index should be computed at least once a year and preferably more often. A major limitation of the once-a-year index is that it provides no information on the magnitude of seasonal changes in employment. There are, of course, great dangers in taking as accurate figures produced on the basis of the numbers employed on only one day in the year. For this reason a quarterly series is to be preferred. It is useful to obtain information, if possible, not only about numbers employed on a particular day but about the total number of man-days of employment provided over a period. A household survey programme may also provide information on seasonal variations in employment.

In a country in which labour force statistics based on census returns and/or sample surveys are not available or are not adequate, it may be necessary for a statutory wage fixing body, in consultation with other bodies concerned, to initiate the inquiries necessary to provide basic information. In most instances at least the larger employers can be readily identified, and a sampling technique may be needed to obtain a representative coverage of the smaller establishments.

Special inquiries are in any case likely to be required in the case of a wages council covering only one industry or trade.

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1 Legislation under which statutory wage fixing bodies are set up sometimes confers on these bodies extensive powers to obtain information by summoning witnesses, calling for returns and so on. Clearly, statutory wage fixing bodies would have discussions with statistical services and others directly concerned before engaging in their own inquiries to make sure that there is no duplication of effort and that any data specially collected are in a form which will also be as useful as possible to other bodies. It is desirable, however, to avoid the use of long and complicated questionnaires.
It should be borne in mind that considerable time is required to plan and carry out special inquiries and to analyse the results. It is therefore desirable that attention should be given to this matter as soon as possible after the setting up of a statutory wage fixing authority so that basic information can be at its disposal before it starts making recommendations.

If a wage fixing body is to initiate and carry out its own investigations it will need a professionally qualified staff, such as that appointed to service the industrial court which is responsible for fixing minimum wages in Trinidad and Tobago. It was suggested in Chapter V that in some countries the same staff might service both a minimum wage fixing body and a high-level advisory body.

If information on the size and industrial classification of establishments is lacking, it may be desirable to cover a large sample by means of a special investigation, in order to produce detailed data on employment by industry, size of establishment and region. The results of such an investigation should also provide information on the number of persons employed, total hours worked and total wages paid, related to specified pay periods such as days, weeks or months.

While employers' records may contain some designation of each employee's job assignment or occupation, experience has shown that the job content and titles vary so widely that useful information in this respect cannot be obtained by standard reporting questionnaires or by simple transcription from payroll records. It is usually necessary to assign skilled field interviewers who visit the establishments, observe the operations, describe the occupations in standard or uniform terms and record the relevant data. Surveys of this kind are expensive and time-consuming and, especially when skilled staff are in short supply, can usually be undertaken, if at all, only at relatively infrequent intervals.

The census returns, establishment reports, household surveys and special inquiries, if any, required for the work of statutory wage fixing bodies also provide the basis for a long-range programme of labour force statistics. They will be required for revisions of statutory wage fixing and also for evaluating the results of wages orders.

Wage Rates and Incomes

In order to ensure that the fruits of economic progress are widely and fairly shared, statutory wage fixing authorities and others concerned must have as much information as can be gathered about wage rates, conditions of employment and incomes, and the relationship between living standards of those working for wages and those in the cash-crop
and subsistence sectors. The last point is of particular importance since much argument turns on it and often there is a lack of factual data to resolve differences of opinion on the subject.

It is important that the basis for adequate statistical series on wages and earnings should be established at an early stage in a country’s development programme, so as to throw light on how the benefits of increased production are in fact distributed and to expose areas in which wage policies and administration may not be meeting development plan requirements.

Both for statutory wage fixing bodies and for other purposes, wage series should be established for the agricultural and non-agricultural sectors, mining, construction, transport, manufacturing (all industries) and as many specific branches of manufacturing as possible.

In the more advanced industrial societies employers’ payroll records are usually quite complete and accurate, showing the number of hours worked by each employee and the details of his wages, including supplementary benefits and pay deductions for various purposes. This is less likely to be the case in countries in earlier stages of industrial development, where records will vary greatly from one employer to another. It is extremely probable that the smaller employers will be inadequately covered by the normal enumerations. If this is suspected, wages councils and boards should consider the practicability of arranging a sample survey using the services of labour inspectors.

Cost-of-Living Indexes and Family Expenditure Surveys

The term “consumer price index” perhaps most accurately describes the function of what is often called a “cost-of-living index”, i.e. an index which indicates the change from time to time in the average retail price of a fixed list of goods and services making up the index “market basket”.

Compilation of accurate consumer price indexes is important in all countries and, when such an index is used in connection with the fixing or adjustment of minimum wages, it is important that the “market basket” selected should correspond to the actual purchases of wage-earning families.

For this purpose family expenditure surveys are necessary in order to establish how wage earners’ families do spend their money.\(^1\) Since

\(^1\) In a country where no such survey has been made, and where for any reason it is not possible to organise one at short notice, a provisional consumer price index that will be a great deal better than nothing can be improvised by taking an unweighted or arbitrarily weighted average of the prices of a few commodities that are known to figure largely in wage earners’ family budgets.
consumption varies and since minimum wage fixing is designed especially to protect low-paid wage earners, a consumer price index used in connection with minimum wage fixing should be based on the consumption pattern of low-paid wage earners.

It is particularly important that there should be confidence in the accuracy and fairness of family expenditure surveys and in the consumer price index. This may best be achieved by tripartite discussion of the actual arrangements for the surveys and by making it possible for members of statutory wage fixing bodies to satisfy themselves as to the way in which labour inspectors and others concerned conduct the necessary inquiries.

A well designed household sample will provide the framework for the survey of family expenditures. Every effort must be made to undertake inquiries not only in the capital city but also in other major centres, since there may well be considerable and significant variations which statutory wage fixing bodies ought to take into account. In most instances the expenditure survey will give other information of value, such as the age, sex, marital status and economic activities of members of the household and basic housing characteristics. Care must be taken, however, to avoid attempting too much. There is a great temptation when such surveys are planned to include a wide variety of elements, in effect combining several surveys in a single interview. While this procedure may appear to produce a greater variety of data at lower cost, experience has shown that the quality of the data may decline to such an extent that invalid results are obtained. This is a problem which must receive specially careful attention in the less developed countries, where there is a lack of skilled interviewers and an absence of household records from which the interviewers may obtain ready replies to their inquiries.

Costs, Prices and the Balance of Payments

It is important that minimum wage fixers should make the best estimates they can of the effects of minimum wage decisions on costs and

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1 In a resolution concerning cost-of-living indices in Asia, the Eighth Asian Regional Conference of the International Confederation of Free Trade Unions (Hong Kong, December 1966) expressed dissatisfaction at the fact that governments were not fully observing the international standards (procedures, methods and techniques) recommended by the Tenth International Conference of Labour Statisticians for the construction of reliable consumer price indices (for the text of the resolutions adopted by that Conference, see Official Bulletin (Geneva, I.L.O.), Vol. XLVI, No. 1, Jan. 1963, pp. 131-148). The I.C.F.T.U. Conference urged the governments of Asian countries to undertake family living studies with the active participation of trade unions and demanded that the trade unions should be adequately and effectively represented on all agencies responsible for the formulation and execution of policies relating to consumer price indices, so as to enhance their general acceptability and, in particular, to inspire greater confidence among workers in their reliability (International Labour Review, Vol. 95, No. 5, May 1967, p. 496).
prices. Cost data obtained from censuses of production or of industrial establishments will be valuable in this connection. Also, since foreign exchange is a key shortage in many developing countries, it is important to try to assess the effects of minimum wages decisions on a country's export earnings, its import bill and imports or exports of capital. Statistics of exports, imports and the balance of payments constitute the starting point for such estimates.

National Income

Minimum wage fixers should in addition be aware of trends and movements in the national income (or gross domestic product (G.D.P.) or gross national product (G.N.P.) at factor cost or market prices) and in various elements into which this can be broken down. If the national income is increasing rapidly there is more "room" for wage increases (in the sense explained in the last chapter) than if it is not. More significant for many policy purposes than the evolution of the money national income (national income at current prices) is that of the real national income (national income at constant prices) and particularly that of the real national income per head.

Three types of breakdown of national income statistics are useful. The first is a breakdown according to industrial origin, which shows the importance of the contribution to G.D.P. of the different economic sectors—agriculture, mining, manufacturing, construction, services, and so on. This will show which are the growing and which the stagnating sectors of an economy, and how a government's plans for industrial or agricultural development are progressing. By combining this breakdown with a sectoral breakdown of the labour force light can be thrown on relative levels of labour productivity in different sectors and on changes therein.

A second useful breakdown of the national income is into major categories of expenditure, notably private consumption, government services and capital formation. If it is desired to increase the proportion

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1 This is not the place for a discussion of the relationships between the various concepts of national income, i.e. the different ways of defining the annual flow of goods and services which (with allowance for international transactions) is at one and the same time the volume of production achieved by, and the volume of real income available to, the people of a country.

Important as national accounts statistics are for the light they can throw on the options confronting a country, it is well to be aware of the difficulties of accurately estimating national income and of the arbitrary nature of many of the estimates included in national accounts statistics, particularly in developing countries. On this subject see, for example, Simon Kuznets: Economic Change (London, William Heinemann Ltd., 1954), Chs. 7 and 8.

of the national income going to investment and government services, private consumption will have to rise more slowly than the national income. If it were desired to increase private consumption more rapidly than the national income, this could, broadly speaking, only be done by reducing the share of investment and/or government services.

A third useful breakdown of the national income\(^1\) is into major income categories, notably compensation of employees, income from unincorporated enterprises (which will include income from peasant agriculture and small handicraft and service establishments) and income from property. Used in conjunction with the breakdown of the total population into the "economically active" (the labour force) and others, and of the labour force into employees, the self-employed and others, this breakdown permits a number of comparisons to be made. For example (with due regard for difficulties such as those of comparing the real value of rural and urban incomes) the average level of wages can be compared with the average level of all incomes and the rate of increase in average wages can be compared with the rates of increase in income from property and from unincorporated enterprises.

None of the insights or comparisons permitted by national accounts statistics and their breakdowns yields any formula or rule of thumb that can be substituted for the judgment of minimum wage fixers. But these data can throw valuable light on the conditions within which minimum wage fixers have to take their decisions and on the implications of those decisions.

\(^1\) For this breakdown we use the concept of national income proper (i.e. net national product at factor cost). On the other hand, for the first breakdown (contribution of sectors) we use the concept of G.D.P. at factor cost and for the second breakdown (categories of expenditure) the concept of G.N.P. at market prices.
SUMMARY

PURPOSES AND LIMITATIONS OF MINIMUM WAGE FIXING
(CHAPER I)

Four possible purposes of minimum wage fixing may be distinguished—

(a) to bring the lowest wages up towards the general level of wages paid for similar work;

(b) to exert upward pressure on the general level of wages as a whole;

(c) to eliminate “unfair competition”;

(d) to serve as one among a number of instruments of a comprehensive policy aimed at promoting rapid growth and fair sharing of the national income.

There are differences of emphasis but little if any incompatibility in these views regarding the purposes of minimum wage fixing.

There are, however, important limitations to the effectiveness of minimum wage fixing regarded as an instrument for any of these purposes. These limitations do not mean that minimum wage fixing is unimportant but that it is one among a large number of instruments of social and economic policy and has to be studied and evaluated in the context of a government’s broad social and economic objectives and the other instruments available to it and used by it for attaining these objectives.

CONSEQUENCES OF MINIMUM WAGE FIXING
(CHAPER II)

Effects of Minimum Wage Fixing on Actual Wage Levels

It seems clear that in a great many countries there tends to be a rather close relationship between movements in minimum wages and in wages actually paid. This relationship will be particularly close when minimum rates are the going rates for large numbers of workers, which appears to be the case in most African and in many other (but not all) developing countries. But the wage structure often seems to be strongly resistant to
change and, to the extent that differentials are preserved, higher-paid workers also benefit from increases in minimum wages. Thus minimum wage fixing may be a more powerful instrument for raising the general level of wages, with more pervasive effects, than has sometimes been thought.

**Effects of Increases in Actual Wages**

When wages actually paid are increased as a result of the fixing or raising of minimum wages this is liable to have repercussions throughout a country’s economy which are more or less important according to the size of the wage increases. Special interest attaches to the effects of increases in actual wages on economic growth, on employment and on income distribution. Few quantitative studies of the effects of wage increases on these variables have as yet been attempted, particularly in developing countries, where the necessary statistical series are for the most part lacking. A growing body of quantitative studies built up over a period of time is badly needed and should in due course permit certain generalisations based on observed experience to supplement and if necessary to correct propositions based on a priori reasoning.

**Effects on Economic Growth.**

Disregarding, in the first stage of the argument, their possible effects on productivity and on the supply of labour and capital, wage increases certainly make for higher costs of production and, in most circumstances, also for higher prices. These effects on costs and prices are likely to be unfavourable to economic growth. This statement should be qualified to take account of the possibility that, in certain rather special circumstances that do not appear to be typical of developing countries, wage increases may be good for growth by promoting increased demand.

Wage increases may lead to increases in productivity which may partly or wholly offset (or conceivably more than offset) their effects on costs of production. Higher wages may make for higher productivity through their impact on managements or workers, or both. Managements have an incentive to substitute capital and/or additional managerial inputs for operative labour. Substantial gains in productivity following a wage increase often seem likely to be realised provided the knowledge of how to raise productivity and the initiative needed to do so are present on the management side. But increases in productivity achieved at the cost of increased capital and managerial inputs will tend to make these resources scarcer and dearer in the rest of the economy. Wage increases may also improve productivity through favourable
effects both on the physical capacity of workers (if this is impaired by poverty and if higher wages are spent at least partly in ways that improve it) and on their willingness to work. But positive effects on the productivity of workers who receive, and of managements who have to pay, higher wages may be counterbalanced by negative effects on the capacity and motivation of other sections of the population, notably of workers who lose or fail to get jobs and peasant communities affected by higher taxation or a reduction in government services rendered necessary by a higher government wage bill.

Higher wages are likely in most circumstances to increase the supply of labour; this will promote economic growth if there is a shortage of labour. If, and to the extent that, higher wages divert resources from investment to consumption, this will be bad for growth in circumstances in which growth is limited by a shortage of capital—and this is the case in most developing countries most of the time. Another way in which wage increases may have unfavourable effects on growth is by intensifying the balance-of-payments difficulties of developing countries. They may make it more difficult for these countries to sell their products abroad and they may lead to an increased demand for imports of consumer goods.

Effects on Employment.

The problem of finding productive work for school-leavers and others who need it is causing a great many governments a great deal of anxiety; the effects of higher wages on employment opportunities are among the most important considerations to be borne in mind in fixing minimum wage rates. Possible management responses to higher wages are many and diverse, and in some situations adverse effects on employment may be weak or absent, but normally some adverse effect on employment is to be expected except in three sets of conditions—

(a) if higher wages increase the marginal productivity of a group of workers of a given size by an amount equal to or exceeding the wage increase;

(b) if there is no effective competition among employers for the services of workers and wages are below the levels that competition would establish;

(c) if there is general surplus capacity that could be brought into employment by action to raise aggregate demand, coupled with a situation in which the payment of higher wages will increase aggregate demand and not merely transfer purchasing power among different groups.
On the whole these conditions appear to be rather exceptional in developing countries, though further empirical studies to throw light on the frequency of their occurrence would be extremely useful. Further studies of the elasticity of demand for labour in the more normal situations in which higher wages must be expected to reduce the demand for labour would also be extremely useful.

*Effects on Income Distribution.*

If higher wages pay for themselves through higher productivity, the increased incomes of wage earners will not be at the expense of any other section of the community. Otherwise they may be partly or wholly at the expense of (a) profits (this is likely to make for greater equality of income distribution); or (b) consumers (if prices rise—effects on income distribution will then depend on whether the wage earners are better or worse off than consumers of the products in question); or (c) other workers who lose, or fail to get, jobs in sectors of the economy covered by minimum wage laws. In these cases higher wages are likely to make for greater inequality of income distribution.

**Criteria for Minimum Wage Fixing (Chapter III)**

Most of the criteria formulated in various countries for the guidance of minimum wage fixing authorities are variants of one or other of four propositions, namely that account should be taken of—

(a) the needs of workers (with or without special mention of the needs of their families);

(b) capacity to pay;¹

(c) wages paid for similar work elsewhere in the economy or, more generally, the standard of living of other social groups;

(d) the requirements of economic development.

These criteria point to considerations that should always be in the minds of minimum wage fixing authorities but they do not yield precise answers to the question of how to determine the level at which minimum wages should be fixed in any particular situation in order to contribute most to the general welfare, nor do they provide precise yardsticks in this connection. This is a matter of judgment and of weighing the gains to workers who will benefit from higher wages against the various kinds of

¹ When "capacity to pay" is evaluated at the national level, i.e. is interpreted to mean the capacity of the economy as a whole to pay higher wages, this criterion becomes virtually indistinguishable from the fourth one, namely the requirements of economic development.
costs that higher wages may impose on industries and on the economy as a whole. There is some danger that attention may be diverted from this crucial question and discussion sidetracked on to barren issues if a disproportionate amount of time and effort is devoted to arguments about precisely what a minimum needs budget should contain or precisely how a certain figure in a balance sheet should be interpreted.

It seems reasonable to attach a good deal of weight to the "relative living standards" criterion, which is emphasised in the relevant international labour Recommendations and application of which may give rise to fewer questions and difficulties than the other criteria. So far as the wage structure is concerned, this will mean giving priority to raising wages that are especially low and bringing them up towards the general level. So far as the general level of wages for unskilled labour is concerned, it will mean, in countries in which the bulk of the labour force is engaged in peasant agriculture, aiming at a reasonable equivalence in the living standards of wage earners and of peasant farmers, due allowance being made for differences in the cost of living, the nature and intensity of the work and the amenities of the two ways of life.

THE SCOPE OF MINIMUM WAGE FIXING (CHAPTER IV)

National versus Sectoral Minimum Wage Systems

In favour of a uniform national minimum wage (subject usually to regional variations) it may be argued that, as compared with a system comprising a multiplicity of sectoral minima, a national system facilitates co-ordination both with general development policies and within the minimum wage system itself; that it is likely to make for equity and the avoidance of anomalous wage differentials; that it makes for simplicity, ease and effectiveness of administration; and that it is easier to provide general coverage by means of a national minimum than by means of a network of sectoral minima which some countries have found it difficult to complete. In favour of a sectoral system it may be argued that a country not yet ready to administer a national system may make a start and acquire useful experience by fixing minimum wages in some appropriate sector or sectors; that a uniform national system may not meet the requirements of a country whose labour force includes workers at very different levels of development; and that a sectoral approach is perhaps more likely to promote the development of collective bargaining where this does not yet exist. On the whole the arguments for sectoral systems seem strongest when applied to countries at rather early stages of industrial development, and it seems desirable that minimum wage
systems should evolve in the direction of becoming more unified as economic and social development proceeds.

Minimum Wages and the Wage Structure

The question whether it is useful to fix a hierarchy of minimum wages graded according to skill turns on the question whether it is expected that a more satisfactory wage structure can be achieved in this way than by leaving sectoral differentials to market forces and collective bargaining. Criteria for judging how far a wage structure is satisfactory include equity and the extent to which it promotes productive allocation and utilisation of human resources. One may be very much aware of the deficiencies of market forces and collective bargaining as instruments for ensuring a satisfactory wage structure without feeling at all confident that detailed government intervention taking the form of fixing a whole hierarchy of graded minima would improve matters. A compromise would be for the authorities, besides fixing an unskilled minimum or minima, to select a very few semi-skilled and skilled occupations found in a number of industries and either fix or recommend for these occupations minimum rates or minimum percentage differentials over unskilled rates.

Some Institutional Aspects of Minimum Wage Fixing

(Chapter V)

Types of Minimum Wage Fixing Machinery

Minimum wages may be fixed by statute; by decisions of governments acting only on the advice of their own services; by decisions of governments after taking account of recommendations by central, regional, local or sectoral wages boards or wages councils; by decisions of wages boards or councils; by industrial or labour courts or tribunals; or by giving the force of law to wage provisions in collective agreements. Effect can be given in various ways under each of these different types of machinery to the provisions of the international labour Conventions and Recommendations regarding the consultation and participation of employers, workers and other persons in the processes of minimum wage fixing.

The Role of Employers, Workers and Independent Persons in the Operation of Minimum Wage Fixing Machinery

Reasons for associating representatives of employers and workers in the processes of minimum wage fixing include the following:
(a) they are the people most closely and directly affected by minimum wage fixing decisions;

(b) they have special knowledge of the needs of workers and of the conditions of the industry or industries concerned;

(c) a minimum wage is more likely to be acceptable if it has been arrived at through a democratic process of discussion;

(d) participation in the administration of a minimum wage fixing system can broaden the knowledge and experience of employers' and workers' representatives.

There are two conceptions of the role of independent or public members of wage fixing bodies: they may be regarded primarily as conciliators seeking to promote agreement between the employers' and workers' sides; or primarily as representatives of the public interest, with responsibilities for bringing to bear, in the wage fixing processes, considerations relating to the well-being of the community as a whole.

Relations between Minimum Wage Fixing Authorities and General Economic and Social Policy Makers

If it is desired to use minimum wage fixing as an instrument in a broader policy for promoting rapid growth and fair sharing of the national income, it seems desirable that three important areas of policy making should be represented in the processes of minimum wage fixing—industrial relations, economic planning, and finance.

Machinery set up to provide for such representation would have to meet the special needs, conditions and traditions of different countries and no uniform pattern can be suggested. It might be desirable to supplement the existing minimum wage fixing machinery with machinery including representation from employers, workers and other sections of the community such as farmers to advise on the objectives and instruments of wages and incomes policy. It would be implicit in the functions of a high-level advisory body of this kind that it would be expected to advise on questions relating to other incomes besides wages, and perhaps also on questions of employment policy. It would need to be serviced by a competent professional staff, which in some countries might also service the minimum wage fixing authority and perhaps a tribunal established for the settlement of industrial disputes.

Adjustment of Minimum Wage Rates (Chapter VI)

Minimum Wages and the Cost of Living

To the extent that a country's minimum wage system covers those categories of workers who are most in need of protection and least able
to protect themselves through collective bargaining, the case for establishing a close and direct link between minimum wages and the cost of living is a strong one, and it seems reasonable to suggest that minimum wages should not, except in certain special circumstances, be allowed to lag behind rises in the cost of living. But an automatic link between minimum wage rates and the cost of living would tie the hands of the authorities and prevent them from deciding on their merits questions of how best to cope with certain difficult situations that might sometimes be encountered, such as strong inflationary pressures that could not be brought under control by operating on demand and prices alone, or national emergencies such as famine or war. If no automatic link is established, it seems necessary at least to provide for the regular review of minimum wage rates in the light of increases in the cost of living, either at the request of workers’ members of the minimum wage fixing body or of a specified number of workers or workers’ organisations. The position of workers might be strengthened if the government were to issue a policy statement or directive establishing a presumption that minimum wages should at least keep pace with the cost of living—a presumption that could be rebutted only by convincing arguments invoking special circumstances.

Minimum Wages and Economic Growth

Economic growth creates a certain amount of “room” for wage increases in the sense of increasing the total volume of resources that can be devoted to wage incomes without requiring that the absolute level of other functional types of income should be reduced. But in order to determine how much “room” for wage increases would result from a given increase in income per head, it would be necessary, first, to know what social and economic priorities and goals had been set, and, secondly, to know or be able to make a good estimate of the quantitative effects of wage increases on the different variables involved in the pursuit of these goals, notably those discussed in Chapter II. Even if a government had decided how much “room” existed for an over-all wage increase in a particular year, there would remain difficult questions relating to how this over-all increase should be distributed among different sections of the wage-earning labour force and to the role of minimum wage fixing as an instrument for influencing this distribution.

Data for Minimum Wage Fixing (Chapter VII)

The quality of minimum wage fixing decisions is likely to depend a great deal on the amount and quality of relevant data, statistical and
other, at the disposal of the minimum wage fixing authorities. The latter need to be informed of the government's economic and social priorities and objectives and to be in close touch with national statistical services. Data required or useful for minimum wage fixing include those on:

the labour force—giving its size and breakdown by status, by economic sector and by region; wage rates and other incomes; family expenditure surveys and consumer price indices; costs, prices and the balance of payments; national income, with breakdowns by industrial origin, major categories of expenditure and major income categories.

Even in developed countries, but particularly in developing countries, there are often serious deficiencies in available data. Minimum wage fixing authorities may make representations to the national statistical services to improve available series or collect new data, either on a continuing or on an ad hoc basis; or if they have a technically competent staff, they may undertake special inquiries on their own account in close consultation with the national statistical services.
PART II

REPORT OF THE MEETING OF EXPERTS
REPORT OF THE MEETING OF EXPERTS

The meeting of experts ¹ referred to in the Preface adopted a report, the greater part of which is reproduced below. The opening paragraphs, dealing with procedural questions, are omitted and so is the second part, dealing with the second item on the agenda, namely ways in which the international labour Conventions and Recommendations on minimum way fixing machinery might be revised; this part, unless studied in conjunction with the texts of the instruments concerned, is of less general interest than the first part of the report, in which the experts expressed their views on the substance of the questions referred to them. The text of the remainder of the report follows.

SPECIAL CHARACTERISTICS OF DEVELOPING COUNTRIES

8. The setting of labour problems in developing countries is in several ways quite different from their context in developed industrial economies.

9. In the first place a large fraction of the population in most of the developing countries lives in conditions of acute poverty, sometimes on the edge of starvation. Many of the very poor are wage earners, but there are also two other major groups whose living standards are very low.

¹ The following experts participated in the meeting: Mr. Samir Amin (United Arab Republic), Professor, African Institute of Economic Development and Planning; Mr. Charles Louis Durand (France), General Secretary, Union of Gabon Mining Undertakings; Mr. Hector Escribar (Chile), Professor of Labour Law, Chilean National University; Mr. N. O. Eshiett (Nigeria), General Secretary, Federation of Commercial and Clerical Employees' Unions; Mr. Walter Galeson (United States), Professor, School of Industrial and Labor Relations, Cornell University; Mr. Tomas Herazo Rios (Colombia), General Secretary, Confederation of Colombian Workers; Mr. D. N. Karpukhin (U.S.S.R.), Deputy Director, Labour Scientific Research Institute; Mr. Jerry Montemayor (Philippines), President, Free Farmers' Union; Dean, College of Law; Mr. Francisco Muro de Nadal (Argentina), Chairman, International Activities Committee, General Economic Confederation; Mr. Dudley Seers (United Kingdom), Director, Institute of Development Studies, University of Sussex; Mr. Herman Van Liefferinge (Belgium), Adviser, Federation of Belgian Industries; Mr. O. Venkatachalam (India), Chief Labour Commissioner (Central); Mr. L. E. Wirasekera (Ceylon), Secretary, Employers' Federation of Ceylon. Mr. B. Tacke, Vice-President of the German Confederation of Trade Unions, who had been invited to attend the meeting, was unable to do so.
One is the peasants\(^1\) (many of whom are also wage earners, especially at certain seasons), who constitute a majority of the population in the poorest economies; the other is the mass of unemployed, which has become very large—sometimes more than 20 per cent. of the labour force in urban areas, apart from "disguised unemployment" in the countryside. Typically, the majority of the very poor are illiterate and lack any trade or skill.

10. At the top end of the income scale there is a small minority, with incomes many times as high as the incomes of those at the bottom. Income is, in fact, practically without exception, much more unequally distributed in developing countries than in countries which are richer and more industrialised. Apart from the big gap between the income of the property owner and that of the wage earner, there is always a wide spread of income within the labour force between professional employees and unskilled workers. The picture is further complicated by the fact that in many countries there is a modern sector making sufficient profits to be able to pay relatively high wages, even to unskilled workers. A big difference between living conditions in towns and in the countryside is typical, but where this modern sector is significant the contrast is particularly striking.

11. In developing countries average income is so low that capacity for meeting claims for better living standards is limited, pressing though the need for improvement often is. In some of these countries there is a shortage of land; in most there are too few people with technical or professional qualifications; nearly all lack sufficient capital, especially foreign exchange.

12. Because of the extent of poverty the overriding need in these countries is economic development. The mass of the labour force has no hope of getting well-paid jobs unless and until much more advanced stages of development have been reached.

13. On the other hand, moves towards a more equal distribution of income normally accompany economic development and there is good reason to believe that, without such moves, development will prove of little significance to the worker and will sooner or later be held up.

14. It follows from the above that in developing countries minimum wage fixing has to be seen as one of a battery of measures in the strategy

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\(^1\) Throughout this report "peasants" are taken to mean owners or tenants of small plots of land.
of an attack on poverty, its major objective. These can be considered under two headings, both of which are designed to achieve this fundamental objective: measures to accelerate development and measures to change the distribution of income.

15. The former would cover educational programmes, including training and literacy campaigns, and policies to raise capital and invest it productively and to stimulate private investment. Policies on wages and other incomes need to be consistent with the other elements in a strategy of development. While wage levels which are too low can be a brake on development, those which are too high in relation to the rate of economic advance may slow down the pace of development by discouraging exports and making import substitution more difficult. Employment can, moreover, fall if undue wage increases encourage the mechanisation of jobs.

16. At first sight it seems that a more equal distribution of income would hardly be compatible with accelerating development, because it reduces the savings needed for investment. Company profits which are retained in the country are an important source of capital, but savings out of high personal incomes are often relatively small in developing countries and are frequently used for investment in unproductive assets or held overseas. Moreover, in many countries a large part of the expenditure of persons with high incomes goes on imported luxuries or foreign travel, so that a shift in the distribution of income to the wage earner would help to create the mass markets for local manufactures that are necessary if development is to proceed far.

17. There are a number of possible ways of reducing inequalities in living standards other than through the machinery of wage fixing. These include direct taxation, expenditure on social services and land reform. An excessive outflow of profits from a country can be more effectively prevented by government fiscal measures than by raising wages, which may indeed be unduly high in relation to the incomes of the rest of the population.

18. The extent to which wage fixing can improve the distribution of income by itself is in fact limited. Unless wage increases, whether due to the establishment or adjustment of minimum wages or to other reasons, are absorbed by profits or higher productivity, the result will be higher prices. Moreover, such price increases will harm the peasants and the unemployed as well as those wage earners not effectively covered by the wage award. So the distribution of income could actually be made worse.
19. There are other factors contributing to poverty besides low levels of wages. These include a large number of children or aged or infirm people in a family, the sickness or death of breadwinners, as well as unemployment or underemployment and—in rural communities—low or fluctuating prices for farm products.

20. Such causes of poverty have also to be attacked by appropriate social measures. These include measures to protect health, particularly the health of women and young workers; to prevent excessive hours of work; to ensure safe and reasonable working conditions; and, where conditions permit, to maintain a minimum income for workers in periods of sickness and unemployment and during their old age.

21. While it is true that a policy on wages is a necessary element in a development strategy, it is also true that development policies and such measures of social improvement as are described above are necessary counterparts to a policy on wages in the attack on poverty. In countries where the government has no strategy for social and economic development, wage increases would be the only way to reduce inequalities, and nothing said above should be interpreted as discouraging such increases in these circumstances.

22. The fixing of minimum wages can in any case be the most effective policy tool for one objective in any country. It can prevent the payment of particularly low wages to vulnerable groups of workers, and by doing so it can also make the distribution of income somewhat better.

23. There are, however, practical limits to the effectiveness of minimum wage policy which are inherent in the conditions of a number of developing countries. One is the shortage of people with administrative experience. This is among the causes of the weakness of administrative departments concerned with labour policy and also shows itself in the poor quality of the statistics available as a guide to those engaged in wage determination.

24. Trade unions may have few experienced leaders and limited staff capable of setting their claims in the wider perspective of the needs of the whole economy. Sometimes, because of the backwardness and poverty of the working class, their influence is further hampered by small membership, especially in rural areas, and limited financial resources.

25. Finally, inflation is chronic in many developing countries. This means that those on fixed incomes suffer a falling standard of living and wage fixing authorities lack a stable yardstick for their task. It also means that development itself is impaired in various ways; one of the
conditions for combining rapid development over the long term with social justice is to bring general inflation under control.

**Consequences of Minimum Wage Fixing**

26. In order to throw light on the effectiveness of minimum wage fixing in achieving its objectives, its consequences must be examined more closely. This is attempted below, but first one general point: there is a good deal of ignorance and uncertainty about what happens to prices, employment and development after a change in the minimum wage—or indeed any wage level. Our understanding of the mechanism through which these variables affect each other badly needs improving, and the I.L.O. should itself take a leading part in research into these problems (see below, paragraph 94). However, something can be said about the logical consequences of minimum wage changes on the basis of certain assumptions.

(a) *Minimum and Actual Wages*

27. The first question is how the fixing and periodic adjustment of minimum wages affect wages actually paid. This occurs in two different ways. First, the wages of those covered by minimum wage legislation are raised to levels necessary to comply with the law. The extent of the change depends on how effective the authorities are in seeing that the law is obeyed and on how high the minimum wage is in relation to wages previously paid in the sectors covered.

28. There is also an indirect effect on the wages of other workers, including those whose wages were already above the minimum. Resistance to compression of customary differentials for skills, hardship, etc. is strong, particularly when the workers concerned are organised. So the total effect of the fixing of a new minimum may be much greater than might be expected from a mere perusal of its nominal coverage.

29. Wages actually paid affect productivity and costs of production, which are in their turn reflected in changes of prices and in the distribution of income. Further repercussions are felt in the levels of employment and underemployment and the rate of development. Thus a change in minimum wages reverberates throughout the economy with many effects, both positive and negative.

(b) *The Workers' Standard of Living*

30. This set of changes has of course major implications for the standard of living of wage earners. If prices remain unchanged an
increase in wages must shift the distribution of income to their benefit. However, a large part of this gain is in practice lost if, as often happens, the rise in costs is at least partially reflected in a rise in prices.

31. Greater purchasing power for food crops may ultimately accelerate agricultural development, but in the short run food prices may easily rise in almost the same proportion as the increase in wages, because of the difficulty of achieving a sudden big increase in output.

32. There is good reason to believe that productivity will improve in urban industries. When workers’ standards of living are as low as they are in developing countries, the result of a wage increase must be reflected in some improvement in health, efficiency and economic performance. When wages are higher, wage earners will have more incentive to keep their jobs. With greater commitment, attendance and time-keeping will probably improve, and wage earners may well be prepared to work harder.

33. Higher wages also give management an incentive to organise work better so as to make the best use not only of machinery but also of labour as the latter becomes more expensive. So for this reason too, unit costs of labour, and therefore prices, are unlikely to rise by as much, proportionately, as the increase in wages.

34. There are, however, industries where the scope for productivity increases is limited, either because of the nature of the productive techniques employed or because they lack the organisational capacity or the capital needed for higher productivity. In such cases either prices must rise or, if prices are “sticky” at least temporarily, some marginal firms will be forced out of business.

35. The effect of price rises on the standard of living of peasants depends on which prices rise most and on the peasants’ patterns of production and expenditure. Those selling mostly staple foodstuffs are likely to benefit from higher prices, especially if they are purchasing imported machinery and other goods the price of which is unaffected by local wage increases. But the standard of living of those producing export crops and buying their own food could be severely affected.

36. A wage increase, particularly one that does not extend to the rural wage earner, may therefore create or increase disparities between living conditions in the towns and those in country districts, especially if the pace of rural development is slow. This can stimulate the flow towards the towns of people attracted by the higher living standards which some workers, at least, enjoy there. Many governments are already disturbed by the extent of this migration.
37. The other main group suffering from poverty, the urban unemployed, are unlikely to find any way of protecting themselves from price rises. Such casual jobs as they get, for example, may well not be covered effectively by a change in minimum wages. Wage earners who receive no rise in pay will of course also suffer from any price rise.

(c) Employment

38. Productivity increases will be obtained at the expense of employment unless demand rises sufficiently to enable a higher volume of output to be bought. An increase in total wage payments will of course raise the demand for goods which wage earners buy and, if the productivity rise is so big as to enable prices to be held constant, no workers need be dismissed. But where the wage earners concerned are working in export industries, the wage increase is likely to be accompanied by a fall in employment, unless, as sometimes happens, wages are a very small item in costs. Government expenditure consists largely of salaries and wages, and any increase in wages will necessarily mean that governments will not be able to employ so many people at any given level of expenditure; to avoid adding to unemployment they may be tempted to resort to inflationary financial policies.

39. In some cases increased productivity will be obtained by greater use of machinery, which is usually imported, because labour (which is plentiful) will have become dearer in relation to capital (which is scarce). Circumstances could be imagined in which the machinery would be paid for out of profits of foreign companies not available for other forms of investment and the resulting rise in productivity would be so large that the economy could benefit by falling costs and rising tax revenues, which in turn would permit employment to be increased. But, as a general proposition, the increased use of labour-saving techniques means higher unemployment, at least in the short run.

40. If an increase in wages is obtained at the cost of a corresponding fall in employment, then, as against the benefits of higher purchasing power in the hands of some families, others will find that one or more of their wage earners lose their jobs. The problem of finding work for school-leavers and those already unemployed is causing nearly every government of a developing country a great deal of anxiety.

(d) Development

41. The long-run consequences for employment depend on what happens to the pace of development. As pointed out above, minimum
wage legislation can accomplish some shift in the distribution of income from rich to poor in developing countries. Even though this can also be achieved by other means, it will help to divert money from being exported, or spent on imported luxuries, to being spent on the products of local industries. It may also, as we have seen, induce large productivity gains.

42. On the other hand, a wage increase may be paid for with money which would otherwise have been invested productively. Developing countries need as much investment as they can get. The main sources are foreign private investors, their own private investors and government development programmes. Undue increases in wages—and uncertainty about the future course of wages—discourage potential foreign investors and reduce the extent to which local investors can "plough back" profits. They also reduce the means available to a government for financing education and capital projects, both because they have a big effect on its own expenditures, current and capital, and because they reduce the profits assessed for taxation. This reduction can be serious when tax rates are high, so that the government is in effect meeting half or more of the cost of the increased wages paid by private undertakings. One way out may be to raise taxes further, but in many countries this has limited possibilities; enforcement may be difficult and there will be little or no gain anyway if the government is anxious to attract foreign capital.

43. A government’s development plan may well depend on an expansion of exports and/or the development of local production of items previously imported. Where new lines of exports have to be created by capturing parts of overseas markets, costs of production may be of vital importance, as they may be in the case of attempts to displace foreign competition in domestic markets for manufactures. While these latter attempts can be helped by high tariffs and other forms of protection, there may be a long-term cost if the result is the creation of a manufacturing sector which is neither interested in selling its products overseas nor capable of doing so.

44. Whether the effects of wage increases on development are on balance favourable or unfavourable will depend on the socio-economic structure of the country concerned and on the pace of the rise in wages. The capacity of a country to withstand negative effects of wage increases will also depend on whether the economy has strong sources of growth. If the economy as a whole is expanding, the unemployment induced by a wage increase can be absorbed in the advancing sectors of the economy; then the objectives of equality and development will be consistent rather than in conflict.
CRITERIA FOR MINIMUM WAGE FIXING

45. The criteria traditionally employed by wage fixing authorities can be grouped into three broad classes—

(a) the workers' needs;
(b) the employers' capacity to pay;
(c) wages or incomes elsewhere in the economy.

Recent discussions have emphasised the importance of a fourth criterion, namely:
(d) the requirements of economic development.

(a) The Needs of the Workers

46. If a minimum wage is to have any significance it must be related in some way to the needs of the workers. We must never overlook the fact that when we are dealing with wages we are not dealing with an economic abstraction but with the source of livelihood of millions of people. On their income depends their capacity to cope with the tragic choices of everyday life—whether to spend money on food or medicine, on making their dwelling less damp or buying a few sticks of furniture.

47. The difficulty lies in specifying these needs precisely. A wage earner requires most of all food, clothing and accommodation. But it is hard to state even these requirements exactly. Experts on nutrition hold differing opinions regarding the necessary diet to help a man to be healthy and active, and this does depend in part on the type of food to which he has become accustomed. In other categories of expenditure the minimum standard is still more a matter of social convention. In more advanced countries a man would be considered very poor if he could not afford recreation or make some payment for health or educational services.

48. How much income a wage earner requires depends also on the size of his family. The great majority of wage earners have children and other dependants to support, and a wage is in no sense a living wage unless it adequately covers all who have to live by it. In some countries family allowances are paid either by the State or by employers (usually under systems such that the employers are not discouraged from hiring persons with large families). However, a comprehensive scheme of adequate family allowances would be a great burden for a poor country. Even where there are comprehensive schemes in developing countries today, the allowances paid under them do not cover in full the cost of bringing up a child.
49. There is a basic dilemma here. If the concept of human needs is interpreted very broadly in a poor economy, it will lead to the setting of wages at a level which throws out of work many of those who are in greatest economic need. On the other hand, if it is interpreted too narrowly, it will have little effect on actual wages, and may indeed be taken as an excuse for paying wages that are quite unreasonably low.

50. A distinction is implied between, on the one hand, a "subsistence" standard which covers the barest needs of workers and which could be the basis of a national minimum wage, and, on the other hand, a somewhat higher standard of living which should take greater account of social needs and which could be seen as a future target for the whole population or as a yardstick for setting now the wages of, for example, those with some degree of skill.

51. This analysis also implies that human needs have to be interpreted relatively, i.e. in relation to the economic levels of the country concerned. Yet an objective minimum standard, cast in physical terms as far as possible (e.g. so many pounds of rice, etc.), is necessary for each country. This standard should be such as to end conditions of labour which in the circumstances of the country concerned would be considered as "sweated labour", but should be achieved at the lowest cost in terms of swelling the mass of unemployment. We return to this point in paragraph 59.

(b) Capacity to Pay

52. This can be interpreted in two different ways, i.e. in terms of the capacity to pay of employers in an individual industry or of employers as a whole.

53. Basing minimum wages on the capacity to pay of employers in individual industries implies fixing higher minimum wages in more prosperous industries than in those which are not so well off. Two categories of industries with a relatively high capacity to pay can be identified in many developing countries. These are manufacturing industries of the modern type and some extractive industries.

54. If such industries are allowed to make larger profits than are necessary to induce them to operate in the country concerned, and especially if they take these profits out of the country, the trade unions will naturally try to secure for their members a bigger share in the profits of such industries by pressing for the highest wages they can get.

55. While unions may sometimes virtually be forced to adopt such an approach because of the indifference of governments and of certain
wealthy companies to considerations of national welfare, this is not true in all countries. There are wealthy undertakings with a sense of responsibility towards the countries in which they operate and governments which, without driving away foreign capital or enterprise, prevent excessive profits. When the wealth produced by large modern undertakings is widely shared there is less incentive and less justification for unions to try to obtain a specially privileged position for the workers employed by these undertakings.

56. In any case the way to do this might not be through minimum wage fixing but by direct collective bargaining in the industry, since this would be less likely to lead to the general wage level being linked to that in the privileged industry and being therefore so high as to stifle the expansion of other sectors of the economy.

57. Moreover, capacity to pay lacks precision as an operative criterion for minimum wage fixing. The problem is still further complicated by the existence within the same industry of firms with different levels of productivity. If wages are related to the capacity to pay of the most profitable firm, others will be driven out of business, but if they are related to the least profitable firm, then the others will continue to pay lower wages than they could pay.

58. This suggests that capacity to pay can best be interpreted in relation to the state of the economy as a whole. But on this basis capacity to pay merges essentially with the criterion of economic development, which will be dealt with below.

(c) Living Standards Elsewhere in the Economy

59. The difficulty of defining a subsistence level in absolute terms leads logically to a search for some yardstick that would help wage fixing authorities. The obvious place to look is at wages paid elsewhere in the economy for comparable work, or, more generally, at the standard of living of other social groups. It is this criterion which is chiefly emphasised in the international labour Recommendations concerning minimum wage fixing machinery.

60. In countries where a substantial fraction of the labour force is engaged in peasant agriculture, the most obvious standard of comparison is the living standard of peasants.

61. The idea that the minimum wage of unskilled workers, urban as well as rural, should in some sense be based on or related to the average
level of living of peasant cultivators is apt to be misunderstood and to be thought to imply a deterioration in the levels of living of urban wage earners. This is, however, not necessarily the case, provided—as must be done—due allowance is made for differences in the cost of living, the nature and intensity of the work and the amenities of the two ways of life. For example, in many countries, the urban wage earner works for longer hours or for more months in the year than the peasant, even allowing for the time the latter’s family spends in the fields.

62. It is therefore necessary to make it clear first that, because of the higher cost of living in towns and of the fact that urban workers have certain needs that do not arise in rural areas, this criterion would normally imply at least two different levels of minimum wages in money terms, one for rural workers and a higher level for urban workers.

63. There might well, of course, be more than two different levels to take account of differences in the costs of living in cities and towns of different sizes, and even in different rural areas, if these differences are substantial in any country and if they can be allowed for without unduly complicating the administration of a scheme.

64. It should also be stressed that this criterion would be used for national minimum wages only, the floor to the living standard of workers. There would be nothing to stop any groups of workers from negotiating wages above the national minimum. Indeed it would be open to any country that wished to do so to fix by law higher minimum wages for certain categories of workers, for example those with certain skills.

65. This criterion does have important practical advantages. First, the average or typical level of living of the family of a peasant can be measured, though not without some difficulty, by sample surveys of the consumption of the rural population (excluding smallholders and tenants with plots of land too small to keep them fully occupied as well as landowners having what are by local standards large properties).

66. Secondly, it provides a practical measure of the level of living that a country can in fact afford for the mass of its population and varies with the degree of prosperity of different countries; thus a national minimum wage based on this standard would be related to the conditions of the country concerned.

67. Thirdly, by adding to the money value of the real income received by average peasant families allowances for the higher costs of living and the greater needs, in some respects, of workers living in towns, as well as allowances for differences in hours and arduousness of work,
the authorities can ensure a reasonable relationship between the living standards of urban and rural families and their respective shares in the fruits of economic progress.

68. Indeed, this criterion would give those living in towns a stake, which they lack at present, in the economic and social progress of the rural areas; it would link together the interests of urban and rural workers, which often clash—at least in the minds of those involved.

(d) Economic Development

69. Although an objective standard based on the human needs of workers should be established as a guide for wage fixing authorities, the conditions in the country concerned and its development needs and possibilities must in the last resort determine the choice of standard and its exact definition. Minimum wages cannot be set without taking account of the total social and economic context, including the amount of unemployment, the size of the peasant population and the existing relationship between peasant incomes and wages, both rural and urban.

70. Because of the importance of a country's economic development to its wage earners no less than to other classes, the process of wage determination must take into account the proper role of wages in creating markets for mass production of consumer goods, as well as the likely impact of wage changes on the volume of employment. All this has, moreover, to be seen against the background of the government's development strategy, especially its plans for promoting exports and encouraging the production of substitutes for imports.

71. In searching for the proper level of minimum wages it should be borne in mind that big jumps can have a very disruptive effect on the economy. Moreover, once a minimum has been set it is very difficult to revise it downwards. This suggests the advisability of proceeding by rather gradual stages in raising minimum wages, in order to test the wider economic implications of such action.

THE SCOPE OF MINIMUM WAGE FIXING

72. The special merits of a national minimum wage for a developing country do not imply that higher minima should not be set for different occupations, grades of skill, industries, etc. Still less do they imply any need for a country which has elaborate machinery of this kind already in existence to scrap it. The extent of the system must depend on local circumstances and traditions.
THE MACHINERY FOR FIXING, ADJUSTING AND ENFORCING MINIMUM WAGES

(a) Wage Fixing

73. Minimum wages may be fixed—

(i) by statute;
(ii) by order of the government, the executive and its services being responsible not merely for the ultimate decision on wage fixing proposals but for the preparation of the proposals themselves;
(iii) by decisions of governments reached after taking account of recommendations made by central, regional, local or sectoral wages boards or wages councils;
(iv) by decisions of wages boards or councils; or
(v) by industrial or labour courts or tribunals.

74. The fixing of minimum wage rates by statute is a cumbersome procedure liable to be attended by lengthy delays, but of course the choice between different types of machinery depends very much on the traditions and political structure of the country concerned.

75. Whatever the form of the machinery, it is essential that provision should be made for employers and workers to be able to make their views known. There are several reasons for this. They are the people most closely and directly affected by minimum wage fixing decisions. They have special knowledge of the needs of workers and of the conditions of the industry or industries concerned. A minimum wage is more likely to be acceptable if it has been arrived at through a process of discussion. Finally, taking part in this task can broaden their knowledge and experience.

76. If minimum wage fixing is to be integrated into development planning, it is essential that account should be taken of the national interests, including the needs of development and the interests of consumers. This can be done by making provision for the participation in minimum wage fixing of suitably qualified independent persons and/or public officials with responsibilities in the areas of industrial relations and economic planning.

77. Conversely, it is desirable that the persons most closely affected by minimum wage decisions should be represented, at least in an advisory capacity, in the deliberations of high-level policy-making bodies. A high-level advisory body of this kind would need to be serviced by a competent professional staff, which in some countries might also
service the minimum wage fixing authority and any tribunal established for the settlement of industrial disputes.

78. The quality of minimum wage fixing decisions is likely to depend on the amount and quality of relevant data, statistical and other, at the disposal of the minimum wage fixing authorities.

79. First, family budget surveys are indispensable for the application of the relative living standards criterion as suggested in paragraphs 59 to 68. But in nearly every developing country regular statistical series need a great deal of improvement if those taking decisions are to do so in the light of all the social and economic factors involved. The statistics most urgently needed for minimum wage fixing are those showing movements in the cost of living and in wages. Next in importance are statistics of the labour force—giving its size and breakdown by employment status, by economic sector and by region—and statistics of unemployment and, if possible, underemployment. Also very important, though somewhat lower in order of priority for purposes of minimum wage fixing, are statistics of the economic scene as a whole. These include national income accounts, with breakdowns (i) by industrial origin (which, taken in conjunction with sectoral employment statistics, will show trends in sectoral labour productivity), (ii) by major categories of expenditure (showing trends in private consumption, investment and government expenditure), and (iii) by major income categories (which will reveal trends in the relationship between wages, profits and other incomes), supplemented by data on the distribution of income and wealth by size.

80. Surveys of the degree of utilisation of industrial capacity, taken in conjunction with statistics showing trends in wages, income distribution and consumption, can be helpful for assessing how far economic growth may be impeded by lack of purchasing power and how far by lack of capital. Statistics of exports, imports, and the balance of payments are also very relevant in assessing a country's capacity to pay higher wages.

81. Developing countries experience difficulties in financing and staffing services to collect and process all these statistical series; this is an area in which international technical co-operation can be of great value.

(b) Wage Adjustment

82. Minimum wages will fail to meet the human needs criteria indicated above (i.e. a specific standard set in the light of the country's
social and economic conditions) unless they are adjusted from time to
time to take account of changes in the cost of living and in economic
conditions.

83. The purchasing power of a national minimum wage cannot be
maintained unless a close link has been established between it and an
appropriate cost-of-living index. This link does not necessarily have to be
completely automatic; during national emergencies, such as war or
famine or the collapse of the market for a commodity on which the
country depends, necessitating a reduction in the general standard of
living, even those on a human needs standard might have to be called
upon to share the sacrifices. But the principle of maintaining this
standard implies that the danger of inflation should not in itself be
regarded as a sufficient justification for allowing a deterioration of any
magnitude (say, more than 10 per cent.) in the purchasing power of a
national minimum wage, and that governments should control inflation­
ary pressures by other methods rather than by reducing the already very
low standard of living of those in need of the protection afforded by a
national minimum wage.

84. This principle puts a great deal of weight on a country’s cost-of-
living index, which does not always inspire confidence. It would no
doubt be more widely trusted if representatives of employers and work­
ers were associated with its construction and operation. This might be
achieved by consulting them on the key questions involved in its
construction and making available to them copies of working papers
used in the calculation of monthly figures.

85. To ensure that those in receipt of minimum wages achieve
improved standards of living through a share in the fruits of economic
progress, periodical surveys should be made of a country’s economic
conditions, including trends in per head income, industrial productivity,
employment and unemployment. Such surveys would show when a rise
in minimum wage rates, particularly national minimum wages, if any,
would be compatible with development objectives.

86. The frequency with which such surveys should be taken depends
on local conditions, especially the pace of development, but for most
developing countries intervals of from three to five years would probably
be appropriate.

87. Where the standard of living of peasant families is being used as
a yardstick for a national minimum wage, it is particularly important
that this should be measured from time to time. It may fluctuate
considerably owing to variations in crop yields and prices; decisions
should be based on trends averaged out over a period of years rather than on figures for an individual year.

(c) Wage Enforcement

88. A number of provisions on the enforcement of minimum wage legislation are included in the existing I.L.O. instruments on this subject—provisions relating to giving publicity to legal requirements, the keeping of records by employers, inspection, supervision, the right to recover wages due and penalties for infringement of legal requirements.

89. Experience has shown that such provisions, frequently incorporated in national legislation, though valuable, are not sufficient to prevent abuses. Especially when workers are ignorant, illiterate and unorganised, unscrupulous employers may infringe minimum wage laws in a great many ways. As a result of their ignorance being exploited or on account of their fear of losing their jobs, workers may be induced to sign receipts for larger amounts of wages than they have received; they may be deterred from going to court, or suborned. Delaying tactics may be adopted to postpone the hearing of cases, counter-charges may be brought and inspectors may be improperly influenced.

90. The prevention of such abuses depends on (i) hiring enough inspectors who are adequately paid and trained, (ii) a gradual process of education of employers as well as of workers, and (iii) the strengthening of the trade union movement to the point at which workers can defend themselves effectively through collective action.

91. Progress has been made in all these ways, but further progress will take time, and in the meantime the adoption of the following measures would help to limit breaches of the law:

(i) improved publicity for the provisions of minimum wage laws, adapted where necessary to the needs of illiterate workers and employers, and provided in all languages or vernaculars used by workers who need protection;
(ii) simplification of unnecessarily complicated legal provisions;
(iii) simplification and reduction of the cost of legal procedures;
(iv) deterrent penalties for infringement of the law;
(v) more effective protection of workers against victimisation.

92. Inspection designed to enforce minimum wage legislation should cover all workers for whom minimum wages have been fixed including
those engaged in agriculture, transport and mining\textsuperscript{1}, even if some of
these workers, such as those engaged in agriculture, may not be covered
by more general labour inspection systems.

**ACTION BY THE I.L.O.**

93. Apart from revision of the relevant international labour instru-
ments, . . . I.L.O. research and technical co-operation can help develop-
ing countries in dealing effectively with problems of minimum wage
fixing and related questions.

94. The Organisation should undertake or sponsor research into
problems of minimum wage fixing in developing countries and into social
and economic conditions in these countries, so as to build up a body of
knowledge that would guide its own organs and also help individual
countries and their wage fixing machinery. Studies in depth of the effect
of introducing or changing minimum wages in particular countries would
be specially useful.

95. The I.L.O. should develop its resources for providing on request
assistance to governments in carrying out such studies themselves and in
strengthening their statistics along the lines indicated in the previous
section (paragraphs 79 and 80).

96. It should provide facilities—whether in Geneva or locally—for
the training of officials, including representatives of employers and
workers, in the tasks of fixing, adjusting and enforcing minimum wages.
Help could, for example, be given through the provision of books,
reports, films and other audio-visual aids.

\textsuperscript{1} Who may be excluded from the scope of the international labour Convention
concerning labour inspection in industry and commerce, 1947 (No. 81).
APPENDICES
APPENDIX 1

RELATIONSHIP BETWEEN MINIMUM WAGES AND ACTUAL WAGES IN SELECTED COUNTRIES

BY DUDLEY JACKSON

In this analysis we start from a simple hypothesis, or "model", of wage determination which supposes that each group of workers is paid a percentage mark-up on the minimum wage; this "model" is then tested statistically from actual data: the results indicate the relationship (if any) which actually exists between average earnings and the minimum wage.

The formulae for this test involve the following symbols:

- i = a subscript denoting any particular group of workers in the labour force.
- \( w_i \) = the wage paid to the \( i \)th group of workers in the labour force.
- \( a_i \) = the percentage mark-up on the minimum wage, which mark-up determines \( w_i \) (e.g. if a group of workers is paid 20 per cent. above the minimum wage, \( a_i = .2 \)).
- m = the minimum wage.
- \( w \) = average earnings, all workers employed.
- \( L_i = \Sigma \) number of workers in the \( i \)th group.
- \( L = \Sigma L_i = \) total employed labour force.
- \( \lambda_i = L_i/L = \) proportion of \( i \)th group of workers in total labour force.

Our basic hypothesis can thus be expressed by saying that the wage paid to the \( i \)th group of workers, \( w_i \), is determined as a percentage mark-up, \( a_i \), on the minimum wage, m. For instance unskilled workers are paid the minimum wage (\( x_1 = 0 \)); semi-skilled workers may be paid 10 per cent. above the minimum wage (\( x_2 = .1 \)) and skilled workers may be paid 25 per cent. above the minimum wage (\( x_3 = .25 \)); so that then—

\[
\begin{align*}
\text{If } t_1 = \text{unskilled} & \\
\text{If } t_2 = \text{semi-skilled} & \\
\text{If } t_3 = \text{skilled} &
\end{align*}
\]

In general this basic hypothesis may, therefore, be written—

\[
w_i = (1 + a_i) m. \tag{1}
\]

Now the average wage for all workers, \( w \), is—

\[
w = \frac{\Sigma w_i L_i}{L} = \frac{\Sigma w_i \lambda_i}{\lambda_i} \tag{3}
\]

and substituting (2) in (3) we obtain—

\[
w = \Sigma (1 + a_i) \lambda_i. \tag{4}
\]

Equation (4) states that the average wage for all workers is determined as a weighted average of the different groups' actual percentage mark-ups on the minimum wage; i.e. \( \Sigma (1 + a_i) \lambda_i \) is a weighted average of the mark-ups \( a_i \),...
the weights being the proportion each group of workers bears to the total labour force, $\lambda_i$.

It might be thought that the average mark-up in equation (4) could be estimated from data on average earnings and on the minimum wage, but this is unfortunately not the case because such estimation requires the weighted average of the percentage mark-ups to remain constant. But changes in the proportions, $\lambda_i$, of different groups of workers may result from changes in the minimum wage itself, or from other factors, and if these groups have different pay levels this will affect the level of average earnings independently. In general, average earnings will in any case rise slightly because the proportion of more skilled workers in the labour force tends to rise with the level of economic development. So that even were our hypothesis perfectly fulfilled we would expect to find in reality that average earnings rose slightly more than proportionately to the minimum wage, because of increases in $\lambda_i$ for the more skilled, higher paid groups. Furthermore, if an increase in the minimum wage were not passed on proportionately to higher paid workers, so that percentage skill differentials were reduced, then unskilled labour might be replaced by skilled labour (which would have now become relatively cheaper) and this in turn would raise the level of average earnings. Thus both $\alpha_i$ and $\lambda_i$ for all $i$ may be changing and we cannot estimate the weighted average mark-up from data on average earnings and the minimum wage alone.

However, we may continue to the following "model" which can meaningfully be estimated and which derives essentially from equation (4).

Suppose that observations on the minimum wage and on average earnings are available for a number of years, say two. If $\alpha_i$ and $\lambda_i$ are constant for all $i$ over the whole period, then the relationship between changes in the minimum wage and changes in average earnings will be an equi-proportionate one—e.g. a 10 per cent increase in the minimum wage will lead to an equi-proportionate 10 per cent increase in average earnings. However, if the $\alpha_i$ or $\lambda_i$ change when the minimum wage changes, the relationship will no longer be equi-proportionate.

Some examples are given in table 1 for the simplest case of two groups of labour—

In Case I we illustrate an equi-proportionate relationship between changes in the minimum wage and changes in average earnings (so that the "elasticity" of average earnings with respect to the minimum wage is unity, or 1.0).

Case II shows that when the percentage mark-up declines for the higher paid group of workers (i.e. when their percentage wage differential is compressed), but the employment proportions (or "skill mix") remain constant, the relationship between changes in the minimum wage and changes in average earnings is less than equi-proportionate: in the example the elasticity is .86.

Case III shows that when employment proportions change and the proportion of the skilled and more highly paid workers increases but the percentage mark-ups remain constant, the relationship is greater than equi-proportionate and the elasticity is 1.5.

Case IV shows that, if the percentage mark-up for the higher paid workers falls while those workers increase as a proportion of the total labour force, then the elasticity is reduced by comparison with Case III.

It follows from this that, if we assume, as seems reasonable from experience, that the proportion of more highly skilled and thus more highly paid workers will always tend to rise anyway, or at least to remain constant, but will never tend to fall, then an elasticity of less than unity can be obtained only by a reduction in the percentage mark-up for the higher paid workers, i.e. by a compression of percentage wage differentials. Furthermore, if we argue that increases in the proportion of higher paid workers, $\lambda_i$, will not greatly increase
<table>
<thead>
<tr>
<th>Type of workers</th>
<th>Number of workers</th>
<th>m</th>
<th>α₁</th>
<th>ω₁</th>
<th>λ₁</th>
<th>w</th>
<th>Change in m per cent</th>
<th>Change in w per cent</th>
<th>Elasticity</th>
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<tbody>
<tr>
<td>Initial year</td>
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<tr>
<td>Unskilled</td>
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<td>1</td>
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<td>1.050</td>
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<tr>
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<td>10</td>
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<td>Case I:</td>
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<td>Maintenance of skill differentials—no change in α₁</td>
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<td>.1</td>
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<td>Compression of skill differentials—change in α₁</td>
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<td>.9</td>
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<td>20</td>
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<tr>
<td>Case III:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance of skill differentials—no change in α₁</td>
<td>Unskilled</td>
<td>80</td>
<td>1.1</td>
<td>0</td>
<td>1.1</td>
<td>.8</td>
<td>1.18</td>
<td>10</td>
<td>12.4</td>
</tr>
<tr>
<td>Change in employment proportions—change in λ₁</td>
<td>Skilled</td>
<td>20</td>
<td>.364</td>
<td>.5</td>
<td>1.65</td>
<td>.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second year:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case IV:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compression of skill differentials—change in α₁</td>
<td>Unskilled</td>
<td>80</td>
<td>1.1</td>
<td>0</td>
<td>1.1</td>
<td>.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in employment proportions—change in λ₁</td>
<td>Skilled</td>
<td>20</td>
<td>.364</td>
<td>.5</td>
<td>1.65</td>
<td>.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
average earnings, then a large elasticity (say, greater than 1.5) will be the result of increases in the percentage mark-up, \( a_1 \), for the higher paid workers.

The elasticities for cross-section data (comparing the minimum wage and average earnings in different regions or sectors of the economy, as opposed to different periods) may be interpreted in an analogous manner, except that for "initial year" one would read "first region" or "first sector" and for "second year" one would read "second region" or "second sector". But this interpretation depends upon the assumption that each region or sector is reasonably similar to each other region or sector in its economic structure. ¹

If this is the case then differences among regions or sectors in average earnings can be ascribed to "marginal" adjustments in the skill mix and in the percentage mark-ups to the prevailing minimum wage. But if (as seems more likely) we have one poor region or sector operating predominantly on labour-intensive techniques and one rich region or sector operating predominantly on capital-intensive techniques, then differences in average earnings between the two sectors should be ascribed to differences in capital intensity rather than to differences in the minimum wage. (However, empirical results for Brazil suggest that the influence of the state minimum wage on average earnings is stronger than the influence of either output per worker or capital per worker.)

For each country for which we have found adequate data we have estimated these elasticities, in the first place because this was the most meaningful way in which such data could be analysed. But it also happens that such elasticities are internationally comparable and this should be a useful feature of the results.

We have also taken possible determinants of the general wage level other than the minimum wage into account to the extent that data were available.

Summaries of the detailed results for individual countries are given below.

NEW ZEALAND

For New Zealand we have the following data in April and October of each year from 1946 to 1965 ²:

1. Weekly wage pay-out per person (including overtime, bonus earnings, etc.): aggregate pay-out for one week divided by the number of full-time employees.
   This refers to "surveyed industries including seasonal industries".
   The figure for average earnings will be affected by changes in part-time employees.

2. Money minimum wage for adult males as prescribed in awards and industrial agreements as at end of preceding month.

3. Consumers' price index—long-term linked series; all groups; 1955 = 1000.

Because there may have been a seasonal variation in average earnings we first estimated the model with a dummy variable (dummy = 1 in April, 0 in October):

Model:

\[
\log \text{average weekly earnings} = a_0 + a_1 \log \text{minimum wage} \\
+ a_2 \log \text{consumer price index} \\
+ a_3 \text{dummy}
\]

¹ Note that this assumption can quite reasonably be made if we are comparing the same economy in two adjacent years; thus we hardly needed to spell out this assumption for the time-series analysis.

Results:

<table>
<thead>
<tr>
<th></th>
<th>Antilog</th>
<th>a₀</th>
<th>a₁</th>
<th>a₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression coefficient</td>
<td>2.339</td>
<td>.712</td>
<td>.651</td>
<td>.010</td>
</tr>
<tr>
<td>Standard error</td>
<td></td>
<td>.164</td>
<td>.190</td>
<td>.009</td>
</tr>
<tr>
<td>t Value</td>
<td>4.339</td>
<td>3.433</td>
<td>1.170</td>
<td></td>
</tr>
<tr>
<td>Critical t value, 5 per cent. two-tail test</td>
<td>2.042</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical F ratio, 0.1 per cent. level, 3 and 36 d.f.</td>
<td>6.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculated F ratio for regression</td>
<td>2189.513</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Because the dummy seasonal variable is not statistically significant—i.e. there is no seasonal variation in the average weekly wage—the dummy variable was dropped and the following model was estimated:

Model:

\[
\log \text{average weekly earnings} = a₀ + a₁ \log \text{minimum wage} + a₂ \log \text{consumer price index}
\]

Results:

<table>
<thead>
<tr>
<th></th>
<th>Antilog</th>
<th>a₀</th>
<th>a₁</th>
<th>a₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression coefficient</td>
<td>2.280</td>
<td>.724</td>
<td>.635</td>
<td></td>
</tr>
<tr>
<td>Standard error</td>
<td></td>
<td>.164</td>
<td>.190</td>
<td></td>
</tr>
<tr>
<td>t value</td>
<td>4.413</td>
<td>3.348</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical t value, 1 per cent. two-tail test</td>
<td>2.750</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical F ratio, 0.1 per cent. level, 2 and 37 d.f.</td>
<td>8.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculated F ratio for regression</td>
<td>3263.576</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the extremely high F ratio the over-all fit of the model is extremely good, and from the t tests on the regression coefficients both are significant at the 1 per cent. level. Thus a 10 per cent. increase in minimum wages tends to accompany a 7.24 per cent. increase in average earnings, and a 10 per cent. increase in the consumer price index—the cost of living—tends to accompany a 6.35 per cent. increase in average earnings.

IRELAND

For Ireland we have, for the years 1943 to 1964, annual observations on the following variables:

1. Average minimum weekly rates of wages in July of each year of permanent male agricultural labourers, 20 years of age and over.
2. Average earnings per week of males in industries producing transportable goods.
3. Index number of wage rates in 23 industrial occupations in 11 principal towns.

The occupations are:
- building: carpenter, bricklayer, mason, slater and tiler, plasterer, painter, plumber, building labourer;
- engineering: fitter, electrician, riveter and boilermaker, tinsmith and sheetmetal worker, blacksmith and farrier, motor mechanic, engineering labourer;
- coachbuilding: wheelwright;
- furniture manufacture: cabinet maker, woodworking machinist.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Antilog of constant</th>
<th>log Agricultural minimum wage</th>
<th>log Cost of living</th>
<th>Coefficient of multiple correlation</th>
<th>F ratio for regression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Regression coefficient</td>
<td>Standard error</td>
<td>Regression coefficient</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>t Value</td>
<td></td>
<td>t Value</td>
<td></td>
</tr>
<tr>
<td>log Average weekly industrial earnings . .</td>
<td>3.465</td>
<td>.875</td>
<td>.118</td>
<td>.184</td>
<td>.995</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.220</td>
<td></td>
</tr>
<tr>
<td>. . . . . . . . . . . . . . . . . . . . . . . . . . . .</td>
<td>.972</td>
<td>.021</td>
<td>47.070</td>
<td>.189</td>
<td>.995</td>
</tr>
<tr>
<td>log Average wage : 23 industrial occupations. . . . . .</td>
<td>.175</td>
<td>.832</td>
<td>.102</td>
<td>.008</td>
<td>.995</td>
</tr>
<tr>
<td></td>
<td>.017</td>
<td>47.974</td>
<td></td>
<td>.042</td>
<td></td>
</tr>
<tr>
<td>. . . . . . . . . . . . . . . . . . . . . . . . . . . .</td>
<td>.837</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>log Average wage in transport. . . . . . . . . . . . . .</td>
<td>.737</td>
<td>.569</td>
<td>.093</td>
<td>.422</td>
<td>.996</td>
</tr>
</tbody>
</table>

Critical t value 5 per cent. two-tail test 2.086.
Critical t value 0.1 per cent. two-tail test 3.850.
Critical F ratio (2 and 20 d.f.) 0.1 per cent. 9.95.
upholsterer; *miscellaneous*: butcher, baker (table hand), baker (oven), cooper.

Thus there is not a complete overlap between (2) and (3), the difference being mainly in the inclusion of building trades in the latter series.

(4) Index number of wage rates in transport.

(5) Cost-of-living index: all items.

The regression results are given in table 2. The logarithm of each of the earnings variables was first regressed on the logarithm of the minimum wage and the logarithm of the cost of living; any variable proving not significant in this regression was dropped and the model was re-estimated without this variable. From the F ratios for these regressions it may be seen that the over-all fit is extremely good. From the t values for the regression coefficients it may be seen that these are statistically significant at a very stringent level of significance.

TRINIDAD AND TOBAGO

For Trinidad and Tobago there are observations in May and November of each year from 1956 to 1965 and in May of 1966 on the following:

(1) Index of Minimum Wage Rates for Manual Workers.

This relates to minimum wage rates for certain specified categories of manual workers on time rates only, and covers large non-agricultural establishments.

(2) Index of Average Earnings for Manual Workers.

This relates to average earnings for the last full pay week in the months shown and to manual workers on time rates only. It covers large non-agricultural establishments only.

(3) Index of Retail Prices: General Index.

We used an average of this retail price index for the month and the two months preceding, i.e. an average for May, April and March, and an average for November, October and September. It was considered that such an average would better reflect the pressure of the cost of living on wage rates.

The series (1) and (2) are given for the following industries or sectors and for all sectors, the proportionate weights for each sector being given in brackets:

- manufacture of food, drink and tobacco (.0440);
- manufacture of wearing apparel (.0086);
- other manufacturing industries, including quarrying (.0923);
- building and construction (.0523);
- services, including commerce and distribution (.1582);
- transport, storage and communication (.1384);
- central and local government services (.1868);
- mining and refining of oil and asphalt (.2368);
- manufacture of sugar (.0826);
- all sectors (1).

Because of possible seasonal influence the regression was first estimated using a seasonal dummy (dummy = 1 in May, 0 in November).

The regression results are given in tables 3, 4 and 5 where an asterisk indicates that the coefficient is significant on a 5 per cent. two-tail t test.

Only for the manufacture of sugar is there a seasonal pattern in average
Trinidad and Tobago

\[ \log \text{Average Earnings} = a_0 + a_1 \log \text{Minimum Wage} + a_2 \log \text{Price} + a_3 \text{ Seasonal Dummy} \]

<table>
<thead>
<tr>
<th>Sectors</th>
<th>All sectors</th>
<th>Food, drink and tobacco</th>
<th>Wearing apparel</th>
<th>Other industry</th>
<th>Building and construction</th>
<th>Services</th>
<th>Transport</th>
<th>Central and local government</th>
<th>Mining</th>
<th>Manufacture of sugar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antilog $a_0$</td>
<td>.123</td>
<td>.046</td>
<td>.001</td>
<td>.066</td>
<td>.002</td>
<td>.155</td>
<td>.556</td>
<td>.018</td>
<td>.026</td>
<td>.022</td>
</tr>
<tr>
<td>Regression coefficient $a_1$</td>
<td>.683</td>
<td>.509</td>
<td>-.049</td>
<td>.526</td>
<td>.451</td>
<td>.713</td>
<td>.803</td>
<td>.492</td>
<td>.553</td>
<td>1.040</td>
</tr>
<tr>
<td>Standard error $a_1$</td>
<td>.105</td>
<td>.153</td>
<td>.313</td>
<td>.189</td>
<td>.285</td>
<td>.156</td>
<td>.307</td>
<td>.148</td>
<td>.137</td>
<td>.437</td>
</tr>
<tr>
<td>Regression coefficient $a_2$</td>
<td>.793</td>
<td>1.196</td>
<td>2.679</td>
<td>1.094</td>
<td>1.917</td>
<td>.210</td>
<td>.335</td>
<td>1.432</td>
<td>1.265</td>
<td>.753</td>
</tr>
<tr>
<td>Standard error $a_2$</td>
<td>.371</td>
<td>.545</td>
<td>.816</td>
<td>.693</td>
<td>.899</td>
<td>.505</td>
<td>1.112</td>
<td>.597</td>
<td>.534</td>
<td>1.062</td>
</tr>
<tr>
<td>t Value</td>
<td>2.137</td>
<td>2.193</td>
<td>3.282</td>
<td>1.578</td>
<td>2.131</td>
<td>.417</td>
<td>.301</td>
<td>2.400</td>
<td>2.371</td>
<td>.709</td>
</tr>
<tr>
<td>Regression coefficient $a_3$</td>
<td>.016</td>
<td>.011</td>
<td>-.050</td>
<td>-.018</td>
<td>-.002</td>
<td>-.015</td>
<td>-.010</td>
<td>-.002</td>
<td>.035</td>
<td>.238</td>
</tr>
<tr>
<td>Standard error $a_3$</td>
<td>.012</td>
<td>.017</td>
<td>.034</td>
<td>.021</td>
<td>.030</td>
<td>.020</td>
<td>.042</td>
<td>.025</td>
<td>.023</td>
<td>.047</td>
</tr>
<tr>
<td>t Value</td>
<td>1.362</td>
<td>.650</td>
<td>-1.467</td>
<td>-.862</td>
<td>-.053</td>
<td>-.784</td>
<td>-.234</td>
<td>-.062</td>
<td>1.481</td>
<td>5.084</td>
</tr>
<tr>
<td>Multiple correlation</td>
<td>.995</td>
<td>.989</td>
<td>.942</td>
<td>.982</td>
<td>.972</td>
<td>.979</td>
<td>.944</td>
<td>.981</td>
<td>.983</td>
<td>.949</td>
</tr>
<tr>
<td>F ratio</td>
<td>549.634</td>
<td>232.385</td>
<td>41.870</td>
<td>147.422</td>
<td>92.745</td>
<td>121.774</td>
<td>43.625</td>
<td>136.319</td>
<td>155.531</td>
<td>48.269</td>
</tr>
</tbody>
</table>
TABLE 4

Trinidad and Tobago

\[ \log \text{Average Earnings} = a_0 + a_1 \log \text{Minimum Wage} + a_2 \log \text{Price} \]

<table>
<thead>
<tr>
<th></th>
<th>All sectors</th>
<th>Food, drink and tobacco</th>
<th>Wearing apparel</th>
<th>Other industry</th>
<th>Building and construction</th>
<th>Services</th>
<th>Transport</th>
<th>Central and local government</th>
<th>Mining</th>
<th>Manufacture of sugar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antilog ( a_0 )</td>
<td>.129</td>
<td>.045</td>
<td>.001</td>
<td>.055</td>
<td>.002</td>
<td>1.569</td>
<td>.530</td>
<td>.018</td>
<td>.028</td>
<td>.092</td>
</tr>
<tr>
<td>Regression coefficient</td>
<td></td>
<td></td>
<td>.689</td>
<td></td>
<td>.510</td>
<td>.060</td>
<td>.507</td>
<td>.451</td>
<td>.712</td>
<td>.799</td>
</tr>
<tr>
<td>( a_1 )</td>
<td>.108</td>
<td>.150</td>
<td>-.324</td>
<td>.187</td>
<td>.277</td>
<td>.154</td>
<td>.297</td>
<td>.142</td>
<td>.142</td>
<td>.679</td>
</tr>
<tr>
<td>( t ) Value</td>
<td>6.389</td>
<td>3.393</td>
<td>-.184</td>
<td>2.716</td>
<td>1.629</td>
<td>4.624</td>
<td>2.686</td>
<td>3.470</td>
<td>3.967</td>
<td>1.971</td>
</tr>
<tr>
<td>Regression coefficient</td>
<td>.780</td>
<td>1.198</td>
<td>2.686</td>
<td>1.156</td>
<td>1.917</td>
<td>.208</td>
<td>.347</td>
<td>1.427</td>
<td>1.243</td>
<td>.151</td>
</tr>
<tr>
<td>( a_2 )</td>
<td>.380</td>
<td>.534</td>
<td>.843</td>
<td>.684</td>
<td>.872</td>
<td>.499</td>
<td>1.080</td>
<td>.573</td>
<td>.552</td>
<td>1.656</td>
</tr>
<tr>
<td>( t ) Value</td>
<td>2.050</td>
<td>2.235</td>
<td>3.185</td>
<td>1.689</td>
<td>2.199</td>
<td>.416</td>
<td>.321</td>
<td>2.488</td>
<td>2.253</td>
<td>.091</td>
</tr>
<tr>
<td>Multiple correlation</td>
<td>.995</td>
<td>.988</td>
<td>.934</td>
<td>.982</td>
<td>.972</td>
<td>.978</td>
<td>.944</td>
<td>.981</td>
<td>.981</td>
<td>.860</td>
</tr>
<tr>
<td>( F ) ratio</td>
<td>784.852</td>
<td>360.560</td>
<td>57.807</td>
<td>224.206</td>
<td>147.85</td>
<td>186.591</td>
<td>69.261</td>
<td>217.211</td>
<td>216.963</td>
<td>24.16</td>
</tr>
</tbody>
</table>
**TABLE 5**

Trinidad and Tobago

\[
\text{log Average Earnings} = a_0 + a_1 \text{ log Minimum Wage}
\]

<table>
<thead>
<tr>
<th></th>
<th>All sectors</th>
<th>Food, drink and tobacco</th>
<th>Wearing apparel</th>
<th>Other industry</th>
<th>Building and construction</th>
<th>Services</th>
<th>Transport</th>
<th>Central and local government</th>
<th>Mining</th>
<th>Manufacture of sugar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antilog (a_0)</td>
<td>1.608</td>
<td>2.189</td>
<td>1.626</td>
<td>2.405</td>
<td>.843</td>
<td>3.007</td>
<td>1.677</td>
<td>2.431</td>
<td>1.951</td>
<td>.138</td>
</tr>
<tr>
<td>Regression coefficient (a_1)</td>
<td>.905</td>
<td>.838</td>
<td>.930</td>
<td>.816</td>
<td>1.044</td>
<td>.774</td>
<td>.891</td>
<td>.831</td>
<td>.867</td>
<td>1.398</td>
</tr>
<tr>
<td>Standard error (a_1)</td>
<td>.025</td>
<td>.035</td>
<td>.111</td>
<td>.041</td>
<td>.067</td>
<td>.039</td>
<td>.074</td>
<td>.046</td>
<td>.046</td>
<td>.196</td>
</tr>
<tr>
<td>Multiple correlation</td>
<td>.993</td>
<td>.985</td>
<td>.892</td>
<td>.978</td>
<td>.964</td>
<td>.978</td>
<td>.943</td>
<td>.974</td>
<td>.975</td>
<td>.860</td>
</tr>
<tr>
<td>(F) ratio</td>
<td>1328.87</td>
<td>586.267</td>
<td>69.94</td>
<td>403.92</td>
<td>239.82</td>
<td>390.97</td>
<td>145.68</td>
<td>332.40</td>
<td>349.70</td>
<td>51.129</td>
</tr>
</tbody>
</table>
earnings; in all the other sectors the coefficient on the seasonal dummy is not statistically different from zero. In the two cases where the cost-of-living variable was not significant, services and transport, this variable was dropped from the model.

CEYLON

For Ceylon we have annual observations from 1949 to 1964 on the following variables:
(1) average minimum daily rates of wages;
(2) average monthly earnings.

The earnings figures are given for March and September of each year and a simple arithmetic average of these was taken.
(3) Colombo consumers’ price index, all items.

This index replaced the working-class cost-of-living index number and the two series were linked.

Both series (1) and (2) are given by trade and class of workers and we were able to select 31 of those trade classes which have continuous series. The 31 groups are listed in the table and require no further explanation.

We were able to perform a time series analysis from 1949 to 1964 for each of the 31 groups and also a cross-section analysis over the 31 groups for each year from 1949 to 1964.

The regression results are given in the following tables 6, 7 and 8.

\[1\] Department of Census and Statistics: *Statistical Abstract of Ceylon.*
TABLE 6

Ceylon  log Average Monthly Earnings = $A_0 + A_1 \log \text{Minimum Daily Wage} + A_2 \log \text{Cost-of-Living Index}$

<table>
<thead>
<tr>
<th></th>
<th>Antilog of intercept</th>
<th>Minimum wage regression coefficient</th>
<th>Standard error of coefficient</th>
<th>t Value</th>
<th>Cost-of-living index regression coefficient</th>
<th>Standard error of coefficient</th>
<th>t Value</th>
<th>Multiple correlation</th>
<th>F ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.580</td>
<td>.750</td>
<td>.163</td>
<td>4.559</td>
<td>.927</td>
<td>.492</td>
<td>1.877</td>
<td>.957</td>
<td>70.453</td>
</tr>
<tr>
<td></td>
<td>14.516</td>
<td>.880</td>
<td>.175</td>
<td>5.032</td>
<td>.048</td>
<td>.746</td>
<td>.064</td>
<td>.923</td>
<td>37.177</td>
</tr>
<tr>
<td>3. Coconut-growing: overseers</td>
<td>25.641</td>
<td>.967</td>
<td>.234</td>
<td>4.140</td>
<td>-.032</td>
<td>.692</td>
<td>-.046</td>
<td>.910</td>
<td>31.244</td>
</tr>
<tr>
<td>4. Engineering: skilled</td>
<td>4.273</td>
<td>.834</td>
<td>.157</td>
<td>5.316</td>
<td>.564</td>
<td>.542</td>
<td>1.042</td>
<td>.977</td>
<td>133.583</td>
</tr>
<tr>
<td>10. Engineering: overseers</td>
<td>3,087.097</td>
<td>1.295</td>
<td>.155</td>
<td>8.344</td>
<td>-.172</td>
<td>1.172</td>
<td>-.149</td>
<td>.964</td>
<td>86.493</td>
</tr>
<tr>
<td>12. Watch-manufacturing: women: grade I</td>
<td>1,400.011</td>
<td>1.540</td>
<td>.189</td>
<td>8.138</td>
<td>-.129</td>
<td>.984</td>
<td>-.131</td>
<td>.969</td>
<td>100.596</td>
</tr>
<tr>
<td>15. Watch-manufacturing: women: grade III</td>
<td>288.838</td>
<td>1.312</td>
<td>.629</td>
<td>2.085</td>
<td>-.747</td>
<td>1.611</td>
<td>-.464</td>
<td>.746</td>
<td>8.170</td>
</tr>
<tr>
<td>20. Motor transport: women: grade II</td>
<td>46.437</td>
<td>1.122</td>
<td>.094</td>
<td>11.983</td>
<td>-.110</td>
<td>.344</td>
<td>-.320</td>
<td>.989</td>
<td>301.192</td>
</tr>
<tr>
<td>22. Motor transport: grade E</td>
<td>752.818</td>
<td>1.926</td>
<td>.264</td>
<td>7.287</td>
<td>-.909</td>
<td>.909</td>
<td>-1.000</td>
<td>.969</td>
<td>100.219</td>
</tr>
<tr>
<td>23. Motor transport: grade F</td>
<td>1,632.085</td>
<td>2.606</td>
<td>.333</td>
<td>7.822</td>
<td>-.933</td>
<td>1.084</td>
<td>-.861</td>
<td>.975</td>
<td>125.482</td>
</tr>
</tbody>
</table>

Critical F ratio (2 and 13 d.f.) 1 per cent. significance level: 6.70.
### TABLE 7

Ceylon

Log Average Monthly Earnings = \( A_0 + A_1 \log \text{Minimum Wage} \)

<table>
<thead>
<tr>
<th></th>
<th>Antilog of intercept</th>
<th>log Minimum wage</th>
<th>Multiple correlation</th>
<th>F ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Regression coefficient</td>
<td>Standard error estimate</td>
<td>t Value</td>
</tr>
<tr>
<td>5. Coconut-growing: overseers</td>
<td>27.308</td>
<td>.958</td>
<td>.117</td>
<td>8.203</td>
</tr>
<tr>
<td>7. &quot; &quot; women</td>
<td>13.682</td>
<td>.852</td>
<td>.054</td>
<td>15.650</td>
</tr>
<tr>
<td>9. &quot; semi-skilled: grade I</td>
<td>64.075</td>
<td>1.585</td>
<td>.124</td>
<td>12.805</td>
</tr>
<tr>
<td>12. &quot; overseers</td>
<td>83.312</td>
<td>1.701</td>
<td>.202</td>
<td>8.413</td>
</tr>
<tr>
<td>21. Printing: class A</td>
<td>45.763</td>
<td>1.357</td>
<td>.204</td>
<td>6.659</td>
</tr>
<tr>
<td>22. &quot; class B</td>
<td>44.399</td>
<td>1.425</td>
<td>.105</td>
<td>13.557</td>
</tr>
<tr>
<td>23. &quot; class C grade I</td>
<td>35.164</td>
<td>1.096</td>
<td>.043</td>
<td>25.268</td>
</tr>
<tr>
<td>24. &quot; class D</td>
<td>92.326</td>
<td>1.910</td>
<td>.081</td>
<td>23.520</td>
</tr>
<tr>
<td>25. &quot; class E</td>
<td>69.940</td>
<td>1.690</td>
<td>.120</td>
<td>14.122</td>
</tr>
<tr>
<td>26. &quot; class G</td>
<td>141.833</td>
<td>2.349</td>
<td>.147</td>
<td>15.967</td>
</tr>
<tr>
<td>27. Motor transport: class A</td>
<td>173.397</td>
<td>3.890</td>
<td>.239</td>
<td>16.287</td>
</tr>
<tr>
<td>28. &quot; &quot; class B</td>
<td>63.247</td>
<td>2.123</td>
<td>.268</td>
<td>7.928</td>
</tr>
<tr>
<td>29. &quot; &quot; class C</td>
<td>217.135</td>
<td>3.357</td>
<td>.152</td>
<td>22.032</td>
</tr>
<tr>
<td>30. &quot; &quot; class G</td>
<td>42.805</td>
<td>1.433</td>
<td>.188</td>
<td>7.638</td>
</tr>
<tr>
<td>31. &quot; &quot; class J</td>
<td>236.169</td>
<td>3.076</td>
<td>.185</td>
<td>16.656</td>
</tr>
</tbody>
</table>

Critical F ratio (1 and 14 d.f.) 1 per cent. significance level = 8.86.
TABLE 8

Ceylon

Cross-section log Average Monthly Earnings = $A_0 + A_1 \log \text{Minimum Daily Wage}$

<table>
<thead>
<tr>
<th>Year of cross-section regression</th>
<th>Antilog of $A_0$</th>
<th>Regression coefficient $A_1$</th>
<th>Standard error $A_1$</th>
<th>t Value</th>
<th>Multiple correlation</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1949</td>
<td>1.171</td>
<td>.057</td>
<td>20.419</td>
<td>.967</td>
<td>416.943</td>
<td></td>
</tr>
<tr>
<td>1950</td>
<td>1.174</td>
<td>.059</td>
<td>19.911</td>
<td>.965</td>
<td>396.430</td>
<td></td>
</tr>
<tr>
<td>1951</td>
<td>1.217</td>
<td>.067</td>
<td>18.045</td>
<td>.958</td>
<td>325.626</td>
<td></td>
</tr>
<tr>
<td>1952</td>
<td>1.199</td>
<td>.058</td>
<td>20.753</td>
<td>.968</td>
<td>430.697</td>
<td></td>
</tr>
<tr>
<td>1953</td>
<td>1.190</td>
<td>.072</td>
<td>16.618</td>
<td>.951</td>
<td>276.160</td>
<td></td>
</tr>
<tr>
<td>1954</td>
<td>1.195</td>
<td>.064</td>
<td>18.788</td>
<td>.961</td>
<td>352.986</td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>1.159</td>
<td>.067</td>
<td>17.752</td>
<td>.957</td>
<td>315.129</td>
<td></td>
</tr>
<tr>
<td>1956</td>
<td>1.291</td>
<td>.056</td>
<td>23.439</td>
<td>.975</td>
<td>549.381</td>
<td></td>
</tr>
<tr>
<td>1957</td>
<td>1.350</td>
<td>.059</td>
<td>19.468</td>
<td>.964</td>
<td>378.996</td>
<td></td>
</tr>
<tr>
<td>1958</td>
<td>1.421</td>
<td>.075</td>
<td>19.049</td>
<td>.982</td>
<td>362.814</td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>1.455</td>
<td>.085</td>
<td>17.206</td>
<td>.954</td>
<td>296.060</td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>1.454</td>
<td>.089</td>
<td>16.395</td>
<td>.950</td>
<td>268.813</td>
<td></td>
</tr>
<tr>
<td>1961</td>
<td>1.448</td>
<td>.100</td>
<td>14.419</td>
<td>.937</td>
<td>207.901</td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>1.500</td>
<td>.102</td>
<td>14.642</td>
<td>.939</td>
<td>214.395</td>
<td></td>
</tr>
<tr>
<td>1963</td>
<td>1.501</td>
<td>.099</td>
<td>15.171</td>
<td>.942</td>
<td>230.158</td>
<td></td>
</tr>
<tr>
<td>1964</td>
<td>1.485</td>
<td>.092</td>
<td>16.087</td>
<td>.946</td>
<td>258.779</td>
<td></td>
</tr>
</tbody>
</table>

Critical F ratio (1 and 29 d.f.) 0.1 per cent. significance level: 13.39.

BRAZIL

Brazil has 25 states for which data are available on annual earnings per industrial operative and on the minimum wage in each state in the years 1954, 1955 and 1959. For 1959, from the industrial census, there are also data on value added per industrial operative in each state.¹

Model:

$$\log \text{average earnings} = a_0 + a_1 \log \text{minimum wage}.$$

Results:

<table>
<thead>
<tr>
<th>Year</th>
<th>Antilog $a_0$</th>
<th>Coefficient $a_1$</th>
<th>Standard error $a_1$</th>
<th>t Value</th>
<th>Multiple correlation</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954</td>
<td>28.182</td>
<td>1.258</td>
<td>2.654</td>
<td>.939</td>
<td>88.92</td>
<td>1.674</td>
</tr>
<tr>
<td>1955</td>
<td>1.423</td>
<td>.123</td>
<td>8.877</td>
<td>7.650</td>
<td>4.986</td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>.880</td>
<td>.847</td>
<td>7.21</td>
<td>24.88</td>
<td>21.04</td>
<td></td>
</tr>
</tbody>
</table>

As can be seen from the F ratios the over-all fit of this model is extremely good and the variance in average earnings is by and large explained by the variance in the minimum wage.

For 1959 we also had the following model:

¹ Instituto Brasileiro de Geografia e Estatística: Anuario Estatistico do Brasil.
² "d.f." means degrees of freedom.
Model:

\[ \text{log average earnings} = a_0 + a_1 \text{log minimum wage} + a_2 \text{log output per worker} \]

Results:

<table>
<thead>
<tr>
<th></th>
<th>Antilog (a_0)</th>
<th>Coefficients (a_1) (a_2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression coefficient</td>
<td>8.046</td>
<td>1.016 .409</td>
</tr>
<tr>
<td>Standard error</td>
<td>.315</td>
<td>.105</td>
</tr>
<tr>
<td>t value</td>
<td>3.231</td>
<td>3.875</td>
</tr>
<tr>
<td>Multiple correlation</td>
<td>.845</td>
<td></td>
</tr>
<tr>
<td>F ratio (2 and 9 d.f.)</td>
<td>25.507</td>
<td></td>
</tr>
<tr>
<td>Critical F ratio 0.1 per cent</td>
<td>16.39</td>
<td></td>
</tr>
</tbody>
</table>

Model:

\[ \text{log average earnings} = a_0 + a_1 \text{log minimum wage} + a_2 \text{log capital per worker} \]

Results:

<table>
<thead>
<tr>
<th></th>
<th>Antilog (a_0)</th>
<th>Coefficients (a_1) (a_2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression coefficient</td>
<td>57.180</td>
<td>1.355 .312</td>
</tr>
<tr>
<td>Standard error</td>
<td>.297</td>
<td>.094</td>
</tr>
<tr>
<td>t value</td>
<td>4.570</td>
<td>3.315</td>
</tr>
<tr>
<td>Multiple correlation</td>
<td>.824</td>
<td></td>
</tr>
<tr>
<td>F ratio (2 and 9 d.f.)</td>
<td>23.322</td>
<td></td>
</tr>
<tr>
<td>Critical F ratio 0.1 per cent</td>
<td>16.39</td>
<td></td>
</tr>
</tbody>
</table>

As can be seen from the F ratios the over-all fit of both models is very good. The implications of the results are commented upon on page 170.

**INDIA**

For India the agricultural survey of 1956-57 gives statistics on the average daily wage of casual agricultural labour during those years in the following states: Uttar Pradesh, Madhya Pradesh, Bihar, West Bengal, Orissa, Assam, Andhra Pradesh, Madras, Kerala, Bombay, Mysore, Rajasthan, and the Punjab. These figures are also given in *Indian Labour Statistics*. For the same states, except Bihar, figures are given in *Indian Labour Statistics* of the upper and lower minimum wage in agriculture. We also calculated a simple average of the upper and lower minimum wage.

As the data on agricultural earnings are given for six types of labour for males and six types of labour for females we were able to analyse each of those 12 sets of data across states.

The regression results are given in tables 9 and 10. Those coefficients which are significant at the 5 per cent. level on a one-tailed test are starred. This is not a very stringent test and the coefficients should be regarded with some caution.
India

Males

log Average Daily Wage by District and Agricultural Occupation = $a_0 + a_1 \log \text{District Minimum Wage.}$

<table>
<thead>
<tr>
<th></th>
<th>Ploughing</th>
<th>Weeding</th>
<th>Transplanting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>Antilog $a_0$</td>
<td>.517</td>
<td>.333</td>
<td>.462</td>
</tr>
<tr>
<td>Regression coefficient $a_1$</td>
<td>.632</td>
<td>.582</td>
<td>.676</td>
</tr>
<tr>
<td>Standard error $a_1$</td>
<td>.231</td>
<td>.177</td>
<td>.202</td>
</tr>
<tr>
<td>t Value</td>
<td>2.736</td>
<td>3.286</td>
<td>3.348</td>
</tr>
<tr>
<td></td>
<td>**</td>
<td>**</td>
<td>*</td>
</tr>
<tr>
<td>Multiple correlation.</td>
<td>.654</td>
<td>.721</td>
<td>.727</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Harvesting</th>
<th>All-agricultural operations</th>
<th>Non-agricultural operations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>Antilog $a_0$</td>
<td>.532</td>
<td>.310</td>
<td>.429</td>
</tr>
<tr>
<td>Regression coefficient $a_1$</td>
<td>.650</td>
<td>.552</td>
<td>.649</td>
</tr>
<tr>
<td>Standard error $a_1$</td>
<td>.247</td>
<td>.204</td>
<td>.232</td>
</tr>
<tr>
<td>t Value</td>
<td>2.628</td>
<td>2.705</td>
<td>2.799</td>
</tr>
<tr>
<td></td>
<td>**</td>
<td>**</td>
<td>*</td>
</tr>
<tr>
<td>Multiple correlation.</td>
<td>.639</td>
<td>.650</td>
<td>.663</td>
</tr>
</tbody>
</table>

* significant at 5 per cent. level, F ratio test, 1 and 10 d.f.
** significant at 1 per cent. level, F ratio test, 1 and 10 d.f.
### TABLE 10

**India**

Females

\[
\log \text{Average Daily Wage} = a_0 + a_1 \log \text{District Minimum Wage} (A = \text{average})
\]

<table>
<thead>
<tr>
<th>Sowing</th>
<th>Seeding</th>
<th>Transplanting</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>Antilog (a_0)</td>
<td>.4867 4.707 3.136</td>
<td>.3516 4.279 2.953</td>
</tr>
<tr>
<td>Regression coefficient (a_1)</td>
<td>.613 .553 .663</td>
<td>.664 .552 .654</td>
</tr>
<tr>
<td>Standard error (a_1)</td>
<td>.277 .222 .249</td>
<td>.362 .303 .346</td>
</tr>
<tr>
<td>t Value</td>
<td>2.210 2.488 2.658</td>
<td>1.834 1.622 1.894</td>
</tr>
<tr>
<td>Multiple correlation</td>
<td>.573 .618 .643</td>
<td>.502 .499 .514</td>
</tr>
<tr>
<td>F ratio</td>
<td>4.885 6.188 7.064</td>
<td>3.362 3.318 3.585</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Harvesting</th>
<th>All-agricultural operations</th>
<th>Non-agricultural operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>Antilog (a_0)</td>
<td>11.057 10.461 8.764</td>
<td>5.248 7.057 4.831</td>
</tr>
<tr>
<td>Regression coefficient (a_1)</td>
<td>.407 .374 .427</td>
<td>.577 .455 .555</td>
</tr>
<tr>
<td>Standard error (a_1)</td>
<td>.243 .197 .228</td>
<td>.229 .198 .221</td>
</tr>
<tr>
<td>t Value</td>
<td>1.673 1.894 1.877</td>
<td>2.520 2.297 2.512</td>
</tr>
<tr>
<td>Multiple correlation</td>
<td>.468 .514 .510</td>
<td>.623 .588 .622</td>
</tr>
<tr>
<td>F ratio</td>
<td>2.799 3.588 3.522</td>
<td>6.351 5.275 6.312</td>
</tr>
</tbody>
</table>

### MEXICO

Mexico has 111 minimum wage districts and the following data are available:

1. The general minimum wage in each district in 1963.
2. The agricultural minimum wage in each district in 1963.
3. Average earnings in each district for nine sectors and for the whole district in 1960.

The 111 districts were divided into four groups: poor agricultural districts, rich agricultural districts, industrial districts, and the remaining districts, and cross-section analyses were then made for each group. The results are given in tables 11, 12, 13 and 14.

A difficulty of interpretation arises because the earnings data refer to an earlier year than the minimum wage data. However, as no appropriate minimum wage data could be found it was considered that the regressions would prove informative as to the setting of the minimum wage.

---

2. Following the selection by Mr. C. Córdova of the International Labour Office.
**Mexico: Rich Agricultural Districts**

\[ \text{log Average Monthly Earnings} = A_0 + A_1 \text{log} \]

**TABLE 11**

1. General minimum wage.
2. Agricultural (unskilled) minimum wage.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>Level of significance (%)</th>
<th>( A_0 )</th>
<th>( A_1 )</th>
<th>Standard error ( A_1 )</th>
<th>t Value</th>
<th>Multiple correlation</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Zone</td>
<td>1</td>
<td>0.1</td>
<td>-.607</td>
<td>1.029</td>
<td>.265</td>
<td>3.892</td>
<td>.599</td>
<td>15.145</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>.494</td>
<td>.700</td>
<td>.248</td>
<td>2.826</td>
<td>.478</td>
<td>7.988</td>
</tr>
<tr>
<td>4 Agricultural</td>
<td>1</td>
<td>5</td>
<td>.410</td>
<td>.673</td>
<td>.264</td>
<td>2.549</td>
<td>.440</td>
<td>6.498</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>NS</td>
<td>1.101</td>
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Critical F ratio, 1 and 27 d.f., 5 per cent. significance level: 7.68
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Critical \( F \) ratio, 1 and 12 d.f., 5 per cent. significance level: 4.75.
Critical \( F \) ratio, 1 and 12 d.f., 1 per cent. significance level: 9.33.
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Critical F ratio, 1 and 13 d.f., 5 per cent. significance level: 4.67.
Critical F ratio, 1 and 13 d.f., 1 per cent. significance level: 9.07.
Critical F ratio, 1 and 13 d.f., 0.1 per cent. significance level: 17.82.
NS = not significant.
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Critical F ratio, 1 and 26 d.f., 5 per cent. significance level: 4.23.
Critical F ratio, 1 and 26 d.f., 1 per cent. significance level: 7.72.
Critical F ratio, 1 and 26 d.f., 0.1 per cent. significance level: 13.74.
NS = not significant.
APPENDIX 2

WAGE INCREASES AND EMPLOYMENT

SOME THEORETICAL MODELS

Under competitive conditions labour will be employed up to the point at which marginal productivity, falling as more labour is engaged, is equal to the wage. In fig. 1 (a), at a wage of OW employment will be OE. If the wage is raised to OW' and productivity remains unchanged, employment will fall to OE'. If higher wages bring about increases in net productivity, so that the marginal productivity curve rises (MP'), the level of employment will be OE'', which may be more or less than OE depending upon the shape of the curves and the magnitude of the increases in productivity and in wages.

![Diagram](image)

**Fig. 1 (a)**

A reduction in employment is a likely outcome even with an increase in productivity. Indeed, employment may fall off even more than it would have done without an increase in productivity. An increase in productivity means that the same output can be produced by fewer workers. This may well mean that, even when higher wages have the effect of raising the total and average productivity of a given number of workers, they reduce the marginal productivity of a group of workers of a given size (if the work is more efficiently organised, the previously marginal workers may become redundant). In other words it is not at all certain that a new marginal productivity curve MP' will be more or less parallel with the old one as drawn in fig. 1 (a). A more likely shape is that it will drop more steeply than MP in the right-hand part of the diagram, falling below MP at some point. If this point occurs to the left of E' higher productivity will cause employment to fall off not merely as compared with OE but also as compared with OE'.

In a monopsonistic situation the wage will not be unaffected by the level of employment. A monopsonist who wants to attract more labour will have to offer

---

1 In which it is assumed that additional output can be sold at an unchanged price so that there is no need to differentiate between productivity in physical terms and productivity in value terms.
a higher wage not only to the additional workers he thereby attracts but also (unless he can discriminate between different workers) to those who would have worked for a lower wage. In fig. 1 (b) there is a rising wage curve and a more steeply rising marginal wage cost curve. It will pay the monopsonist best to employ OE workers (the number at which the marginal wage cost equals marginal value productivity) at a wage of OW. But a minimum wage law will bring wages and marginal wage cost together in a horizontal straight line similar to that in the competitive model. If the law fixes the minimum wage at OW', employment will expand to OE'. At any wage below OW* employment will expand as compared with the original position; only at a wage higher than OW* will it contract. It is not necessary that the monopsonist should

also have a monopoly in the product market; he may sell in a perfectly competitive market and yet enhance his profits by employing less labour at lower wages than he would do in a competitive situation or in a situation in which a minimum wage was fixed at some level between OW and OW" in fig. 1 (b). As before, we should draw a new marginal productivity curve if net productivity rises as a result of higher wages; again it is not certain that higher total and average productivity will mean higher marginal productivity for a given number of workers.

These are pre-Keynesian micro-economic models. Keynes, it will be recalled, rejected the orthodox treatment of wage theory at the macro-economic level on the grounds that its labour demand function was based on the assumption that the level of income was given. He argued that this was a fatal defect in the theory since a change in money wages was capable of altering the level of real income and employment as well as money income and the price level. Keynes himself thought that employment would be little affected by a wage change (such little effect as would be exerted being exerted indirectly through the rate of interest and being in the same direction as the classical effect—i.e. a rise in

\[ {\text{A change in wages can, however, have a favourable effect on employment only if the initial situation is characterised by unemployment attributable to a deficiency of demand. The analysis which follows is thus relevant only to this situation, which, though it may have occurred occasionally, has not been typical of either developed or developing economies in recent years. But the subject is so important that it is worth devoting some attention to models that may only occasionally be relevant to the problems actually confronting governments, particularly in developing countries, provided this does not lead us to consider the models as being more relevant than they are.}} \]

wages would be unfavourable to employment). But Keynes’s analysis provided a framework within which it is possible to fit an under-consumptionist view that the demand for labour and the general level of employment will increase as a result of a wage increase which increases the general level of incomes. One can thus distinguish three views—a “classical” view, an “under-consumptionist” view, and an intermediate “Keynesian” view. S. Weintraub has depicted the relationship between these three views in the manner shown in fig. 2.

a. The classical case

b. The Keynesian case

c. The under-consumptionist case

Fig. 2. Parametric Movements in the Aggregate Demand D and Aggregate Supply Z Curves with Changes in Wages. Inset diagrams (a’, b’, c’) show the implicit labour-demand curve.

The starting point for this is the familiar Keynesian aggregate demand and aggregate supply functions (fig. 3). The aggregate supply function ($Z$) relates levels of employment to sums of expected proceeds from entrepreneurial activity in the sense that each expected proceeds-level generates a particular amount of employment. The aggregate demand function ($D$) shows the aggregate demand (made up of consumption, investment and government demand) at each level of employment. So long as employment is less than $ON$, i.e. is at a level such that aggregate demand exceeds the expectation of proceeds that just makes that amount of employment profitable, there are additional profits to be made by increasing employment up to $ON$, at which point total demand falls below the expectation of proceeds necessary to make it worthwhile to provide more employment.

A rise in the money wage level (provided it does not involve a mere transfer of purchasing power)\(^1\) will raise the income level and with it both the demand and the supply functions. If the new higher curves intersect to the left of the original curves (case $(a)$ in fig. 2) there will be less employment, as in the classical view. If they intersect to the right of the original curves (case $(c)$) there will be more employment. Demand curves for labour ($D_L$) can be drawn by linking the points at which the $D$ and $Z$ curves intersect at different wage and income levels. Weintraub writes—

Formally, all of the $D_L$ functions of Figure 2 seem plausible despite the fact that from the standpoint of economic policy their implications are vastly different. Unless it is possible to do more to indicate at least the nature of the slope of $D_L$, wage theory will remain hemmed in despite the ability to define the relevant functions.

Something can be done to pierce the wall of darkness through taking into account the following considerations. In the upper reaches of $D_L$, it seems reasonably certain

\(^1\) This qualification is not made explicitly but seems to be implicit in Weintraub's analysis.
that monetary policy will provide a decisive and restrictive influence, that is to say, higher money wages and a consequent higher price level are likely to engender tighter money, tending to put a brake on investment and, through some effect on the savings function, upon consumption, thereby operating to decrease employment. Likewise, in an open system the export volume will also tend to decline under (reasonably) stable exchange rates and the ensuing price-level upheavals as money wages mount. All in all, the upper stretch of the $D_L$ curve is likely to be of classical form, even displaying a high elasticity.

Locating the "upper stretch" depends partly upon historical, partly upon institutional data. If the prevailing wage and price level represents the culmination of an inflationary climb, and if the monetary authorities are adamant about maintaining the (roughly) existing price level, then any rise in money wages which requires a directional move in the price level is likely to encounter tight money and a decrease in labor-demand. In this case the "upper reaches" of $D_L$ lie just beyond the going wage scale. Conversely, if the current economic position has been preceded by a marked deflationary spiral, and a price-level upsurge is regarded as tolerable from the vantage point of economic policy, then the "upper" classical-type $D_L$ stretch may be well above prevailing wage rates.

In the lower regions of $D_L$, through the cumulating strength of the Pigou effect, involving a rise in the real value of individual assets in the form of "hard" money, the fiduciary note issue, and usually government bonds, as the price level falls, it may be surmised that the $D_L$ curve will also be of classical form. The location of this lower portion also depends in part on the course of the past price development.

Accordingly the top of the $D_L$ curve ought to resemble the path $aa'$ in Figure [4a] and the lower sector should look like $bb'$. At a wage above $w_a$, monetary policy takes firm hold; at a wage below $w_b$, and its concomitant price level, the Pigou effect stimulates consumption demand, especially for services and luxury purchases, so that unemployment is absorbed.

Between points $a$ and $b$ in fig. 4 the slope of the curve is less predictable. Over this range, too, monetary policy and the Pigou effect play a role, but these roles are less decisive than at higher or lower wage levels. Weintraub discusses the possible effects of changes in expectations regarding the future, in prices and interest rates, in the pattern of income distribution and in the weight of the debt burden, and concludes—

In all, considering the catalogue of relations enumerated, unless there is a strong presumption that an expansion of real investment of fairly substantial magnitude waits upon a price-level upsurge through the wage increases that are commonly made in practice, there seems to be good reason to assume that the shape of $D_L$ within the "indeterminate" range of $ab$ is of "moderately" classical form as in Figure [4a]. However there is no inexorable necessity here; the exceptions which justify the under-consumption $D_L$ pattern involve mainly the dynamics of expectations, which may hasten an immediate investment bulge in the belief that even higher prices are on their way—which is a valid argument—or an unlikely and fairly extreme income transfer to wage earners—which is a less reasonable belief. An appropriate diagram, however, appears in Figure [4b].

Thus, Weintraub believes that in general higher wages will reduce employment even in situations where they lead to higher over-all income levels. But he suggests that there may be exceptions to this over a part of the length of the demand curve for labour and in any case that at wage levels that are neither very high nor very low the demand for labour may have little elasticity. If this coincides with an inelastic supply of labour over the same wage range, which is likely, substantial wage changes may lead to rather little change in the level of employment.

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1 Sidney WEINTRAUB, op. cit., pp. 842-844.
2 Ibid., p. 846.

* It is also possible that wages and employment may be indeterminate over certain ranges if a rising demand curve for labour (over these ranges) coincides with a nearly vertical supply curve.
FIG. 4. Determinate Demand Curves for Labour Showing Relatively High Elasticity in the Upper aa' and Lower bb' Stretches
In an article on the same subject published in another journal in the same month, M. Bronfenbrenner, after commenting in even stronger language than Weintraub on the unsatisfactory state of this branch of economics, drew the same threefold distinction between the classical view, the Keynesian view and what he calls the "philosophy of high wages" (Weintraub's underconsumptionist view).

Bronfenbrenner starts with a case in which an increase in wages raises payrolls in the same proportion—i.e. there is an absolutely inelastic momentary or impact demand for labour. Every unit (dollar) of wage and payroll increase may be divided into a fraction k paid out of profits and its complement (1 - k) passed through to selling prices. The fraction k will be close to zero in a competitive situation if entrepreneurs maximise profits; but with administered prices and other business objectives taking their place beside, and perhaps modifying the objective of, profit maximisation, k may in some situations be quite considerable.

Bronfenbrenner continues—

Let the workers' marginal propensity to consume in money terms be m, a positive fraction, and their marginal propensity for induced investment be n, also a positive fraction. It is customary to neglect n as near zero, but, since "investment" is defined to include residential housing, this is unjustified, particularly in communities where working-class home-ownership is common. In general, workers' marginal propensity to spend, defined as (m + n), will not exceed unity. The corresponding marginal propensities for "capitalists", meaning receivers of non-wage and non-farm income and thus including both rentiers and entrepreneurs, may be written as m' and n'.

In general, as Keynes recognized, m exceeds m'. On the other hand (as Keynes does not appear to have pointed out), n generally exceeds n, in part because it reflects the consequences of entry into and withdrawal from active business as profit margins widen or are compressed. (The coefficients n' and k should not be considered independent; they are, in all probability, correlated inversely.) Like its working-class counterpart, capitalists' marginal propensity to spend, defined as (m' + n'), is generally less than unity.

Using these symbols, the increased working-class demand for goods and services resulting from each unit of wage increase is (m + n), while the decreased capitalist demand is k (m' + n'). The net change in demand is given by the difference (m + n) - k (m' + n'). Since, by hypothesis, the addition to the aggregate selling price of a fixed volume of output is (1 - k) per unit increase in wages and payrolls, aggregate demand will increase by more than the aggregate selling price of this fixed volume, and hence employment and output will be influenced favorably by a wage increase, if

\[(m + n) - k(m' + n') > 1 - k\]

Substitution of an equality for the inequality sign will mean a neutral effect on employment and output.

The classical theory becomes stronger and its rivals weaker when we allow for the probable elasticity of the impact demand for labour, but the results of this analysis can hardly be expressed in words and a large number of symbols are necessary in order to express them at all. For further comment and analysis Bronfenbrenner reverts to the simpler case with which he started.

In this case the effects of a wage increase on employment depend on five variables, namely k, m, n, m' and n', or three variables if we take m + n together and call it workers' marginal propensity to spend and if we take m' and n' together and call it capitalists' marginal propensity to spend. For readers who prefer arithmetical tables to algebraic demonstration Bronfen-

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2 "Theoretical support can apparently be mustered in imposing strength for almost any opinion or even emotion." Ibid., p. 459.
3 Ibid., pp. 461-462.
brenner provides tables showing the boundary values of the variables up to which values wage increases will, and beyond which they will not, have favourable effects on employment. From these tables can be read, for example, the fact that, if workers' marginal propensity to spend is as high as 90 per cent., a wage increase will have neutral effects on employment if the capitalists' marginal propensity to spend is 70 per cent. and if 33 per cent. of the wage increase is paid out of profits.\textsuperscript{1} If the capitalists' marginal propensity to spend is less than 70 per cent., for example 50 per cent., employment will be favourably affected \textsuperscript{2} unless the proportion of the wage increase financed out of profits drops from .33 to .2.\textsuperscript{3} But, if the workers' marginal propensity to spend were as low as 60 per cent., no possible marginal propensity to spend on the part of capitalists could be low enough to ensure a favourable effect on employment unless the proportion of the wage increase paid from profits were at least 40 per cent.; and, even if this percentage were as high as 80 per cent., the capitalists' marginal propensity to spend would have to be less than 50 per cent. for a positive result to come about.

This treatment brings into focus some assumptions underlying the classical and the under-consumptionist points of view. The view that a wage increase always reduces employment and that a wage cut always increases it (provided there is some unemployment) depends on the assumption that wage increases are reflected almost entirely in price increases, i.e. that \( k \) is close to zero. At the other extreme the view that a wage increase always increases employment whenever the workers' marginal propensity to spend exceeds that of the capitalists depends on the assumption that wage increases can be paid almost entirely out of profits without price increases, i.e. that \( k \) is close to unity.

Bronfenbrenner seeks to apply this apparatus to the United States economy in the first half of the 1950s. Over the period 1929-52 he considers that the best estimate of \( m \) is 0.55 and the best estimate of \( m' \) is 0.41 \textsuperscript{4}, observing that both estimates are lower than might have been anticipated from earlier work. Estimates of \( n \) and \( n' \) are not available and Bronfenbrenner puts \( n \) at 0.05 and \( n' \) at 0.10, giving a workers' marginal propensity to spend of 0.60 and a capitalists' marginal propensity to spend of 0.51. He believes that these estimates are, if anything, biased in favour of the philosophy of high wages. With these estimates of \( m, m', n \) and \( n' \), \( k \) has to exceed 82 per cent. if unfavourable effects on output and employment are to be avoided. Bronfenbrenner thinks that an estimate of 25 per cent. would be too high. The conclusion is not much changed by introducing estimates of the additional variables involved in the more complex case that has not been included in this summary. Thus, this analysis suggests strongly that, under the conditions prevailing in the United States in the early 1950s, wage increases had unfavourable effects on employment.

Neither Weintraub nor Bronfenbrenner refers to a third paper on the same subject, published a few years earlier by D. B. J. Schouten.\textsuperscript{6} Schouten finds only a negative relationship between changes in the wage level and in the level of real demand (so that wage increases will reduce the level of activity and

\textsuperscript{1} This is clear also from the formula which, when these values are substituted for the symbols, reads as follows:
\[ .9 - .33(7) = 1 - .33 \]
or \[ .67 = .67. \]
\textsuperscript{2} \[ .9 - .33(5) > 1 - .33 \]
or \[ .73 > .67. \]
\textsuperscript{3} \[ .9 - .2(5) = 1 - .2 \]
or \[ .8 = .8. \]
\textsuperscript{4} These estimates are quoted with acknowledgments to Professor L. R. Klein and co-workers at the Survey Research Center in Michigan.

employment) except (a) in a rather unlikely limiting case in which workers spend all their additional income, and (b) if wage increases induce dissaving from liquid resources which can, however, only be temporary. Schouten’s conclusions include the following:

1. The negative effect of an increase in wages on the level of real activity will be greater—
(a) the greater the flexibility of prices, i.e. the more quickly they are adjusted to a rise in wages;
(b) the lower the level of liquid resources;
(c) the more dependent the economy is on export markets;
(d) the greater the elasticity of demand for its exports; and
(e) the greater the (Keynesian) multiplier.

2. There can be a temporary positive connection between the wage level and employment when the flexibility of prices is very low and entrepreneurs are prepared to spend more than they earn when their real incomes decline (as a result of wage increases not matched by price increases).

3. When liquid resources are exhausted a wage increase is always detrimental to employment.

The analysis is concerned throughout with the effects of wage increases on aggregate demand, postulating that output will be adjusted to changes in demand. Schouten adds—

The connecting link between output and employment is the productivity of labour. If this remains constant then output and employment vary by the same proportion.

The analysis of the factors which determine the productivity of labour is very complicated. One can say, however, that in the short run the productivity of labour is positively correlated with the level of output. One must only bear in mind the fact that every business has a certain amount of reserve capacity, ... A greater utilization of output capacity, following on an increase in demand, therefore leads automatically to a rise in the productivity of labour. The reverse is the case when demand declines; workers need not immediately be discharged, but workers and machines can be allowed to work more slowly, which will automatically lead to a decline in the productivity of labour. One can conclude, therefore, that a wage increase will have less effect on employment than on the level of activity, in so far as the economy possesses the necessary reserve capacity.

The analysis assumes throughout that money profits cannot permanently be reduced as the result of a wage increase. If profits had been above the normal or competitive level and a wage increase had reduced them, it would seem that there could be a permanent shift in income distribution in favour of wage earners, a section of the community having a higher propensity to consume than that of entrepreneurs, and possibly as a result of this (though the point is not discussed) a permanently favourable effect on employment, provided that the initial situation had been characterised by the existence of unemployment due to a deficiency of demand and that the other variables, such as the extent of dependence on export markets and the elasticity of demand for exports, were sufficiently favourable.

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1 Schouten says “consume”, but, he is concerned with the total level of demand, not with the distribution of demand between consumer and investment goods. To meet the condition that “the wage level is ... irrelevant for the level of activity and therefore also for employment” (ibid., p. 224) it seems sufficient that workers should spend all their additional income whether on consumer or investment goods (such as housing).

2 Including, presumably, though the point is not discussed, the willingness of the banking system to create additional liquid reserves.

3 Schouten, op. cit., p. 228.
The conclusions of these three studies thus converge; they all conclude that, when allowance is made for the effect of higher wages on the general level of income and demand, wage increases may have positive effects on employment but in normal circumstances are more likely to have negative effects. But the conclusions are based on different models and the relationships between the models are not very clear.

These relationships cannot be explored in detail here, but certain points may be made rather briefly. First, only in Weintraub's paper is there any explicit discussion of what happens to the quantity of money. From his analysis it seems clear that successive increases in the quantity of money (using a two-dimensional concept of quantity, in the sense of amount times velocity of circulation) would be a necessary condition for the replacement of the initial aggregate supply and aggregate demand functions by successively higher ones. And it is argued that, while the supply of money may be quite elastic over the middle ranges of the labour demand curve, over the upper ranges of the curve inelasticity in the money supply is likely to make for an elastic demand for labour.

Bronfenbrenner explicitly assumes that "The monetary system... is such that no effective block is interposed against the financing of higher payrolls." He also assumes that consumption functions are independent of the price level, i.e. that there are no Pigou effects. He neither agrees nor disagrees with what Weintraub says about the role of monetary policy and the Pigou effect in making for an elastic demand for labour at high and low wage levels, but simply excludes these considerations from his model. He also assumes a closed economy and therefore excludes from consideration the effects on export demand, to which the other two writers, and especially Schouten, attach considerable importance.

Another important difference is that in the Bronfenbrenner and Schouten models there does not seem to be a counterpart to the notion in the Weintraub model that the economy moves to successively higher aggregate demand and supply functions. The other two models postulate that, to the extent that higher wages are paid out of profits, the incomes of capitalists fall by the same amount as the incomes of workers increase, even though the spending of the two groups may be differently affected. Instantaneously this is evidently so—there is a transfer of income and purchasing power from capitalists to workers. But the transfer increases spending and this (in a situation in which, by hypothesis, production and incomes are depressed for lack of aggregate demand) increases incomes. Thus, what may begin as a transfer of incomes very soon becomes an increase in incomes. As soon as this happens (and it may happen almost instantaneously) is it any longer appropriate to maintain, using Bronfenbrenner's symbols, that capitalists decrease their demand by \( k (m' + n') \) for each unit of wage increase? (The medium of the increased spending may be an increase either in the amount of money or in its velocity of circulation.)

Schouten explicitly recognises the possibility of what he calls dissaving by entrepreneurs from liquid resources. But he seems to regard these liquid resources as stocks of money that will soon be exhausted. Perhaps the concept should be interpreted in a broader sense than Schouten's language suggests to include the borrowing capacity of entrepreneurs—the amount of money the banking system would be willing to lend them if this exceeds the amount it actually has lent them. But in any case does spending by entrepreneurs in the circumstances envisaged by Schouten necessarily involve dissaving? During a (possibly very short) period when they pay higher wages out of profits without making increased sales, entrepreneurs' incomes will be reduced and, if they do not cut back their expenditure by the same amount, their savings will be

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1 M. Bronfenbrenner, op. cit., p. 461.
reduced. But, if in the next period they start selling more goods to workers, with a profit margin on each additional unit of product sold, it is not clear that they can maintain expenditure only by dissaving or that liquid resources will be exhausted.

Schouten does, it is true, devote attention to the "multiplier"—the reasons why the total effect of a wage increase on the level of demand and employment will be a multiple of its primary effect. But the primary effect is equated with the instantaneous effect, which, as in the Bronfenbrenner model, reflects reduced incomes for entrepreneurs who pay higher wages out of profits, an increase in entrepreneurial incomes resulting from increased total spending not being regarded as a part of this effect.
APPENDIX 3

THE APPLICATION OF QUANTITATIVE METHODS TO ECONOMIC RESEARCH AND RESEARCH INTO THE ROLE OF WAGES IN DEVELOPING ECONOMIES

I. THE USEFULNESS OF QUANTITATIVE METHODS IN ECONOMIC RESEARCH

Analysis of the impact of minimum wages or other administered wage changes is, at best, difficult. The multiplicity of forces which act on wages and the existence of alternative paths of adjustment to wage changes complicate the task of analysis intended to isolate the impact of a single force. This very complexity has given rise in the past to considerable controversy about the impact of minimum wages. It has only been with the application of newer tools of analysis that the area of controversy has narrowed, for the empirical studies employing these tools have produced results increasingly consistent with other such studies as well as consistent with the economist’s expectations derived from the reasoning implicit in economic theory.

The virtues of the application of econometric techniques, particularly of multiple regression analysis, to certain wage questions are striking. The great advantage of these techniques is that they permit an analysis of a particular variable within the context of several variables which may be acting simultaneously. The contribution of each independent variable to an observed change in a dependent variable may be isolated after having taken into account the influence of the other independent variables. The solution of a regression equation yields numerical values for the coefficients of the independent variables which provide a measure of the change in the dependent variable associated with a given change in the independent variable. By computing the standard errors of the coefficients of the independent variables one is also provided with a measure of the confidence with which one may view a forecast based on these coefficients. The computation of the coefficient of determination (the ratio of the variance of the estimated values of the dependent variable of the equation to the original variance of the variable) indicates the proportion of the total variation in the dependent variable that has been “explained” or accounted for by the combination of independent variables included in the regression equation. The square root of the coefficient of determination is the more familiar coefficient of multiple correlation, which, like the former, pro-

1 A dependent variable represents the phenomenon that one wishes to explain, while the independent variables are the various forces which are viewed as exerting an influence on the dependent variable. For example, if one wished to “explain” variations in the rate at which wages rise, changes in wages would represent the dependent variable. The forces which are associated with wage changes and may be expected to “explain” them represent the independent variables, for example changes in the level of employment, in the level of unemployment, in the cost of living, etc.

2 For example the solution of the regression equation of the rate of change in the wage level on the rate of change in the level of employment may yield a coefficient of .62. That is, with every increase of 1 per cent. in the level of employment there is associated a .62 of 1 per cent. increase in the wage level. The standard error permits one to determine the probability that this result could have occurred simply by chance. The larger the standard error, of course, the less reliable this coefficient would be for purposes of forecasting the rate of increase in wages that would be associated with an increase in employment.
vides a measure of the relative closeness of the relationship among the variables included in the regression.

While the availability of such statistical techniques has made possible a higher level of sophistication in economic research, considerable care is, nevertheless, required in their use and in the interpretation of their results. Statistical analysis is not a substitute for careful thought and for a high level of technical competence in the substantive content of the problem area. It can be employed only after a carefully defined statement of assumed relationships has been drawn up on the basis of a full knowledge of both the theoretical and empirical work performed by others on similar problems. Furthermore, there are limits to the interpretation of the results of regression analysis. It does not permit the ascription of a causal relationship between any dependent and the associated set of independent variables. It can only establish the fact of a relationship and provide a measure of the degree of the association existing among variables. It still remains for the investigator to interpret those elements.

Other questions relating to the effects of wage changes may better be analysed employing other types of mathematical models, for example models which require the solution of a system of simultaneous equations. One such question might be that of the impact of an increase in wages on the over-all level of aggregate demand. The more recent development of dynamic models promises to increase our ability to define the role of particular variables, such as wage changes, in relation to the rate of growth. As in the case of analysis at the micro-economic level described above, the employment of mathematical models and techniques makes it possible to move a significant distance towards meeting the objections of many to the conclusions of neo-classical economic theory. Because of the simplifying assumptions of the neo-classical model and its static character with the imposed conditions of ceteris paribus (other things being equal), the results of analysis derived from this model's reasoning have often been considered suspect. Critics of traditional economic reasoning should welcome the improvement in the available analytic techniques which permit the simultaneous consideration of many variables and the introduction of a dynamic dimension to economic analysis. However, it is probably fair to observe that the theoretical apparatus is currently in a more advanced state of development than are the fields of its application. Its empirical employment requires large quantities of sophisticated data which are available in very few countries. Thus, the margins of error which exist in its application to rudimentary data of indifferent quality must remain disturbingly large for some time to come.1

II. Theory and Methodology in the Analysis of Wage Changes

In the previous section we spoke repeatedly of models of economic relationships as integral parts of the analytical process. This section is designed to illustrate the complexity of the process of economic analysis and to indicate the broad range of information required if such analysis is to be carried beyond a superficial level.

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1 The application of statistical techniques is not without its pitfalls. The area of discretion open to the researcher is large and his judgment may often be subject to question. For example the way the conceptual definition of a variable is given empirical form (i.e. what data are selected to represent the variable) may very well influence the outcome. The appropriateness of the techniques chosen for the analysis of certain problems may be questioned. Finally, a host of technical problems may arise out of the researcher's dependence on essentially time series data, for example multicollinearity, autocorrelation, etc., which complicate the task of analysis and interpretation.
No empirical study of the effects of minimum wages (or of any other economic phenomenon) can be fruitful unless it departs from some statement of relationships among economic variables which may logically be expected to exist. In other words empirical analysis involves the testing of some hypothesised relationship or set of relationships. The hypotheses themselves may be derived from a priori reasoning, or they may derive from tested and revealed relationships in other contexts. The function of the hypothesis is to guide the researcher and to direct him to those critical links in the economic process where any new economic force may exert an influence. It then remains for the researcher to select the tools appropriate to the measurement problems posed by the model and to apply them to the available data.

Economic models necessarily contain a behavioural assumption for predicting the reaction of individuals or firms to changes that affect them. The assumption most commonly adopted at the micro-economic level is that of profit or utility maximisation (or, conversely, loss minimisation), and most of the a priori reasoning about the effects of a change in an economic variable derives from the presumption that behaviour does in fact conform to this assumption. To give this assumption an operational meaning, however, is not without its difficulties. For example there is a temporal dimension to profit maximisation (i.e. short-versus long-run), or there is the possibility that non-economic considerations may temper the single-minded pursuit of maximum profits. On the other hand it would be hard to maintain that individuals or firms do not react in some fashion to changes in the availability or costs of goods and services. To do so would imply that firms and individuals are indifferent to losses of income or utility, a seemingly indefensible position. To the extent that they do react, their reactions will be in the same direction as the reactions implied by a pure profit or utility maximisation assumption. It is therefore unlikely that great violence will be done to reality by the employment of this behavioural assumption.

Let us illustrate the fashion in which one might approach the analysis of one of the more important problems relating to the fixing or adjustment of minimum wages—their possible impact on the level of employment. Let us also limit ourselves to the consideration of wage changes and related employment changes recorded in a particular industry (as opposed to economy-wide changes).

The fixing of a minimum wage which is above the going wage of certain classes of labour has the immediate effect of raising the cost of an input element of production. On a priori grounds one might expect a decline in employment to follow (though not necessarily immediately) as a result of one or more of the following possible adjustments.

1. A wage increase changes the optimal price-output combination in the direction of a higher price and smaller output if all other prices rise by a lesser amount. Since employment is a function of output, it could reasonably be expected to decline. The speed with which price adjustments might follow may be a function of market structure (i.e. the degree of competition in the product market) and of the speed at which prices of other goods are changing.

2. A wage increase raises the cost of labour relative to other inputs which are substitutable for labour and encourages the greater employment of such substitutes—for example machinery. The higher real wages are, the higher become standards of obsolescence and the sooner will existing equipment be scrapped in favour of new equipment.

While we are here discussing the effects of a change in minimum wages as the force motivating a change in the actual wages paid, it should be clear that adjustments to such changes would not differ in kind from responses to other sources of wage change, such as collective bargaining or other administrative mechanisms.
3. A wage increase may lead to an increase of managerial inputs in relation to labour for the purposes of increasing the productivity of labour with a given capital stock. In this case part of the increase in the price of labour would be offset by an increase in efficiency, but a given output could now be produced with a smaller work force.

4. Firms which were marginal prior to the wage increase may find it impossible to adjust in any of the above ways and therefore go out of operation. Their output will be distributed among surviving firms but it is unlikely that their employees or their equivalents would be absorbed unless economies of scale are non-existent.

The testing of these hypotheses would require a variety of data including those covering changes in (1) the wage minimum, (2) average earnings, (3) output, (4) product prices, (5) employment, (6) capital stock, (7) prices of capital goods, (8) the number of firms, etc. In the specific case of the second hypothesis, for example, two steps might be appropriate in testing it. First, the rate of increase in employment might be regressed against the rate of change in wages, output and the price of capital goods, the data representing periodic observations for an industry over time. If the solution of the equation were to yield statistically significant positive coefficients for the output and price terms and a negative coefficient for wages, this would constitute support for the hypothesis. The result would be interpreted as follows. After taking into account the influence on employment of changes in output and the price of capital goods, a change in the wage level is associated with a change in employment in the opposite direction.

A second step might be to check the association of the amount of capital employed per worker as wages change, for the hypothesis implies that large wage increases will be accompanied by larger substitutions of capital for labour than smaller wage increases. Therefore, the quantity of capital per worker would be regressed against the factors which might be expected to influence it, such as changes in output, wages and the price of capital goods. A negative coefficient for wages and a positive one for the price term would offer support for the hypothesis. Of course, there may be other possibilities for modifying the elements included in the regression equation, depending on the model of relationships one believes to be relevant. For example, since adjustments to a change in wages may occur only over time rather than instantaneously, lags can be introduced by modifying the data inputs to measure the delayed effects. The analysis could be sharpened if an industry could be divided into two parts—that consisting of firms directly affected by the minimum wage change and that of unaffected firms—so that a comparison of their behaviour could be made.

In this fashion the break-up of the hypothesis into testable statements and their testing within appropriate data contexts presents an opportunity to establish relationships which may provide support for the hypothesis. Of course, insignificant results should lead to a formulation and testing of alternative hypotheses.

The macro-economic effects of a particular wage change may be much more difficult to establish empirically, for the values of the relevant parameters are not generally available in developing countries. The following lines of inquiry, however, would be relevant to any analysis. The impact of a wage change on aggregate demand and on growth depends on the redistributive effects which a wage increase may have on the propensities to spend of various income groups. The degree and pattern of redistribution which follow a wage change will depend on the kind of adjustment which employers make and on the time span allowed. For example, while the burden of meeting a wage increase may fall in the first instance on profits, it is unlikely that it will remain there perma-
nently. Its ultimate resting place will depend largely on the elasticities of supply and demand in both product and factor markets. If it were possible to assess the redistributive effects of a wage change and if the various marginal spending propensities were known, then it would be possible to reach some judgment about the probable changes in aggregate demand that could be expected to follow from a wage change.¹

III. DATA REQUIREMENTS FOR RESEARCH INTO WAGES AND RESEARCH POSSIBILITIES

The review of the current state of our knowledge on the impact of minimum wages which composed Chapter II of this report illustrates the wide range of information which is required for purposes of analysis. A summary listing of desirable data would include the following.

1. Labour force data—indicating size, employment status, industrial distribution, unemployment, etc.

2. Wages, hours and employment data for each of the manual and non-manual worker groups on an industry and sectoral basis. Sectors not covered by minimum wage regulation as well as covered sectors should be included.
   (a) The finer the industrial classifications for which data can be obtained, the better. For example in manufacturing data for the principal industries at the 3 or 4 digit level should be available separately.
   (b) Data on earnings of key occupational groups would also be desirable.
   (c) Frequency distributions of workers through the observed range of earnings.

3. Output data corresponding to the principal industrial classifications treated in 2 above.
   (a) These should be in the form of indices which measure changes in physical output.
   (b) They would also be useful in the more conventional value terms, as given by periodic censuses of economic activity.

4. Price data.
   (a) Both wholesale and consumer prices by principal product groups.

5. Capital investment corresponding to the principal industrial classifications defined in 1 above.
   (a) Data on the stock of invested capital in fixed assets at points in time as well as on the volume of new capital expenditures over a period of time, for example annually.

6. A variety of macro-economic data on national income, savings, spending and import propensities by income levels, balance of payments, etc.
   In all the above cases the data should be collected systematically over time, the more frequently the better. Analysis requires series of data extending over substantial periods and drawn at identical dates within each year so that seasonal factors will not distort year-to-year comparisons.

Anyone who has attempted intensive research into wage questions in developing countries is aware of the grave deficiencies which currently exist in the range and quality of data that are available. In connection with the preparation of this report an attempt was made to prepare a study of wage trends

¹ In addition, aggregate demand would depend on the income elasticity of demand for imports of the different affected income groups as well as on the effect on the demand for exports if the prices of the latter also change.
in the developing countries over the past eight to ten years and to relate these
to other economic variables at a high level of aggregation. The exercise yielded
very little that was usable. Many countries maintain only very few series
relating to labour market phenomena and those that exist often have restricted
coverage, contain unbridgeable discontinuities (often due to changes in the
collection method), show tendencies which render the data suspect as to their
accuracy, or are so aggregative that they preclude intensive analysis. That this
should be the case is quite understandable given the large volume of skills and
resources which data collection requires and the other pressing priorities facing
governments. One may hope that progress will be made, though it would be
rash to expect more than modest improvements in existing series and perhaps
the gradual addition of other series over the next decade.

The implications for research into wage problems of developing countries
are therefore obvious. The possibilities of applying quantitative methods will
be sharply restricted by both the quantity of available data and their quality.
Researchers will have to content themselves with only modest objectives,
based on only partial or scattered quantitative information and larger propor­
tions of personal observations and subjective judgments. One should not under­
estimate the value of even this kind of research, however. The skilled researcher
can often exploit limited data and personal observations to create a basis for
drawing useful inferences. He may succeed in rejecting some hypotheses even
though convincing support cannot be marshalled for others. Where more
generous amounts of data are available, he may succeed in estimating boundary
limits for the values of parameters, for which data are lacking and which are
required to produce a particular result. The reasonableness of the estimated
values in the context of the particular society can then be judged, thus providing
a useful basis for evaluating the desirability of any particular course of action.

In brief, almost any systematic research efforts in most developing countries
will involve the breaking of new ground and will serve to increase the fund of
information at the disposal of officials charged with influencing or regulating
economic affairs. One may hope that the potential costs and benefits of parti­
cular courses of action may be made increasingly clear. At the very least
systematic research efforts should make it possible to identify the areas of
unknown consequences, thus substituting a more healthy scepticism for dog­
matic prejudice in many areas of public policy making.

The I.L.O. has encouraged the adoption of measures whose costs and bene­
fits have rarely been subjected to analytical measurement. Little is known of the
full economic consequences of measures which, at first sight, appear desirable
on humanitarian grounds. Surely, the regulation of wages through legal mini­
mum wage procedures must be counted as one of the measures whose full
implications for developing countries have barely been explored. The I.L.O.
thus has a strong obligation to devote greater resources to the analyses of wage
problems in developing countries, and intends to do so.

To prescribe a programme of research for the near future is complicated
by the multiplicity of research needs. Almost anything that could be done to
identify and describe the key features of the wage and remunerations systems
of developing countries would represent a net addition to our fund of knowl­
edge and would be useful. In the face of limited resources and even more
limited readily available statistical data, narrower objectives are probably
called for. It is in this light that the following suggestions are offered.

Perhaps the most urgent need is to provide some evaluation of the actual
and probable impact of the wage regulation schemes that are already operative
or are being considered for adoption in developing countries. For research
purposes we may distinguish between two groups of countries according to
the effective degree of state regulation of wages. In the first instance research
should be undertaken in respect of those countries in which the administration
of minimum wage regulation has been most aggressive, i.e. where rates have been revised periodically and new rates established which appear to have had a direct effect on the wages paid at least to the lowest-paid workers in the affected industry or sector. In particular, countries which employ minimum wage boards on an industry-by-industry basis may provide the best starting point; it is sometimes the case that, even if the general state of data collection is deficient, reasonably good data are collected for purposes of the deliberations of the wage boards. Given more than one industry survey and wage decision for any particular industry group, it may be possible to analyse the changes that have been associated with changes in wage minima and that may be attributable to the latter. Among the various elements that should be explored would be the changes recorded in actual wage levels and occupational wage structures, output-employment relationships, capital-labour and capital-output ratios, changes in the number of firms and the scale of production, changes in employment policies and labour administration by affected firms, product prices, profitability, investment policies, the competitive position of the industry relative to domestic substitutes or to foreign producers, etc. The emphasis in this catalogue is strictly on the micro-economic effects of wage changes, for it is these which are most likely to be assessable. To the extent that the analysis can be fitted into the wider context of the economy or the broader macro-economic effects evaluated, this should, of course, be done.

Meriting almost equal priority is a programme of studies in those countries which may be contemplating the adoption of a new minimum wage system or the more aggressive application of an existing system to provide an improved basis for wage decision making. The scope of such a project would necessarily be limited by the state of data availability and the size and complexity of the economy in question. Ideally, it would be desirable not only to describe the key features of the existing system of wages and remuneration but also to evaluate its efficiency in performing its economic function. Furthermore, it would be desirable not only to describe the inter-industry and inter-sectoral earnings structure at a moment of time but also as far as possible to identify the changes that have occurred in the past and the motivating forces of change. To the extent that this is possible, even crude estimates might be made of the possible impact of different levels of minimum wages on income distribution, allocation of investment, employment, etc.

The research proposed in the two cases above would have to be undertaken in the countries to be the subject of inquiry. Given the usual scarcity of readily available data (especially outside the country), the necessarily heavy dependence on subjective judgment and the need to view the wage sector within the broader context of the whole economy, a period of continued residence and research in the country would appear unavoidable. Obviously, it would be preferable for the researcher to have an intimate knowledge of the country in advance but this still would not obviate the necessity of on-the-spot research.

The final part of a research programme in the area of minimum wages might include a series of studies on the impact of minimum wage procedures in developed countries, for which the appropriate data might be more readily available. A study of selected industries in the United States by C. St. J. O’Herlihy ¹ provides a good example of this type of activity. The virtues of such studies should be obvious. They would rest on a more solid foundation of empirical information and their conclusions should, therefore, be less equivocal than those derived from studies with a large proportion of qualitative judgments. The relevance of studies of developed countries for the less developed should not be underestimated. There is no reason to suppose that the adjustments

¹ C. St. J. O’Herlihy, op. cit.
to administrative wage fixing in the latter countries are radically different from those in the former. To be sure, the rate and amount of adjustment that will occur will differ among countries but it is highly unlikely that the direction of change will differ. At the very least the availability of the results of such studies should do much to sharpen policy makers' awareness of a fuller range of possible adjustments and to encourage a more careful estimation of the costs and benefits of alternative courses of action.
APPENDIX 4

SELECTION AND TRAINING OF EMPLOYER AND WORKER PARTICIPANTS

Among the practical problems involved in ensuring the effective and successful operation of minimum wage fixing machinery are those relating to the selection of employers' and workers' representatives to participate in wage fixing bodies and the training of such of them as may be in need of it.

INTERNATIONAL STANDARDS CONCERNING SELECTION

The Minimum Wage-Fixing Machinery Recommendation, 1928 (No. 30), states in Part II, Paragraph 2 (b) that "In order to ensure that the employers' and workers' representatives shall be persons having the confidence of those whose interests they represent, the employers' and workers' concerned should be given a voice as far as is practicable in the circumstances in the selection of their representatives, and if any organisations of the employers and workers exist these should in any case be invited to submit names of persons recommended by them for appointment on the wage-fixing body". Paragraph 5 of the Minimum Wage Fixing Machinery (Agriculture) Recommendation, 1951 (No. 89), contains substantially similar provisions.

The Consultation (Industrial and National Levels) Recommendation, 1960 (No. 113), provides in Paragraph 5 (b) that the competent authorities should seek the views, advice and assistance of employers' and workers' organisations in an appropriate manner, in respect of the preparation and implementation of laws and regulations affecting their interests as well as in respect of the establishment and functioning of national bodies concerned with labour matters. This process of consultation would include the question of deciding on a method of selecting the employers' and workers' representatives who would participate in the minimum wage fixing bodies considered to be most appropriate and practicable in the particular conditions and circumstances of the country, trade or industry concerned. It might take place during the preparation of legislation or regulations or at the time the decision to set up the wage fixing body is being considered.

GENERAL APPROACHES TO PROBLEMS OF SELECTION

The principle that the employers and workers concerned should be given a voice in the selection of their representatives on wage fixing bodies is generally accepted, but national practices vary considerably in the method of its application. In many countries the competent authority is given considerable discretion in determining an appropriate method of selection of such representatives and in adopting a flexible approach to the problem. This is the case, for example, where the legislation simply states that the wage fixing body should include employers' and workers' representatives or that employers' and workers' organisations should be consulted in the selection of those representatives. On the other hand, in several Latin American countries, the legislation lays down a specific procedure or certain standards which the competent authority has to follow.
In countries where any number of employers' and workers' organisations may have conflicting claims to the right to have a voice in the selection of employers' and workers' representatives on wage fixing bodies, it becomes important for the government to adopt a method of selection or some other solution that will find common acceptance among them. In the case of general wage boards, whether national, regional or local, the number of such organisations may be larger than the number of representatives. The situation becomes more difficult in countries where the trade union movement is divided. In a number of countries jurisdictional disputes between trade unions are a complicating factor with regard to trade or industry boards. The methods of selection that have been adopted in various countries appear to have been designed with this problem in view. Aside, however, from specific methods, two general approaches to the problem may be noted.

The first is the approach suggested by Recommendation No. 113—prior consultation with employers' and workers' organisations in the determination of the method of selection. This was done, for example, in Argentina with regard to the National Minimum Wages Board established under Act No. 16459 of 1964, the initial draft of which was prepared by a committee including representatives of employers' and workers' organisations. In India the system of central industry wages boards was instituted by the Government on the basis of a decision of the Indian Labour Conference and each of the existing boards has been set up in agreement with the employers' and workers' organisations represented in the Conference.

Under another approach the problem posed by the existence of various groups is met by adjusting the size of the wage fixing body to the number of these groups. This was the approach adopted by the competent authority in the United States with regard to industry committees established under the Fair Labor Standards Act of 1938.

In a few countries the right to participate in the selection of employers' and workers' representatives is given to the most representative organisations of employers and workers; for example in Argentina, with regard to the National Minimum Wages Board, under Act No. 16549; in France, with regard to committees for industries in which homeworkers are employed; in Peru, under Decree No. 007 of 21 May 1965; and in Colombia, where the legislation itself lists the organisations empowered to nominate representatives. The practice in most countries is to give the lawfully existing organisations or those which are of sufficient importance an opportunity to take part in the selection of employers' and workers' organisations.

In considering the problems of the representation of employers and workers on wage fixing bodies governments have often to consider the question of the role to be assigned to unorganised employers and workers. In many Latin American countries provisions exist to enable these employers and workers to participate in the selection of representatives or candidates for appointment. In the United States representatives of organised labour have been

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2 It should be noted that these wages boards have no statutory basis and their recommendations become binding only if, having been approved by the Government, they are embodied in collective agreements or otherwise accepted by each employer concerned.
4 Labour Code (Amendments), section 33 (g) (I.L.O.: Legislative Series, 1957—Fr. 2 B)
5 Ibid., 1965—Per. 1 A, Ch. III.
6 Decrees No. 1156 and No. 2101 of 1955 (Ibid., 1955—Col. 1 A, B).
appointed on all mainland committees even in industries where trade union organisation is very slight. Great Britain, in similar circumstances, has followed the practice of appointing unorganised workers.

**METHODS OF SELECTION**

As indicated earlier, national practice exhibits considerable diversity as regards the selection of employers' and workers' representatives. There is, however, little available information on the details of actual practice in various countries. In most cases the appointments are made by the competent authority. The methods appear to fall into four main groups.

*Appointment by the Organisations Concerned*

The employers' and workers' representatives may be appointed by the organisation concerned. This method is followed in Colombia under Decrees No. 1156 and 2101 of 1955 and in Peru under Decree No. 007 of 1965. In Colombia the Government is empowered to make the necessary nominations in the event of failure of the organisations concerned to appoint their representatives.

*Election and Similar Methods*

Under the legislation in some countries elections are required for the selection of employers' and workers' representatives (for example in El Salvador, Guatemala, Mexico and Uruguay) or of candidates from among whom the representatives are appointed by the competent authority (for example in Brazil).

In Mexico detailed regulations govern the conditions and procedure for conducting elections. Participants in the elections are the delegates of duly accredited groups of employers and workers. The notice concerning the holding of elections prescribes the number of representatives to be chosen and their distribution among specified groups of industries and activities, and the employers' and workers' delegates for each of these groups elect the number of representatives assigned to them.

In Brazil, three months before a regional board is to take office, the industrial associations of employers and workers must hold elections to choose their representatives. Each association forwards a list of three elected members and alternates and it devolves upon the competent authority to appoint the members of the board after the lists have been submitted. There may not be more than one employers' and one workers' member of the board belonging to any industry or occupation.

*Nomination by and Consultation with the Organisations*

The competent authority may appoint as representatives the persons nominated or recommended by the organisations or representative groups concerned, the appointment being in effect a formal or official sanction of the

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5 Ibid., p. 47.
selection made by each of these organisations or groups. This method is followed in Argentina, in the case of the most representative organisations, in the United States and various other countries.

It may also be followed in cases where employers' and workers' organisations have to be consulted in the selection of employers' and workers' representatives. In Great Britain, in trades where the workers have achieved a certain degree of organisation, the trade unions are invited to nominate workers' representatives. However, the process of consultation may be engaged in in various ways; it may be limited to the consideration of particular persons proposed either by the organisations or by the competent authority.

**Selection from a Number of Candidates Proposed by Employers' and Workers' Organisations**

Under a fourth method the employers' and workers' organisations are asked to propose candidates for appointment and the competent authority selects the representatives from among the number of persons thus recommended. This method is prescribed by legislation in a number of Latin American countries (for example in Chile, Costa Rica, Honduras and Nicaragua). In Chile and Costa Rica the legislation provides for the submission by the organisations concerned of a list containing a specified number of candidates. In Nicaragua every industrial organisation with a legal personality is entitled to enter a candidate in the list of candidates from which the workers' or employers' representatives are chosen. Except in Chile, where the selection is made by casting lots, the government picks out from the lists the persons to be appointed.

This method may also be followed as a form of consultation of employers' and workers' organisations in the selection of representatives. In application of the Indian Minimum Wages Act in the Union territory of Delhi, the employers' associations and trade unions in the industry concerned were invited to nominate their candidates for appointment to the Minimum Wages Advisory Committee; from the names received by him the Director of Industries and Labour drew up a panel which he recommended for appointment.

**Relative Merits of, and Experience with, the Different Methods**

It is not possible to say that any of the methods of selection referred to above is, in an absolute sense, better than the others. Each method has its relative merits and disadvantages and these have to be weighed in relation to the circumstances of the country concerned. The fact that one method has worked well in one country is no guarantee that it can be made to work equally well in another country. Practical considerations of policy may dictate the choice of a particular method in spite of certain disadvantages.

It can, for example, be pointed out that the holding of elections for the selection of representatives or candidates entails costs and efforts not involved under the other methods. For the government concerned, these costs and efforts may willingly be borne in order to advance the principle of democracy by elections, with the possibility that experience in this area will enhance the implantation of democratic processes in the political field; or they may be outweighed by the need on the part of the government to demonstrate absolute

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1 It may be noted that this method is also followed in Brazil, but the candidates are selected by election.


neutrality in the selection of representatives and to preclude the possibility of any situation in which some of the organisations concerned could claim that the government had unduly favoured one or another organisation.

Where particular organisations are given the right to appoint or nominate their representatives, certain organisations considered not to be of sufficient importance may be left out, while unorganised employers or workers will have no opportunity to make their voices heard. The objective of policy in this case may be to secure the most effective representation of employers and workers, which can best be assured by organisations whose representative character on the basis of objective criteria cannot be challenged and which have at their disposal experienced personnel as well as facilities, particularly in the matter of economic research.

Under the method by which the organisations concerned submit the names of a number of candidates, the government enjoys wider latitude in selecting representatives. With various candidates to choose from, the government can select those whom it considers most qualified and bearing in mind other relevant factors. However, the exercise of this discretion can lay the government open to the charge that it has not been objective or impartial in making its selection, and it will need to exercise particular care so as to avoid the possibility of any such charge being made.

In the final analysis experience itself is the best test of the appropriateness of any particular method for the conditions of a given country. This is not helpful for countries deciding for the first time to set up wage fixing bodies on which employers and workers are represented. It is true, nevertheless, that a country which has initially opted for one method may experience difficulties and think of suitable adjustments to it or even of changing to another method. While a study of local experience will be essential for this purpose, knowledge of the experience of other countries will undoubtedly be helpful in permitting consideration of other possible alternatives. Studies of national experience with various methods of selecting employers' and workers' representatives may thus be considered necessary for the benefit of countries intending to institute wage fixing machinery for the first time as well as countries which wish to consider changing their existing practice in this respect.

**Training**

Apart from needing to be acceptable to the groups they represent, employers' and workers' representatives require certain qualifications in order to be able to participate effectively in the work of wage fixing bodies. The main qualifications seem to be some understanding of the criteria for wage fixing and related questions as well as skill in committee work or ability to participate in joint discussions. Available information concerning national practice does not indicate the importance attached to training for the development of these qualifications. It may be vitally important for the successful operation of wage fixing machinery.

Those selected as representatives may possess the necessary qualifications thanks to previous experience of acting as such representatives or thanks to experience of negotiations for the conclusion of collective agreements or of procedures for settling disputes. Even so, further training in the problems and economic implications of wage fixing may be useful to them, particularly in cases where minimum wage fixing is integrated into broader economic and social policy making.

Seminars and group discussions can be of general use. It is possible to organise regional seminars on wage fixing and related problems. Other forms of training may be necessary, however, for newly appointed representatives. In a country where wage fixing machinery is to be set up for the first time or
which has had only negligible experience in this field, the assistance of experts during the initial sessions of a newly formed board may be useful. For example, in a pilot project in Guatemala, an expert of the I.L.O. was present at the initial sessions of the joint board for the textile and garment trades. Another possibility is to grant fellowships to officials of employers' and workers' organisations to study the problems of wage fixing, particularly the operation of wage fixing machinery, in other countries.

In a country which has already had some successful experience with wage fixing machinery and where a board is to be set up for the first time in a region, trade or industry, there may equally be a need for the assistance of experts during the initial sessions of the newly created body. Representatives could also be allowed to sit as observers during the sessions of an existing wage fixing body which has had a record of effective work.

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