

Relative Wages in Wartime

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IN any time of relatively stable economic conditions, the rates of wages current in different industries and occupations form an organic system. Each rate bears some relation, directly or through connected links, to every other rate, and the system as a whole is the resultant of those complex forces—consumers' choices, the technique of production, the elasticity of supply of labour and capital, organisation and bargaining strength, custom and the institutional framework—which constitute the labour market. In a structure so delicately balanced a change at any point brings corresponding changes elsewhere. An increase in the demand for a particular commodity, leading to higher wages for the workers who make it, exerts an upward influence on the wages of similar workers elsewhere; and other groups whose wages bear some customary relation to the rates affected will expect a corresponding increase. If at the same time there is a fall in the demand for another class of goods, forces of an opposite kind are set in motion in the industry concerned.

In ordinary times most such changes in the demand for different types of labour, and consequently in relative wage rates, take place gradually. They continually modify but they do not disrupt the established structure of customary rates. When, however, a peaceful country is suddenly plunged in war, forces are set in motion which may destroy completely the customary equilibrium.

WAR DEMAND AND THE WAGE STRUCTURE

Certain types of production must be expanded enormously and with the greatest possible speed and new types of production are begun. The demand for workers with the special skills essential to the execution of this programme quickly outruns the available supply. Rival firms outbid one another to get or keep the men they need, and both earnings and wage rates rise rapidly. The rise may be restrained to some extent by workers' unwillingness, for patriotic reasons, to extract monopolistic gains at the national expense, but it is certain, in the absence of rigid and far-reaching controls, to go far enough to upset established ratios between wages in different industries and occupations. If at the same time costs of living start to rise and high profits begin to emerge, trade unions in the industries where demand is keenest will feel justified in pressing for substantial wage increases and the competitive scramble for workers, by pushing up wage rates in individual establishments, will pave the way for more general advances. If in addition contracts for war supplies are being let on a "cost plus" basis (the contractor receiving a payment sufficient to cover his costs plus a specified percentage for profit), or if all profits above a certain rate are taken in taxation, there will indeed be little incentive for employers in these industries to resist the pressure for higher wages.

In industries producing solely or mainly for civilian needs, opposite conditions are likely to prevail. Reduced demand and shortage of materials will contract the operations of factories and distributors; employment and earnings will fall, and wage rates if they do not actually decline will at least be unable to maintain anything like their usual relation to rates in force elsewhere. With costs of living rising the result is hardship; and the hardship is felt the more severely for its contrast with conditions in the industries producing war supplies.

Differences in the experience of different groups of workers within a particular industry may be no less striking than the contrast between the fortunes of different industries. Where rapid expansion is taking place both methods of production and terms of employment are apt to vary in different establishments, and differences in the wages paid for similar work may cause unrest. Apart from such anomalies margins for skill in general are likely to be affected, though not necessarily to the same extent, or even in the same direction, in different occupations

or in the same occupation at different times. Those special groups of highly skilled workers whose membership is limited and difficult to increase and whose work, though in great demand for essential production, does not lend itself to subdivision among "dilutees", may greatly improve their relative position. Elsewhere, however, the margins for skill are in the long run more likely to decline. As shortages of goods develop and prices rise there is a tendency to increased emphasis on the cost of living factor in wage negotiations. Wage adjustments, particularly those made by wage fixing authorities, are apt to take the form of flat-rate increases which improve the relative position of the low-paid worker but worsen that of the better paid. Other factors contribute to the same result. In industries producing for war needs, mass production, with a high degree of division of labour, increases greatly the demand for semi-skilled workers and for this and other reasons the organisation and bargaining power of both semi-skilled and unskilled workers are likely to improve. Any customary element in skilled workers' margins which may no longer be justified by higher productivity or supported by war demand is likely to be undermined and the secular trend to lower margins¹ at once strengthened and made manifest. Even if this does not occur there may be marked changes in relative earnings: for production on a larger scale and improved methods may enable unskilled and semi-skilled workers, paid by the piece, to increase greatly their hourly output and earnings, while skilled workers, who are usually paid at time rates, receive the same hourly earnings as before. Nor is this all: for while those below the skilled worker in the industrial scale are catching up, his superiors are apt to forge ahead. With capacity production even small rates of profit yield large total gains and the upper ranks of management at least will likely share in the prevailing prosperity. To those skilled workers whose position in the industrial scale is thus worsened, though their skill and output are as great as ever, the change appears as a rank injustice. The inevitable consequences—unrest, demoralisation, reduced efficiency—would be serious enough at any time. When a country is at war they may be positively dangerous.

To add to the difficulties created by such changes in the relative wages of existing occupations there are apt to be per-

sistent controversies over the rates fixed for what are in effect new occupations. New products are called for and in the case of many things already made the changes in the scale of production are such that the organisation and methods in use must be revolutionised: small workshops are replaced by mass-production and the technique of the assembly line. Much of the work formerly done by highly skilled labour is divided up among new classes of specialised semi-skilled workers who must be recruited and trained for the purpose. Whenever such changes occur, difficult problems of wage fixing arise. Wage rates must be set both for new types of work and for new classes of workers, of whom not the least important will be the women drawn into industry to replace men needed elsewhere. Though comparison with other types of work can furnish useful guidance, both the scope of controversy and the possibilities of error are enlarged by the absence of that body of custom which ordinarily limits the range of disagreement in wage negotiations.

THE EXPERIENCE OF 1914-18

The records of 1914-18 abound in illustrations of the problems just outlined. As an outstanding example of the varying fortunes of different industries there is the case of engineering and textiles in Great Britain: "The war advance of the engineer was very nearly equal to the whole wage of the cotton worker, who, as being furthest from munitions production, was least able to obtain war advances."¹ In the mining industry at one time war bonuses for certain groups of workers amounted to 29s. a week, as compared with 15s. in engineering and allied industries.² Even within particular industries there were marked disparities. In the Clyde shipbuilding industry at the end of the first year of war the increases over pre-war rates that had been conceded to different classes of tradesmen varied from 2 per cent. in the case of painters to 43½ per cent. in the case of fitters³; and at a later stage sheet-metal workers, whose labour was in urgent demand, were granted an additional advance although they already enjoyed a bonus 13s. a week higher than that of the rest of the engineering trades.⁴ In other belligerent countries similar divergencies appeared. Thus

¹ Humbert WOLFE: *Labour Supply and Regulation* (Oxford, 1923), p. 245, note.

² Henry CLAY: "Government Control of Wages in Wartime", in *The Problem of Industrial Relations and Other Lectures* (London, 1929), pp. 40 and 56.

³ *Ibid.*, p. 38.

⁴ *Ibid.*, pp. 59-60.

¹ Due to such factors as the extension of popular education. Cf. A. G. B. FISHER: "Education and Relative Wage Rates", in *International Labour Review*, Vol. XXV, No. 6, June 1932.

in France wages rose much faster in the large-scale industries producing war supplies and in armaments factories than in the small-scale undertakings which were catering mainly to civilian needs.¹ Within particular industries there was a considerable range of variation² and in the provinces the average level of wages rose more than in Paris.³ In the United States average annual real earnings in manufacturing rose 12.4 per cent. from 1915 to 1918, compared with an average increase in all industries of 6.6 per cent.; in water transportation also wages rose more than the general average, while in street railways they fell some 9 per cent.⁴ In the "unclassified" groups of occupations, which included a large amount of "non-essential" production and in which "the natural lag of wages when prices rise was not . . . so strenuously combated by public policy acting through wage adjustment boards and aiming to make wages keep pace with rising costs of living"⁵, there was a decline of 18 per cent. in average annual real earnings from 1915 to 1919.⁶

No less marked than the varying fortunes of different industries during 1914-18 were the changes in the relative positions of different grades of skill. In almost all the countries which felt the influence of war, margins for skill declined.⁷ The fall was particularly great in Germany, where currency inflation and the rise in living costs were greatest; but even in New Zealand, where the rise in cost of living was relatively small, margins were appreciably reduced. When wage increases or special bonuses were granted to offset the higher cost of living they frequently took the form of equal absolute increments in all grades of skill.⁸ The skilled worker, who already received

¹ Lucien MARCH: *Mouvement des prix et des salaires pendant la guerre* (Paris, 1922), pp. 274 and 297; cf. William OUALID and Charles PICQUENARD: *Salaires et tarifs. Conventions collectives et grèves. La politique du Ministère de l'Armement et du Ministère du Travail* (Paris, 1928), pp. 123-124.

² William OUALID and Charles PICQUENARD: *op. cit.*, pp. 355-357.

³ Cf. Lucien MARCH: *op. cit.*, pp. 263, 267, etc.

⁴ Basic data from W. I. KING: *The National Income and Its Purchasing Power* (New York, 1930), pp. 152-153.

⁵ John Maurice CLARK: *The Costs of the World War to the American People* (New Haven, 1931), p. 159.

⁶ *Ibid.*, pp. 152-159.

⁷ Cf. J. H. RICHARDSON: "Some Aspects of Recent Wage Movements and Tendencies in Various Countries", in *International Labour Review*, Vol. XVII, No. 2, Feb. 1928, and L. ACHNER: "Entlohnung der qualifizierten Arbeit vor und nach dem Kriege", in *Allgemeines Statistisches Archiv*, 1928.

⁸ For examples see Henry CLAY: *op. cit.*, pp. 45-6; A. L. BOWLEY: *Prices and Wages in the United Kingdom, 1914-1920* (Oxford, 1921), p. 99; William OUALID and Charles PICQUENARD: *op. cit.*, pp. 231, 265, etc.; Lucien MARCH:

more than a bare living wage, was less in need of an increase, it was held, than his lower-paid colleague; and in any case the cost of necessities and consequently the increase in that cost were much the same for both. Equal increases to skilled and unskilled workers left the absolute margin between their rates unchanged but brought the unskilled rate relatively nearer to the skilled; and the greater the increase as cost of living rose, the greater the reduction in the relative margin. Not infrequently, however, the cost-of-living bonuses were actually smaller for skilled workers than for unskilled¹; and in many cases the skilled worker or the worker whose ordinary wage exceeded a certain sum received no such bonus at all.²

Less general in their influence but even more drastic in their effect on margins in the industries concerned were the changes in the scale and technique of war material production, which led to enormous increases in the earnings of certain classes of semi-skilled and unskilled workers. Some of the most striking instances of the disparities which resulted from such changes are to be found in the records of British experience during 1914-18.³ In the autumn of 1915, as a means of securing trade union consent to the widespread introduction of piece work, an undertaking was given by the Minister of Munitions that piece rates, once fixed, would not be cut. Contracts for the production of large quantities of munitions were let to many firms with no previous experience in such work and in fixing their piece rates these firms had to rely on guess-work or on the

op. cit., pp. 280-281; D. T. SAWKINS: *The Living Wage in Australia* (Melbourne, 1933), p. 60; NEW ZEALAND DEPARTMENT OF LABOUR: *Awards, Recommendations, Agreements, etc., made under the Industrial Conciliation and Arbitration Act, and the Labour Disputes Investigation Act*, Vol. XIX, 1918, pp. 1061-1062, and Vol. XXIII, pp. 334 and following; and E. J. RICHES: "Conflicts of Principle in Wage Regulation in New Zealand", in *Economica*, Vol. V (new series), No. 19, August 1938, p. 321.

¹ Cf. William OUALID and Charles PICQUENARD: *op. cit.*, pp. 233-240; A. L. BOWLEY: *op. cit.*, p. 97; John Maurice CLARK: *op. cit.*, p. 160; New Zealand *Awards*, Vol. XVI, pp. 431 and 700, Vol. XVII, pp. 419 and 960, and Vol. XVIII, pp. 70-71; and D. T. SAWKINS: *op. cit.*, pp. 60-61.

² Cf. William OUALID and Charles PICQUENARD: *op. cit.*, pp. 234 and 239-240; New Zealand *Awards*, Vol. XVI, pp. 337 and 487, and Vol. XVII, pp. 418 and 960; and D. T. SAWKINS: *op. cit.*, p. 61.

³ For the classic accounts of this experience see Humbert WOLFE: *op. cit.*, pp. 263 and following; and Henry CLAY: *op. cit.*, pp. 34 and 42 and following. For a reference to similar disparities in France see William OUALID and Charles PICQUENARD: *op. cit.*, p. 175.

advice given to them by the old armament firms. The latter, however, "had based their prices on the comparatively leisurely and extremely limited pre-war production of a shell far more complicated than the one evolved during the war. These prices pre-war had yielded fair average earnings, but when they were applied practically without alteration to an entirely different type of production, they produced earnings for much less skilled work twice or three times and even four times as great as those derived from the same price lists before the War. Instances began to pour in from all parts of the country of earnings by unskilled men varying from £5 to £9. But the pledge made the Ministry powerless to intervene. Workmen had been assured that rates would not be cut, and the failure to honour that assurance would, it was felt, strike a blow at the whole system of payment by results."¹ Skilled workers, on the other hand, kept on time wages because their work was too varied to be placed on any system of payment by results, received no such increase. "During 1916 the skilled workers—supervisors, tool-room hands, setters-up and millwrights, the nature of whose duties made it difficult for them to work piece work — grew increasingly restless as the earnings of unskilled newcomers on piece work began to approach and then far to surpass their own."² In Sheffield, for example, the earnings of skilled men were about half of those of unskilled machine minders. "The position was further aggravated by the granting of flat war bonuses for both classes, thus further obscuring the distinction between the skilled and the unskilled."³ Finally an attempt was made to remedy the skilled worker's grievance by granting a bonus of 12½ per cent. on earnings to all fully-skilled time workers in the engineering and foundry industries. Very soon it became apparent that the line of demarcation thus drawn could not be defended. "Almost immediately there was a demand for an extension of the bonus to skilled time-workers in the shipyards; a similar demand followed from unskilled time-workers, who were equally prevented from enjoying the advantages of piecework and had much less adequate time-wages than the skilled men. It proved impossible to resist these claims, and the bonus became a general time-workers' bonus in engineering and shipbuilding. Now, although the skilled time-

workers' grievance was a real grievance, it is not to be inferred that time-workers in general were underpaid, nor that unduly high earnings were the rule on systems of payment by results. A general advance to time-workers, therefore, disturbed the general relation between time and piece earnings, and led to a demand for a corresponding advance in piece-rates."¹ In the end this too was granted. "Thus the wheel had swung full circle, and the relative positions of time-workers and piece-workers were restored."² The skilled worker's grievance remained but "it was a part of the towering complexities of the wages situation that for a grievance so obvious no remedy could be found".³

Closely related in their origin to the skilled worker's grievance were many of the problems of women's wages. The shortage of skilled workers and the adoption of mass production methods in the making of munitions, which led to a great increase in the proportion of semi-skilled workers and to the problems of wage regulation just outlined, led also to the employment of large numbers of women both on new types of production and on work which was customarily regarded as "men's work". As the newly-recruited women workers were unorganised and so unable to secure fair rates of wages by collective bargaining and as the men's trade unions in any case insisted on the fixing of adequate wages as a condition of relaxing demarcation rules and admitting women to men's work, State regulation of women's wages was speedily introduced. In Great Britain, as in France, the principle generally adopted was that of "equal pay for equal work", a principle which proved difficult to interpret and apply in practice. In France the rule prescribed that for identical work performed under the same conditions by men and women workers the women's piece rate must not be less than the men's; but if a part of the work (such as setting up of machines) was not done by the women, or if the latter had to be assisted by men, the total price paid for the women's work, plus the overhead expenses it involved, must be not less than the price paid to men who performed the whole of the work in question.⁴ In Great Britain, where the regulation of wages was limited at first to women engaged in men's work, the rule adopted was more generous. In the case of women employed on piece work or premium bonus it provided

¹ Humbert WOLFE: *op. cit.*, p. 265.

² *Ibid.*, p. 270. Cf. also Edwin CANNAN: "Industrial Unrest", in *Economic Journal*, Vol. XXVII, No. 108, Dec. 1917, pp. 457-458.

³ Humbert WOLFE: *op. cit.*, p. 270.

¹ Henry CLAY: *op. cit.*, pp. 45-46.

² *Ibid.*, p. 46.

³ Humbert WOLFE: *op. cit.*, p. 273.

⁴ William OUALID and Charles PICQUENARD: *op. cit.*, p. 192.

merely that they were to be paid the piece rates or bonus times customarily paid to men on the job; while women employed at time rates on "work customarily performed by fully-skilled tradesmen" were to be paid the time rate of such tradesmen. In order, however, to ensure that the "equal pay" was not being made for work which was in effect unequal, as well as to keep down costs, it was soon found necessary to amend the rule for women on time work to allow of the payment of lower rates to all who did not do the setting-up customarily done by fully-skilled tradesmen or who required more supervision than such men. Difficulties of interpretation of the kind which this amendment was designed to solve constituted only a part of the problems raised by the regulation of women's wages and the limiting of this regulation to women engaged in men's work. As a result of the trade unions' insistence that the rates paid should be such as would not affect adversely the wages of men, women engaged in men's work who were newcomers to industry were soon earning wages considerably higher than experienced women workers engaged in women's work. "It was an almost intolerable grievance for women also engaged on munitions but on work done previously by women, and often skilled at that work, not only to see new recruits earning far higher wages than their own, but themselves, as the cost of living rose, to suffer hardship because, quite apart from comparison, their rates were inadequate."¹ To permit the continuance of such anomalies would have been to court industrial unrest and the Government found itself obliged to extend its control of wages to women engaged in women's work.

RECENT EXPERIENCE

Before turning from the records of 1914-18 to those of the present war it may be of interest to note certain general considerations which suggest that some at least of the difficulties which arose in the field of relative wages 25 years ago may prove less acute this time. In the first place, the lessons of 1914-18 have not been entirely forgotten. Consequently, though modern mechanised warfare involves an enormously increased demand for armaments, and the production of planes, tanks, and guns, which bulk so large in this demand, requires, at least in its initial stages, a greater proportion of highly skilled labour than the typical munition work of

1914-18, the strain on the supply of skilled workers and on skilled wage-rates should be offset at least in part by precautions based on past experience. Thus the need for careful organisation of a nation's labour supply is now well recognised and every effort is made to conserve scarce types of skill by avoiding the non-selective recruiting and conscription which accentuated labour shortages and wage movements during the last war. Moreover methods of training of skilled workers have probably improved, and numbers of workers already semi-skilled are available for training, so that if adequate training facilities are provided it should be possible in time to meet the increased demand even for such highly skilled workers as machinists, tool-makers, pattern-makers, and instrument-makers. Furthermore, every effort is being made to utilise as economically and efficiently as possible the limited supplies of skilled labour already available: skilled engineers, for example, are reserved as far as possible for such tasks as tool-making and tool-setting, while routine production work is carried out by semi-skilled workers operating special-purpose and semi-automatic machine tools.

Secondly, the technique of mass production, which wrought such revolutionary changes then, is now more general and the problems which its introduction and application involve are better understood. As a result of the widespread adoption of automatic machinery the distinction between skilled and unskilled is less definite and a large proportion of workers possess the experience and the limited degree of skill needed to enable them to adapt themselves rapidly to mass production work in almost any industry. Problems of wage fixing for workers in new or expanded production should consequently prove less difficult than in 1914-18; and in any case the experience gained then and since in the art of rate setting should enable such problems as do arise to be solved more easily. For somewhat similar reasons the special problems of women's wages may also prove less difficult. There are many more customary rates of pay for women's work, and minimum rates set by collective agreements or by minimum wage fixing authorities, than there were 25 years ago; the principle of equal pay for equal work—provided the work is in fact equal—is likely to be more easily accepted; and the prejudice against women workers, which made the reasonable settlement of many of the problems involved in their employment difficult

¹ Humbert WOLFE: *op. cit.*, p. 289.

in 1914-18, is a generation less intense.¹ Finally, there is in practically all the countries concerned a more developed mechanism for negotiating or regulating wages; and there are probably fewer and smaller inter-regional and inter-industrial disparities in wage rates than there were in 1914. The last war saw a great growth of trade union organisation, particularly among the less skilled groups of workers, and with it a more uniform and systematic wage structure; and in the succeeding period there has been a vast extension of wage fixing machinery. As a result some of the problems which confronted those responsible for improvising wage controls during the last war are now non-existent or less acute; while many of the essential components of a system of control, should such be needed, lie ready to hand.

Though the information available concerning actual wage changes since the outbreak of the present war is fragmentary and incomplete, it includes many instances of changes in relative wage rates in different industries and occupations. In France and in Germany, where wage rates are subject to strict control, such changes as have occurred constitute exceptions to policies the general aim of which in this respect appears to be to maintain pre-war relationships. In Great Britain, however, no such central control of wage rates exists (though, as will be seen later, certain limited controls have recently been introduced) and the many changes in relative wages which have been registered must be regarded as a natural consequence of the radical changes in the conditions of demand and supply for different types of labour.

In addition to such changes in wage rates there have been considerable changes in relative earnings, consequent on increased activity and overtime in certain industries and opposite

conditions elsewhere.¹ It appears likely, moreover — though this must necessarily be a matter of conjecture — that such movements in relative earnings have been less dissimilar in the different countries than has been their experience in the matter of relative wage rates.

No comprehensive survey of recent changes can be attempted in the present paper but it may be useful to quote a few examples. In certain industries where work has become exceptionally arduous or dangerous as a result of war conditions increased wages have been conceded, either as a measure of equity or as a necessary inducement. Thus in France, Great Britain, and most neutral countries whose ships trade in the war zone, seamen have secured substantial wage increases or special risk bonuses.² In other cases the vital nature of the service rendered and the advisability of offering special inducements to ensure its full performance appear to have constituted the main reason for concessions granted. A case in point is that of German coal miners, who have been exempted from a general rule abolishing special rates of pay for overtime.³

In the great majority of cases, however, the factor most prominent in wage negotiations has been the rise in the cost of living due to war conditions. There is no doubt a tendency to over-rate the importance of this factor, to which both trade unions and employers sometimes find it convenient to ascribe wage increases whose real origin lies in the increased demand for labour. But its importance is none the less outstanding. In

¹ Thus in Great Britain an Enquiry conducted by the National Institute of Economic and Social Research, and covering 719,000 workers, showed increases in average earnings per head in different industries, for the period from 23 September 1939 to 16 March 1940, ranging from -0.5 per cent. in Shipbuilding and 2.2 per cent. in Food to 17.3 per cent. in Mining and 25.2 per cent. in Clothing. There were also marked differences in the experience of different age and sex groups: from March 1939 to March 1940 the earnings of females under 21 rose by 20.6 per cent., those of males over 21 by 16.6 per cent., those of females over 21 by 12.6 per cent., and those of males under 21 by 11.9 per cent. (*Economic Journal*, June-Sept. 1940, pp. 189-194).

Another enquiry, made in May and June 1940 under the auspices of the same Institute, showed that in a representative London borough "for every working-class family whose income had increased there were roughly three whose income had decreased and three whose income was the same" and in Coventry, with its marked arms boom, "nearly half had increased their income; of the rest, 32 per cent. had the same income as pre-war, 20 per cent. had less". (Charles MAGE: "War-time saving and spending: a district survey", in *Economic Journal*, June-Sept. 1940, p. 327.)

² For examples of such increases see *Industrial and Labour Information*, 2 Oct. 1939, p. 23; 23 Oct. 1939, p. 116; 13 Nov. 1939, p. 195; 1-8 Jan. 1940, p. 29; 22 Jan. 1940, p. 76; 5 Feb. 1940, p. 127; 12 Feb. 1940, p. 150; 19 Feb. 1940, p. 176; 11 March 1940, p. 250; 13 May 1940, p. 158.

³ Cf. *Industrial and Labour Information*, 8 April 1940, p. 25.

¹ Cf. *The Economist*, 3 Feb. 1940, p. 190. It should however be noted, as against the favourable factors listed above, first that in such industries as metals, light engineering, textiles, and chemicals, for which women are likely to be recruited, the differences between the rates of pay of men and women are still very great; and, second, the numbers of women who may have to be brought into industry, and consequently the extent to which the dilution of male by female labour may have to be carried, may be much greater than in 1914-18. In Great Britain, for example, it has been suggested that as many as 4 million women may have to be brought in, as compared with 1.6 million in 1914-18. (Helen MAKOWER and H. W. ROBINSON: "Labour potential in war-time", in *Economic Journal*, Dec. 1939.)

all the countries in which systems of minimum wage regulation are in operation the authorities responsible for fixing minimum rates invariably attach great weight to changes in the cost of living, and in certain cases such changes lead to automatic adjustments in wage rates. Thus in Australia the wages of most workers have for years been linked by fixed margins to basic rates, the amounts of which are subject to periodical adjustment according to movements in the cost of living. And in New Zealand, though no such automatic adjustment takes place, the Court of Arbitration now has power to vary minimum wages by general order in all industries under its jurisdiction and is directed, when doing so, to take into account changes in the cost of living.¹ In the former case, since the absolute amounts of margins for skill are unaffected by cost-of-living adjustments, the increases in basic rates resulting from the war-time rise in living costs have the effect of reducing relative margins. In New Zealand, on the other hand, the only adjustment so far made under the Court's general power is an all-round increase of five per cent. which leaves relative wages unchanged.² In Italy margins were narrowed by a general adjustment in March 1940 which granted wage increases ranging from 10 per cent. for workers in the highest wage group to 15 per cent. for labourers.³

Apart from such cases of wage regulation the outstanding examples of adjustments based on cost of living are the sliding scale agreements.

In Great Britain, where even before the war a large number of collective agreements included sliding scale provisions, and in Belgium, where such provisions were in force in practically all industries, wage increases accrued automatically as cost of living rose; and since the war broke out the number of workers covered by such sliding scales has increased enormously. In Great Britain new agreements containing such provisions have been concluded in several industries which had nothing of the kind be-

¹ The Rates of Wages Emergency Regulations, 1940, dated 16 May and 12 June 1940 (*Statutory Regulations*, 1940, numbers 86 and 116).

² In the case of State employees in New Zealand, however, the Government has granted a flat-rate increase (5s. a week to all employees of 18 years and over who earn not more than £335 a year—an amount equivalent to a little over five per cent. of the average wage of such employees) with the effect of reducing both absolute and relative margins between different grades (*The Standard*, Wellington, 19 September 1940, p. 1).

³ *Il Sole*, 10 March 1940.

fore¹, and in Denmark, Sweden, and Norway, general agreements were reached late in 1939 or early in 1940 by the central organisations of workers and employers to apply sliding scales throughout most industries.

Most of the wage increases resulting from sliding scale arrangements have been the same in amount for workers in different grades of skill and this has meant, of course, a reduction in relative margins for skill. Thus in Denmark, although the trade unions sought at first to obtain a percentage bonus to offset the rise in the cost of living, the agreement finally reached, which was the most comprehensive ever concluded, provided for quarterly adjustments based on the cost of living index at a uniform rate for all men and at lower rates for women and young persons.² In Sweden and Norway general agreements concluded between the central organisations of employers and workers provided similarly for flat rate cost of living bonuses subject to periodical adjustment.³ In Iceland the influence of the cost of living bonus in reducing proportionate margins for skill has been carried a stage further: unskilled and lower-paid workers are to receive a bonus equivalent to three-quarters of the rise in prices and higher-paid workers a smaller amount.⁴ In Belgium, on the other hand, though the sliding scale arrangements previously in operation were considerably modified, the principle of proportionate as opposed to flat rate changes in wage rates was retained.

Where sliding scales are in general operation the relative positions of workers in the same wage groups in different industries remain as a rule unchanged, for the cost of living supplements are usually at uniform rates for all industries. In Sweden, however, the amounts of the supplements are to be determined separately for different undertakings or groups of undertakings in proportion to the average hourly earnings of all workers taken together⁵, so that workers who belong to the same wage group but are in different industries, or even in

¹ Altogether it is estimated that nearly 3,000,000 workers are governed by such agreements. (*Labour*, July 1940, p. 521.)

² Cf. *Industrial and Labour Information*, 1-8 Jan. 1940, p. 3. The agreement was concluded in October 1939. Early in 1940, however, it came in for much criticism as a result of a marked rise in the cost-of-living index and in May, after the German occupation, legislation was introduced to suspend the operation of the agreement and to cancel the adjustment of wages to any index figure exceeding that of January 1940 (*Industria*, Stockholm, 8 June 1940).

³ *Industrial and Labour Information*, 19 Feb. 1940, p. 158, and 25 March 1940, p. 284.

⁴ *Ibid.*, 25 March 1940, p. 285.

⁵ Both averages and supplements are, however, calculated separately for men and women workers.

different undertakings in the same industry, may find their wage rates rising (or falling, if the cost of living falls) at different rates. On the other hand, the fact that the cost of living supplement is proportionate to average earnings within each undertaking will mean that relative wages as between industries with different levels of wages will be less affected than they would be by a system such as that adopted in Denmark and in Norway. In Great Britain, where separate sliding scale agreements are in operation in each of a number of industries, there is considerable variation in the nature and working of the scales adopted. Among those which have come to the notice of the writer the wage increases provided for range from an equivalent of 2½d. a week for each rise of one point in the cost of living index to as much as 5d. a week; and the dates at which they come into effect also vary in different industries.

Where no sliding scale applies and wage increases have been negotiated independently the range of variation is still greater. In Great Britain increases ranging from 1s. to 15s. a week have been noted. Many of them take the form of a special cost of living or war bonus—a description which carries no necessary implication of uniformity but has the effect of leaving basic rates unchanged. The dates at which wage increases have come into force in different industries have varied considerably; during the first six months of the war at least, there were some millions of workers who received no increase at all; and there were a minority whose wages had actually been reduced. How many there are who are still in such a position it would be difficult to estimate, but that wide disparities in the experience of different groups still persist is not open to doubt.¹ As against this it should, however, be noted that considerable progress has been made in dealing with some of the problems that proved most baffling in 1914-18.

¹ In the industries for which statistics are regularly compiled by the Ministry of Labour and National Service, increases in weekly full-time wage rates were reported for some 4,750,000 workers during the period September to December 1939 and for some 7,160,000 in the first seven months of 1940. Some decreases were also reported but in most if not all cases these were offset by subsequent increases (cf. *Ministry of Labour Gazette*, Jan. and Aug. 1940). According to Professor A. L. Bowley's indexes the percentage increases in wage rates in 20 different trades from May 1939 to July 1940 ranged from zero (compositors) to 22½ (cotton) in industrial employments and 39 in agriculture (ROYAL ECONOMIC SOCIETY: *Memorandum No. 83: London and Cambridge Economic Service's Report on Current Economic Conditions*, July 1940, p. 8). The Enquiry conducted by the National Institute of Economic and Social Research recorded average increases in wage rates in 16 industrial groups ranging from 3.0 per cent. (distribution) to 12.2 per cent. (clothing), and revealed considerable differences in the experience of different age and sex groups within these industries (*Economic Journal*, June-Sept. 1940, p. 194).

Thus in the case of women's work a comprehensive agreement between the Amalgamated Engineering Union and the Engineering and Allied Employers' National Federation fixes the terms on which additional women may be taken into the engineering industry for the duration of the war. The general principle adopted is that, whoever does the work, "the rate for the job" will be paid. Where the women who enter the industry in this way are fully qualified, without further training and without additional supervision and assistance, to perform work hitherto recognised as work done by male labour, they are to be paid the rate and national bonus appropriate to the male labour they replace. In the case of women not already fully qualified, special rules will apply. Those who are employed on work hitherto done by boys or youths under 21 years of age will be paid according to the national agreed scale of wages for women workers or the boys' and youths' scale, whichever be the higher. Those who are employed on work hitherto done by adult men will have their wages calculated as follows: (a) for a probationary period of eight weeks they will be paid at the women's national schedule of time rate and bonus; (b) for the next twelve weeks they will receive the national women's basic rate increased by one-third of the difference between it and the basic rate of the men they replace, together with a bonus similarly increased; (c) for a further period of twelve weeks they are to be paid a basic rate equal to 75 per cent. of the basic rate of the men replaced, and similarly with the bonus; (d) thereafter where women are unable to carry out their work without additional supervision the rate and bonus shall be negotiable and paid according to the nature of the work and the ability displayed; but women who are able to carry out the work of men replaced, without additional supervision and assistance, will be given the basic rate and national bonus of the men replaced. Provision is made for payment by results in accordance with these arrangements.¹

No less important, to judge by 1914-18, is a second agreement in the engineering industry which provides that skilled workers in the toolroom or skilled men transferred from production to tool making are to be guaranteed minimum earnings not less than the average earnings of the skilled production workers in the same factory for the same number of comparable

¹ *Ministry of Labour Gazette*, June 1940, p. 159, and *Labour* (official organ of the British Trades Union Congress General Council), July 1940, p. 530.

hours worked.¹ As a result, the old inequality between work "on the bench" and work "on the belt", which led to so much unrest during the last war, and was again proving troublesome, should at last be eliminated.

Finally a "uniformity agreement" concluded, like the two just outlined, under the leadership of Mr. Ernest Bevin, provides that for the period of the war workers in building and in civil engineering are to have equal rates of pay and similar working hours. In this case also, the new arrangement should serve to straighten out difficulties of long standing and remove a persistent cause of unrest.²

THE PROBLEM OF CONTROL

It is clear from even the limited information now available that many of those changes in relative wage rates which general considerations and past experience would lead one to expect in wartime have in fact been taking place during the past year. Whether they have had any appreciable effect on morale or willingness to work it would be more difficult to discover; but in any country which values social justice and seeks the willing co-operation of wage earners in its war effort the possibility of such repercussions should constitute a strong incentive to the organisations and authorities concerned with wage policy to study closely the character and consequences of wage changes.

To stress this aspect of the matter is not of course to suggest that all changes in relative wages are undesirable, nor even that all changes due solely to war conditions should be so regarded. The structure of wage rates, though normally stable, is never wholly rigid: changes are always taking place in the relative position of some industries and occupations and some of the changes which have occurred in recent months would have come in any case. Of the remainder, some no doubt have merely taken place rather sooner than then would have done in peace-time. The most important, however, are those which are directly and wholly due to war conditions. Some of these, such as the rise in the relative wages of seamen, are due to a change in the nature of the work, which has become more arduous or dangerous. Others are due to the allowance in wage negotiations for rising costs of living. Finally, there are those which can be

traced directly to a suddenly increased demand for certain types of production and consequently for certain types of labour, together with a declining demand for others.

Each of these main types of changes in relative wages needs to be considered separately. Those that would have occurred in any case and those that have merely been precipitated by the war can be dismissed very briefly: the hardship they involve is likely to be actually lessened by the increased needs for labour, and the increased opportunities for retraining and transfer to new occupations, which result from war demands. Those that are due to a change in the nature of the work will be readily accepted as justified on grounds of equity and efficiency.

The decline in margins for skill due to uniform or progressively declining cost of living supplements is in a somewhat different class. As the sacrifices imposed by war increase it is both desirable and inevitable that they should be imposed in larger measure on those best able to bear them and tempered to those who have least to spare. In the general impoverishment which war involves some reduction of margins for skill can scarcely be avoided. But there are limits beyond which such a reduction cannot be carried without serious risk to industrial harmony and efficiency.

The final group of changes in relative wages—those due to radical changes in the relative demand for different types of labour—presents one of the most difficult problems of wartime wages policy. In considering this group it is important to remember that a rise in the relative wages of those classes of workers who are in most demand serves at once as a stimulus to employers to use such labour efficiently and economically, as an encouragement to the workers concerned to put forth their best efforts, and as an inducement to all other workers who can qualify for the work in question to take it up. At the same time, a fall in the relative wages of other groups of workers may encourage employers in war industries so to organise their operations as to be able to employ more of such workers and may encourage the workers concerned to move into industries and occupations in which their services will be of greater value both to employers and to the community as a whole. Changes in relative wage rates and in relative earnings are thus one of the means of bringing about that change-over from peace-time production to the production of goods essential for war purposes, which constitutes the central problem of wartime economics.

¹ *Labour*, August 1940, p. 557.

² *The Building and Monumental Workers' Journal*, Glasgow, August 1940, pp. 3 and 7; *The Evening News*, London, 15 July 1940; *The Manchester Guardian*, 16 July 1940.

To the extent, therefore, that changes in relative wages serve this purpose, and do so more efficiently than any practicable alternative, they must be regarded as justified. Such friction and dissatisfaction as they may cause in the process are a part of the price that must be paid for national defence. If, however, the changes proceed beyond the point at which their stimulus to effort and to efficiency in the utilisation of labour and other resources has reached its economical maximum, this justification no longer holds. The disadvantages of further change increase progressively and it becomes desirable to rely to a greater extent on other means of organising the supply and distribution of labour—on such measures, for example, as improved facilities for the transfer of workers from one industry or locality to another, “dilution” in its various forms, and schemes for speeding up the training of skilled workers. If, in spite of such measures, changes in relative wages become further accentuated, to the point of provoking serious unrest among workers whose position is worsened, or diminishing incentive among those whose earnings have increased, or raising unduly the cost of war supplies, a case arises for some deliberate limitation.

To limit changes in relative wage rates which are due to changes in demand for labour it is necessary to check the upward movement of wages in those industries and occupations whose services are in most demand; for the only alternative—to raise wages where demand is weak—would increase the incidence of unemployment among workers in the less fortunate groups and thus in all probability leave them worse off than before.¹ If such a check—which may take the form either of a direct limitation of wage rates or of restrictions on the movement of workers, on competitive bidding by employers, and on the use of the strike weapon—can be applied by mutual consent as a result of negotiations between the Government and the parties concerned, the problem is solved; and it goes without saying that in this, as in all other matters of working conditions, the method of negotiation and voluntary agreement should have first preference.

That such agreement is not beyond the range of possible achievement is shown by recent experience in Great Britain. Already in April 1940, a committee consisting of a chairman

¹ There are of course other possible ways of improving the position of these groups (for example, the provision of family allowances) but these fall outside the scope of the present paper.

and representatives of workers' and employers' organisations agreed unanimously to the making of an Order¹ prohibiting employers in the building and civil engineering industries from advertising for bricklayers, carpenters, or joiners, without the consent of the Minister of Labour and National Service. And later, at a time of national danger and under the leadership of a Minister drawn from their own ranks and enjoying their full confidence, the British trade unions agreed to an Order² making it an offence for any employer to engage a man normally engaged in coal-mining or in agriculture, forestry, or horticulture, except for work in those trades, or for an employer in the engineering, building, or civil engineering contracting industries to engage a man otherwise than through a Local Office of the Ministry of Labour and National Service; and to a further Order³ prohibiting strikes and lockouts and providing for the compulsory arbitration of all trade disputes which cannot be settled by agreement through the ordinary machinery of negotiation.

It would be difficult to exaggerate the importance of the two last-mentioned of these Orders. The first, known as the “no poaching” Order, is designed to end the scramble for labour in the engineering industry and to prevent the movement of workers away from two other essential industries. The second, by making arbitration compulsory, introduces a principle to which the trade unions have hitherto been consistently opposed. In each case, the workers' acceptance (for the duration of the war) of the new regulations involves a renunciation of opportunities to press for wage increases or to move to higher-paid jobs—a very real sacrifice at such a time⁴; and if the Orders are effectively applied they will constitute an important check both on the general level of wages and on the movement of relative rates in different trades. Relative rates may be affected, moreover, by the policy of the National Arbitration Tribunal. Though

¹ The Control of Employment (Advertisements) Order, 1940, effective 24 April 1940. For details see *Ministry of Labour Gazette*, May 1940, and *Industrial and Labour Information*, 13 May 1940, p. 153.

² The Undertakings (Restriction on Engagement) Order, 1940, effective 10 June 1940. Cf. *Ministry of Labour Gazette*, June 1940, pp. 156 and 181, and July 1940, p. 185, and *Labour*, July 1940, p. 523.

³ The Conditions of Employment and National Arbitration Order, 1940, effective 25 July 1940. Cf. *Ministry of Labour Gazette*, Aug. 1940, p. 210.

⁴ Farm workers have received some compensation in the form of a national minimum wage of 48s. a week. Cf. *Ministry of Labour Gazette*, May 1940, p. 129; June, p. 158; July, p. 188; and Aug., p. 214.

no direction is given as to the principles to be followed in settling disputes, it is at least possible that this tribunal, like other similar bodies, may attach importance to the notion of a living wage and seek in consequence to maintain as far as possible the purchasing power of lower-paid workers while conceding much smaller advances than unrestricted competition would afford to workers whose labour is in keen demand. However this may be, it is clear that with strikes prohibited and the movement of labour greatly restricted, the weapons and safeguards on which the worker ordinarily depends are greatly weakened and a major part of the responsibility for determining the relative rates of wages in different industries and occupations must fall upon the Arbitration Tribunal.

Important as these measures may be, the checks on wage movements which they introduce are still indirect in character. Even the rates of wages to be fixed by the Tribunal will be minimum rates and though there will be powerful forces operating to make them standard rates as well, there is as yet no legal obstacle to the payment by individual employers of higher rates. In this respect the position in Great Britain is similar to that in a number of the other countries that are at war.¹ In certain countries, however, maximum as well as minimum rates of wages have been fixed. Thus in France, under the law of 10 November 1939, the average wages paid in any undertaking engaged on national defence work to workers in the same occupational group may not, hours and output being equal, exceed the average wage of 1 September 1939, except in cases where the Minister of Labour and the Minister directly concerned have jointly decided to make some change; and in any case the rates approved must not be exceeded.² In Germany an Order of 4 September 1939 and regulations of 12 October 1939 provide for the fixing of maximum limits for wages and salaries in all occupations and prohibit any increase of wages without special authorisation.³ In Japan, under Orders of 16 October

¹ For information as to the measures taken in other countries to prevent strikes, or to control the engagement of scarce classes of workers or limit in other ways the competition of employers for their services, reference may be made to the *International Labour Review*, *Industrial and Labour Information*, and the United States *Monthly Labor Review*.

² An English translation of this law will be supplied by the International Labour Office on request.

³ For an English translation of the wage provisions of the Order of 4 September 1939 see I.L.O.: *Legislative Series*, 1939—Ger. 8, and for a note on the regulations of 12 October see *Industrial and Labour Information*, 27 Nov. 1939, p. 245. Cf. also *Reichsarbeitsblatt*, 5 March 1940, and *Monthly Labor Review*, June 1940, p. 1374.

1939, wages and salaries are stabilised at the levels of 18 September 1939 and increases are permitted only in special cases and with official authorisation.¹ Little information is available as to how these controls have worked in practice or as to the extent to which it has been found necessary to allow exceptions to the rigid stabilisation originally aimed at. Two exceptions—affecting seamen in France and miners in Germany—have however been mentioned above; and in Japan the hardship caused by rising costs of living has led to the introduction of family allowances to supplement low wages.²

Though the setting of a "ceiling" to wages has been advocated in certain circles in Great Britain, and the Minister of Labour and National Service has been empowered³ to require the performance of services by any person "upon such terms as to remuneration" as he may direct—a provision which would apparently permit the fixing of maximum as well as minimum wages—there is no indication that the fixing of maximum rates is seriously contemplated as yet either in Great Britain or in any belligerent country other than the three already mentioned. Even should the rates of wages current in certain trades rise to levels commonly regarded as unreasonable it is by no means certain that other countries will follow the example of France or Germany. Apart from the fact that intervention at any single point in the system of wage rates is bound to have widespread repercussions and may eventually involve the regulating authority in all the problems of general wage control, it is clear from the experience of 1914-18 that any prohibition of wage increases for special groups of workers is likely to be bitterly resented, and unless it is accompanied by thorough-going control of engagements and dismissals it is likely to be ineffective. Since the workers whose opposition is thus aroused will be among those whose services are indispensable to the prosecution of the war any decline in their willingness to work will be a serious matter; and unrest to the point of stoppage or go-slow may assume the dimensions of disaster. Clearly the case for direct limitation of wages must be very strong to justify the taking of such risks.

Even the more indirect types of limitation, such as have

¹ Cf. *Industrial and Labour Information*, 13 May 1940, p. 138.

² *Ibid.*, p. 139.

³ By an Order in Council of 22 May 1940 made under the Emergency Powers (Defence) Acts, 1939 and 1940. Cf. *Ministry of Labour Gazette*, June 1940, pp. 156 and 179.

been adopted in Great Britain and in certain other countries, are apt to provoke some opposition. To minimise the dangers involved, and to ensure maximum output, it is important that the reasons justifying any attempt to control wartime movements in relative wages be understood and accepted not merely by national trade union leaders but by the rank and file as well. Essentially these reasons are of two kinds, both closely connected. There are first the considerations of justice as between different groups within the community; and, second, the effects on productive efficiency if this justice is not secured. Changes in customary differentials appear at any time as an injustice to those who find themselves worse off, and are sometimes felt to be such even by those who gain; and this is so even if the changes involve no absolute decline in real income in either group. In wartime the sense of injustice is likely to be greater if only because changes in relative wages will involve more often an absolute and not merely a relative worsening of the position of the less fortunate groups. The reason for this is both simple and ineluctable. To maximise war effort, the quantity of goods produced for consumption must be limited. If, however, the incomes of one group of persons are increased while those of another remain constant or decline, the former will be able to secure a greater share of the diminished supply of goods, while the share left for the latter will be smaller both absolutely and in proportion. Injustice will be not merely felt, but real. Dissatisfaction and unrest are bound to follow, with effects on efficiency and output which may prove serious. Even so, any attempt to control relative wages may cost more than it is worth unless both the disparities of wage rates and the number of workers involved are really great. If they are, some measure of control may become inevitable.

Whether such a stage will be reached in countries which have not yet adopted even indirect controls remains to be seen; and it is still too soon to say whether the measures already enforced in such countries as Great Britain will prove adequate to their purpose. The possibility however that new measures designed to limit wartime movements in relative wages may be under consideration warrants a brief reference, in closing, to the main safeguards which experience suggests to be desirable. There is of course room for wide variation in the details of control, since these must depend to a large extent on factors peculiar to each country concerned: in particular, on such mat-

ters as the character of trade union organisation, the methods by which wages are ordinarily determined, and the extent to which war needs limit production for civilian use. Certain general desiderata may, however, be briefly formulated. Control, if it is to be equitable, must be comprehensive; and it must form part of a general plan of war finance and war production which takes fairly into account the situation of all sections of the community. The sacrifices it imposes must be for the benefit, not of receivers of profits, nor of taxpayers who can better afford them than the workers concerned, but of the community as a whole. To be effective it must be accompanied by checks on undue competition by employers for workers and on undue movement of workers from place to place or from firm to firm.¹ To be workable it must be efficiently and flexibly administered: for example, there must be speedy local investigation and settlement of disputes as they arise, on the basis of a policy that is centrally determined.² Finally, to secure the willing co-operation of those concerned and to ensure that their legitimate interests are properly safeguarded there must be an effective participation of trade union representatives at all stages, both in the determination of general policy and in its detailed application.

¹ Cf. Henry CLAY: *op. cit.*, pp. 64-67.

² *Ibid.*, pp. 62-64.