

Pigou on the Minimum Wage: An Institutional Inquiry into the Labour Market

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Abstract: In this paper I examine A.C. Pigou's views on the institutional and theoretical aspects of the minimum wage. Pigou acknowledged the need for a minimum wage to redress exceptionally low wages, but this was subject to two provisos: first, when determining the minimum wage, one should not aim for a wage that meets some standard of living; and, second, as the prevailing British trades system of the day provided for differential wage rates for different trades, the coverage of minimum wage must be limited to low-paid workers. Pigou distinguished three types of employees according to their bargaining power and strongly advocated protection for the weakest workers through a minimum wage.

1 Introduction

In Britain, the *laissez-faire* framework for wage determination was effectively abandoned in 1909 when the Government introduced the *Trade Boards Act*, which facilitated the progressive introduction of minimum wages across a range of trades and may be regarded as a landmark statute in the development of government intervention. A. C. Pigou (1877–1959), who, among other things, is known for his involvement in labour issues (Schumpeter 1954, p. 948n), dealt with the minimum wage issue at some length, examining its institutional and theoretical dimensions in *The Economics of Welfare* (1920) and articles included in *Essays in Applied Economics* (1923). Based on a careful examination of Pigou's discussion of the minimum wage issue, I conclude that the common impression that Pigou was out of touch with the reality of labour markets may be dismissed and, further, that Pigou's views on the minimum wage policy were analytically founded, clear and of continuing practical relevance.

In an earlier study published in this journal, Paul Flatau (1997) emphasised that, in Pigou's view, the Government should not use the minimum wage to secure any particular standard of living but, rather, to secure a competitive wage rate that is proportional to each worker's efficiency. Of course, under this procedure the efficient wage for some workers will be too low to cover their living expenses and, in recognition of this, Pigou recommended that the government undertake to directly provide such workers with basic necessities (such as housing, medical care and education). This argument is important as it points to a solution, at least from Pigou's perspective, to the problem of how to pursue the potentially conflicting goals of necessity and efficiency. However, it is not a complete explanation of Pigou's work on the minimum wage and does little to dislodge the common but misleading impression that Pigou was fundamentally a proponent of free competition for labour. My purpose in this paper is to demonstrate Pigou's structured analysis of labour and establish that he regarded the minimum wage as a significant element in the protection of low-paid workers from wage exploitation by employers.

In Section 1, I outline the historical background to Pigou's economic writings on the minimum wage. In Section 2, I consider whether or not government can effectively enforce the minimum wage and review Pigou's discussion of the

roll of trade unions in the enforcement of the minimum wage. In Section 3, I examine the principle under which the minimum wage rate may be determined and discuss the ‘fairness’ of wage rates. In Section 4, I analyse Pigou’s two criticisms of the *Trade Boards Act* that effectively introduced the minimum wage in Britain: one concerning varied wage rates, and the other concerning the coverage of the *Act*. In the last section I conclude that Pigou distinguishes three types of employees according to their bargaining power, and that he strongly advocated the protection of the weakest workers through a minimum wage.

2 Historical Background

It was not long before the *Trade Boards Act* was passed in 1909 that the minimum wage began to be discussed as a feasible policy (Blackburn 1991). The social investigations carried out by John Burnett and Charles Booth in the late 1880s had already demonstrated the predicament of poor workers. In addition, the final report of the Select Committee on the Sweating System in 1890 concluded that the factors creating their plight were ‘low pay, long hours, and insanitary conditions of work’ (Blackburn 1991, p. 48). Nevertheless, the committee members did not recommend the development and introduction of a minimum wage. Instead, they recommended measures designed to improve working conditions, such as increasing the number of factory inspectors and making the registration of domestic workshops compulsory, as working conditions in such workshops were often unwholesome.

At this stage, state intervention in wage determination was hardly regarded as practicable. In the middle of 1890s, J. A. Hobson and Sidney and Beatrice Webb had made isolated attempts to call for a national uniform minimum wage rate. It was not until 1906, however, that the minimum wage was treated as a feasible policy as three factors had come into play. First, in January, the Liberal Party won the general election and several politicians sympathetic to the plight of workers were voted into office. Second, in April, a large exhibition on sweated workers was held in London, which upset the complacency of the general public. Third, the National Anti-Sweating League was established owing to increased public awareness and took the lead in launching the conference. The change in the political climate led to the appointment of a select committee on homework. The committee reported in 1908 that, although low pay needed to be altered by law, the desirable measure to achieve this end was not a uniform rate, as proposed by Hobson and the Webbs, but differentiated rates of minimum wage by industry and by region. A priority of the select committee was not to ‘curtail the trade’ (Blackburn 1991, p. 57). Thus, the *Trade Boards Act* was instituted in 1909, and the negotiating bodies called trade boards were established in several industries. Each trade board was constituted of the same number of employers and employees and a few government-appointed officials.

At the point of the passage of the *Act*, Trade Boards were established in four industries—consisting of 200,000 workers (around 1 percent of the total employed workforce)—and, by 1913, this number had increased by five.¹ When the *Act* was amended to ease the conditions for the establishment of a trade board in 1918, boards were extended to many other industries and covered three million workers (15 percent of the total employed workforce) in 63 industries in 1921.

It was in the shadow of these events that Pigou considered the economics of poverty generally and the minimum wage specifically. Pigou (1908a) was keen to redress problems experienced by the working poor. In 1908, Pigou stated, in the

Inaugural Address for his Professorship, that the 'least imaginative among us sometimes sees with vividness the faces of the suffering and the degraded who have been worsted in the industrial struggle' (p. 12). Elsewhere, he asserted:

The compelling motive that leads men to economic study is seldom a mere academic or scientific interest in the movements of the great wheel of wealth. It is rather the sense that ... the lives are darker than they need be ... In these things lies the impulse to economic investigation; and the removal, or at least the mitigation, of the evils they portray is the goal of the economist's search. In the ideal of which he dreams, and, be it hoped, in the ardour and constancy of his vision of it, there is nothing that need divide him from the fiercest orator of the market-place. (Pigou 1913, pp. 9-10)

Pigou, while showing his sympathy to workers, was against the national uniform minimum wage rate proposed by Hobson and the Webbs. Instead, he favored the realised system of trade boards. However, before examining this economic issue, I first consider Pigou's views on the requisite condition for the minimum wage: the government's ability to enforce it.

3 Practicability of Wage Manipulation

There was contemporary criticism of the minimum wage proposal because it 'would in any case be evaded by the least scrupulous employers' (Hatton 1997, p. 24). Pigou's position, however, was more subtle and focused on the role of trade unionism: 'When workpeople are unorganised—and they are specially likely to be unorganised if they are very poor or if they work apart from one another in their own homes—even a strong Government ... must have immense difficulty in enforcing its will' (Pigou 1920, p. 533). When workers are firmly organised into trade unions, on the other hand, each worker feels free to report to the union executives, and 'even when individual workmen do not do this, their officials will play the part of a body of lynx-eyed unpaid inspectors' (Pigou 1920, p. 534). In practice, workers covered by a minimum wage are generally of the former type: poor and unorganised. The government, therefore, could not count on the support from trade unions. Yet Pigou noticed a positive psychological effect of government intervention:

One especially hopeful feature in the situation (connected with the establishment of Trade Boards) is that women in the industries affected are taking heart to join their trade unions, some of which have received large accessions of members ... The actual fact seems to be that the prospect of wages regulation is encouraging organisation by giving these poor workers the sense of some public support at their back (Pigou 1920, p. 535; see also Hutchins and Harrison 1966, pp. 268-9)

In addition, Pigou noted that the wage regulation might be able to augment workers' finances so that they could afford trade union dues. Thus, he concluded that the government, with the vital support from trade unions, could generally enforce the minimum wage.² Pigou next discussed the methods to punish the perpetrators of detected violations. The measures he proposed were composed of:

1. publication of violators.
2. their exclusion from the bidding for government contracts.
3. fines.

4. imprisonment.
5. cancellation of business licenses.
6. the 'clos[ing of] their works by force'. (Pigou 1920, p. 539)

According to Pigou, the *Trade Boards Act* imposed the second measure on employers who breached the wage regulation in the period before the determination of the board was made valid, and the third measure on those who breached it thereafter. Aside from this *Act*, the minimum wage systems in Australia and several states of the United States also imposed a fine on violators and some of them provided the further sanction of imprisonment. Other, even sterner, measures—namely, taking up business licenses and shutting down factories by force—were not in use anywhere because they were considered overly oppressive. Pigou, however, considered such measures to be necessary in some circumstances:

[These measures] cannot be laughed out of court as meaning a ceaseless conflict between the Executive and rebellious associations of employers. For their success is so certain that, if once the Government was understood to be determined upon them, resistance would hardly ever take place. At the worst, a single exhibition of force would be sufficient:

That great two-handed engine at the door
Stands ready to strike once and strike no more.
(Pigou 1920, p. 539)

In short, Pigou considered it necessary both for the trade unions to be involved in enforcement and for the government to act decisively against violators to improve the conditions of poor workers.

4 Principles for Determining the Minimum Wage

If income distribution is to be improved in the long run without inflicting loss on national income, at what rate should the minimum wage be set? Pigou's answer to this question had been consistent since his earliest work, *Principles and Methods of Industrial Peace* (1905). It was the competitive wage—in Marshallian terms, the normal wage—not above or below it.³ In *Economics of Welfare*, the concept is termed a 'fair rate of wages' and defined as the rate equal to the value of marginal net products of the worker provided that overall labour allocation is optimised. When labour allocation is optimal, the wage rates tend to be equal for workers with equal efficiency. Pigou deemed that this equivalence of wage rates was fair. This definition of fair wages suggests that unfair wages are attributable to two reasons: (1) labour allocation not being optimal—that is, the labour force being uneconomically overcrowded in a certain place or occupation—and (2) workers being paid less than they really deserve relative to the wages of other similar workers in a different trade—in Pigou's term, 'exploited'. The second of these causes will be considered first.

According to Pigou, the conditions that enable employers to exploit workers are: (1) the existence of monopsony in the labour market and (2) workers being unorganised.

Monopsony in the labour market does not always require an agreement between numerous employers; a single employer could act as a monopsonist if the movements of workers are prevented by ignorance and costs. Moreover, since employers are richer and employ a considerable number of workers, they are likely to be relatively strong at bargaining. Therefore, where the wage rates are

determined through individual bargaining, Pigou (1920, p. 560) asserts, ‘A number of men and women are likely to be paid wages [that are] lower than the wages for similar work that are paid elsewhere; that is to say, they are “unfair”’. He used the Edgeworthian bilateral monopoly framework to show analytically the above assertions. The elasticity of labour supply influenced by ignorance and costs of movement for workers determines the range of wage rates within which employers could exploit their employees, and the relative bargaining strength, in turn, determines the effective result of wage settlement, and may cause exploitation.⁴

Pigou argued that national income would increase if unfairly low wages were to be raised, mainly through the following two channels. First, assuming a less than perfectly inelastic supply of labour, there would be a greater quantity of labour supplied in the affected occupation. Thus, the abolition of this sort of ‘unfair’ wages improves the efficiency of labour allocation and, therefore, national income. Second, Pigou denounces the exploiting employers for often being incompetent employers—in much the same way that the Webbs had done in *Industrial Democracy*. Thus, if the de facto ‘bounty’ of the low cost of labour was curtailed, it ‘would tend to hasten their defeat at the hands of more efficient rivals’ (Pigou 1920, p. 563). He noticed, for example, that the minimum wage determined by the trade boards often forced employers to examine their factories to identify scope for improvement. Pigou, in short, believed that exploitation and the capacity to improve business management practices often went hand in hand.

I now turn to the second reason for unfair wages; namely, the uneconomical allocation of the labour force. When a certain occupation is relatively overcrowded with workers, the wage rate in that occupation will be noticeably less than in other occupations of similar efficiency. Pigou labels this type of low wages as unfair wages and recognised it as an essentially different case to the first. Such unfair wages, Pigou argues, could also be raised to a fair level without reducing national income. This is because raising the wage rate in this circumstance could curtail the demand for labour in that occupation and encourage movement of labour out of it, which might lead to a more efficient allocation of labour. Even so, Pigou considered it implausible that this would result in a net increase in national income, since the cost of the movement out of the overcrowded occupation might exceed the benefit of the improved labour allocation.

‘The cost of movement,’ Pigou (1920, p. 500) states, ‘may most conveniently be regarded as equivalent to an annual (or daily) sum spread over the period during which the workman who has moved may expect to find profit in staying in his new place or occupation’. That is, if the actual movement costs C and the period during which a worker finds more income in a new job than in the old one spans t , then the effective cost of movement would be measured as C/t , where C includes not only the cost of transportation but also the losses arising from needing to learn new skills, accompanying movements of family members, and overcoming ‘strong barriers of race, religion and language’ (Pigou 1920, p. 505).⁵ In an occupation that is overcrowded with workers because of the high cost of movement, raising the unfairly low wage might only deprive workers of their employment instead of generating outward movements. Even if movement comes about, it might not be beneficial in terms of national welfare that takes non-economic welfare into account. For example, domestic work—considered one of the occupations most in need of the minimum wage—tended to be oversupplied with labour because of ‘the non-economic compulsion of family cares’ (Pigou 1920, p. 553). Therefore, Pigou anticipated that the intervention to raise the wages

of domestic workers would only decrease the demand for their labour and hence their incomes.

Pigou uses the above argument to criticise the so-called ‘living wage’ claim. Hobson and the Webbs, as noted above, championed the national minimum wage as a ‘living wage’—that is, a wage rate adequate to a certain minimum standard of living that no worker would fall below. Pigou addresses their arguments by dealing with the Webbs’ treatment of ‘parasitic industries’ in their *Industrial Democracy*. Parasitic industries are industries that pay wages insufficient for an independent livelihood and make workers dependent on other income sources such as parents or spouse. According to the Webbs, such industries are damaging to workers’ efficiency because, by not providing them with the necessities of life, they are effectively behaving parasitically by forcing workers to depend on other income sources. Furthermore, even if it could be said that parasitic industries contribute to the national income by finding employment for labour otherwise unemployed, the Webbs assert that the existence of parasitic industries might check the growth of self-supporting industries because less competent employers who can get cheap labour might be able to prevail over employers otherwise more competent. ‘[Parasitic industries] stand in the way of the most advantageous distribution of the nation’s industry, and thus prevent its capital, brains, and manual labor from being, in the aggregate, as productive as they would otherwise be’ (Webb and Webb 1902 [1920], pp. 754-5).

Pigou objected to this, suggesting that payment of a less than living wage is not always unfair in his sense (that is, inefficient over allocation of labour to some industries). In the particular case of the workers forced to depend on other income sources, Pigou considers irrelevant the possibility that inadequate nutrition, housing, and so on might deteriorate the workers’ efficiency because they are not suffering from these. In addition, he also ignored other plausible causes of the loss in labour efficiency—such as poor working conditions and long-term unemployment—as irrelevant. In the case of half-dependent workers, therefore, Pigou thought that there was no inherent cause of damage to labour efficiency. He concluded that, so long as they were paid a fair wage rate, the institution of a minimum wage for them would not lead to a higher income; it would rather lead to either being employed in another occupation at the same wage or to unemployment. As to the Webbs’ latter argument that employers would tend to resort to cheap labour rather than to efficient management, Pigou includes this case within exploitation, as discussed above, but does not think it is always associated with the payment of a less than living wage. Thus, Pigou gave a more rigorous economic interpretation to a series of facts stated by the Webbs.

This difference in analysis results in the difference in policy recommendation. While the Webbs call for a national uniform minimum wage to achieve a socially acceptable level of income or a ‘living wage’, Pigou does not and admits that some workers might not achieve the minimum standard with their own incomes. Instead of obliging employers to support each single worker’s livelihood, Pigou recommends that the government directly provides poor workers with the ways and means by which they could attain the minimum standard. What matters to Pigou is not who is supporting the people’s livelihoods, but (1) whether the productive factors are so allocated as to maximise the national income, and (2) whether the workers are free from exploitation. Although the inability to organise efficient factories and intentional acts of exploitation should be the employers’ fault, a fair wage falling short of a living wage should not. The latter, Pigou

supposes, is attributable to social causes such as the lack of education and job training, and conventions preventing certain segments of the population (for example, women) from gaining employment.

As Flatau (1997) has shown, Pigou owed much of the above framework to Alfred Marshall. Marshall noticed that individual workers were at a disadvantage in individual bargaining; therefore, they were likely to be paid less than normal wages. As is clear from what has been said, however, Pigou's treatment of minimum wage contains substantial implications for actual policy. It points to the importance of identifying the causes of unfairly low wages existing in reality. Pigou takes a realistic approach, and therewith creates an effective guideline for determining at what rate the minimum wage should be set.

5 Criticisms of Minimum Wage in Reality

While admitting that the minimum wage is necessary in many cases, Pigou was not fully satisfied with the actual operation of the trade boards. The sources of his dissatisfaction were twofold: the *Trade Boards Act* did not provide any definite instruction as to what level the minimum wage should be; and the 1918 amendment of the *Trade Boards Act* extended the coverage of trade boards to include relatively high-income occupations. Let us deal with these problems below.

5.1 Criticism of Varied Levels of Wages

In contrast to Pigou's approach, some of the trade boards intended to secure living wages rather than fair wages. The *Trade Boards Act* only empowered the Government to conduct 'the bringing together of both sides of industry and the enforcement of wage rates freely agreed' (Lowe 1978, p. 278). The *Act* also provided no guideline for the rate determination. Consequently, as Pigou was well aware, a number of interpretations arose, and hence varied wage rates existed.⁶

What would be the effects of this diversity, especially the existence of a wage rate above the fair rate in some occupations? His theoretical analysis demonstrates that the effects would not be limited to short-run disturbances. Among all Pigou's references to this theoretical analysis (Pigou, 1912, p. 325; 1913, pp. 54-9; 1920, p. 555; 1923, p. 55; 1933, p. 259; 1935, pp. 175-6; 1945, pp. 33-6), this paper mainly relies on the treatment in his *Theory of Unemployment* (1933).⁷

First, Pigou supposes that the labour supply depends on the expectations of income in different occupations; that the expectations of income are, in turn, derived by multiplying the wage rate by the probability of employment in each occupation; and that the probability of employment then refers to the quantity of demand for labour divided by the sum of workers currently employed and those seeking a job in an occupation. If we write V for the wage rate, $\phi(V)$ for the quantity demanded in terms of that rate, and X for the number of unemployed job-seekers in the occupation, as Pigou (1933, p. 260n) did, the expectation of income is represented by $V \times \frac{\phi(V)}{\phi(V) + X}$.

Suppose a fair wage V_f is globally paid to every worker of certain productivity; in other words, labour is allocated optimally, and all the workers with certain efficiency are paid the equivalent of the value of their marginal products. In this situation, there is no unemployment, $X=0$. Therefore, the expectation of income in every occupation would come to the same value, V_f . Then, suppose the wage rate

has been pushed up by h in a certain occupation A . The expectation of income earned from this occupation would be $(V_f + h) \times \frac{\phi(V_f + h)}{\phi(V_f + h) + X}$.

Let us assume further that perfect competition prevails among all occupations except A and that their scale as a whole is much larger than A 's, so we can imagine perfect free movement of labour into and out of A while neglecting the changes in the wage rates in occupations other than A by assuming constant wage rates in those sectors. When the effect of this forced raise has been fully worked out:

$$(V_f + h) \times \frac{\phi(V_f + h)}{\phi(V_f + h) + X} = V_f. \quad (1)$$

and therefore the quantity of unemployment in the occupation is defined as:

$$X = \frac{h}{V_f} \phi(V_f + h). \quad (2)$$

Next let us identify the condition where the labour would move into the affected occupation A ; in other words, the condition where the number of workers employed and unemployed in A after the raise, minus the number of those before the raise, would be positive. Using the equation (2), that condition is represented as:

$$\frac{(V_f + h)\phi(V_f + h) - V_f\phi(V_f)}{V_f} > 0.$$

When the labour demand function is linear, the positive change in the wages bill will induce an influx of labour into occupation A when the elasticity of demand for labour with respect to wages, $\eta = -\frac{\phi' V_f}{\phi(V_f)}$, falls short of the ratio of the fair value wage to the sum of the fair value wage plus the wage increase:

$$\eta < \frac{V_f}{V_f + h}.$$

Conversely, when the elasticity of demand for labour in A is greater than this ratio, an increase in wages will not be associated with a labour influx. Rather, it will be associated with the movement of labour out of this occupation and towards other occupations. According to this model, some unemployment will necessarily arise regardless of whether the labour moves into or out of A . This is because equation (1) implies that, when h is positive, the probability of employment in A ,

$\frac{\phi(V_f + h)}{\phi(V_f + h) + X}$ diminishes. What is taking place here can be described as follows.

The raising of the wage in A would reduce the quantity of labour demanded from $\phi(V_f)$ to $\phi(V_f + h)$. As a result, if the elasticity of demand for labour is low in absolute terms, the labour would move into the occupation that is already suffering unemployment. If, on the other hand, the elasticity is high in absolute terms, some of the unemployed labour in A would move out of the occupation, but others would stay in A due to the higher expectation of income earned there. In both cases, a certain amount of unemployment, $\frac{h}{V_f} \phi(V_f + h)$, is specified.

Thus, the implication of this model is that when unequal wage rates are paid to workers of the same efficiency, unemployment will be created in the occupation where the higher rate is paid or the occupation whose wage rate has been artificially raised.

The result of this theoretical model is surely realistic. According to Pigou (1923, p. 25), the extremely short-term contract of employment for a day or a week was common among unskilled workers.⁸ Hence, if unemployed workers felt as likely to be hired tomorrow or the next week as workers employed today, they would wait for the next opportunity of being hired and continue to stay in that occupation. Unemployment *X* represents this kind of underemployment, which he anticipated would be the ultimate effect of the diverse interpretations held by each trade board.

5.2 *Pigou's Criticism of the Excessive Extension of Government Intervention*

As we have seen in Section 2, the trade board system was intended to establish a minimum wage in 'exceptionally' low-income industries. The 1918 amendment of the *Trade Boards Act*, however, enabled the unorganised workers, even if they were not paid exceptionally low wages, to set up their own trade board. This amendment reflected the recommendation by the Whitley Committee, which was instituted to investigate industrial relations corresponding to the changes in the labour movement during the war. The Committee suggested the extension of the trade board system as a means to achieve peaceful negotiation between employers and workers. The resultant amendment Act of 1918 'led to boards being established outside sweated industries and to the extension of the law to groups of workers other than the lowest-paid' (Lowe 1978, p. 278). In his *Economic Journal* article 'Trade Boards and the Cave Committee', which addresses the committee report on the trade boards in 1922, Pigou attempted to place the above-mentioned amendment in a wider context.⁹ Although '[i]n modern times', Pigou (1923) recollected, 'until some five-and-twenty years ago, it was the general policy of governments to leave wages severely alone' (1923, p. 59), many countries, especially among the British Dominions, had come to terminate *laissez-faire* in wage contracts for two reasons: (1) to prevent the industrial disputes and (2) to improve the earnings of poorly paid workers. Originally, the applied measures were separated, depending on which aim they pursued. However, as the scope of government intervention grew wider, the two different measures had merged into measures that were almost indistinguishable in their function. In some countries, measures were intended to prevent industrial disputes but were extended to 'compulsory arbitration'. In other countries, measures were intended to redress low wages but had come to prohibit disputes that asked for rates other than those determined by an official body. Thus, the two diverse objectives converged into similar practical measures that attempted to address both objectives concurrently. In accordance with this international trend, the 1918 amendment of the British *Trade Boards Act* attached to the old *Act* the function to facilitate peaceful relations between employers and workers.

However, this extension to the scope of the *Act* created complications. The *Trade Boards Act* prohibited employers from paying wages below the rate determined by the trade board and not from paying wages above it. Thus, regarding the aspect of industrial relations, the *Act* was incomplete because, while admitting the right for workers to strike, aiming for a wage above the determined rate, it prohibited employers from demanding a wage below the rate. Pigou writes:

Boards ... took to fixing different rates for different classes of workers, even on some occasions for foremen earning over £4 10s. a week. ... While most people were willing to forbid employers, under penalty, to force down a poor unskilled worker's wage below, say, 30s. a week, without putting any corresponding prohibition on the workman's trying to force the wage up, there was strong opposition to a one-sided arrangement of this sort as regards high-waged skilled men. (Pigou 1923, p. 66)

Pigou (*ibid.*) goes on to suggest that the government either 'make the Trade Boards' determinations enforceable against workpeople as well as against employers, or to restrict more narrowly the scope of the Boards' activities'. The committee report was in favour of restricting the boards' scope, and Pigou confirmed this view; nevertheless, the further amendment of either plan was not to be realised (Lowe 1978, p. 277).

Why did Pigou object to the application of trade-board-determined minimum wages in those markets for skilled workers? As mentioned earlier, Pigou thought that exploitation was highly likely in those trades where workers were not organised. To achieve consistency in his argument, then, surely Pigou should have also supported protection for skilled workers who were not organised. Any apparent contradiction in Pigou's argument, however, may be resolved by examining another article he published in the same month as 'Trade Boards and the Cave Committee'. In that article, 'Long and Short Hiring', Pigou discussed the 'higher posts of industry and business'. The employees at these high posts are hired in a relatively small number by a single firm. Therefore, they are in a strong bargaining position, and thus they do not need to be organised. Furthermore, as they are near-essential elements in the firm's production process, they are unlikely to be laid off during a brief slump. The character of the workers at the higher posts coincides with that of the skilled workers included in the coverage of the amended *Trade Boards Act*. Given the equivalence of the high-income workers referred to in the two different articles, it is possible to conclude that Pigou thought that the enlargement of the scope of the *Act* had given unnecessary protection to highly skilled workers. In view of the fact that Pigou (1933) supposed the different kinds of labour were generally complementary production factors (p. 67), he would have been concerned that the artificial increase in wage rates of skilled workers would diminish the demand for them and, at the same time, for unskilled workers, which would result in even worse income distribution.

6 Conclusion

This paper has examined Pigou's thoughts on minimum wage. First, he argued that a government's enforcement of minimum wage could be effective with the support from trade unions. Second, he stated that a minimum wage was necessary to rectify exploitation. In fact, this was an urgent necessity as he considers it highly likely that low-paid workers were exploited. Third, Pigou felt uneasy about the practical aspects of his contemporary minimum wage law, especially with regard to the 1918 amendment that provided high-income workers with an unnecessarily strong bargaining position.

The last point suggests that Pigou based his argument upon the broad classifications of workers according to their bargaining strength. There are three

types of workers. The first type consists of high-paid core workers, indispensable to a firm and hence able to negotiate individually with their employer on an equal footing. The second type comprises workers who were not covered even by the 1918 Act; that is, those who were firmly organised. Possibly this type had relatively high skills, though not as high as the first type, so they could afford to maintain their own organisation.¹⁰

The third and last type contains unskilled, low-paid workers. Since their work was menial, they were easily replaced by others. Since they were unorganised, their bargaining position was weak. As a result, these workers were highly vulnerable to exploitation. Pigou's true purpose in admitting the need of minimum wage was to prevent the third and weakest type of workers from a real evil—exploitation—by encouraging their organisation and the strengthening of their bargaining position. Workers who earn a minimum wage that is 'fair', in terms of efficiency criteria, but inadequate, in terms of relief from poverty, may require direct assistance from government.

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Notes

1 Layton (1914, pp. 161-6) depicts in detail how trade boards actually came to operate in these four industries.

2 In his earlier *Principles and Methods of Industrial Peace* (1905), Pigou realises the need for trade unions for a different reason. For him, trade unions were indispensable in the peaceful negotiation between employers and workers.

3 Pigou had been aware of the economy of high wages early in his academic career. Even so, he dismisses the actual effectiveness of this argument because he thought the effect would be minimal unless high wages were maintained for a long time. According to Petridis (1996), Alfred Marshall also failed to incorporate the economy of high wages into the static framework.

4 As Flatau (2001) has pointed out in this journal, Pigou's theoretical treatment of exploitation is quite different from the modern monopoly theory using average and marginal curves. In that sense, Blaug (1997, pp. 409-11) misrepresents Pigou's theory of exploitation. See also Pigou (1905, App. A; 1908).

5 Taking t into consideration is important because, for example, you can explain how the effective cost of movement is lower for the younger workers with a long future life than for the older workers.

6 Later in his life, Pigou (1945) points to the same problem: 'Humanitarian sentiment', he writes, 'also plays a part in [boards'] deliberations, operating through the notion of "a reasonable standard of living"' (p. 28).

7 The theoretical model discussed in this paper is not the one bitterly criticised by J. M. Keynes in the *General Theory*. Our model is a microeconomic one to analyse the structural disparity between sheltered and unsheltered industries, not the macroeconomic model by which Pigou attempted to measure the elasticity of the aggregate demand for labour, and which Keynes later attacked.

8 The experts of labour problems of those days, including Pigou, regarded the short-term 'casual' contract as one of the major causes for the poverty among unskilled workers. Pigou (1920) was in favour of the measure to lengthen the contracts suggested by the Webbs—that is, 'employment termination due' (p. 547).

9 The Cave Committee was the committee appointed to examine the situations concerning the trade boards. The direct cause for the appointment of the committee was the criticisms raised with the rapid downturn of business cycle when unemployment was multiplied in 1921.

10 Flatau (1997) mentions the shift of Pigou's emphasis in wage issues. While, in his early *Principles and Methods of Industrial Peace*, Pigou discusses wages both above and below the competitive level, his concern is confined to wages below it in *Economics of Welfare*. I would argue that this apparent shift is nothing but the shift of the type of workers he mainly considered—namely, to use the distinctions in the main text, from the second type of union workers to the third, unskilled, type.

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