

# Wages and Employment in Classical Economic Theory

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Antonella Stirati, *The Theory of Wages in Classical Economics: A Study of Adam Smith, David Ricardo and their Contemporaries*, 1994, translated by Joan Hall from *Salario e mercato del lavoro nell'economia politica classica* (Rosenberg & Sellier, Torino, 1991), Aldershot, Edward Elgar, Pp.xviii + 221, ISBN 1 85278 710 4.

John Vint, *Capital and Wages: A Lakatosian History of the Wages Fund Doctrine*, Aldershot, Edward Elgar, Pp.x + 278, ISBN 1 85278 864 X.

These two books are a fascinating pigeon pair from the same (publishing) loft. Antonella Stirati challenges some received views on the wages theories of Adam Smith, Ricardo, Malthus and their more immediate predecessors. John Vint assesses the wages theories of the same three economists and their more immediate successors, using a Lakatosian framework. Both Stirati (implicitly, on page 56) and Vint convict some historians of economic thought of transverse analysis, in which "the past is interpreted with the aid of modern concepts in order to determine which aspects of past doctrines are correct and which are not" (Vint, p.9). Both Stirati, explicitly, and Vint, implicitly, do not agree with Samuelson, at least with respect to wages theory, that "within each classical economist there is a modern economist trying to be born" (Samuelson, 1978, p.1415). Nonetheless, where the books overlap it is often hard to believe that their authors are talking about the same Adam Smith, Ricardo, Malthus, and wages fund doctrine.

Stirati's thesis is that classical economics, defined following Marx as ending with Ricardo, included a unique vision of wage determination, a vision which "changed just after Ricardo's death, as the wage fund theory became accepted" (Stirati, p.xiv).

The positive part of Stirati's argument turns on the concepts of the 'natural', 'subsistence', and 'market' wage. She argues that classical economics distinctively makes the natural wage paid to unskilled labourers dependent on bargaining whose outcome is influenced by economic, institutional and social factors. The natural wage cannot fall below 'subsistence', which comprises physiological subsistence plus a component whose size at any one time and place is determined by historical and social forces. Economic, institutional and social factors, however, tend to push it down towards subsistence. These factors include not only an ongoing excess of supply over effectual demand for labour, but also the lack of bargaining power of workers who have no reserves to fall back on, the outlawing of combinations among workers while employers are both able to combine legally and encouraged to do so by social *mores*, and immigration by labourers with lower living standards.

The natural wage is the centre of gravitation towards which what Ricardo called the market wage tends. It is however a moving centre of gravitation. If the market wage remains persistently above or below the natural wage, the natural wage will in time itself rise or fall.

Supporting this argument by reference to Adam Smith, Stirati points out that his stationary and declining states of society involve a fall in what he called the 'ordinary', 'average' or 'natural' wage, brought about in particular by "a constant scarcity of employment" (Smith, 1976, p.24) and the fact that "many would not be able to find employment even upon .. hard terms" (Smith, 1976, p.26) respectively; in an advancing state of society, on the other hand, a "scarcity of hands" (Smith, 1976, p.17) leads to a rise in the natural wage. Adam Smith also argued that a tax on necessary goods or on wages would quickly lead to an increase in the money wage, so as to restore the natural wage; and while he admitted that the money wage "does not fluctuate from year to year with the money price of corn", which varies with harvests, he added that it "seems every where accommodated ... to the average or ordinary price of that necessary of life" (Adam Smith, 1976, p.16).

Turning to Ricardo, Stirati claims that while his theory of wages for the most part follows Adam Smith, that part which does not includes a fundamental contradiction. Unlike Adam Smith, Ricardo in his *Principles* chapter 'On Wages' identified the natural wage with a subsistence wage. This led him to describe as deviations of the market wage from the natural wage not only transitory changes in wages, but also changes in wages due to changes in the relationship between the supply of labour and the effectual demand for it, which are far from transitory "because of the peculiar nature of the 'production of men', identified with the increase of the labouring population" (Stirati, 1994, p.150). This contradicts Ricardo's assertion that "however much the market price of labour may deviate from its natural price, it has, like commodities, a tendency to conform to it" (Ricardo, 1951-73, vol.I, p.94). Stirati concludes that this contradiction can best be resolved by interpreting Ricardo's theory of wages along Smithian lines, making a distinction between 'market wage, type I (transitory)' and 'market wage, type II (lasting)'.

This argument assists Stirati in her ambitious task of conflating the theories of Adam Smith and Ricardo so as to be able to present 'the classical' wages theory. Her attempts to justify the conflation, however, are not wholly convincing. First, she argues that in his *Principles* chapter entitled 'Taxes on Wages' Ricardo endorses Adam Smith's definition of the natural wage; but the endorsement is at best indirect, taking the form of quotation of a passage by Malthus which is intended not to endorse the definition but to disprove an argument by Buchanan. Second, she attempts to explain the departure by Ricardo from the Smithian theory of wages in terms of his need to simplify the theory in order to draw firm conclusions about the effect of capital accumulation on the distribution of income; even assuming this to be true, it is not a sufficient reason to disregard Ricardo's 'simplified' theory of wages.

One of the problems with the classical theory of wages which Stirati's account raises is its failure to define precisely the relationship between the subsistence wage on the one hand and social and historical forces on the other. To say that the subsistence wage sets a lower limit to the natural wage is not very useful unless one knows what the subsistence wage is. Stirati adds to this problem by admitting that "it is possible that subsistence ... is to some extent dependent on the natural wage rate" (Stirati, 1994, p.66), but failing to discuss what form this dependence might take.

We turn now to the negative part of Stirati's argument, which is that the classical economists "did not posit the inverse relation between wages and the level of employment which characterizes both the wage fund theory and the later marginalist theory" (Stirati, p.xvii); it was the absence of a belief in such an inverse relation which enabled the classical economists to acknowledge the existence of ongoing unemployment, stated by Blaug (1958, p.75) on the basis of empirical work done by Sidney and Beatrice Webb to have "hovered steadily around one million (about 10 per cent of the population of England and Wales)" in Ricardo's time. Stirati argues that the classical economists were in fact precluded from positing such an inverse relation by their

assumption that factors of production are employed in fixed proportions even in the face of changes in their relative rates of payment. Instead, the classical economists who followed Adam Smith extended his analysis of the relation between supply and effectual demand (Stirati gives credit for anticipating Adam Smith in developing this analysis to Steuart, but surprisingly not to Cantillon) from commodities to labour. The effectual demand for a commodity, being the quantity demandeders are prepared to buy when the commodity is selling at its natural price, may exceed or fall short of its supply; the effectual demand for labour, which is determined by the quantity of fixed capital (given its composition) used in production, and which is therefore wage-inelastic, may also exceed or fall short of its supply, which comprises "those social classes which can get the income they need to live only by selling their labour" (Stirati, p.8).

The absence of an inverse relation between wages and employment in Ricardo's writings is cited by Stirati as one of several reasons for rejecting the view that Ricardo was an exponent of the wages fund doctrine, a conclusion on which Stirati and Vint are in agreement. Other reasons in Stirati's view include (1) the fact that for Ricardo the wages fund was not an independent variable but depended on the demand for food, and (2) Ricardo's belief that changes in food prices or in taxes cause only brief deviations of the market wage from the natural wage, whereas the wages fund doctrine requires such deviations, *ceteris paribus*, to be permanent.

Stirati clearly regards Malthus as the outlier amongst the classical economists. By contrast with Ricardo, Malthus treated the wages fund as an independent variable (with population dependent on it). While admitting that "[t]he other feature of the wage fund theory" (Stirati, p.112), namely the inverse relation between wages and employment, is not to be found in the early editions of Malthus's *Essay on Population*, Stirati points out that it is to be found in the 1817 edition, though there remain in that work passages which contradict the wages fund doctrine.

A few quibbles relating to Stirati's book are perhaps not so minor as to preclude mention. The statement that unemployment "was often indicated by other terms or circumlocutions" (Stirati, p.10) by the classical economists should read 'always indicated', as the term 'unemployment' did not enter the English language until the 1880s (see the entry in *The Oxford English Dictionary*). Presumably on the basis of a misreading of Walsh (1987), Stirati wrongly refers to Cantillon's *Essai* as having been published by Mirabeau. And while admirably clear in general, Joan Hall's translation includes the quaint expression 'waged workers' (pp.20 and 90); 'perpetratione' (page 53) is no doubt a survival from the Italian.

We turn now to Vint's analysis of the classical theory of wages. This starts with the puzzle as to how it was possible that the classical economists could have endorsed a theory, namely the wages fund doctrine, which modern economists universally believe to be fallacious. He finds a solution to the puzzle in the application of Lakatosian ideas to the rise and fall of the doctrine.

The concept of a scientific research programme as spelt out by Imre Lakatos in *Falsification and the Methodology of Scientific Research Programmes* is now relatively well known. In brief, a negative heuristic prohibits criticism of the 'hard core'; a positive heuristic specifies ways in which the 'protective belt' can be improved, in the sense that apparent refutations of theories produced by the programme are turned into corroborations; and scientific change is characterised by continuity, a progressive theoretical problem-shift occurring when novel facts are shown to be capable of being explained by the research programme, whose theoretical content is thereby increased, and a degenerative problem-shift occurring when novel facts are not capable of being explained by it. Perhaps less widely known is the fact that Lakatos's article, appearing in 1970 in *Criticism and the Growth of Knowledge* (Lakatos, I. and Musgrave, A., eds), was a continuation of earlier work published as four articles in *The British Journal for the Philosophy of Science* (1963-4), which reappeared (posthumously) in a modified and extended form in *Proofs and Refutations* (1976). This earlier work is central to Vint's thesis. According to these early writings counterexamples to a theorem, described by Lakatos as 'monsters', may draw any one of five alternative responses which result in a decrease in theoretical content, namely

[a] surrender, [b] monster-barring, [c] monster-adjustment, [d] exception-barring, and [e] lemma-incorporation. ... Lemma-incorporation is the "least-worst" of these strategies in that the proof is retained albeit with some reduction in content. ... None of these strategies is as satisfactory as those which increase the content of a theory by adjusting the theoretical arguments in such a way that the counterexample is turned into a corroboration of the theory. [Vint, pp.14 and 16]

The concept of a scientific research programme has been interpreted by some economists, such as Blaug (1976) and Latsis (1976), as applying to a body of knowledge as broad as classical or neoclassical economics, but by others such as Fulton (1984) and Leijonhufvud (1976) as applying to sub-disciplines within the field of economics. Vint endorses the latter interpretation, and applies it to the sub-discipline of wages theory in classical economics.

Vint describes the hard core of classical wages theory as comprising three parts, each applying to a distinct time period. The various 'elements' of the short run analysis lead to the conclusion that  $WS = WF/N$ , where  $WS$  is the short run real wage rate,  $WF$  is the (predetermined) wages fund, and  $N$  is the (fixed) labour supply. The 'two period analysis' describes the behaviour of the wage rate over a period of time long enough for the wages fund to change but too short for the labour supply to change, during which  $\Delta WS = \Delta WF/N$ . The 'elements' of the analysis in what Vint felicitously calls the Malthusian long run lead to the conclusion that  $W^* = K^* - P^*$ , where  $W^*$ ,  $K^*$  and  $P^*$  represent the rate of change over time of the wage rate, the capital stock, and population respectively.

Vint argues that the long run analysis is to be found in the writings of Adam Smith, Ricardo, Malthus and James Mill, and that some of the elements of the short run analysis are to be found in Adam Smith, Ricardo and Mill, and all of them in the first edition of Malthus's *Essay on Population*, though over time Malthus wavered in his support for them. He adds that after the hard core of the wages fund doctrine had been reaffirmed by Jane Marcet (1816) and J.R. McCulloch (1825), it can be said to have been fully developed in the sense that later writers accepted all of its elements.

The core of Vint's thesis is to be found in his account of the Lakatosian 'monsters' lurking within the wages fund doctrine and the responses of classical economists to them. Principal among these 'monsters', in Vint's view, is the argument that a change in the money wages paid to a fixed number of workers will result in a change in the average real wage rate of workers, even where there is a predetermined real wages fund. Vint's 'rational reconstruction' of the history of the wages fund doctrine depicts Malthus as defending it against the 'monster' of money, by adding the assumption that workers do not consume luxuries, in which case the effect of the whole of an increase in money wages being spent will be to cause a proportionate rise in the price of necessities. This assumption, or lemma, is implicit in Malthus's argument in the first edition of the *Essay on Population* that "any general rise in the price of labour, the stock of provisions remaining the same, can only be a nominal rise, as it must very shortly be followed by a proportional rise in [the price of] provisions" (Malthus, 1798, p.309). As Vint points out (p.68), in the sixth edition of the *Essay* (1826) Malthus made it clear that he regarded this assumption as an abstraction from reality, the consumption of workers in practice including some luxuries. Thus its incorporation in the wages fund doctrine, while making the doctrine immune to the 'monster' of money, somewhat reduced its content.

In his *Principles of Political Economy* McCulloch followed the example of Malthus, implicitly incorporating the same lemma in the wages fund doctrine. As Vint (p.85) puts it: "In rationally reconstructing McCulloch's approach and outlining the required lemma which was not spelt out by McCulloch himself, I have provided what Lakatos called a 'radically improved version' of the research programme."

Robert Torrens (1834), by contrast, "engaged in monster-barring in restricting his analysis to real terms" (Vint, p.89). John Stuart Mill, in the first edition of his *Principles of Political*

*Economy* (1848), while incorporating the Malthus-McCulloch lemma in some places, in others followed Adam Smith and Ricardo in allowing for the consumption of luxuries by workers.

Vint goes on to argue that during the 1830s and 1840s the wages fund research programme showed itself capable of explaining novel facts, defined following Zahar (1973) and Worrall (1978) as facts not known when the research programme was originally formulated. He sets out an impressive list of eighteen novel facts 'produced' by the wages fund doctrine, attention being drawn to most of them in either Nassau Senior's *Three Lectures on the Rate of Wages* (1830) or John Stuart Mill's *Principles*, though some were referred to by Ricardo. An important exception is the novel fact that "strike action to increase wages will not benefit the working class" (Vint, p.130), which is only to be found in the writings of popularisers such as Francis Jeffrey (1825), Harriet Martineau (1832) and William Ellis (1854). Vint does not claim that this novel fact is true; consistently with Lakatos's definition of a *theoretically* progressive research programme, he claims only that this is a prediction produced by the wages fund doctrine which may or may not turn out to be true if or when it is put to empirical test. Another important novel prediction produced by the wages fund doctrine is that, with two specified and relatively unimportant exceptions, "the introduction of machinery ... will either increase or leave unaltered the general wage rate" (Vint, p.131).

The progressive nature of the wages fund doctrine during this period, contends Vint, is sufficient to explain its continuing endorsement by classical economists up to the 1850s. However thereafter, partly because of the dominance of John Stuart Mill's *Principles*, the wages fund doctrine produced no more novel facts, which made it more vulnerable to attack than it had been before. In the late 1860s it came under both 'external' and 'internal' attack. As Vint points out, increasing trades union activity during the 1860s resulted in 1867 in the passing of the Master and Servant Act, the establishment of Courts of Conciliation and Arbitration, and the addition of a trades union representative to the Royal Commission of Inquiry into trades unions. During the same period Francis Longe and W.T.Thornton criticised the wages fund doctrine on theoretical grounds, the culmination being John Stuart Mill's famous recantation in 1869.

Vint treats this 'internal' attack in two parts. First there was Thornton's argument that the classical theory of supply and demand was deficient in that it did not allow for the possibility of supply and demand being equal at more than one price. John Stuart Mill, argues Vint, "was anxious to find a 'supplementary law' that would deal with the problem, and in suggesting that Thornton had provided it, argued that 'whoever can teach us this supplementary law, makes a valuable *addition* to the scientific theory of the subject' (1869, p.509, emphasis in original)" (Vint, p.195). Thus Mill's strategy was content-increasing, as opposed for example to monster-barring, or to recantation; what he was looking for was the addition to supply and demand theory of a lemma such as the following; where supply and demand schedules coincide, more than one price can equate supply and demand.

Second, there was the argument advanced by both Longe and Thornton that the classical theory of supply and demand cannot be applied to the labour market because in the short run the demand for labour by each employer is derived from the demand for commodities, and is therefore perfectly inelastic, at least within the range of wage rates at which employment of labour is profitable. Longe added a further criticism of the wages fund doctrine, namely that wages are not advanced out of capital, but may be paid from either capital or income, which in both cases is immediately replenished with the sale of the resulting product. In the face of these criticisms John Stuart Mill could have resorted to the Malthus-McCulloch lemma-incorporation strategy, but always reluctant to exclude the possibility of labourers consuming luxuries, in his 1869 review of Thornton's book he instead recanted, accepting the views of Longe (implicitly) and Thornton. Reverting to the belief of Adam Smith that wage rates are the outcome of 'bidding in the market', which Vint points out he had endorsed as early as the 1862 edition of his *Principles*, Mill concluded

that wage rates are determined by relative bargaining strengths on the supply and demand sides of the labour market, and therefore *inter alia* on trade union activity.

This conclusion was incompatible with the wages fund doctrine, which implies that the elasticity of the demand for labour is unity, though this was not recognised by Mill; a typographical error has Vint stating that Alfred Marshall 'was probably the first person to point out that the orthodox wages fund doctrine implied that the labour demand curve was a rectangular hyperbole [sic]' (Vint, p.245, n.42).

Vint argues that given the recent degeneration of the wages fund research programme, it was quite rational for John Stuart Mill to abandon it in 1869, and for others to follow him in this. Mill's cautious approach to its abandonment in the 1871 edition of his *Principles* is also explicable in Lakatosian terms, given the absence of an alternative research programme in the wages theory area, as for the same reason is Cairnes's attempt to revive the wages fund doctrine in 1874.

Vint's Lakatosian account of the history of the wages fund doctrine is persuasive. It is also, however, one-sided. In attaching such importance to the fact that workers who both consume luxuries and are paid money wages may experience a change in their average real wage rate even if the real wages fund is predetermined, Vint overlooks the existence of a more important Lakatosian 'monster' threatening the wages fund doctrine, namely the unemployment 'monster'.

Vint is correct in stating that in their short run analysis exponents of the wages fund doctrine concluded that the wage rate equals the predetermined wages fund divided by the fixed labour supply. But this conclusion follows only if the labour force is fully employed, as unemployed workers do not receive a wage. And in the period 1800 to 1870 the labour force was rarely, if ever, close to being fully employed. A Lakatosian 'rational reconstruction' of the history of the wages fund doctrine should thus include reference to the fact that the doctrine was in this respect mis-specified. To apply to the conditions of the time, the conclusion following from its short run analysis would have had to have read: the wage rate equals the predetermined wages fund divided by the number of workers employed.

In terms of Vint's symbols, the wages fund doctrine should therefore have run like this. In the case of the short run,  $WS$  equals not  $WF/N$  but  $WF/eN$ , where  $e$  is the proportion of the fixed supply of workers which is employed; Vint's analysis is confined to the special case in which  $e$  equals 1. A counterpart of Vint's 'two-period analysis' can also be derived, reading  $(WS)_2/(WS)_1 = (WF)_2/(WF)_1/e_2/e_1$ , where subscripts 1 and 2 represent the first and second period respectively; here the short run real wage rate varies inversely with the proportion of the fixed supply of workers which is employed. In the long run,  $W^* = K^* - (e^* + P^*)$ , where  $e^*$  represents the percentage point change in the proportion of the population which is employed; this is reducible to Vint's special case when  $e^*$  equals zero.

Vint admits that the use of lemma-incorporation to deal with the 'monster' of money could have been defended "on the empirical grounds that luxury consumption was only likely to be a very small part of workers' total consumption" (Vint, 1994, p.87). But given the size of unemployment in the nineteenth century, the incorporation of a lemma such as the assumption that all workers are employed could not have been so defended. And unless 'e' and its behaviour over time are predetermined, all the wages fund doctrine can tell us is that there is an "inverse relation between wages and employment" (Stirati, 1994, p.112), described by Stirati (as noted earlier) as "the other feature of the wage fund theory", apart from its assumption of a predetermined wages fund.

An 'inverse relation' theory can only explain the absolute value of one of the two variables involved if it is supplemented with another theory. Thus to turn the wages fund doctrine, 'rationally reconstructed' in this way, into a theory of wage rate determination, the classical economists would have had to have been in possession of a theory of employment of labour. Following Keynes's conflation of classical and neoclassical economics in *The General Theory*, it was incorrectly assumed by some (see for example Samuelson, 1978, p.1421) that Say's Law implies full employment of labour, which implies in turn that in adopting Say's Law the classical economists in

fact had a theory of employment. This mistake is not made in Blaug (1958, p.75), where it is stated that "[f]or Ricardo full employment meant nothing more than full-capacity use of the existing stock of capital" (Blaug, 1958, p.75). Garegnani's "Notes on Consumption, Investment and Effective Demand", first published in Italian in 1964-5, made it clear that 'Say's Law' only led Ricardo "to deny that demand could prevent the system from achieving that level of employment which was compatible with past accumulation, whether this level allowed for the employment of the entire labour force or only a part of it" (Garegnani, 1978, p.341). In turn, Milgate's study of *Capital and Employment* (1982) concludes categorically that Say's Law "did not carry with it any premises capable of justifying a belief that there was a long-run tendency towards full employment of labour", a conclusion also reached by Stirati (p.186) and by Mongiovi (1990, p.76), the latter pointing out that while Say's Law states that output is never constrained by a lack of aggregate demand, it does not explain what the level of output will be. At most, classical economic theory could be said to have assumed that, given fixed factor proportions, labour will be employed to the extent required to ensure that the existing capital stock is fully utilised.

Our 'rationally reconstructed' wages fund theory could alternatively have been turned into a theory of employment, given that the classical economists were already in possession of a (Smithian) theory of wage rate determination at the time when the wages fund doctrine was first advanced. The three elements of the wages fund theory would then read symbolically as follows,  $e$  again representing the proportion of the fixed supply of workers which is employed:  $eN = WF/WS$ , and hence  $e = WF/N(WS)$ ;  $e_2/e_1 = (WF)_2/(WF)_1/(WS)_2/(WS)_1$ ; and  $e^* = K^* - (W^* + P^*)$ .

Malthus, whom Bonar (1885, p.270) correctly identified as "certainly father of the theory of a Wages Fund", and John Stuart Mill, its clearest exponent, were alone among the classical economists in recognising this possibility. As already noted, Malthus's first reference to the dependence of employment on the wage rate occurred in the 1817 edition of his *Essay on Population*. The idea recurred in the first edition of Malthus's *Principles* (1820), in the context of a discussion of the relative inflexibility of money wage rates during the period 1815-16, as the following passage shows:

From the harvest of 1815 to the harvest of 1816, there cannot be a doubt that the funds for the maintenance of labour in this country were unusually abundant. Corn was particularly plentiful, and no other necessaries were deficient; yet it is an acknowledged fact that great numbers were thrown out of employment, partly from the want of power, and partly from the want of will to employ the same quantity of labour as before. How is this fact to be accounted for? ... It is acknowledged that there was a fall in the money value of raw produce, to the amount of nearly one third. But if the farmer sold his produce for only two thirds of the price at which he had before sold it, *while the money price of labour had not fallen*, it is evident that he would be quite unable to command the same quantity of labour, and to employ the same quantity of capital on his farm as he did the year before. And when afterwards a great fall of money prices took place in almost all manufactured products, occasioned in a considerable degree by this previous fall of raw produce, it is evident that *if the price of labour had not fallen, or not in proportion, so large a quantity of produce would be required to pay the labourer, that the manufacturers would be unable to employ the same number of workmen as before.* [Malthus, 1986, pp.307-8, sections in italics added in the second edition, presumably for clarification]

A version of the argument not confined to post-Napoleonic England appears in Malthus's *Definitions in Political Economy* (1827):

Commodities in general, and corn most particularly, are continually rising or falling in money-price, from the state of supply as compared with demand, while the money-price of labour remains much more nearly the same. In the case of a rise of corn and commodities, the real wages of common-day labour are necessarily diminished: the labourer obtains a smaller proportion of what he produces; profits necessarily rise; the capitalists have a

greater power of commanding labour; more persons are called into full work. ... On the other hand, if corn and other commodities fall in money-price, as compared with the money-price of labour, it is obvious that the day-labourer, who gets employment, will be able to buy more corn with the money which he receives; he obtains a larger proportion of what he produces; profits necessarily fall; the capitalists have a diminished power of commanding labour; fewer persons are fully employed. [Malthus, 1827, pp.61-2]

While Malthus's theory of what determines the wage rate in the short run was based on the relative inflexibility of money wage rates, John Stuart Mill considered in his *Principles* (1848) two other possibilities. First, the wage rate may be determined by 'law or opinion'. In this case, he wrote:

Since, therefore, the rate of wages which results from competition distributes the whole existing wages-fund among the labouring population; if law or opinion succeeds in fixing wages above this rate, some labourers are kept out of employment ... [Mill, 1965, p.356].

Second, the wage rate may be determined by trades unions, of which Mill said:

if they aimed at obtaining actually higher wages than the rate fixed by demand and supply - the rate which distributes the whole circulating capital of the country among the entire working population, this could only be accomplished by keeping a part of their number permanently out of employment. [Mill, 1965, p.930]

Perhaps influenced by this passage from Mill, Francis Longe interpreted the wages fund doctrine as a theory of employment, as his summary of the doctrine shows:

According to this doctrine of political economy, however easily and successfully any scheme for protecting or raising the wages of a peculiar class of labourers might be carried out, and however advantageous such a measure would be, so far as regards a particular class of labourers or the permanent interests of trade, any and every such measure must be ... pernicious. ... It would be pernicious because it must *ex necessitate* keep some labourers, somewhere or other, altogether out of the employment which they otherwise would have. [Longe, 1866, p.20]

In turn Fleeming Jenkin, while rejecting the wages fund doctrine in general, accepted it as a theory of employment. In 'Trade Unions: How Far Legitimate' (1868) he wrote that an:

effect which may follow, and perhaps most generally does follow, the unwillingness of men to work except at increased wages, is this: the number employed may actually diminish, and yet the desire for labour, as measured by the total fund spent for labour, may increase; in this case it may be the interest of the workman to support his fellows out of work by a contribution from his gains, rather than by a reduction in his own requirements, to allow them to find employment. [Jenkin, 1887, p.20]

What Jenkin apparently had in mind here was a wage elasticity of demand for labour of less than unity.

In his attempt to resuscitate the wages fund doctrine Cairnes (1874) stared the 'unemployment' monster in the face, before backing away. Setting out what Hollander (1968) termed the *ex post* version of the doctrine, reflecting "the fact that the wages bill is derived as the solution in an equilibrating market process" (Hollander, 1968, p.321), Cairnes used as an example a capitalist with a capital of £10 000, of which £5 000 is used to buy fixed capital and raw material which will fully employ 100 workmen, whose average annual wage is assumed to be £50. He then supposed the average annual wage instead to be £40, drawing the conclusion that of the additional £1 000 capital thereby made available, in round numbers £550 would be spent on fixed capital and raw material, and £450 would be used to employ an additional 10 [sic] workmen. If the annual wage were instead £60, he added, on the same reasoning only 90 [sic] men would be employed. At this point, however, Cairnes noted an element of circularity in his analysis if it were to be used to explain the wage rate, and turned the argument around by assuming the supply of labour to be fixed, and by implication fully employed.



Jenkin does not make it into the text of *Capital and Wages*. Nor does the employment version of the wages fund doctrine advanced by Malthus, Longe or Cairnes, and while a relevant passage from John Stuart Mill is quoted by Vint, it is only with the objective of supporting his view on Mill's attitude towards trades unions. By and large, in Vint's history of the wages fund doctrine unemployment plays Rosencrantz or Guildenstern to money's Hamlet.

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