# Some notes on wages and competition in the labour market

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## 1 Introduction

As is known, Cannan (1967 [1917]) and others (Hollander, 1973; Knight, 1956; von Mises, 1949) claim that Smith's reference to an 'advantage' enjoyed by the 'masters' in wage disputes and to a minimum below which wages cannot fall implies that he is suggesting an arbitrary decision on the part of the capitalist employers not to reduce wages below the level 'which is consistent with common humanity' (Smith, 1976a [1776], I, VIII). It would thus be possible to trace two theories of wages in Smith, namely an institutional or 'fiat theory' and a competitive one. In the latter, wages would be 'liberal, moderate or scanty' if the demand for labour (and consequently, population) happened to be, respectively, in an increasing, stationary or declining state.

Thanks to the rediscovery of the standpoint of the 'old classical economists', as highlighted in Sraffa's works, this thesis of two conflicting theories of wages in Smith (and Ricardo: see for example Hollander, 1979: 394) has been questioned. What has begun to emerge in this context is that conflict between the institutional factors at work in the labour market and the action of free competition does not necessarily exist in the classical theory of distribution (cf. Garegnani, 1990; Stirati, 1994).

This chapter is intended to provide further clarification on this point. Section 2 examines some aspects of the theory of wages put forward by Smith and Ricardo that have puzzled their 'modern' interpreters. Particular attention will be focused on the fact that the classical economists recognize permanent labour unemployment as normal in market economies. This will be the basis for the argument presented in Section 3. With reference mainly to John Stuart Mill's works, we shall see that the idea of wages falling as long as there is an excess supply of labour is closely linked to the rise in economic theory of an inverse relationship between wages and employment. It will be thus argued that, as the latter concept is absent in Smith and Ricardo, they instinctively avoided the former. Section 4 then examines the factors preventing (at least total) wage flexibility, while Section 5 outlines the need for an institutional framework for free competition. Finally, Section 6 stresses the influence of social norms and customary factors on individual behaviour.

## 2 Smith and Ricardo on the normal price of labour and the persistence of unemployment

Let us begin by recalling three intertwined aspects of the classical theory of wages that have (or should have) puzzled its 'modern' interpreters. The list is necessarily incomplete owing to lack of space and is not presented in order of importance.

(a) The first aspect concerns combinations (whether tacit or explicit) among workers or employers in wage bargaining. Unlike the privileges of mediaeval corporations, these combinations do not appear to be seen by the classical economists as clashing with free competition. When dealing, in Chapter X, Book I, of *The Wealth of Nations*, with the 'inequalities' of wage differentials occasioned by the 'Policy of Europe',[1] Smith does not thus consider 'non-artificial' apprenticeship (i.e. apprenticeship required by the labour process) and combinations of labourers among the elements that may restrain 'the competition in some employment to a smaller number than might otherwise be disposed to enter into them', or obstruct 'the free circulation of labour and stock' (Smith, 1976a [1776], I, X: 132). Moreover, in Chapter VIII of *The Wealth of Nations*, when determining the *normal* price of labour, Smith (1776, I, VIII: 74) naturally maintains that the workmen are 'disposed to combine in order to raise', and the masters 'in order to lower the wages of labour'.

(b) As regards the second aspect to be recalled here, Smith states that, 'upon all ordinary occasions' the capitalist employers will 'have an advantage' in wage negotiations arising from their tacit agreement not to raise wages, their greater ease in forming combinations, and the fact that 'labourers' must immediately work in order to survive. It is not, however, possible to ascribe to Smith some (albeit primitive) idea of what we might call a 'post-classical' monopsonistic situation, where wages would fall more or less below their 'Walrasian' level according to how elastic the labour supply curve happened to be. On the one hand, in the classical economists we cannot trace a 'modern' labour supply curve (see also below, point (c)), which would have to be based on the well-known neoclassical conditions of utility maximization.[2] On the other, when speaking of the capitalists' advantage in wage bargaining, Smith places a social–historical upward limit on profits. For Smith, the 'interest of the masters' and the 'competition of the labourers' could not in fact bring the wage rate below the level that is 'necessary to raise a family' (Smith, 1976a [1776], I, VIII: 74–5). The question that thus arises for Smith's interpreters in connection with this subsistence floor 'consistent with common humanity' is why capitalist employers should give workers the means not only to survive but also to reproduce. As mentioned above, by looking at Smith through the lenses of the neoclassical theory the modern interpreters have been forced to answer in terms of an arbitrary or 'fiat division' of the product between wages and profits.[3]

(c) With respect to the last 'puzzling aspect' of the classical theory of wages, permanent labour unemployment (i.e. unemployment that can be absorbed only through further capital accumulation) is admitted here (cf. also Blaug, 1973 [1958]: 75 and 179; Hollander, 1973: 245; Schumpeter, 1982: 270–5). Smith thus writes that if capital were stationary, there could be 'a constant scarcity of employment' (Smith, 1976a [1776], I, VIII: 80), and maintains that capital accumulation will bring about a rise in employment for a given population (see Smith, 1976a [1776], I, VIII: 87; for Ricardo, see 1951–73, I: 389–90; II: 241; IV: 346 and 368). Clearly, this is a phenomenon that prima facie contradicts a wage determined by the intersection of labour demand and supply schedules as in the modern theory. Nor does it seem that Smith and Ricardo view it as the effect of 'obstacles' to an otherwise free functioning of the economy in terms of those schedules. No direct or indirect mechanism of substitution can be traced in the classical economists (see Garegnani, 1990; Stirati, 1994), and by analogy with the 'effectual demands' for products (Smith, 1976a [1776], I, VII), their labour 'demand and supply' are *single* quantities that have no connection with the neoclassical supply and demand *functions* or with the labour demand curve put forward by the wage-fund doctrine.[4] Not surprisingly, in this case, any inconsistency between Smith's and Ricardo's views and the neoclassical approach has either been interpreted as the result of short-cut reasoning and even theoretical incompleteness (the Marshallian line) or been addressed through direct criticism of the former two. Consider, for example, Wicksell's criticism of Ricardo's thesis that the introduction of machinery will lead to technological unemployment that could be cured only by a faster rate of accumulation and not by wage flexibility for a given stage of accumulation (see Montani, 1985). And consider also Wicksell's criticism (1934 [1896]: 60–7) of Ricardo's argument that taxes on wages must lead to an *immediate* increase in the price of labour, i.e. prior to any change in the proportion between the 'demand and supply' for labour, as 'it is the interest of all parties' (Ricardo, 1951–73: VIII, 196). According to Wicksell and the neoclassical theory (see e.g. Walras, 1954 [1874]: 451), their effect should instead normally be a fall in real wages.[5]

Now, the above three aspects have been mentioned as they appear to offer a good starting point to clarify the concept of free competition in the labour market according to Adam Smith and David Ricardo.

If we primarily examine points (a) and (b), their 'puzzling nature' for the interpreters of the classical economists seems to be closely linked to the change in the idea of competition that occurred with Cournot (1938[1838]: 194–6) and Edgeworth (1967 [1881]). In particular, it seems to be linked first of all to one aspect of this change, namely the identification of the market forms on the basis of the number of agents involved (see Stigler, 1957). The puzzle disappears, it should be admitted, if reference is instead made to the more general concept of free competition (the one shared by all approaches to value and distribution), that is the tendency towards a uniform rate of profits and uniform wages and rent from the same kind of labour and land. It is what Marshall (1980, VI, XI: 550–1) labelled 'horizontal competition' and distinguished from 'vertical' competition,[6] which is necessarily founded on the neoclassical principle of substitution.

Basically, the puzzle disappears because, taken in itself, this 'horizontal competition' actually needs no particular condition regarding the number of agents (see Eatwell, 1982; and below, n. 27) but simply the absence of barriers to movement from one sphere of production to another in order to prevent any situation tending to 'understock' the market and obtain a 'monopolistic price' (Smith, 1976a [1776], I, VII: 69).[7] When that condition is eliminated, it thus becomes easier to understand that no contradiction *necessarily* arises between, for example, trade unions and free competition. First, in fact, they do not usually seek – and would indeed not be able – to restrict the number of labourers employed except in particular cases. At most, they may have happened to call for employed workers to be members (Webb and Webb, 1926 [1897], II: 474), but generally without fixing quotas or high entrance fees (Hoagland, 1918; Reynolds, 1964: 190).[8] Besides, as observed by J.S. Mill in his *Principles of political economy*,

> the market rate is not fixed for [the worker] by some self-acting instrument, but is the result of *bargaining between human beings* – of what Adam Smith calls 'the *higgling of the market*'

and

> what chance would any labourer have, who struck singly for an advance of wages? I do not hesitate to say that associations of labourers, of a nature similar to trade unions, far from being a hindrance to a free market for labour, *are the necessary instrumentality of that free market*, the indispensable means of enabling the sellers of labour *to take due care of their own interests under a system of competition.*
>
> (J.S. Mill, 1965: 932; italics added)

Here, J.S. Mill (partly in contrast with other aspects of his analysis) emphasizes a characteristic of the labour market that was also stressed by Smith as well as Ricardo (1951–73, II: 332–3) and the later critics of the wage-fund theory, i.e. the fact that the habitual poverty of workers makes it impossible for them to 'wait for the chance of better customers' (Thornton, 1969 [1869]: 70), and that for this reason their combinations are a necessary instrument for the action of free competition.[9] While this characteristic is relevant also in determining the normal *level* of wages around which competition will act,[10] it would in fact also tend to hinder labour mobility or uniformity and the standardization of wages, which is the reason why neoclassical economists themselves go as far as to admit the usefulness of the trade unions, for example in so far as they collect and share information on wages and work conditions (see Phelps, 1994), or, by means of standardization, facilitate the diffusion of the more advanced methods of production in the same industry.

Point (c) is, however, the crucial one as far as the idea the classical economists had of competition in the labour market is concerned. In point of fact, the analytical differences between the surplus and neoclassical approaches to value and distribution mentioned there (and widely admitted after Sraffa's works) have two further consequences that we shall address in the following sections.

First, as wages are not determined, according to Smith and Ricardo, by the 'forces of supply and demand', it seems odd, to say the least, that they should regard factors such as those stressed in points (a) and (b) (namely combinations among workers or employers, common humanity and so on) as 'obstacles' or 'frictions' with respect to an otherwise natural course of distribution. On the contrary, they seem to view them[11] as being included among those both historical and current circumstances determining the 'relative strength' of the workers in wage bargaining, and, hence, the average or normal price of labour. They do so together with the *proportion* between capital and population, which indicates the labour market condition in terms of the unemployment and underemployment of labour. Ricardo thus often speaks of the market wage rate as an average or normal price that can be above subsistence[12] if '*the state of the market for labour*' is such that the workers 'will be able *to demand and obtain* a great quantity of necessaries' (Ricardo, 1951–73, IV: 366) owing to 'the *advantageous position* in which the labourer found himself placed' (idem, IV: 369; italics added). On the other hand, the adjustment itself, by means of changes in the wage rate, of population to capital growth that we can find in the classical economists has nothing to do with the above-mentioned neoclassical semi-natural 'supply and demand' forces, and represents in them one of the elements (sometimes the main one) shaping the trend of the subsistence wage. Actually, that adjustment does not imply full employment, and has a gradual, irreversible and complex character according to Smith and Ricardo.[13]

The other consequence arising from the analytical differences between their theory and the neoclassical approach is that, given the absence in their works of a mechanism whereby a fall in wages will bring about an increase in the level of employment for the same stage of accumulation, there appear to be no grounds for the argument that labour unemployment must not be permanent in Smith and Ricardo 'unless we are prepared to violate the assumption that perfect competition and unlimited flexibility of wages prevail' (see Schumpeter, 1982: 683). But then, of course, the question arises of whether it is possible to imagine a *normal* position of the economy with positive wages and (non-frictional) unemployment.[14] Would indeed the wage rate not fall to zero (or, in the opposite case of unfilled vacancies, rise to the 'level of bliss'), as is sometimes ironically suggested, e.g. with respect to the Marxian 'labour army reserve theory' (cf. for instance, Samuelson, 1951: 316)?

## 3 John Stuart Mill on a 'strange idea' of the nature of competition

In actual fact, the answer to this question is connected precisely with Smith and Ricardo's acceptance of permanent (and other than frictional) labour unemployment. This, in fact, appears to underlie their view that competition does not continue to push wages down as long as an excess supply of labour persists. It is true, and indeed quite obvious (see below), that only indirect statements are to be found on this point in the classical economists. Before going on to analyse these remarks, however, we can ascertain the truth of this assertion by looking at the years when the idea of the existence of a labour price ensuring full employment began to arise in economic theory.

Let us thus take a look at J.S. Mill's work, where the idea of a full-employment rate of wages distinctly appears on the basis of the wage-fund theory. He certainly argues that, 'under the rule of individual property, the division of the produce is the result of two determining agencies: Competition and Custom'. Yet 'Custom' is not only contrasted by Mill (1965: 200) with 'the other and *conflicting* principle', but also considered relevant to wage determination principally in '*a rude state of society*' (idem, 1965: 240; our emphasis). He thus writes:

> An increase or a falling off in the demand for labour, an increase or diminution of the labouring population, could hardly fail to engender a competition which would *break down any custom respecting wages*, by giving either to one side or the other a *strong direct interest* in infringing it. We may at all events speak of the wages of labour as determined, in ordinary circumstances, by competition.
>
> (Mill, 1965: 338; italics added)

The point to be stressed here, however, is that Mill (like Fawcett and others in his day) is clearly thinking of the link between the idea of competition as causing an indefinite fall in wages when unemployment is present and the existence of a full-employment wage rate. When dealing, in Chapter XII of the *Principles*, with the notion of a minimum or fair wage, after noting that 'it is a mistake to suppose that competition merely keeps down wages' because it 'is equally the means by which they are kept up' (Mill, 1965: 355–6), he observes:

> There are strange notions afloat concerning the nature of competition. Some people seem to imagine that its effect is *something indefinite*; that the competition of setters may lower prices, and the competition of labourers may lower wages, *down to zero*, or some unassignable minimum. *Nothing can be more unfounded*. Goods can only be lowered in price by competition *to the point which calls forth buyers sufficient to take them off*; and wages can only be lowered by competition *until room is made to admit all the labourers to a share in the distribution of the wages-fund*. If they fall below this point, a portion of capital would remain unemployed for want of labourers; a counter-competition would commence on the side of capitalists, and wages would rise.
>
> (idem, 1965: 356; italics added)

Now, if a mechanism whereby labour employment increases when wages fall did not exist, competition would not be able at a certain point to keep wages up, as Mill suggests. How competition in the labour market is to be conceived in the absence of such a mechanism thus appeared as a crucial question for those authors who questioned Mill's wage-fund theory and any mechanical determination of wages. In other words, as the very result of their critique, they analysed the question of the limits of free competition more explicitly than Smith and Ricardo. For instance, according to Longe, as 'such competition [on the labourers' side] can never have the effect of bringing the whole supply of labour into employment, however low it may reduce its price' (Longe, 1866: 73–4), it would lead to destructive effects if not limited (idem, 1866: 75).[15] Consequently,

> it is to the interest of both capital and labour that the competition of labourers be controlled, whether it be by association on the part of the labourers, or by a just and prudent regard for the wants of the labourer and the interests of capital on the part of employers.
>
> (Longe, 1866: 78)

Here, Longe is clearly considering an institutional framework restraining competition on both labour and capital sides – like Marx (1960–62, I: 266–7 and 397), when emphasizing that capital is a leveller and needs 'unfair competition' to be eliminated.

## 4 Why wages do not fall to zero

For Longe, the following question therefore arises (while it appears implicit in Smith's and Ricardo's works): if there is permanent unemployment, why do wages not fall to zero? Consider, for example, a situation in which workers are at a disadvantage in wage disputes. In such a case, why would the competition of labourers and the interests of employers bring wages down to subsistence but no further?[16]

In order to answer this question, we must first of all clarify what minimum wage we are talking about. It is not the wage that ensures the mere *survival* of the workers, namely the wage below which the labourer would prefer to die idle and which society, in certain contexts, supplies to those who live in extreme poverty. Nor does this minimum consist only of the amount of goods physiologically necessary for the survival and *reproduction* of labourers. As Ricardo points out (1951–1973, IX: 17), the minimum or necessary price of labour must instead be 'sufficient to prompt him [the worker] to the necessary exertions of his powers' (see also the reference to the Hindustani workmen's '*perfect vigour*' in the passage from Torrens approvingly quoted by Ricardo (1951–1973. I: 96, n.)). And that price includes, as we shall presently see, a *historical–moral element* that arises, as Marx clearly states, from the social conditions in which men live and are educated.[17]

As regards entrepreneurs and society at large, there are, so to speak, three connected factors working to ensure that, for a given stage of accumulation, wages do not fall below subsistence, except temporarily.

The first factor concerns the worker's efficiency, and thus profitability. As Walker wrote, the former depends on the worker's diet, habits, general intelligence technical education, hope of social advancement and interest in the work done Thus

> The human stomach is to the animal frame what the furnace is to the steam engine. It is there that the force is generated which is to drive the machine [. . .] What the employer will get out of his workman will depend, therefore, very much on what he first gets into him [. . .] If his diet be liberal, his work may be mighty. If he be underfed, he must underwork.
>
> (Walker, 1968 [1876]: 54)

But psychological stress and physical problems can also arise, if the standard of living is insufficient for the social roles we are called upon to perform as workers, citizens and parents (see Sen, 1992). Thus, as Marshall (1980: 440) himself noted, if the rate of wages falls below subsistence, we will probably reduce our consumption of physiological necessities rather than goods that are vital for moral–historical reasons. As regards efficiency, employers are therefore reluctant to push wages below the historically determined subsistence level, lest this should determine a drop in labour productivity.[18]

The second factor mentioned above is public reprobation, or Smith's 'common humanity'. As again noted by Walker (1968 [1876]: 60), this is essential in the case of free labour, unlike livestock or slaves. In the former case, 'fraud and fanatism' may in fact tend to predominate because the capitalist is not sure 'that what goes in food shall come back to him in work', as the labourer has the power to leave the firm.[19] As a general rule, this sentiment will thus bring forth laws (whether written or unwritten) to protect labour whenever 'uncontrolled' competition tends to undermine the vital conditions of social reproduction.[20] Society would therefore intervene, Marx maintains in the same vein, if its 'vital roots' were to be threatened by a progressive extension of the working day (Marx, 1960–2, I: 271, 298, 397–9, 409).[21]

As regards the third element mentioned above, it is stressed by Smith (1976a [1776], I, VIII: 86), when he quotes Sir Matthew Hale's calculation of the subsistence wage and his observation that if 'they [the workers] cannot earn this by their labour, they must make it up [. . .] either by begging or stealing', thus destroying what Smith (1967a [1776], IV,V: 49) called the 'public tranquillity'. The fall in wages will therefore be limited by the fear that extreme social conflict could break out and that workers may 'become extravagant from the point of view of society at large' (Marshall, 1980: 578; see also McCulloch, 1856: 389).

We can now examine the issue from the labourers' standpoint. As is well known, the question here is one that was taken up some decades ago by Solow (1980: 5), namely why jobless workers 'rarely try to displace their employed counterparts by offering to work for less'. In this regard, it may happen that workers tacitly follow social norms in order not to lower wages, just as the 'masters' do (see Smith, 1976a [1776], I, VIII: 75) in order to avoid raising them.[22] These norms are reinforced by social ostracism and reprobation of those who fail to follow them, as well as through a feeling of loyalty and of belonging to a social group. Hence, unemployed workers usually prefer to look for a job that is different from (and even less qualified than) the previous one, rather than offer to work for less than their fellow workers, except when the wages in a particular firm or industry happen to be clearly above the average (see Sobel and Wilcock, 1963; Sheppard and Belinsky, 1968; Webb and Webb, 1926). They thus try (but do not necessarily manage) to cope as best they can in order to survive (see Bakke, 1940; Pilgrim, 1938) – by crowding into the sectors of traditional (i.e. failing to adopt the most advanced methods of production) agriculture and trade (small commerce in particular), or entering the shadow (and low-wage) economy. As Hahn and Solow (1992: 93) admit, those social norms will only be broken in the case of very high unemployment rates, exceeding those regarded as *socially endurable* in a given country and period.[23]

The wage rate might not fall, however, in the presence of unemployment, even if it is above subsistence (as a consequence, for example, of the capital accumulation that has reduced the rate and amount of unemployment and thus the fear of being dismissed, or because a higher degree of workers' organization has been attained). This happens in circumstances that differ in part from those considered above, as again noted by Walker (1968 [1876]: 110), whom Marshall credited with having enquired more deeply than others into the characteristics of the labour market. The point is that, if the wage rate is above subsistence, you can hold out in wage bargaining or emigrate or move to other firms, that is you can more easily say, 'If we cannot have such and such wages, we will not work'. On the other hand, according to Walker (1968 [1876]: 83–6), the factors that, on average, in this case keep wages up could be partially different from those in the case of the subsistence wage, even when it happens that 'a combination of employers seeking their own immediate interests' *temporarily* succeeds in reducing them. In fact, if they have been above subsistence, their fall 'will probably be resented in the sense that population will be reduced by migration or by abstinence for propagation until the former wages are, if possible, restored' – which is a mechanism that may operate, albeit slowly, together with intensified social conflict.[24] Conversely, in cases where wages 'have been barely enough to furnish the necessaries of life, with no margin for saving', the worker will not be able to emigrate because it is expensive' and 'the falling off in the quantity or quality of food and clothing, and in the convenience and healthfulness of the shelter enjoyed, will at once affect the efficiency of the labour' or impair 'his sense of self-respect and social ambition', thus determining a fall in labour productivity[25] - which is what would, in such a case, induce the employers to restore the previous wages, or prompt society to intervene to ensure this, according to Walker.

## 5 The institutional framework of free competition

At this point, we have all the elements we need to clarify the idea of free competition in the labour market that Smith and Ricardo may have had in mind.

Given their admission of permanent (non-frictional) unemployment, they could not see competition as something pushing wages down as long as an excess supply of labour persisted. On the contrary, they saw it as operating within a context of social norms, laws and habits that set limits to the actions taken by individuals, but independent of their own will, so that those limits would be respected, whether consciously or not, in intentional competitive behaviour. The classical economists thus regarded combinations (whether tacit or explicit) among workers or employers as one of the institutional elements acting, together with the proportion between the supply and demand for labour, to determine the relative strength of the parties involved in wage bargaining, i.e. the 'advantage' referred to by Smith (1976a [1776]: I, VIII: 77). And those elements were not seen as clashing with free competition. Indeed, according to the classical theory, while the relative strength of workers and capitalists determines the normal wage around which competition will act, this guarantees that 'if in the same neighbourhood, there was any employment evidently either more or less advantageous than the rest, so many people would crowd into it in the one case, and so many would desert it in the other, that its advantages would soon return to the level of other employments' (Smith, 1976a [1776], I, X: 111).[26]

Now, the difficulty in accepting this idea of competition in the labour market appears to arise more from a specific theory than from the way in which the markets are commonly seen to (and to a great extent actually do) operate.[27]

Everybody would agree that competition can never be absolutely free, but acts within a set of accepted customs and social institutions, primarily those ensuring respect for private property and contracts (e.g. Smith, 1976a [1776], I, IX: 107; Hayek, 1978: 61–2). Those that facilitate trade by increasing information and the availability of means enabling people to achieve their aims are, however, also necessary to (or serve to extend) the 'game of competition', e.g. institutions that lower transaction costs and the degree of uncertainty (see Eggerstron, 1990: 47; North, 1994).

Nor is it generally questioned in economic theory that some informal ties of trust, equity and loyalty – i.e. Okun's (1981: 35 and 85) 'invisible handshake' – may facilitate business relations and help to define the limits within which economic activity is to be carried out. Smith thus goes back to Montesquieu's '*doux commerces*' (see Hirschman, 1982; Vaggi, 1996), while Marshall (1980: 15) writes that 'even the most purely business relations of life assume honesty and good faith'.[28] In Wicksteed's words:

> Both law and personal honour, and acknowledged aethical principles place restraints, more or less effectively, on our conduct in the economic relation, and dictate the conditions under which we may enter it.
>
> (Wicksteed, 1950 [1910]: 182)[29]

Even more remarkable for the argument is the fact that both Marshall and Wicksteed (1950 [1910]: 197 and 226–7) view the combinations supporting 'the unwillingness of manufacturers to spoil the market' (Marshall, 1980: 117, n.) as compatible with free competition, while rejecting this idea in the case of labour.

Marshall points out (1980: 311) that producers do not reduce their prices if there is an excess of supply, both because 'each man fears to spoil his chance of getting a better price later on' and because they are afraid of 'incurring the resentment of other producers'. They also know that, if they accept an order at an unduly low price in order to keep productive capacity from standing idle, 'they might ruin many of those in the trade, *themselves perhaps among the number*' (Marshall, 1980: 312; italics added). '[O]pen combinations and all informal silent and "customary" understandings' thus develop in order to avoid 'immediate gains but at the cost of a greater aggregate loss to the trade' (idem, 1980: 412). And, according to Marshall (1980: 312–13), these 'combinations' do not counter but rather facilitate 'the action of demand and supply', e.g. by preventing extreme price variations that are 'beneficial neither to producers nor to consumers'.

Labour is seen as a different sort of commodity. Unlike the former case, Marshall (1980: 117, n. 1) maintains that labourers, being highly perishable, 'would rather take the low price than let works stand idle'. On the other hand, given the very structure of Marginalist theory, the flexibility of wages does not bring them down to zero but to the full-employment rate, whereas the observable social norms or combinations limiting competition among labourers necessarily emerge as obstacles to the 'forces of demand and supply'. As such, they are perceived as bringing about an inefficient allocation of resources, and consequently labour unemployment. According to Wicksteed (1950 [1910]: 183, 192), it thus follows that self-interest will always eventually prevail in the labour market, and sentiments of 'common humanity' with respect to unduly low wages are powerless to prevent them from falling. And according to Marshall (1980: 577; our emphasis):

> However strong the *anti-social* obstacles which they [the trade unions] erect against those who would like a share of their gains, interlopers find their way in; some *over the obstacles, some under them, and some through them.*[30]

However, let us assume that experience (to be understood in a general sense, that is including also beliefs and scientific knowledge, thus for instance the Keynesian principle of effective demand) indicates to the workers and their historical specific organizations, or more generally to society as a whole, that it is possible even in the labour market to ruin other sellers, and possibly ourselves too, if we agree to sell at a lower price, because there is nothing to ensure that lower wages will bring greater employment. Does violation of the social norms limiting competition in the labour market make sense in this case?[31] Does a relative (if not, at a certain point, absolute) wage rigidity in the presence of unemployment not appear as a necessity for the society (on the other hand, not necessarily being the cause of that unemployment)? According to this line of reasoning, the social norms and institutions at work in the labour market to limit wage variability would naturally appear as a condition for the orderly reproduction of the economy, and, hence, as (an essential) part of the only institutional framework within which competition can act.[32]

## 6 Social norms and individual behaviour

To conclude, we may observe that wage determination on the basis of historical–social factors, as in Smith and Ricardo, is at the same time bound up with an idea of individual behaviour differing from the pure and simple 'self-interest' approach. While this has to do with a more general point than the one addressed above, certain links between them are evident. In particular, it suggests that we should seek to account for the origin and respect of the social norms operating in the labour market, not on the basis of individual rational calculation, as in Marshall (1980: 17, n. 1), but rather in terms of a complex of social and institutional forces.

In Smith, respect (whether conscious or unconscious) for social norms and conventions is associated with the idea that society not only limits individual freedom but also creates it, and that human behaviour is the outcome of a complex of motivations, including respect for others, whether explicit or simply reflected in the awareness of being one of a multitude, '*in no respect better than any other in it*' (Smith, 1976b [1759]: 83). This is neither a matter of selfishness or unselfishness nor of particular preferences that clash with universal moral value judgements or utility functions taking into account the preferences of others.[33] According to Smith, society itself tells us when to behave selfishly or otherwise, how to behave in certain circumstances and how in others, and what are the symbols, interests and modes of action of the group to which one belongs, as transmitted and acquired through experience. The soldier at war would thus suffer 'the scorn of his companions, if he could be supposed capable of shrinking from danger' (cf. Smith, 1976b [1759]: 138). And again, thrift would derive from a

> general rule, which prescribes, with the most unrelenting severity, this plan of conduct to all persons in his way of life.
>
> (Smith, 1976b [1759]: 173)

Moreover, according to his historical materialistic view, Smith sees everyone as experiencing a sense of belonging to an '*order or class*' (1976b [1759]: 230) whose modes of action will be followed by most, if not all. Much the same point was made by Marx and Weber, who held that, although classes certainly do not act as classes, they can be defined by objective features and common practice to the extent that – as Weber observes – their members behave with 'community action' through specific institutions and reciprocal support 'in the direction best suited to the interests of the average' (Weber, 1961, II: 232; my translation). For Smith, it is this belonging and the activity performed that shape 'our understanding of the world' and our value judgements, whether consciously or unconsciously supply of labour', and thus representing truly further elements determining the course of distribution. Just to mention a few of them, they consist, for instance, of those that, in addition to a fall in unemployment, may lead to an increase in the workers' degree of organization, such as changes in labour legislation favourable to them, an increase in their degree of class consciousness or fewer divisions and conflicts between skilled and unskilled workers – and, furthermore, a greater degree of concentration of the labour force (see Smith, 1976a [1776], IV, VIII: 160; Marx, 1960–2, I: 506, 763) or its less easy replaceability in the labour process (Marx, 1960–2, I: 349–50, 367). Moreover, in explaining the course of distribution, classical economists considered changes in the political and social situation of a country, the latter in turn being deemed to have broadly affected the subsistence wage itself. They thus thought that the divisions among the advanced and retrograde elements of the adverse classes could be advantageously exploited by the labourers in order to ameliorate their condition, while Marx (1968, 2: 573) wrote that 'the growing number of the middle classes' represents 'a burden weighing heavily on the working base' and increasing 'the social security and power' of the upper classes.

This kind of a social and institutional determination of the wage rate – which acquires concreteness only with respect to the specific historical case to be analysed – indeed added great openness to Smith's or Ricardo's or Marx's position regarding wages, which was exactly the contrary of an 'iron law of wages'. On the other hand, the actual mechanisms of reactions to an increase in wages that they considered were all but rigid, as is clearly manifested by their notion of the subsistence wage as including a historical and social element. As noted above (see again Section 2), this is true to some extent in the case of the principle of population in Ricardo,[40] but more so in the case of Smith or of that principle peculiar to the capitalism advanced by Marx, that is his reserve industrial army mechanism, according to which both a fall in the rate of accumulation and mechanization of production would limit, by generating labour unemployment, any increase in the wage rate.[41]

However, that openness reappears also with respect to the effects of technical changes on wages. Being fuelled, for example, by the extension of the market and the improvements in technical knowledge (cf. e.g. Babbage, 1973 [1835]: 201 and 213–14; and, with respect to Marx, Rosenberg, 1982), innovations were believed to allow scope for an increase in wages, thus further complicating the picture regarding the possible trends of wages and distribution.[42] Thus Smith (1976a [1776]: I, 96–7) saw a relation between wages and labour productivity, and he stressed that, owing to the rise in the latter, the commodities 'come to be produced by so much less labour than before, that the increase of its price is more than compensated by the diminution of its quantity' – that is, as noted by Marx (1968, II: 226), he stressed that 'profit can grow, despite rising absolute wages'. Similarly Ricardo, while writing that the decreasing returns in agriculture would tend to decrease the rate of profit and consequently accentuate social conflict (Ricardo, 1951–73, I: 41–3, 70–3, 92 and 118), nevertheless pointed out that:

in the progress of society there are two opposite causes operating on the value of corn; one, the increase of population, and the necessity of cultivating, at an increased charge, land of an inferior quality, which always occasion a rise in the value of corn; the other, improvement in agriculture, or discovery of new and abundant foreign markets, which always tend to lower the value. *Sometimes* one predominates, *sometimes* the other, and the value of corn rises or falls accordingly.

(Ricardo, 1951–73, IV: 235; our emphasis. Cf. also I: 92 and 120)

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## Notes

1 In particular, in the case of England, Smith was using the term to refer to the Law of Settlement, the Statute of Apprenticeship and the exclusive privileges of corporations. Thus the former enacted that 'no person should for the future exercise any craft, trade and mystery at that time exercised in England, unless he had previously served to it an apprenticeship of seven years at least' (Smith, 1976a [1776], I, X: 134).

2 As admitted for example by Hollander (1987: 90), '(i)t does not seem that Ricardo appreciated the modern substitution effect' (Hollander refers to the indirect substitution effect). See also Ricardo (1951–73, I: 237 n., 325–6, 385, and his letter to J. Mill dated 6 June 1818).

3 Moreover, Smith asserts that there could be unemployment when the wage rate is at its minimum level, and nowhere in the above passages does he suggest that the amount of employment will rise as the wage moves towards that minimum. Even if we interpret Smith's subsistence wage as enforced by the state and the unemployment referred to by him as a frictional or voluntary one, the resulting picture would therefore be different from that drawn by the neoclassical theory, according to which, in the case of a monopsonistic labour market, a minimum wage would cancel out, or at least reduce, the difference between the actual level of employment and the level corresponding to the case of perfect competition (see Stigler, 1946).

4 In Smith and Ricardo, the demand for labour is to be understood solely as the employment level possible at the stage reached by the accumulation of capital, and the supply of labour as the amount of the working-age population (the length of the working day being taken as given in a certain period and country). With respect to the absence of the wage-fund theory in the classical economists, see Bharadwaj (1989) and Stirati (1999). Note in any case that Ricardo explicitly rejects its initial formulations in Malthus and Trower (see Ricardo, 1951–73, I: 406–7; II: 135–6; VII: 203; VIII: 236–7, 255–8 and 272–3) and that J.S. Mill (1965: 340) criticizes Ricardo's theses on the effects of taxation on wages precisely on the basis of the wage-fund doctrine.

5 Ricardo's statements on taxation clearly show the differences in analytical structure between the classical and neoclassical theories. Following the latter, the 'proportion' between the demand and supply for labour could remain unchanged after taxation only on the hypothesis of a vertical labour supply curve. However, in this case, the price of labour should remain unchanged, and the wage net of taxes thus fall (see e.g. Mieszkowski, 1969).

6 Namely, for instance (Marshall, 1980: 551; italics added), 'the struggle for the *field of employment*' through changes in their supply prices 'between groups of labour belonging to different grades, but engaged in the *same* branches of production'. It should be noted that the word 'vertical' utilized by Marshall suggests movements along a decreasing demand curve for labour, which is absent in Smith or Ricardo. As we will see, although not denying conflicts between different groups of workers, the classical economists advance neither the idea of *reversible* up and down movements along the demand and supply curves, nor that of labour underselling as long as there is unemployment.

7 Of course, if there are only a few 'agents', the probability of barriers to movement is higher. But, as for the notion of 'contestable markets' (cf. Baumol et al., 1982), in the classical theory there is no rigid connection between the number of 'agents' and the market forms.

8 On the other hand, Smith argues (1976a [1776], I, VII: 69–70 and I, X: 133 and 145) that restrictions on the mobility of capital can arise, among other factors, in the case of corporations, but only because their members alone are allowed to produce a certain commodity, apprenticeship lasts a long time, and there are penalties against those who move elsewhere or lower the prices. With respect to labour, restrictions to entry are peculiar to the professional associations. And even though sometimes the 'old unionism' artificially limited the apprentices per skilled worker, it did not usually limit membership, nor had the power to fix the wage or the level of employment. Besides, it facilitated 'horizontal competition' by organizing the migration between regions and sectors of the (normally abundant) skilled and semi-skilled workers.

9 Walker, who was another critic of the wage-fund theory, sums up a situation of workers' weakness in wage bargaining as follows (1968 [1876]: 378):

> if for any reason, whether from physical obstruction or legal inhibition, or from his own poverty or weakness of will or ignorance, or through distrust of his fellows or a habit of submission to his employer or his social superiors, any man fails [. . .] to reject the lower price and to seize the higher price, the rule of competition is violated; all immunity from deep and permanent economic injury is lost.

10 As we will see, for Smith, the intensity of competition among labourers or among the masters influences the cohesiveness of the conflicting parties in wage bargaining, and therefore the normal or average level of wages. However, this does not necessarily clash with individual wage bargaining or free competition around those levels. It is only when the idea appeared of 'vertical competition' along a decreasing labour demand curve that the great majority of trade union practices aimed, at some point or other, at preventing 'the employer from doing as he pleases' (Commons, 1911: 464), will end by clashing with free competition.

11 Apart from the (indeed crucial) notion of subsistence, we can trace some of these factors in Ricardo as well as Smith and Marx. Ricardo thus criticizes Malthus's view that trade unions cannot increase the real wage (see the letter to Malthus dated 21 October 1817) and calls the anti-combination laws 'unjust and oppressive to the working class' (Ricardo, 1951–73, VIII: 316. See also IX: 54–5 and 61–2).

12 That the wage can remain above subsistence for a long period of time is in fact implicit in the view put forward by Ricardo and Smith that necessaries are historically determined. Thus Ricardo writes: 'I do not deny that wages may be such as to give

to the labourers a part of the neat product' (Ricardo, 1951–73, II: 381; see also I: 348, n.). With respect to Smith, see Levrero (2000: 453). Note that Ricardo identifies the natural wage with subsistence and uses the term market wage both for the wage arising from temporary and accidental circumstances and for the average or normal price of labour (when different from subsistence).

13 It explains why the 'Canonical Classical Model', in its different formulations (e.g. Samuelson, 1978; Casarosa, 1985), is incapable of providing a true representation of the wage determination in Smith or Ricardo. First, the equilibria that it tries to determine are unstable, unless a demand curve for labour fulfilling full employment is arbitrarily ascribed to them (see above, p. 363). Furthermore, even in this case instability arises, as admitted by Casarosa (1985: 57), in the 'dynamic equilibrium' versions of the model when considering the changes in the marginal land triggered by changes in population. Finally, it seems in any case inappropriate to attribute the classical economists with labour demand and supply curves of a kind based on *functional* relationships between the wage and the *rates of growth* of capital and population. Although Smith and Ricardo (particularly the latter) refer to the 'principle of population', they regard the reciprocal influences between wages and population (as well as between the rate of profits and capital accumulation) as complex, subject to social–historical factors, and varying over time according to the circumstances. Ricardo thus stresses the peculiarity of labour as a commodity that cannot be increased or reduced at will (see Ricardo, 1951–73, I: 165 and 196), and observes that, if the price of labour increases, population 'may even go in a retrograde direction' (ibid., VIII: 169).

14 It should be noted that the analogy put forward by the classical economists between labour and the other commodities is recognized as imperfect because of the slowness with which supply responds to price changes and the fact that a drop in market wages leads to no increase in the quantity of labour employed. On the other hand, unlike his treatment of other commodities, Smith does not posit the equality of demand and supply as a condition for the price of labour to be at its natural level. Nor does he seem to regard the normal price of labour as equal to subsistence only when population is constant. Smith's reference to the necessary price of labour as one that enables labourers not only to survive but also to reproduce appears in fact only to reflect a need to include within the value of labour (as with machinery or livestock) a depreciation fund for the wearing out of the commodity, i.e. 'the wear and tear of [a free servant]' which, Smith points out (1976a [1776], I, VIII: 90) is 'at the expense of his master as that of the [slave]'.

15 It is worth noting that we can find the same argument in Cournot (1938: 601 and 608), who did not advance any definite general economic equilibrium and admitted the possibility of permanent unemployment (e.g. idem, 1938: 584 and 587).

16 We refer to the average or normal rate of wages. Of course, during the cycle, the flexibility of money and real wages is greater, though not indefinitely, and varying over time.

17 As noted subsequently by Marshall, when dealing with the objective determinants of the labour supply price, the necessities that guarantee labour efficiency are 'historically determined' and include the amount to be paid for the wearing out of the labourer (Marshall, 1980, III, II, 2,3; III, II, 4: 74–5; IV, V; VI, II: 437 and 439–40). Thus, for example, the subsistence wage can change if there is a change in the rate of female participation or the outlay for the worker's 'repair'. On the 'living capital', see also Nicholson (1891).

18 As has been observed by Pivetti (1999), in his unpublished manuscripts Sraffa himself stressed this efficiency aspect of subsistence and the difficulty of distinguishing between physiological needs and social and historical ones. Note also that both the link between wage and labour productivity and the practical relevance of the notion of 'fair wages' emerge in many investigations into why firms do not try to decrease wages, whatever

the theoretical standpoint is (see, for instance, Bewley, 1999; Campbell and Kamlain, 1997; Rees, 1993).

19 In wage bargaining, however, labourers can take advantage of the employers' interest in ensuring continuity of production and their own acquired knowledge of the labour process.

20 Walker thus writes (1968 [1876]: 372; my italics): 'I merely assert that respect of labor and sympathy with the body of laborers, on the part of the general community, constitute an economical cause, in just so far as they strengthen the laborer in his pursuit of his own interest, *thus making competition on his part more effective*, and in just so far as they take something from the severity with which the employer insists upon his *immediate* interest, thus reducing the force of competition on that side.'

21 Consider also the Poor Laws, minimum wage legislation, unemployment benefits and laws against sweating industries. On the other hand, how can society feed the prison population while people outside are starving? As observed by Pigou (1945: 28), the minimum wage must at least be greater than unemployment subsidies or the cost of keeping criminals in prison.

22

> To violate this combination is every where a most unpopular action, and a sort of reproach to a master among his neighbours and equals. We seldom, indeed, hear of this combination, because it is the usual, and one may say, the natural state of things which nobody ever hears of.

Note also that, according to Smith (1976a [1776], V, 1: 315–16), common people admire an 'austere system of morality' because 'their experience' tells them that a 'liberal or loose system' can be 'immediately fatal to people of their condition'.

23 Note that Hahn and Solow reach this conclusion when denying (though by introducing imperfect competition and increasing returns in a neoclassical model) that an inverse relationship between wages and employment exists (Hahn and Solow, 1992: 69, 104, 119 and 134). On the other hand, with reference to a declining state of the economy, Smith himself suggests that social norms against lowering wages could be broken when unemployment rates become very high (Smith, 1976a [1776], I, VIII: 82). In this case, even subsistence can be reduced (in particular its moral–historical element), as can happen when there is large-scale immigration of workers accustomed to a lower standard of living. It should be noted, however, that both the fall in wages and the rise in labour unemployment must be limited if orderly social reproduction is to be guaranteed.

24 These factors can, of course, operate, even if the initial wage rate is at the subsistence level, which incidentally does not necessarily imply that there is no margin for saving out of wages as is sometimes suggested by Walker. However, as Walker observes, emigration may be costly and thus not accessible to all. Moreover, poverty may stimulate population.

25 This is similar to the view expressed in some efficiency–wage models (see Akerlof and Yellen, 1986), where a relationship between wage and labour productivity is, however, posited for any wage level, thus e.g. overlooking that a greater rate of unemployment might lead to a fall in wages and a rise in the intensity of work, or that, for the 'modern industry' (cf. Marx, 1960–2, I, IV, XV) and assembly-line production, verification of 'shirking' is easy, and costs of monitoring labour effort are low. On the other hand, the realism introduced into neoclassical theory by those models (e.g. unemployment as a disciplinary device) is lost precisely owing to their need to reconcile the now acknowledged social–historical factors with the 'marginal' method. We thus find univocal and reversible relations between wages and 'efficiency', while the latter is not a one-dimensional concept (see e.g. Leibenstein, 1976; and Pigou, 1946: 589). We also find the ad hoc assumptions that the length of unemployment is the same for all workers, and that there are no costs for job-seeking and no promotion scales.

26 It is worth noting that this 'horizontal competition' is facilitated by labour unemployment and, on the capital side, by margins of unused productive capacity and some (historically changing) degree of financial capital concentration.

27 With respect to the commodity markets, a clash between the neoclassical concept of free competition and the facts is instead more generally admitted. Thus Knight (1951 [1935]: 282). and Hayek (1948: 92–6) complained that the notion of 'perfect competition' excludes what Smith and Ricardo considered as a crucial aspect of free competition (see McNulty, 1967), that is Smith's 'rivalry in a race', the tacit combinations and so on. (Indeed, this is particularly true with respect to Walrasian *tâtonnement*, and especially in the case of the modern short-period versions of general equilibrium theory. It is less so in Marshallian disequilibrium analysis.) On the other hand, unlike the marginalist theory, the classical approach does not need any demand functions for products or constant returns in order to determine competitive prices. Therefore, it does not need the agents to be price-takers and independent of one another (cf. Clifton, 1997).

28 According to Baumol (1991), good faith and loyalty cannot come about through regular trading in the case of free competition. It would be due to the anonymity of firms and the difficulty of passing on information. However, this does not apply to the classical concept of free competition (see notes 26 and 27 above) or, for example, to Marshall's long-run analysis based on the correction of the errors and repetition of transactions.

29 To avoid misunderstanding, this does not neglect social conflict or unfair competition or piracy and frauds, nor does it neglect the fact that many institutions are created by the ruling class in order to defend its interests and power (e.g. North, 1990; Smith, 1976a [1776], I, IX: 278; IV, 7: 100; IV, 8: 180; V, 1: 236). It only means that, in a normal state of affairs, free competition needs (and acts within) an institutional framework that is each time recreated and reinforced by the state and social norms (e.g. Smith, 976a [1776], II, 2: 345).

30 See also Jevons (1894: 109). This is not to deny that, under the sheer force of facts, the Marginalist authors ultimately (and to some extent contradictorily) admit that there is a limit below which it is impossible for wage rates to be pushed down (e.g. Pigou, 1945: 51; Schotter, 1990: 86). If it is permanent in nature, however, they usually view it as legally enforced by the state and, moreover, tend to justify it only in the case of countries characterized by a great abundance of labour with respect to capital.

31 In this connection, it is worth noting that, though adopting a different methodological and analytical standpoint from ours, Hahn (1987) and Solow (1990) are obliged to assume an *inelastic* demand curve for labour, if not the complete absence of an inverse relation between wages and employment (cf. above, n. 22), in order to explain wage rigidity. Hahn (1987) thus concludes that a wage higher than that which assures full employment will be preferred, if the corresponding net expected utility of the workers is higher than that associated with full employment. This appears to imply that total wages are greater in the former case than in the latter, which in turn implies an inelastic demand curve for labour. With respect to Solow, see De Francesco (1993).

32 There is clearly here a similarity with Keynes's argument of the need for *money* wage stability in order to prevent the destructive effects of deflation in a monetary market economy. It is, in fact, on the grounds of the failure of a fall in money wages to increase the level of employment that Keynes argued money wage rigidity to be in some sense a rational response to, rather than the cause of, unemployment.

33 For a different view, see Arrow (1971) and Becker (1976). Arrow (1971: 28–9) questions, however, whether one can speak of '*true desires of the individual members of the society in conflict with the custom of the group*'.

34 As mentioned above, this makes it difficult to account for the origin and legitimacy of these social norms and rules on the basis of individual rational calculation founded

on the maximization of expected utility and thus abandoned if no longer useful for the self (for this view, see von Mises, 1949: 42 and 46–7). They would rather appear to be the result of historical development and conflict among social groups and classes, or in other words of a complex of social and institutional forces (see Hodgson, 1988). One sign of this lies in the fact that in the repeated 'games', solutions can only be found by resorting to tacit common knowledge or already shared rules of coordination among the players.

35 With respect to the 'surplus wage' (that is, the part of wages above subsistence), those circumstances would have an influence on income distribution even if Sraffa's suggestion of a 'monetary determination of distribution' is followed (cf. Sraffa, 1960: 33). This is so because, for example, the course of money wages necessarily affects the decisions of the monetary authorities upon the long-term rates of interest.

36 As stressed by Marx, Torrens and others (e.g Barton, 1934 [1817]: 22), the wage rate must be above the subsistence level for a long period of time in order to change it, as the necessaries are influenced by the conditions 'under which and with which' the working class is brought up and formed.

37 Yet there exist circumstances that may cause a fall in wages below the subsistence level (see above, n. 22). It is to be noted that the actual bargaining process is characterized by a variance of wage rates around the average and is influenced by different notions of 'fair wage' that are advanced by both the conflicting parties and the state. Whenever they differ, these notions tend to shape the lower and higher wage rates within which the actual wage rates will usually be set (e.g. between a minimum wage set by the state or the living wage to which workers anchor their lower requests, and a notion referring to the employers' 'capacity to pay' in order to face external competition or foster growth and capital accumulation (cf. ILO, 1968: 59–74).

38 Note that the classical economists saw a strict direct relation between the money and real wage changes. Apart from the gold–money economy they considered, they stressed in fact that, given the circumstances determining the *normal* real wage, an increase in prices would lead to a subtle strong fight of the workers until *that* wage rate was eventually obtained.

39 Although admitting on several occasions that a wage change does not in the short term or even necessarily ever bring about a change in the same direction of population, Ricardo indeed often uses the 'principle of population' to explain the tendency of the wage towards subsistence level (see Marx, 1968, II: 400), particularly when he criticizes the effects upon the rate of profit of capital accumulation according to Malthus, or discusses those of decreasing returns in agriculture (e.g. Ricardo, 1951–73, I, XXX: 214). On the other hand, as Marx (1968, II: 477) noted when speaking of Smith's reference to the same principle, for these authors 'an increasing population appears to be the basis of accumulation as a continuous process'.

40 On the other hand, that principle was not generally accepted at his time. Thus Barton (1934 [1817]: 22) observed that, 'a rise of wages [. . .] does not always increase population. I question whether of itself it ever does so.'

41 See, for instance, Baumol (1981). In this regard, it is worth noting that there seems to be no close relation between the rate of profit and the pace of accumulation. That is, an increase in the former does not generally increase the latter, which is mainly determined by the trend of the effective demand as well as by social and political elements – the ones that, in turn, might underlie a fall in capital accumulation when wages rise, in addition to international competition if there exist free capital movements among countries.

42 One exception seems to be Marx, who appears to be pessimistic about the possibility of compensating the increase in the 'organic composition of capital' (i.e. in the ratio between constant and variable capital, which he believed to be associated with the

mechanization of production), by means of the increase in the rate of surplus-value, as this is limited by natural and social circumstances (cf. Marx, 1960–2, I, XI: 305; I, XVII: 521–2, 527 and 530; III, XV: 242). He also appears to think that the rise in the 'organic composition of capital' cannot be avoided by the fall in the prices of the component parts of the constant capital and by capital-saving innovations (Marx, 1960–2, I, XXV: 622–3; 1968, III: 368). As noted by Meek (1967), Marx thus concludes that, as capital accumulation proceeds, a fall in the rate of profit eventually prevails, and thus that forces tending to keep wages at the subsistence level will be put in motion (in particular, a progressive increase in the rate of unemployment). It deserves to be noted, however, that to derive abstract and mechanical conclusions was contrary to Marx's method of analysis. More important, it is worth noting that, after Sraffa, we know that innovations will generally lead to a rise in the rate of profit for a given wage (cf. for instance Schefold, 1976), thus opening 'margins' for an improvement in the workers' standard of living.

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