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ADAM SMITH'S LABOUR COMMAND MEASURE OF VALUE

Rory O'Donnell

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INTRODUCTION

One of the major disputed issues in current debate on the history of economic thought is the question of the dual development in economic theory. The question at issue is whether or not there was a dual development in the theory of value and distribution. Those who consider that there was a dual development identify the surplus approach of the Physiocrats and the theories of Ricardo and Marx as a theory of value and distribution distinct from the 'supply and demand' or neoclassical theory which challenged and eventually superseded it in the late nineteenth century. (see, for example, Dobb, 1973; Bharadwaj 1978a, 1978b, 1978c; Schumpeter, 1954; Meek, 1975: Groenewegen, 1975). As against this, those writers who, following Marshall, reject the notion of a dual development, identify a single continuous development of the 'supply and demand' theory from the eighteenth century to modern general equilibrium theory. (Robbins, 1935; Stigler 1965; Hollander 1973, 1977, 1979, 1983).

Although discussions of this question have tended inevitably to centre on the nature, influence, and longevity of Ricardo's theory of value and distribution, there have been several influential statements concerning Adam Smith's work. Most historians who support the notion of a dual development consider that Adam Smith contributed to the development of both 'streams of theory' (Schumpeter, 1954 p.558; Dobb, 1975, p.329; Meek, 1975, p.154; Bradley and Howard, 1982, p. 10). Among those historians who reject the dual development thesis there are widely different views on the level to which
Smith brought the single, dominant, theory, but there is, nevertheless, agreement that he was indeed a forerunner of neoclassical economics (Marshall 1893, p.627; Robbins1935, p.68; Stigler, 1965, p.69, p.197; Bladen, 1938; Blaug, 1978, p.43; Boulding, 1971; Hollander, 1973; Kaushil, 1973).

Thus, there is clearly widespread agreement among historians, whether they accept or reject the dual development thesis, with the proposition that Adam Smith was a forerunner of neoclassical theory. (It should be noted, however, that there are several writers who did not consider that Smith contributed to the development of neoclassical theory - among them can be listed Walras, 1954, p.201; Jevons, 1871, p.254; Bohm-Bawerk, 1884; Wieser, 1888; Wicksell, 1893, p.47; Douglas, 1928; Knight, 1956; and Bharadwaj, 1978, p.155,1980, p.350).

Propositions naming Smith as a forerunner of either the classical or neoclassical theory of value and distribution must be examined both factually and analytically. The details of the arguments used must be tested as to their accuracy as accounts of Smith's work. And the criteria used to categorize Smith's ideas as either classical, neoclassical, or both, must be examined to see whether they are derived from analytically correct definitions of the two theories in question. This paper is devoted to an examination of the first of these two kinds - in particular, by detailed exegesis of Smith's work, it identifies the nature of his labour command measure of value and considers the accuracy of the major secondary accounts of this element of his work.
This task is a necessary preliminary to a more analytical reassessment of Smith's role in the development of economic theory since different interpretations of his measure of value have played a significant role in the more prominent attempts to portray Smith as a forerunner of classical and/or neoclassical theory. Although the details of these attempts cannot be considered here the following should suggest the importance of Smith's measure of value. First, Smith's labour command measure of value is clearly closely related to his attitude to the labour embodied measure and theory of value. And, until the publication of Scraffa's work in 1960, the labour embodied theory of value was widely considered to be a necessary feature, indeed the defining characteristic, of the classical of surplus approach to value and distribution (Ricardo, works Vol.I, p.14; Marx, TSV II, p.166; Wieser, 1888, p.192; Douglas, 1928, Bowley, ; Stigler, 1954; Viner, 1930.) Second, Dobb's view that Smith contributed (at least in part) to the development of the 'supply and demand' theory was defended by assigning theoretical significance to certain difference between Smith and Ricardo, which in fact depend crucially on Dobb's particular, incorrect interpretation of Smith's measure of value. (Dobb 1973, p.47, p.119.) Third, Hollander's case that Smith was a forerunner of modern general equilibrium theory depends in part (and in a manner that cannot be explained here) on his ignoring the single most important feature of Smith's labour command measure of value (Hollander,1973, p.171 n, p.174n, p.129n.)
The key to understanding Smith's use of a labour commanded measure of value lies in identifying the purpose for which Smith intended his treatment of value. Smith's primary concern was with the increase in production made possible by the "improvement in the productive powers of labour" brought about as a result of the division of Labour (WN I.i.1). This increase in production depends also on the proportion of the annual produce "employed in maintaining productive hands" (WN II.iii.3). Both the division of labour and the proportion of productive Labour depend upon the accumulation of capital. Smith was aware that the relevance for accumulation of a given physical surplus output over necessary consumption would vary with variations in the value of the heterogeneous commodities that make up that surplus. These values would vary with changes in technology brought about by division of labour and with changes in the rates of wages and profits. Smith's main concern in introducing value categories was with changes in the relative value of commodities brought about by changes in methods of production. His concern was, therefore, with finding a standard "by which we can compare the values of different commodities at all times and places" (WN I. v.17).

Smith chose as a measure of value the quantity of labour for which a commodity will exchange; that is, he adopts the money wage of ordinary labour as his standard. His choice of this standard has led to many allegations that his treatment of value is confused and inconsistent. These allegations take two forms. First, that in Smith's analysis there was a confusion of a 'cause' and a 'measure' of exchange value. Second, it is commonly said that Smith confused a labour embodied and a labour commanded measure
of exchange value (Kaushil 1973, p.51). However, it is argued here that if careful note is made of Smith's assumptions, and the purpose for which he wanted a measure of value is kept in mind, then no serious confusion or contradictions are found. He required his measure of value to measure changes in relative prices due to changes in productivity brought about in the process of technical change. And, as will be shown below, he adopted a set of assumptions according to which changes in value measured in labour commanded will, in general, be proportional to changes in value measured in labour embodied.

1. SMITH'S LABOUR COMMAND MEASURE

Having outlined his distinction between 'value in use' and 'value in exchange' Smith finished Book I Chapter IV by setting himself the task of showing "what is the real measure of this exchangeable value; or, wherein consists the real price of all commodities" (WN I. iv.15). He addressed this task in Chapter V, 'Of the Real and Nominal Price of Commodities, or of their Price in Labour and their Price in Money' - which has been described as "arguably ... the most convoluted chapter ever to emerge from the pen of a great economist" (O'Brien, 1975, p.82), and of which there is a wide range of interpretations (Deane, 1978, p.26; see also Horner, quoted in Holland, 1928, p.38). However, it is argued here that when Chapter V is examined in the context of Smith's overall treatment of value it admits of a relatively straightforward and
and consistent interpretation. At the heart of this interpretation lies the recognition of the fact that the early paragraphs of Chapter V refer to a precapitalist economy, while the rest of the chapter refers to a capitalist economy — a fact which is recognized by many commentators (Blaug, 1978, p.52; Hollander, 1973, p.128; Skinner, 1969, p.50; Rogin, 1956, p.79; Meek, 1973, p.62; Napoleon, 1975, p.40; Whitaker, 1904, p.16). Indeed, it will be seen that several of the differences in interpretation of Smith's measure of value are closely linked to different views of how the precapitalist and capitalist paragraphs of Chapter V relate to one another; for it is in the first three paragraphs of the chapter, which refer to a precapitalist economy, that Smith initially defined labour as "the real measure of the exchangeable value of commodities" (and equated this to the 'real price', 'real worth', 'first price', and the 'original purchase money').

In the early paragraphs of the chapter Smith adopted a definition of 'real price' which was effectively a measure of productivity. He defined "the real price of everything, what everything really costs to the man who wants to acquire it, is the toil and trouble of acquiring it" (WN I.v.2). It is clear that this refers both to labour embodied and labour commanded or, more accurately, that at this stage of the chapter Smith did not distinguish between the quantity of labour expended in production of a commodity and the quantity of labour embodied in the goods which a commodity can purchase or command. In a precapitalist exchange economy these two quantities of labour will, of course, be equal. Smith
continued:

What is bought with money or with goods is purchased by labour, as much as what we acquire by the toil of our own body. That money or those goode indeed save us this toil. They contain the value of a certain quantity of labour which we exchange for what is supposed at the time to contain the value of an equal quantity. Labour was the first price, the original purchase-money that was paid for all things. It was not by gold or by silver, but by labour, that all the wealth of the world was originally purchased; and it's value, to those who possess it, and who want to exchange it for some new productions, is precisely equal to the quantity of labour which it can enable him to purchase or command (WN I.v.2).

However, Smith pointed out that for several reasons labour, though it be the "real measure of exchangeable value", is not commonly used as a measure. Quantities of labour are not easily ascertained (WN I.v.4); commodities are more frequently exchanged for commodities than for labour (WN I.v.5); and, most significantly, "when barter ceases" commodities are exchanged for money rather than for other commodities (WN I.V.6). Gold and silver, however, vary in their value due to changes in the quantity of labour used in their production (WN I.V.7). Consequently a commodity which is itself continually varying in its own value, can never be an accurate measure of the value of other commodities (WN I.v.7).

Smith approached the problem of finding a commodity which is not continually varying in its own value in two ways. He considered production first from the point of the view of the worker and asserted that labour time is indeed a good measure of difficulty of production:
Equal quantities of labour, at all times and places, may be said to be of equal value to the labourer... he must always lay down the same portion of his ease, his liberty, and his hapiness. The price which he pays must always be the same, whatever may be quantity of goods which he receives in return for it...it is their value which varies, not that of the labour which purchases them. (I)WN I.v.7.

It is on the basis of this constancy that Smith initially chose labour as the measure of value or as the 'real price' of commodities. It is on the basis of this constancy that Smith said "that is dear which is difficult to come at or which costs much labour to acquire" (WN I.v.7). This initial choice of labour as a measure of value was, consequently, stated at this point.

Labour alone, therefore, never varying in its own value, is alone the ultimate and real standard by which the value of all commodities can at all times and places be estimated and compared. It is their real price; money is their nominal price only. WN I.v.7.

Although no distinction was made at this stage between labour embodied and labour commanded this passage can be understood to state that a constant quantity of labour expended in production creates a constant quantity of value.

There followed a switch in perspective which is generally ignored by commentators and which seems to be the source of the view that Smith confused the 'source' and 'measure' of value, and confused labour embodied and labour commanded. Recognition of this switch in perspective is essential to understanding Smith's eventual and unambiguous choice of a labour commanded measure of value. The switch involved abandoning the point of view of the worker and
examining the exchange of labour for commodities as it is seen by those who hire labour. In addition to this change in perspective Smith changed the meaning of the term 'real price' from a reference to 'toil and trouble' or cheapness, as outlined above, to a reference to a given "quantity of necessaries and conveniences of life which are given for it (labour)". Whitaker (1904, p.26) and Roll (1973, p.160) identified this change but read it as evidence of confusion. It is of considerable importance to recognize this switch in perspective and in terminology; and equally important to recognize that Smith then made a number of assumptions which have the effect of rendering equivalent 'real price' as measured by a quantity of labour time and 'real price' as measured by a quantity of "subsistence of the labourer".

Consider first the switch in perspective. Having asserted that equal quantities of labour time are always of equal value to the labourer and, therefore, that labour alone, never varying in its own value, is alone the ultimate and real standard of value, Smith continued as follows:

But though equal quantities of labour are always of equal value to the labourer, yet to the person who employs him they appear sometimes to be of greater and sometimes of smaller value. He purchases them sometimes with a greater and sometimes with a smaller quantity of goods, and to him the price of labour seems to vary like that of all other things. It appears to him dear in the one case, and cheap in the other. In reality, however, it is goods which are cheap in the one case, and dear in the other. WN I.v.8
This is perfectly consistent with what went before. But in addition to this change in point of view Smith immediately changed the meaning of the term 'real price'; and the explicit task in this chapter was to identify "wherein consists the real price of all commodities" (WN I.iv. 15).

In this popular sense, therefore, labour, like commodities, may be said to have a real and a nominal price. It's real price may be said to consist in quantity of the necessaries and conveniences of life which are given for it; its nominal price, in the quantity of money. The labourer is rich or poor, is well or ill rewarded, in the proportion to the real, not to the nominal price of his labour.

The distinction between the real and the nominal price of commodities and labour, is not a matter of mere speculation, but may sometimes be of considerable use in practice. The same real price is always of the same value; but on account of the variations in the value of gold and silver, the same nominal price is sometimes of very different values. (WN I.v.9-10. italics added)

It was in fact this latter, "popular", idea of the 'real price' of commodities and labour that Smith developed and used. In particular, it was this idea of the real price of labour that he chose as his measure of the real price of all other commodities. By the real price of labour he explicitly now meant the subsistence of the labourer (WN I.v.15).

On the face of it there would seem to be a contradiction between Smith's initial statement that "Equal quantities of labour, at all times and places, may be said to be of equal value to the
labourer" (WN I.v.7) and his later statement that "The same real price [subsistence of the labourer] is always of the same value" (WN I.v.10). However, it will be shown here that Smith developed and used his measure of value on the basis of a particular set of assumptions which render compatible these two statements of constancy.

First, as stated above, on the assumption that labour time is indeed a good measure of toil and trouble and cheapness/dearness then the labour time which is commanded by a commodity will always be of "equal value to the labourer" (WN I.v.7). However, it remains to be explained how value as represented by a quantity of labour time will be equivalent to value as represented by a quantity of subsistence. To understand this it is necessary to identify the two assumptions upon which Smith based his second statement of constancy; the "same real price [quantity of subsistence] is always of the same value" (WN I.v.10).

First, Smith assumed that the corn wage of common labour is constant across long periods of time (WN I.v.15). Second, he assumed that corn was produced at near constant cost (WN I.xi.e.28). These assumptions allowed Smith use the price of corn as a standard of value as a proxy for the price of labour. This will be seen to be of considerable importance to Smith's treatment of value in general (Sylas Labini, 1975, p.209). More important in the present context is the fact that these assumptions imply that a commodity that commands an equal quantity of labour (or corn) at two different dates will represent the same quantity of labour expended at the two dates, and consequently will be of the same value to the labourer at both dates. In effect, having defined
cheapness and dearness in terms of toil and trouble Smith went on to say that changes in labour commanded are a much better measure of changes in 'real price' than any other measure, such as changes in money price. The operation of this corn or labour command-measure of value will be demonstrated in more detail below; but first it must be shown that Smith did indeed adopt these two assumptions, and that it was on the basis of them that he asserted that the same quantity of subsistence is always of the same value. (2)

2. SMITH'S KEY ASSUMPTIONS

The passages in which Smith clearly adopted the two assumptions mentioned above confirm that his interest in value was primarily with changes in value due to changes in methods of production. (For a similar view see Sylos Labini, 1975, p.205; Bladen, 1975, p. 506). These passages illustrate also Smith's view of the nature of time periods over which the various influences that change money prices operate. As Sylos Labini shows (1975, p.202) Smith distinguished not only between the 'short run' and the 'long run', but also between the long run and the 'stage of development' or 'condition'. Within a given stage of development methods of production may change, so changing relative natural prices; however, it is only in moving from one 'stage of development' or 'condition' to another that wages, profits and rents change.
Smith assumed a constant corn wage as follows:

Equal quantities of labour will at distant times be purchased more nearly with equal quantities of corn, the subsistence of the labourer, than with equal quantities of gold and silver, or perhaps of any other commodity. Equal quantities of corn, therefore, will, at distant times, be more nearly of the same real value, or enable the possessor to purchase or command more nearly the same quantity of the labour of other people. WN I.v.15.

This does not rule out changes in the corn wage as it may seem to do. But while the prices of gold, silver, or any other commodity (except corn) may change due to changes in their method of production, it is only as society moves from one 'stage of development' or 'condition' to another that the corn wage will change. Smith continued the above passage as follows:

The subsistence of the labourer, or the real price of labour, as I endeavour to show hereafter, is very different upon different occasions; more liberal in a society advancing to opulence, than in one that is standing still; and in one that is standing still, than in one that is going backwards. WN I.v.15.

Within a given historical period any commodity will purchase labour in the same proportion in which it purchases subsistence. However, he pointed out that although the real value of corn varies less from century to century than does the real value of any other commodity it actually varies more from year to year. This is because, although the money price of corn fluctuates from year to year, the "money price of labour ... does not fluctuate from year to year with the money price of corn". Instead, the money price of labour is accommodated "not to the temporary or occasional, but
to the average or ordinary price of that necessity of life" (WN I.v.16).

The second assumption upon which Smith based his statement that the same 'real price' (quantity of subsistence) is always of the same value was that corn is produced at constant cost. In this chapter on 'Real and Nominal Price' he made it quite clear that the money price of corn is determined by the relative methods of production of corn and silver. (3)

The average or ordinary price of corn again is regulated, as I shall likewise endeavour to show hereafter, by the value of silver, by the richness or barrenness of the mines which supply the market with that metal, or by the quantity of labour which must be employed, and consequently of corn which must be consumed, in order to bring any particular quantity of silver from the mine to the market (WN.I.v.16)

However, there was only an oblique reference in Chapter V to the assumed constant production cost of corn. Smith said that if there was no change in the value of silver for some years, and if "the society continues, in other respects, in the same or nearly the same condition", then neither would there be a change in the money price of corn (WN I.v.16). But when he came to use his labour command or corn measure of value, in the 'Digression concerning the Variations in the Value of Silver' in Chapter xi of Book I, Smith made the assumption of a constant production cost of corn quite explicit. Furthermore, he stated clearly that this assumed constant cost, as well as the assumption of a constant corn wage, are the basis upon which his measure of value is founded. The relevent passage requires to be quoted in full:
In every state of society, in every stage of improvement, corn is the production of human industry. But the average produce of every sort of industry is always suited, more or less exactly, to the average consumption; the average supply to the average demand. In every different stage of improvement, besides, the raising of equal quantities of corn in the soil and climate, will, at an average, require nearly equal quantities of labour; or what comes to the same thing, the price of nearly equal quantities; the continual increase of the productive powers of labour in an improving state of cultivation being more or less counterbalanced by the continually increasing price of cattle, the principal instruments of agriculture. Upon all these accounts, therefore, we may rest assured, that equal quantities of corn will, in every state of society, in every stage of improvement, more nearly represent, or be equivalent to, equal quantities of labour, than equal quantities of any other part of the rude produce of land. Corn, accordingly, it has been observed, is, in all the different stages of wealth and improvement, a more accurate measure of value than any other commodity or set of commodities. In all those different stages, therefore, we can judge better the real value of silver, by comparing it with corn, than by comparing it with any other commodity, or set of commodities (WN I.xi.e.28 emphasis added).

Besides illustrating Smith's assumption of a constant production cost of corn this passage is a key to Smith's treatment of value in general. (4) It will be shown below that his view of the determinants of relative value, his theory of value in the strict
sense of that term, can only be inferred from his analysis of the evolution of particular prices as a result of technical change and the discovery and exploitation of mines. The constant production cost of corn and the constancy of the corn wage within each historical period provide the instrument with which Smith attempted to disentangle the many influences on price. (See Sylos Labini, 1975, p.210.)

Caravale and Tosato argue that a "logical inconsistency arises" if we attribute to Smith the three independent propositions: choice of the wage as *numeraire*; assumption of a given corn wage; and assumption of a constant price of corn - the third of these follows from the other two. (5) However, this only constrained Smith to assume a constant *labour command price* of corn, which can be assured by assumptions other than a constant production cost of corn. Consequently, Smith's assumption of concerning the production conditions of corn must be treated as substantive propositions and not simply a restriction imposed by other parts of his theoretical apparatus.

3. THE OPERATION OF SMITH'S MEASURE OF VALUE

Smith's use of his labour (corn) measure of value will be examined in some detail in a later section and linked to his view on the determination of value. However, the relevance of the two assumptions mentioned above for Smith's labour command measure of value can be demonstrated briefly at this stage.
are in fact complementary. Smith was aware that accumulation of capital meant changed methods of production which in turn changed values; technical progress reduced the command of commodities over labour. Therefore, total output, annual produce, would grow more rapidly than total employment of productive labour. (7) (Sylos Labini, 1975, p.213). Labour commanded offers an excellent measure of the potential for accumulation of a single good or an aggregate of goods. (Smith considered this at WN I.ii.37; see also Garegnani, 1960; Napoleoni, 1975, p.43; Fine, 1982, p.77; Bharadwaj, 1978A, p. 169). But Smith's major use of his measure was in Chapter xi of Book I to analyse the changes in the relative prices of various commodities including silver and gold. This analysis will be examined in detail in the final section of this paper.

4. LABOUR COMMAND IN CAPITALIST AND PRECAPITALIST EXCHANGE

Bladen adopts an interpretation of Smith's measure of value which is similar on many points to that presented above. He confirms that Smith's interest was in "measurement of changes in real price, changes in the degree of cheapness, changes in productivity as affecting particular commodities", and notes that Smith's initial definition of 'real price' was a measure of productivity or, more accurately, its inverse 'man-time price' (1975, p.506). However, Bladen's reading of the relation between the early paragraphs of Chapter V (which refer to a precapitalist economy) and the rest of that chapter (which refers to a capitalist economy)
of this labour commanded measure in the *Wealth of Nations.* (6) Consider a manufactured commodity in the production of which improved techniques have reduced the amount of labour required from 2 to 1. A constant corn wage requires a constant money wage of 10 given the unchanged productions of corn and an unchanged value of money. If the share of wages in the value of output is constant then the change (fall) in the value (of the manufactured commodity) measured in labour commanded (P/W) will be proportionnal to its change in value measured in labour embodied (H). Both labour commanded and labour embodied will have been halved.

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In the example given here the constant money wage (representing a constant corn wage) implies a rising command by workers over manufactured commodities as rising productivity makes manufacturers cheaper in terms of corn. This is exactly what Smith envisaged – as is pointed out by Eltis (WN.I.viii.35; Eltis, 1975, p.441). Indeed, Sylos Labini considers that "although Smith does not explicitly make the assumption of a stable wage share, that assumption seems to be consistent with his views as to what happens in the 'progressive' state of a country's development (1975, p.208).

Smith's measure of value was designed to analyse changes in value resulting from changing methods of production; as a measure of labour commanded it was a measure of potential accumulation and was, therefore, closely related to the surplus theory of growth which Smith developed. These two tasks are not in conflict; they
are in fact complementary. Smith was aware that accumulation of capital meant changed methods of production which in turn changed values; technical progress reduced the command of commodities over labour. Therefore, total output, annual produce, would grow more rapidly than total employment of productive labour. (7) (Sylos Labini, 1975, p.213). Labour commanded offers an excellent measure of the potential for accumulation of a single good or an aggregate of goods. (Smith considered this at WN I.ii.37; see also Garegnani, 1960; Napoleoni, 1975, p.43; Fine, 1982, p.77; Bharadwaj, 1978A, p. 169). But Smith's major use of his measure was in Chapter xi of Book I to analyse the changes in the relative prices of various commodities including silver and gold. This analysis will be examined in detail in the final section of this paper.

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leads him to a questionable interpretation of what Smith meant by 'labour command'. It was shown above that in the early paragraphs of Chapter V Smith did not distinguish between labour embodied and labour commanded; he said that all commodities were initially "purchased by labour", where 'purchase' referred equally to labour expended in extraction of the commodity from nature, ant to the exchange of two commodities - each containing the value of equal quantities of labour (WN I.v.2). On the basis of this Bladen argues that throughout Chapter V (and, indeed, throughout the Wealth of Nations) 'labour command' referred to the quantity of labour embodied in the goods which any given commodity can command (1975, p.510).

The issue involved here can be stated as follows. In a pre-capitalist economy, which Smith described as "that early and rude state of society which precedes both the accumulation of stock and the appropriation of land" (WN I.vi.1) and which was the subject of the early paragraphs of Chapter v, labour commanded must equal labour embodied. Each commodity exchanges at one to one with commodities produced by an equal quantity of labour. But in a capitalist economy the idea of labour commanded no longer has an unequivocal meaning (Napoleoni, 1975, p.70). The labour commanded by good A can refer either to, (i) the labour embodied in the commodities that A can purchase or command or, (ii) the quantity of live labour that can be purchased directly with A. These two quantities of labour commanded will not in general be equal. Bladen's view is that, for Smith, labour command always referred to the first of these; he says, for example, that "the two quantities, labour embodied and labour commanded, must be the same" (p.511) and "some of the confusion arises out of treating labour command as the amount
of labour that the capitalist may hire, rather than the amount of labour (however hired) whose product you may enjoy though you play no part in hiring or employing" (p.512).

Bladen wishes to link this interpretation of 'labour commanded' with his correct insistence that Smith's measure was indeed a measure of productivity change, and with his correct insistence that in Smith's view labour command will fall when labour embodied falls (pp.511-12). But, as was shown above, these properties of Smith's measure are compatible, on the basis of Smith's particular and, perhaps, peculiar assumptions, with his having used a command-over-live-labour measure. As a consequence of this interpretation Bladen is forced to dismiss Smith's assumption of a constant corn wage and his assumption of a constant production cost of corn (both of which can only refer to a command-over-live-labour measure) as ill-conceived attempts at ex post rationalization by Smith. Although these assumptions imply that corn will command a constant quantity of live labour Bladen dismisses their relevance saying: "But command means here hire, employ, and this, as I have said already, is a very different concept" (p.516). It seems clear that Smith's measure of value was indeed a command-over live-labour measure, and that in considering a capitalist economy Smith invariably conceived of 'labour command' in the second of the two senses outlined above (Deane, 1978, p.26).

Of course it has to be recognized, as Napoleoni notes, that this idea of 'labour commanded' differs from the significance Smith attached to labour commanded when he was considering a precapitalist economy (Napoleoni, 1975, p.70). The early paragraphs of Chapter V
can be seen to be parallel to the early paragraphs of Chapter VI in which Smith explains that prior to the accumulation of capital "the quantity of labour commonly employed in acquiring or producing any commodity, is the only circumstance which can regulate the quantity of labour which it ought commonly to purchase, command, or exchange for" (WN I.vi.4). It is not a serious inconsistency that when he came to examine a capitalist economy, when two possible meanings of the term 'labour commanded' became available, Smith adopted as his measure of value not the concept of labour command which he had considered in the case of the precapitalist economy, but the idea of command over live labour, which is peculiar to a capitalist economy.

In his account of Chapter V Meek also distinguished between those passages which refer to a capitalist economy and those which refer to a precapitalist exchange economy. But he made the important point that there are certain connections between the arguments found in the two sets of passages; in his view Smith attempted to apply his labour command measure (as designed for analysis of a capitalist economy) to all forms of exchange economy. Meek explains this as follows: "But in the Wealth of Nations the concept [of commandable labour as the 'real measure' of value] is expressed in a general form intended to be applicable to all types of society in which the social division of labour has 'thoroughly taken place'. Smith's theory of value, I believe, cannot be properly understood unless it is appreciated that his argument concerning the 'real measure' consisted essentially of an attempt to generalise the basic concept in this way" (1973, p.67). The 'basic concept', in Meek's view, was command over live
labour as a measure (essentially) of accumulation under capitalism, and the 'attempt to generalise' was found in the early paragraphs of Chapter V where Smith defined 'value' 'real price' 'real worth' and 'real measure' in terms of labour expended and/or commanded (WN I.v.1-3).

The interpretation of Smith's measure of value presented here leads to the view that the links between Smith's account of the capitalist economy and of the precapitalist economy run in the opposite direction to that identified by Meek. In other words, Smith attempted to generalize from his account of precapitalist exchange to capitalism, from the early paragraphs of Chapter V to the later, and not visa versa. (8) This seems a more plausible account, first because most of the important statements in the early paragraphs of Chapter V are simple restatements of propositions found in the work of Cantillon, Harris, Hume, Mandeville and Hobbes. (See the references to similar statements in the work of these writers cited by the editors of the Glasgow edition). It is these very paragraphs which were cited by Meek as demonstrating Smith's attempt to 'generalize' from his labour command 'real measure' of value in capitalism to all exchange societies (1973, p. 67). If anything they show that Smith attempted to base his new measure of value on some widely accepted basic propositions concerning wealth, labour, exchange, and value.

Second, the single most important property that is found in Smith's discussions of the measure of value in both precapitalist and capitalist exchange is the relationship between labour commanded
and labour embodied, and hence the relationship between labour commanded and value, without which no labour commanded measure could be taken very far. In the account of precapitalist exchange this relationship was established easily - as a direct equality of labour expended ('toil and trouble') to labour command (in the sense of labour 'contained' in goods commanded), and this labour was defined as the 'real price', 'value', 'real worth' 'real cost', 'first price', the 'original purchase-money', and 'real measure' (WN I.v.1-3; Kaushil, 1973, p.63). It was of considerable importance that Smith be able to retain some relationship between difficulty of production and labour command, so that some consistent relationship between value and labour commanded could be posited. Without this, labour commanded could, of course, be adopted as a measure, but it could hardly be asserted to be the 'real measure of value' since measurements in this standard would frequently conflict with measurements in relative exchange values.

A relationship between labour embodied and labour commanded was carried over into Smith's discussion of capitalist exchange; but such a relationship could not be established simply. As was shown above, it was established on the basis of Smith's two crucial assumptions of a constant corn wage and constant production cost of corn. (9)
LABOUR COMMANDED AND ACCUMULATION

Both Meek and Myint stress that Smith's measure of value was a product of his concern with accumulation - since the labour commanded by the annual produce exceeded the quantity of labour used (embodied) in its production the difference was a measure of potential accumulation (Meek, 1973, p.66; Myint, 1948, pp.21-3; and see p.17 above).

Bladen objects to the views of Meek and Myint on the grounds that the labour commanded by the national product "must be the same" as the labour embodied in it, and that "the problem of accumulation is a matter of the amount of labour commanded by the capitalist class" (1975 p.511). It is clear that different interpretations of the idea of 'labour commanded' (as 'live' or 'embodied' labour commanded) are the source of this disagreement.

It is surprising, however, that in dismissing the idea of comparing the labour commanded by the annual produce with the labour embodied in it Bladen should say that "Adam Smith proposed no such thing, and the proposition is nonsense ... I can find no justification for attributing such a doctrine to Adam Smith" (1975, p.512), in view of Smith's clear comparison of these two quantities in the final paragraph of Book I Chapter vi:

the annual produce of its labour will always be sufficient to purchase or command a much greater quantity of labour than what was employed in raising, preparing, and bringing that produce to market. If the society was annually to employ all the labour which it can annually purchase, as the quantity of labour would increase greatly every year, so the produce of every succeeding year would be of vastly greater value than that of the foregoing. (10) (11)
6. LABOUR COMMANDED AND LABOUR EMBODIED

In discussions of the relation of Smith's work to subsequent classical and neoclassical theory the question of whether Smith confused labour embodied and labour commanded has frequently been accorded considerable significance. This question, or at least that part of it which deals with the measure of value, must be dealt with briefly now, if only to demonstrate its irrelevance.

Two different allegations of confusion and/or inconsistency can be distinguished: first, that Smith confused the labour embodied and labour commanded measures of value; and second, that Smith put forward both a labour embodied and a labour command theory of value - although both are usually found together. The view that Smith was confused has been widely attributed to Ricardo (Schumpeter, 1954, p.310; Dobb, 1973, p.77; Douglas, 1928, p.91; Bladen, 1975, p.513; and especially Kaushil, 1973, p.70) and to Marx (Douglas, 1926, p.91; Blaug, 1978, p.53). These commentators consider that the allegation that Smith confused the two measures of value was contained in Ricardo's statement that Smith spoke of labour embodied and labour commanded "as if the two were equivalent expressions" (Works vol. I. p.14) - a statement which was flatly denied by Marx (TSV II, p.396; Meek, 1973, p.99). In fact, a careful reading of Ricardo, combined with a correct appreciation of Smith's measure of value, shows that no such accusation was made by Ricardo. Marx did, however, accuse Smith of alternating between a labour embodied and labour command explanation of value (see, for example, TSV I, p.70, p. 76; TSV II, p.369)

The strongest statement of both allegations
of confusion was by Douglas (1926, pp. 88-91), and some combination of the two is found in Roll (1973, p.160), Robbins (1958, p.67), Dobb (1973, p.49, p.77; 1975, p.324), Meek (1973, p.99), Young (1980), Whitaker (1904, p.40), Bharadwaj (1978A, p.169; 1980, p.351), Robertson and Taylor (1957, p.197). Schumpeter disputed the accuracy of both allegations against Smith — although he considered that Smith's "flounders so badly in conveying" his measure of value that he "undoubtedly argued in several places as if his use of labour as numéraire did imply a theory of value", he confuses it with philosophies concerning the nature of value and real price", and "he repeatedly seems to confuse the quantity of labour a commodity will exchange for with the quantity of labour this commodity costs to produce — which is what Ricardo criticized" (1954, p.188, emphasis added; see also Rogen, 1956, p.79). But he insisted that "this indictment fails", and he considered this important, because "taking what a commodity exchanges for ... as an explanation of its value would be one of the worst slips in the history of theory" (1954, p. 310; this view is echoed by Kaushil, 1973, p.63; Blaug, 1978, p.53; O'Brien, 1975, p.83; and Hollander, 1973, p.128).

In much of the literature this question has been treated as synonymous with the question of whether Smith was a forerunner of classical or neoclassical theory. Thus, those who wished to show that Smith contributed to the development of classical theory placed considerable emphasis on his occasional explanation of value by labour embodied (and this involved acknowledging that Smith's
labour theory of value stood alongside some other theory of value in a more or less confused manner). (Douglas, 1928, p.91; Bharadwaj, 1980, p.351; Meek, 1977, p.7; Young, 1980; Hunt, 1979, p.50). Likewise, those who oppose the idea that Smith contributed to the development of classical theory (and who, in general, reject the notion of a dual development in economic theory) tend to consider that dismissal of the allegations that Smith confused labour embodied and labour commanded as sufficient grounds to place Smith in the neo-classical stream of thought. For example, Blaug considers that a combination of the two allegations of confusion constitutes "the Marxist interpretation of Smith's value theory" (1978, p.66) and characterised this interpretation as follows:

It used to be said that Adam Smith tried to formulate a labour theory of value but got horribly confused between the 'labour commanded' by a product and the 'labour embodied' in its production. The origins of this legend are to be found in Ricardo's Principles, but the 'authorised version' is by Marx. (1978, p.53; see also Kaushil, 1973)

However, reference to analytically correct definitions of the classical and neoclassical theories should make it clear that no conclusion concerning the relation of Smith's work to these two theories can possibly be drawn on the basis of acceptance or rejection of Ricardo's (supposed) and Marx's (actual) allegations of confusion. The account of Smith's measure of value presented in this essay shows that rejection of the view that Smith confused labour embodied and labour commanded is quite compatible with acceptance of the view that Smith was a theorist of surplus and its accumulation. (Schumpeter's interpretation is another example).
7. **A PRICE INDEX?**

Although it is necessary to accept the argument of those who deny that Smith confused labour embodied and labour commanded, it is not possible to accept the positive interpretation of his measure of value offered by those commentators who initiated that denial. Hollander is correct about the modern literature, if not about Smith's measure, when he says "the issue at hand, it is now generally recognized, corresponds to the modern 'index number' problem of estimating changes in 'real income' over space and time" (1973, p.127). Smith's measure is seen as an attempt to construct a price index - to be used to deflate nominal quantities to yield 'real' quantities. Three versions of this view can be identified: first, that Smith wanted a measure of general purchasing power (Schumpeter, 1954, p.127; Barber, 1967, p. 33; Deane, 1978, p.27; Stigler, 1965, p.193; Jaffe, 1977, p.24); second, that his was a measure of the purchasing power of individual commodities or incomes (Hollander, 1973); and third, that Smith chose labour command so that his price index would provide a special measure of welfare (Blaug, 1978, p.51; Hollander, 1973, p.127; Campbell and Skinner, 1976, p.24; Skinner, 1978, p.50; Sowell, 1974, p.99; Robertson and Taylor, 1957, p.197).

The idea of labour command as a measure of purchasing power was explained by Schumpeter as follows:

Smith replaces for purposes of interlocal and intertemporal comparisons this monetary or 'nominal price' of each commodity by a real price in the same sense in which we speak, for example, of real wages as distinguished from money wages, that is, by price in terms of all
other commodities. And these real prices he in turn replaces, in ignorance of the index number method already invented in his time, by prices expressed in terms of labour (after having considered corn for the role): in other words, he chooses the commodity labour instead of the commodity silver or the commodity gold as numéraire (1954, p. 188).

The merits of this interpretation will be evaluated once its source has been identified.

As with other interpretations this is based on a particular reading of the relation between the early paragraphs of Chapter V (those which refer to a precapitalist economy) and the later paragraphs and, indeed, his use of the labour command measure throughout the rest of the Wealth of Nations. In the first three paragraphs of Chapter V Smith did indeed link labour command to purchasing power, as follows. Everyone is rich or poor according to the extent that they can afford the necessaries and conveniences of life (V.1). After the social division of labour most commodities are purchased from others, and so a man "must be rich or poor according to the quantity of that labour which he can command, or which he can afford to purchase" (V.1). So the value of any commodity "to the person who possesses it ... is equal to the quantity of labour which it enables him to purchase or command" (V.1). Since commodities exchange in proportion to labour embodied he referred to the "power of purchasing" as, "a certain command over all the labour, or over all the products of labour which is then in the market" (V.3). It is from these paragraphs that Hollander deduces that "the term 'real value' thus applies to purchasing power over consumer goods, while command over labour serves as the
indirect means thereto" (1973, p.128). He, and others who adopt this interpretation, assume that the measure of value which Smith developed later in Chapter V, and used at various places in the Wealth, was intended to possess the same property (of measuring purchasing power over commodities in general).

This interpretation of Smith's measure of value is extremely dubious for it is clear that changes in methods of production will rob the labour command measure of this property. Hollander is, of course, aware of this difficulty but asserts, without evidence or explanation, that Smith simply assumed these problems away:

The generality of the applications made by Smith throughout the Wealth of Nations makes it clear that the index was not merely designed for the simple state; but clearly it operates less satisfactorily in the complex economy where command over labour is an inadequate assurance of purchasing power over commodities (because of the contribution to output of other factors) ... It is also implied that in Smith's evaluation secularly rising labour productivity would not render the chosen index of real purchasing power totally inadequate (1973, p. 128). (12).

Hollander is right to say that the "generality of applications" by Smith makes it clear that his measure "was not merely designed for the simple state". He cites only one of the "generality of applications made by Smith" and that, at WN I.xi.b.36, provides no evidence whatsoever of Smith having used labour commanded as an index of "purchasing power over consumer goods". Far from ignoring or abstracting from the relative price effects of "secularly rising labour productivity" Smith in fact used his
labour command (corn) measure to identify these very effects - as will be shown in detail below (section 5.3.3.; see also Bladen, 1975, p. 510).

Hollander pays little attention to the actual measure of value which Smith developed (on the basis of the two key assumptions outlined above) for application to a capitalist economy. Although this measure was indeed designed so as to retain certain of the properties of the labour measure as applied (in the first three paragraphs of Chapter V) to a precapitalist economy (notably the relation between labour command and labour embodied) the correspondence between command over labour and command over commodities in general was not one of these. As Bladen notes, following Marshall (1926, pp. 32-3), in a period of productivity growth "stable purchasing power would mean declining command over labour; stable command over labour would mean declining prices" (1975, p.509). Indeed, Smith explicitly stated that differential rates of productivity growth will sever any connection between changes in the value of an individual commodity as measured by labour commanded (or labour embodied) and changes in purchasing power over other commodities in general (WN I.viii. 4).

Many modern commentators consider that Smith consciously chose to deflate nominal prices and nominal income by labour command rather than an an index of prices because, as Hollander says, "the particular choice of numeraire also has a normative significante (1973, p.127). Blaug, the dominant proponent of this view, considers that the value of an individual commodity, or of the national income, when measured
by labour commanded was, in Smith's view, a measure of welfare (1978, p.51 emphasis added). Once again the task is to explain the elements of continuity between Smith's account of the pre-capitalist and capitalist economies (Blaug, 1978, p.52; Skinner, 1978, p.50). Blaug argues that Smith asserted that the 'real price' (what Blaug calls the 'effort price') was "still (after the accumulation of capital) to be measured by the units of 'toil and trouble' that it can purchase in the market", and that he backed this up with an assumption that "the disutility of an hour of labour remains the same to individuals with the passage of time" (Blaug, 1978, p.52). Unlike most commentators Blaug does draw attention to Smith's two key assumptions - although he casts the assumption of a constant production cost of corn into utility terms (p.52).

However, Blaug's account of the supposed use of this measure reveals the weakness of the view that Smith used labour commanded as a measure of welfare. For, as a measure of welfare it has two quite contradictory meanings. On the one hand the "burden of Smith's comments is that the labour-commanded standard provides a positive index of welfare: the higher the 'real price' of a commodity measured in wage units, the better off we are for having it; the more labour the total products commands, the 'richer' a nation is". On the other hand "if real wages are rising or prices are falling because of a rise in the productivity of labour, the number of current wage units commanded by the total product year after year may tend downward" (p.53). But of course, as Bladen stresses, Smith almost invariably used his measure of
value to examine productivity improvements (1975, p.514). Once it is recognized that he examines changes in relative prices it becomes clear that, for Smith, labour commanded was a measure of value and not a measure of welfare (Sylas Labini, 1975, pp.213-6).

It is ironic that these writers, who recoil from any suggestion that Smith confused labour embodied and labour commanded, should so blithely attribute to him the heroic assumption that productivity changes would not alter relative prices, and are prepared to say that he settled for a welfare measure in which an increase in welfare could show as either a rise or a fall in the index. Schumpeter, and others, would have done better to pay more attention to close links between labour commanded and labour embodied and between the measure and theory of value, which he sensed in Smith's work - rather than to dismiss them as mere difficulties of Smith's presentation of a price index - for, it has now been shown that it is in these links (and the assumptions which underlie them) that the meaning of Smith's measure of value is to be found.

8. THE 'DIGRESSION ON THE VALUE OF SILVER'.

It has been stated above that Smith's major use of his measure of value was in Book I chapter xi of the Wealth of Nations - and that although the measure introduced in the difficult fifth chapter of that Book it was only in chapter xi that the assumptions upon which it was based were explicitly stated. The use to which he then put the measure provides compelling further evidence for the interpretation developed in this essay. In fact, chapter xi
is also important in any attempt to identify Smith's views on the determination of value. Although his view that, given the rates of wages, profits and rents, relative prices were determined by methods of production, is implicit in the application cited below it is intended merely to confirm our account of Smith's measure of value.

It is necessary, as a preliminary, to provide the reader with a brief account of Smith's theory of the evolution of the methods of production of different commodities. This theory was founded on the concept of the division of labour; but on this he built a theory which explained the development of the methods of production as a complex interaction of technical, economic, political, social and institutional factors (13). The following summary sets out merely the conclusions which Smith reached.

(a) Corn: as shown on p.15 above Smith considered its price to be constant. Although this was largely for analytical reasons, Smith justified it also on the grounds that, given the relatively limited scope for technical change in agriculture a country would reach the limits of efficiency in corn production early in the process of development (WN.I.i.4).

(b) Vegetables and garden produce: these would fall in value as a result of technical improvements (WN I.viii.35, I.xi. n 10).

Smith identified three types of agricultural produce which tend to become dearer in the "progress of improvement."
(c) "Those which it is scarce in the power of human industry to multiply at all": rare birds and fishes, game and wild fowl rise in price as general economic development increases the demand for them (WN I. xi. k.1).

(d) Those "which human industry can multiply in proportion to demand": cattle, poultry, pigs, dairy produce, and venison all tend to rise in price because they were initially available (in the wild) in greater abundance than was needed (WN I. xi. l. 1-2).

(e) Wool, hides, and fish, although they tend to rise in price in the progress of improvement, they may not—basically because they are joint products (WN I. xi. m.1).

(f) Silver, gold and precious metals; although these have a natural price like all other commodities, this natural price has no definite trend that correlates with the "progress of improvement" (WN I. xi. d.4-7). This was because unlike the method of production of almost all other commodities, the "fertility or barrenness of the mines, however, which may happen at any particular time to supply the commercial world, is a circumstance which, it is evident, may have no sort of connection with the state of industry in a particular country" (WN I. xi. m.21).

(g) Manufacturers; their 'real price' falls considerably due to improved methods of production (WN I. xi. o.1).

The context in which Smith drew on this theory of the evolution of the various methods of production, and in which he made practical use of his measure of value, was his 'Digression concerning the
variations in the Value of Silver during the Course of the Four last centuries' (WN I.xi.e). It is of the utmost importance to identify Smith's procedure in this 'Digression'. He consistently argued that the development of a surplus in the production of subsistence food "is the great cause of the demand both for the precious metals and the precious stones, as well as for every other convenience and ornament of dress, lodging, household furniture, and equipage" (WN I.xi.c.36). Smith warned, however, that the trend of relative prices in the process of development was not as simple as might be inferred from that observation (WN I.xi.d.1). The chief source of complexity and, indeed, the chief source of difficulty in analysing the evolution of prices was the changing value of silver.

Recall that the course of the value of silver was effectively random in Smith's view (WN I.xi.e.7); the 'Digression' was an attempt to establish its actual course. At first sight his concern to discover the variations in the value of silver may seem excessive. However, what must be noted is that Smith did not bring a theory (or even knowledge) of the trend in the value of silver to bear on the historical data as a way of deflating actual prices to discover the evolution of various real prices. Smith's procedure in the 'Digression' was exactly the reverse; he had an a priori theory of the development of the productive potential of the social system - hence he had an a priori theory of the evolution of various relative prices. He brought this theory to bear on the historical data in order to discover the
actual course of the value of silver. As the editors of the Glasgow edition say, when considering Smith's use of history, he "worked from the system to the facts not from the facts to the system" (Campbell and Skinner, 1976, p.56.).

The content of the Digression consisted of repeated application to the historical data of the concept of 'real price' (command over corn which has a constant value), and of the theory of the development of methods of production (with its implied theory of/value is determined). On the basis of these, Smith challenged the prevailing view that "from the invasion of Julius Caesar, till the discovery of the mines of America, the value of silver was continually diminishing" (WN.I.xi.e.15). Smith acknowledged that cattle and poultry etc. had a very low price in ancient times - "but this cheapness was not the effect of the high value of silver, but of the low value of these commodities" (WN I.xi.e.25). He attributed the prevailing view not only to misinterpretation of the statistical evidence but also to the influence of "the popular notion, that as the quantity of silver naturally increases in every country with the increase of wealth, so its value diminishes as its quantity increases" (WN.I.xi.e.15). It is clear that in Smith's view other writers had adopted an a priori theory of the trend of the value of silver; his own procedure based on his theory of the evolution of the production methods of commodities other than silver (and the implicit theory that value was determined by methods of production) contrasted sharply with theirs.
Smith also challenged the prevailing view on the direction of the value of silver in his own day. He argued that the value of silver was rising; the popular view that it was falling was, he said, based on a mistaken interpretation of a series of accidental events which raised the money price of corn (WN I.xi.g.3-5; 10; 17) and on an incorrect attribution of the rising price of cattle, poultry, etc. to a falling value of silver, rather than to the fact that these commodities "naturally grow dearer as the society advances in wealth and improvement" (WN I.xi.i.3). Smith attached considerable significance to his view that the 'real price' of silver was rising, for he insisted that any observed fall in the money price of corn was due to this deflation, and not a result of the corn export bounty, which, in his view, tended to raise the price of corn (or, in the circumstances of a rising value of silver, to halt or slow down the fall in the corn price, WN I.xi.g.10).

Perhaps the most striking use to which Smith put his measure of value and his analysis of prices in terms of methods of production was in exploring the facts and causes of development. Consider first the search for indicators of the stage of development. Smith noted that most writers who have collected information on prices seem to have considered the high value of gold and silver as a proof "not only of the scarcity of those metals, but of the poverty and barbarism of the country at the time when it took place", and he added that "this notion is connected with the system of political economy which represents national wealth as consisting in the abundance, and national poverty in the scarcity, as gold and silver" (WN I.xi.n.1). For Smith, the importance of his view that
the real price of silver is effectively random (based on his firmly held theory of the trend of other prices), and of his ability to show how the actual history of the value of silver can be explained by a combination of effectively random forces, lay in his being able to dismiss the value of silver as an indicator of the stage of development of an economy (WN I.xi.n.2).

He contrasted the conventional view with his own concept of real price and theory of relative real prices:

But though the low money price either of goods in general, or of corn in particular, be no proof of the poverty or barbarism of the times, the low money price of some particular sorts of goods, such as cattle, poultry, game of all kinds, etc. in proportion to that of corn, is a most decisive one (WN I.xi.n.3, emphasis added).

So Smith's interest in relative real prices (i.e., prices in terms of corn) in the Digression was to use relative prices to identify where a country lay in the development process.

From the high or low money price either of goods in general, or of corn in particular, we can infer only that the mines which at that time happened to supply the commercial world with gold and silver, were fertile or barren, not that the country was rich or poor. But from the high or low money price of some sorts of goods in proportion to that of others, we can infer, with a degree of probability that approaches almost to certainty, that it was rich or poor, that the greater part of its lands were improved or unimproved, and that it was either in a more or less barbarous state, or in a more or less civilized one (WN I.xi.n.3, emphasis added).
It is clear from these passages that those commentators who said that Smith's corn measure was intended as a measure of economic development were formally correct; however, it is equally clear that the measure was not, as they claimed, a measure of output. It was unequivocally a measure of value; but given the role which Smith assigned to changes in methods of production in changing values, and given his adoption of a theory of the evolution of the method of production of each commodity (or class of commodities), it could serve as a measure of development.

Consider now the causes of development. Smith was anxious to defend his own theory of development - a theory in which the quantity and value of gold and silver play a negligible role. To do so he had to show that his own theory - based on division of labour and capital accumulation - could explain the development of the various methods of production (and concomitant changes in prices). The method he chose was to show that the quantity and value of silver was a residual element, after the pattern of development had been determined by the persistent forces included in his own theory. Having explained that in the progress of improvement the production cost of silver may rise or may fall he said:

Whether the one of the other of those two events may happen to take place, is of very little importance to the real wealth and prosperity of the world, to the real value of the annual produce of the land and labour of mankind (WN I.xi.m.2.).
Of course there was, in fact, a dramatic reduction in the cost of production of gold and silver (as a result of the discovery of abundant mines in the Americas). In the 'Conclusion of the Digression' Smith evaluated the significance of this as follows:

The increase of the quantity of gold and silver in Europe, and the increase of its manufactures and agriculture, are two events which, though they have happened nearly about the same time, yet have arisen from very different causes, and have scarce any natural connection with one another (WN I.xi.n.1).

Smith's theory of the development of various methods of production (and of the influence of these on relative prices) was the foundation upon which this important conclusion rested, and his labour command measure of value (based on his very particular assumptions) was the instrument which he used to articulate that theory.
NOTES

(1) In the second and subsequent editions Smith prefaced this statement with the qualification that "In his ordinary state of health, strength and spirits; in the ordinary degree of his skill and dexterity, he must always lay down the same portion of his ease, his liberty, and his happiness" (WN I.v.7). The editors of the Glasgow edition suggest that this qualification may have been added in response to the criticisms of the first edition contained in a letter from Pownall. (See Corr letter 9)

(2) This view of Smith's measure of value differs from that of most other commentators in acknowledging his conscious switch of perspective and in identifying the assumptions upon which he based his labour command measure. Sowell, for example, says "At a given time, under given technology, an index of the amount of 'other men's labour' is the same as an index of 'the produce of other men's labour', and from this Smith drifted into using the terms synonymously over time and without regard to changing technology" (1974, p.99).

(3) The evidence that Smith considered the value of corn and silver to be determined in the same manner as the value of other commodities is overwhelming. (WN I.v.7; I.v.16; I.xi.e.31; I.xi.e.21; IV.vii.a.19; see also Cassel, 1931, p.478; Vickers, 1975, p1494; Green, 1982, p.73; Hegeland, 1951, p.47; Laidler, 1981, p.187). Yet Hollander (1973, p.172), following Rosenbluth (1969, p. 310), insists that in the Wealth of Nations "the price of corn is not determined by production costs in the manner of all other commodities" (p.173; and see Hunt, 1979, p.48
for a similar view). To justify this view Hollander ignores the fact that Smith explicitly based his choice of corn as a measure of value on its constant production cost; Hollander dismisses this by saying that "this argument is difficult to appreciate" (p.130n). In addition, he cites Buchanan and Ricardo in support of the view that in Smith the price of corn was unrelated to its production cost (p.172n). But Buchanan had substantially departed from Smith when he developed his new theory that any good that yielded rent was a monopoly commodity (1814, 1817). It is not clear whether or not Hollander wishes to adopt Buchanan's view that corn is a monopoly commodity. His selective quote from Ricardo, when read in its context, far from supporting his view actually undermines it; far, in that passage Ricardo rebuked Smith for excluding corn, not from the cost theory, but from the rise in price which Smith considered would occur in the case of other 'rude produce' (Works, I, p.374).

Finally, in the face of Smith's unequivocal statement that "The proportion between the value of gold and silver and that of goods of any other kind, depends in all cases ... upon the proportion between the quantity of labour which is necessary in order to bring a certain quantity of gold and silver to market, and that which is necessary in order to bring thither a certain quantity of any other sort of goods" (WN Iii. 105), Hollander says that "a specific reference to corn is conspicuously absent", and arranges his quotation from Smith in such a way as to convey the impression that when Smith said "goods of any other kind" he meant "goods other than corn" (1973, p.174n). The purpose of these misinterpretations in Hollander's
overall account of Smith's work cannot be examined in this paper.

(4) Despite its central importance in Smith's treatment of value this assumption of a constant price of corn is not noted in most commentaries on his measure and theory of value. It is, however, given prominence by Lowe (1954, p.141; and 1975, p. 417), Sylas Labini (1975, p.209), Eltis (1975, p.431), Gee (1981, p.7), and noted by Stigler (1965, p.197). Several writers who identify Smith's assumption dismiss it as ex post attempt to rationalize his choice of a labour command measure of value and of no other relevance in his overall treatment of value (Blaug, 1978, p.52; and Bladen, 1975, p.516).

(5) The choice of the wage as numéraire implies that $w = 1$. The assumption of a given corn wage implies that $w = px$, where $p$ is the price of corn and $x$ is the given corn wage. It follows that $p = 1/x$ (Caravale and Tosaño, 1980, p.25.)

(6) See Deane (1978, p.26), and Dobb (1973, p.49n) for a similar numerical example.

(7) This is so without considering the fact that capital accumulation would also in many cases imply a larger quantity of means of production per worker, a point of which Smith was aware (WN II.3; see also Eltis, 1975, p.436; Spengler, 1959, p.7).
Most modern commentators agree that this is the direction in which Smith tended to generalize - but they see the content of his generalization from precapitalist to capitalist economies in a quite different way. See section 7 below.

Whitaker noted the close link between the labour command measure of value which Smith actually used and labour embodied but, not identifying Smith's particular assumptions, he considered that the labour command measure depended on a labour theory of value (1904, p.40; and see also Cannan, 1929, pp. 165-6).

It is, of course, equally puzzling how Bladen can persist in the view that, for Adam Smith at any rate, 'labour commanded' did not refer to live labour commanded.

Although Smith, in his introduction to Book II on the accumulation of capital, noted that "in order to give constant employment to an equal number of workmen, an equal stock of provisions, and a greater stock of materials and tools ... must be accumulated beforehand" (WN II.3), and although, in his description of the economic system on a whole be consistently mentioned fixed capital (e.g., WN II. i.8 and WN II.v.11), in his analytical treatment of value he definitely tended to treat all capital as 'variable' (to use Marx's term) - and at one point in Book V he said "almost the whole capital of every country is annually distributed among the inferior ranks of people, as the wages of productive labour" (WN V.ii.k.43).
Barber, faced with productivity changes, in effect adopts the same 'solution' as Hollander but reveals the implausibility of this position by making the astonishing statement that "Smith appeared to have thought that the effects of this gain in productivity would be fairly uniformly distributed throughout all productive branches" (1967, p.35). That is not all; he argues that Smith assumed a stable real wage simply in order to protect his labour command measure of "national output". It is amazing the lengths to which many commentators have gone to portray Smith's measure as a price index designed to measure the level of, and changes in, real income - without one of them ever asking whether Smith had available, information on nominal income - which he might deflate.

Kaushil deals with productivity changes by saying that "having no statistics of GNP, and, more important, no index numbers, Smith would seem to have resorted to productivity per man-hour as the index of economic progress" (1973, p.36, n.2). Kaushil does not suggest the productivity of which industry Smith might have resorted to as an index of progress. In fact, Smith stated clearly and in great detail his index of economic progress in Book I Chapter xi.

See, for example, WN I.i.4; I.xi.1.3-4; I.xi.n.1; I.xi.b.5; III.ii.20; and V.iii.54.
BIBLIOGRAPHY


--- Turgot, Beccaria, and Smith: zenith of 18th century political economy, mimeo.


Rice, J (1979). The Economics of David Ricardo, Heinemann


Knight, F. (1956). On the History and Method of Economics, Chicago


