

# First Edition (1817)

(*Sraffa* pages 11-25 & 52-66)

## CHAPTER 1

### ON VALUE.

It has been observed by Adam Smith, that “the word Value has two different meanings, and sometimes expresses the utility of some particular object, and sometimes the power of purchasing other goods which the possession of that object conveys. The one may be called *value in use*; the other *value in exchange*. The things,” he continues, “which have the greatest value in use, have frequently little or no value in exchange; and, on the contrary, those which have the greatest value in exchange, have little or no value in use.” Water and air are abundantly useful; they are indeed indispensable to existence, yet, under ordinary circumstances, nothing can be obtained in exchange for them. Gold,

on the contrary, though of little use compared with air or water, will exchange for a great quantity of other goods.

Utility then is not the measure of exchangeable value, although it is absolutely essential to it. If a commodity were in no way useful,—in other words, if it could in no way contribute to our gratification,—it would be destitute of exchangeable value, however scarce it might be, or whatever quantity of labour might be necessary to procure it. 12

Possessing utility, commodities derive their exchangeable value from two sources: from their scarcity, and from the quantity of labour required to obtain them.

There are some commodities, the value of which is determined by their scarcity alone. No labour can increase the quantity of such goods, and therefore their value cannot be lowered by an increased supply. Some rare statues and pictures, scarce books and coins, wines of a peculiar quality, which can be made only from grapes grown on a particular soil, of which there is a very limited

quantity, are all of this description. Their value is wholly independent of the quantity of labour originally necessary to produce them, and varies with the varying wealth and inclinations of those who are desirous to possess them.

These commodities, however, form a very small part of the mass of commodities daily exchanged in the market. By far the greatest part of those goods which are the objects of desire, are procured by labour, and they may be multiplied, not in one country alone, but in many, almost without any assignable limit, if we are disposed to bestow the labour necessary to obtain them.

In speaking then of commodities, of their exchangeable value, and of the laws which regulate their relative prices, we mean always such commodities only as can be increased in quantity by the exertion of human industry, and on the production of which competition operates without restraint.

In the early stages of society, the exchangeable value of these commodities,

or the rule which determines how much of one shall be given in exchange for another, depends solely on the comparative quantity of labour expended on each.

“The real price of every thing,” says Adam Smith, “what every thing really costs to the man who wants to acquire it, **13** is the toil and trouble of acquiring it. What every thing is really worth to the man who has acquired it, and who wants to dispose of it, or exchange it for something else, is the toil and trouble which it can save to himself, and which it can impose upon other people.” “Labour was the first price—the original purchase-money that was paid for all things.” Again, “in that early and rude state of society, which precedes both the accumulation of stock and the appropriation of land, the proportion between the quantities of labour necessary for acquiring different objects seems to be the only circumstance which can afford any rule for exchanging them for one another. If among a nation of hunters, for example, it usually cost twice the labour to kill a beaver which it does to kill a deer, one beaver should naturally exchange for, or

be worth two deer. It is natural that what is usually the produce of two days', or two hours' labour, should be worth double of what is usually the produce of one day's, or one hour's labour.”\*

That this is really the foundation of the exchangeable value of all things, excepting those which cannot be increased by human industry, is a doctrine of the utmost importance in political economy; for from no source do so many errors, and so much difference of opinion in that science proceed, as from the vague ideas which are attached to the word value.

If the quantity of labour realized in commodities, regulate their exchangeable value, every increase of the quantity of labour must augment the value of that commodity on which it is exercised, as every diminution must lower it.

Adam Smith, who so accurately defined the original source of exchangeable value, and who was bound in consistency to main-

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\* Book i. chap. 5.

tain, that all things became more or less valuable in proportion as more or less labour was bestowed on their production, 14 has himself erected another standard measure of value, and speaks of things being more or less valuable, in proportion as they will exchange for more or less of this standard measure. Sometimes he speaks of corn, at other times of labour, as a standard measure; not the quantity of labour bestowed on the production of any object, but the quantity which it can command in the market: as if these were two equivalent expressions, and as if because a man's labour had become doubly efficient, and he could therefore produce twice the quantity of a commodity, he would necessarily receive twice the former quantity in exchange for it.

If this indeed were true, if the reward of the labourer were always in proportion to what he produced, the quantity of labour bestowed on a commodity, and the quantity of labour which that commodity would purchase, would be equal, and either might accurately measure the variations of other things: but they are not equal; the first is under many circumstances an invariable

standard, indicating correctly the variations of other things; the latter is subject to as many fluctuations as the commodities compared with it. Adam Smith, after most ably showing the insufficiency of a variable medium, such as gold and silver, for the purpose of determining the varying value of other things, has himself, by fixing on corn or labour, chosen a medium no less variable.

Gold and silver are no doubt subject to fluctuations, from the discovery of new and more abundant mines; but such discoveries are rare, and their effects, though powerful, are limited to periods of comparatively short duration. They are subject also to fluctuation, from improvements in the skill and machinery with which the mines may be worked; as in consequence of such improvements, a greater quantity may be obtained with the same labour. They are further subject to fluctuation from the decreasing produce of the mines, after they **15** have yielded a supply to the world, for a succession of ages. But from which of these sources of fluctuation is corn exempted? Does not that also vary, on one hand, from improvements

in agriculture, from improved machinery and implements used in husbandry, as well as from the discovery of new tracts of fertile land, which in other countries may be taken into cultivation, and which will affect the value of corn in every market where importation is free? Is it not on the other hand subject to be enhanced in value from prohibitions of importation, from increasing population and wealth, and the greater difficulty of obtaining the increased supplies, on account of the additional quantity of labour which the cultivation of inferior lands requires? Is not the value of labour equally variable; being not only affected, as all other things are, by the proportion between the supply and demand, which uniformly varies with every change in the condition of the community, but also by the varying price of food and other necessaries, on which the wages of labour are expended?

In the same country double the quantity of labour may be required to produce a given quantity of food and necessaries at one time, that may be necessary at another, and a distant time; yet the labourer's reward may possibly

be very little diminished. If the labourer's wages at the former period, were a certain quantity of food and necessaries, he probably could not have subsisted if that quantity had been reduced. Food and necessaries in this case will have risen 100 per cent. if estimated by the *quantity* of labour necessary to their production, while they will scarcely have increased in value, if measured by the quantity of labour for which they will *exchange*.

The same remark may be made respecting two or more countries. In America and Poland a year's labour of any given number of men, will produce much more corn than on land similarly circumstanced **16** in England. Now, supposing all other necessaries to be equally cheap in those three countries, would it not be a great mistake to conclude, that the quantity of corn awarded to the labourer, would in each country be in proportion to the facility of production?

If the shoes and clothing of the labourer, could, by improvements in machinery, be produced by one fourth of the labour now necessary to their production, they would prob-

ably fall 75 per cent.; but so far is it from being true, that the labourer would thereby be enabled permanently to consume four coats, or four pair of shoes, instead of one, that his wages would in no long time be adjusted by the effects of competition, and the stimulus to population, to the new value of the necessaries on which they were expended. If these improvements extended to all the objects of the labourer's consumption, we should find him probably at the end of a very few years, in possession of only a small, if any, addition to his enjoyments, although the exchangeable value of those commodities, compared with any other commodity, in the manufacture of which no such improvement were made, had sustained a very considerable reduction; and though they were the produce of a very considerably diminished quantity of labour.

It cannot then be correct, to say with Adam Smith, "that as labour may sometimes *purchase* a greater, and sometimes a smaller quantity of goods, it is their value which varies, not that of the labour which purchases them;" and therefore, "that *labour alone never vary-*

*ing in its own value*, is alone the ultimate and real standard by which the value of all commodities can **17** at all times and places be estimated and compared;”—but it is correct to say, as Adam Smith had previously said, “that the proportion between the quantities of labour necessary for acquiring different objects seems to be the only circumstance which can afford any rule for exchanging them for one another;” or in other words, that it is the comparative quantity of commodities which labour will produce, that determines their present or past relative value, and not the comparative quantities of commodities, which are given to the labourer in exchange for his labour.

If any one commodity could be found, which now and at all times required precisely the same quantity of labour to produce it, that commodity would be of an unvarying value, and would be eminently useful as a standard by which the variations of other things might be measured. Of such a commodity we have no knowledge, and consequently are unable to fix on any standard of value. It is, however of considerable use to-

wards attaining a correct theory, to ascertain what the essential qualities of a standard are, that we may know the causes of variation in the relative value of commodities and that we may be enabled to calculate the degree in which they are likely to operate. 18/20

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In speaking, however, of labour, as being the foundation of all value, and the relative quantity of labour as almost exclusively determining the relative value of commodities, I must not be supposed to be inattentive to the different qualities of labour, and the difficulty of comparing an hour's or a day's labour, in one employment, with the same duration of labour in another. The estimation in which different qualities of labour are held, comes soon to be adjusted in the market with sufficient precision for all practical purposes, and depends much on the comparative skill of the labourer, and intensity of the labour performed. The scale, when once formed, is liable to little variation. If a day's labour of a working jeweller be more valuable than a day's labour of a common labourer, it has

long 21ago been adjusted, and placed in its proper position in the scale of value.\*

In comparing therefore the value of the same commodity, at different periods of time, the consideration of the comparative skill and intensity of labour, required for that particular commodity, needs scarcely to be attended to, as it operates equally at both per-

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\* “But though labour be the real measure of the exchangeable value of all commodities, it is not that by which their value is commonly estimated. It is of difficult to ascertain the proportion between two different quantities of labour. The time spent in two different sorts of work will not always alone determine this proportion. The different degrees of hardship endured, and of ingenuity exercised, must likewise be taken into account. There may be more labour in an hour’s hard work than in two hours’ easy business; or in an hour’s application to a trade which it cost ten years’ labour to learn, than in a month’s industry at an ordinary and obvious employment. But it is not easy to find any accurate measure either of hardship or ingenuity. In exchanging, indeed, the different productions of different sorts of labour for one another, some allowance is commonly made for both. It is adjusted, however, not by any accurate measure, but by the higgling and bargaining of the market, according to that sort of rough equality which, though not exact, is sufficient for carrying on the business of common life.” *Wealth of Nations*, book i. chap. 10 [actually book I chap. 5]

iods. One description of labour at one time is compared with the same description of labour at another; if a tenth, a fifth, or a fourth, has been added or taken away, an effect proportioned to the cause will be produced on the relative value of the commodity.

If a piece of cloth be now of the value of two pieces of linen, and if, in ten years hence, the ordinary value of a piece of cloth should be four pieces of linen, we may safely conclude, that either more labour is required to make the cloth, or less to make the linen, or that both causes have operated.

As the inquiry to which I wish to draw the reader's attention, relates to the effect of the variations in the relative value of commodities, and not in their absolute value, it will be of little importance to examine into the comparative degree of estimation in which the different kinds of human labour are held. We may fairly conclude, that whatever inequality there might originally have been in them, whatever the ingenuity, skill, or time necessary for the acquirement of one species of

manual dexterity more than another, it continues nearly the same from one generation to another; or at least, that the variation is very inconsiderable from year to year, and therefore, can have little effect, for short periods, on the relative value of commodities.

“The proportion between the different rates both of wages and profit in the different employments of labour and stock, seems not to be much affected, as has already been observed, by the riches or poverty, the advancing, stationary, or declining state of the society. Such revolutions in the public welfare, though they affect the general rates both of wages and profit, must in the end affect them equally in all different employments. The proportion between them therefore must remain the same, and cannot well be altered, at least for any considerable time, by any such revolutions.” \*

It will be seen by the extract which I have made in page 4, from the “Wealth of Nations,” that though Adam Smith fully recognized the principle, that the proportion be-

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\* *Wealth of Nations*, book i. chap. 10

tween the quantities of labour necessary for acquiring different objects, is the only circumstance which can afford any rule for our exchanging them for one another, yet he limits its application to “that early and rude state of society which precedes both the accumulation of stock and the appropriation of land;” as if, when profits and rent were to be paid, they would have some influence on the relative value of commodities independent of the mere quantity of labour that was necessary to their production.

Adam Smith, however, has nowhere analyzed the effects of the accumulation of capital, and the appropriation of land, on relative value. It is of importance, therefore, to determine how far the effects which are avowedly produced on the exchangeable value of commodities by the comparative quantity of labour bestowed on their production, are modified or altered by the accumulation of capital and the payment of rent.

First, as to the accumulation of capital. Even in that early state to which Adam Smith refers, some capital, though possibly made and accumulated by the hunter  
23 himself

would be necessary to enable him to kill his game. Without some weapon, neither the beaver nor the deer could be destroyed, and therefore the value of these animals would be regulated, not solely by the time and labour necessary to their destruction, but also by the time and labour necessary for providing the hunter's capital, the weapon, by the aid of which their destruction was effected.

Suppose the weapon necessary to kill the beaver, were constructed with much more labour than that necessary to kill the deer, on account of the greater difficulty of approaching near to the former animal, and the consequent necessity of its being more true to its mark; one beaver would naturally be of more value than two deer, and precisely for this reason, that more labour would, on the whole, be necessary to its destruction.

24 All the implements necessary to kill the beaver and deer might belong to one class of men, and the labour employed in their destruction might be furnished by another class; still, their comparative prices would be in proportion to the actual labour bestowed,

both on the formation of the capital, and on the destruction of the animals. Under different circumstances of plenty or scarcity of capital, as compared with labour, under different circumstances of plenty or scarcity of the food and necessaries essential to the support of men, those who furnished an equal value of capital for either one employment or for the other, might have a half, a fourth, or an eighth of the produce obtained, the remainder being paid as wages to those who furnished the labour. yet this division could not affect the relative value of these commodities, since whether the profits of capital were greater or less, whether they were 50, 20, or 10 per cent. or whether the wages of labour were high or low, they would operate equally on both employments.

If we suppose the occupations of the society extended, that some provide canoes and tackle necessary for fishing, others the seed and rude machinery first used in agriculture, still the same principle would hold true, that the exchangeable value of the commodities produced would be in proportion to the labour bestowed on their production; not on their

immediate production only, but on all those implements or machines required to give effect to the particular labour to which they were applied.

If we look to a state of society in which greater improvements have been made, and in which arts and commerce flourish, we shall still find that commodities vary in value conformably with this principle: in estimating the exchangeable value of stockings, for example, we shall find that their value, comparatively with other things, depends on the total quantity of labour necessary to manufacture them, and bring them to 25 market. First, there is the labour necessary to cultivate the land on which the raw cotton is grown; secondly, the labour of conveying the cotton to the country where the stockings are to be manufactured, which includes a portion of the labour bestowed in building the ship in which it is conveyed, and which is charged in the freight of the goods; thirdly, the labour of the spinner and weaver; fourthly, a portion of the labour of the engineer, smith, and carpenter, who erected the buildings and machinery, by the help of which they are made;

fifthly, the labour of the retail dealer, and of many others, whom it is unnecessary further to particularize. The aggregate sum of these various kinds of labour, determines the quantity of other things for which these stockings will exchange, while the same consideration of the various quantities of labour which have been bestowed on those other things, will equally govern the portion of them which will be given for the stockings.

To convince ourselves that this is the real foundation of exchangeable value, let us suppose any improvement to be made in the means of abridging labour in any one of the various processes through which the raw cotton must pass, before the manufactured stockings come to the market, to be exchanged for other things; and observe the effects which will follow. If fewer men were required to cultivate the raw cotton, or if fewer sailors were employed in navigating, or shipwrights in constructing the ship, in which it was conveyed to us; if fewer hands were employed in raising the buildings and machinery, or if these, when raised, were rendered more efficient, the stockings would inevitably fall in

value, and consequently command less of other things. They would fall, because a less quantity of labour was necessary to their production, and would therefore exchange for a smaller quantity of those things in which no such abridgment of labour had been made.

**52** Economy in the use of labour never fails to reduce the relative value of a commodity, whether the saving be in the labour necessary to the manufacture of the commodity itself, or in that necessary to the formation of the capital, by the aid of which it is produced. In either case the price of stockings would fall, whether there were fewer men employed as bleachers, spinners, and weavers, persons immediately necessary to their manufacture; or as sailors, carriers, engineers, and smiths, persons more indirectly concerned. In the one case, the whole saving of labour would fall on the stockings, because that portion of labour was wholly confined to the stockings; in the other, a portion only would fall on the stockings, the remainder being applied to all those other commodities, to the production of which the buildings, machinery, and carriage, were subservient.

In every society the capital which is employed in production, is necessarily of limited durability. The food and clothing consumed by the labourer, the buildings in which he works, the implements with which his labour is assisted, are all of a perishable nature. There is however a vast difference in the time for which these different capitals will endure: a steam-engine will last longer than a ship, a ship than the clothing of a labourer, and the clothing of the labourer longer than the food which he consumes.

According as capital is rapidly perishable, and requires to be frequently reproduced, or is of slow consumption, it is classed under the heads of circulating, or of fixed capital. A brewer, whose buildings and machinery are valuable and durable, is said to employ a large portion of fixed capital: on the contrary, a shoemaker, whose capital is chiefly employed in the payment of wages, which are expended on food and clothing, commodities more perishable than buildings and machinery, is said to employ a large proportion of his capital as circulating capital. 53

Two trades then may employ the same

amount of capital; but it may be very differently divided with respect to the portion which is fixed, and that which is circulating.

Again two manufacturers may employ the same amount of fixed, and the same amount of circulating capital; but the durability of their fixed capitals may be very unequal. One may have steam-engines of the value of 10,000*l.*, the other, ships of the same value.

Besides the alteration in the relative value of commodities, occasioned by more or less labour being required to produce them, they are also subject to fluctuations from a rise of wages, and consequent fall of profits, if the fixed capitals employed be either of unequal value, or of unequal durability.

Suppose that in the early stages of society, the bows and arrows of the hunter were of equal value, and of equal durability, with the canoe and implements of the fisherman, both being the produce of the same quantity of labour. Under such circumstances the value of the deer, the produce of the hunter's day's labour, would be exactly equal to the

value of the fish, the produce of the fisherman's day's labour. The comparative value of the fish and the game, would be entirely regulated by the quantity of labour realized in each; whatever might be the quantity of production, or however high or low general wages or profits might be. If for example the canoes and implements of the fisherman were of the value of 100*l.* and were calculated to last for ten years, and he employed ten men, whose annual labour cost 100*l.* and who in one day obtained by their labour twenty salmon: If the weapons employed by the hunter were also of 100*l.* value and calculated to last ten years, and if he also employed ten men, whose annual labour cost 100*l.* and who in one day procured him ten deer; then the natural price of a deer would be two salmon, whether the proportion of the whole produce bestowed on the men who obtained it, were large or small. The proportion which might be paid for wages, is of the utmost importance in the question of profits; for it must at once be seen, that profits would be high 54 or low, exactly in proportion as wages were low or high; but it could not in the least affect the relative value of fish and

game, as wages would be high or low at the same time in both occupations. If the hunter urged the plea of his paying a large proportion, or the value of a large proportion of his game for wages, as an inducement to the fisherman to give him more fish in exchange for his game, the latter would state that he was equally affected by the same cause; and therefore under all variations of wages and profits, under all the effects of accumulation of capital, as long as they continued by a day's labour to obtain respectively the same quantity of fish, and the same quantity of game, the natural rate of exchange would be one deer for two salmon.

If with the same quantity of labour a less quantity of fish, or a greater quantity of game were obtained, the value of fish would rise in comparison with that of game. If, on the contrary, with the same quantity of labour a less quantity of game, or a greater quantity of fish was obtained, game would rise in comparison with fish.

If there were any other commodity which was invariable in its value, requiring at all

times, and under all circumstances, precisely the same quantity of labour to obtain it, we should be able to ascertain, by comparing the value of fish and game with this commodity, how much of the variation was to be attributed to a cause which affected the value of fish, and how much to a cause which affected the value of game.

Suppose money to be that commodity. If a salmon were worth 1*l.* and a deer 2 *l.* one deer would be worth two salmon. But a deer might become of the value of three salmon, for more labour might be required to obtain the deer, or less to get the salmon or both these causes might operate at the same time. If we had this invariable standard, we might easily ascertain in what degree either of these causes operated. If salmon continued to sell for 1*l.* whilst deer rose to 3 *l.* we might conclude that more labour was required to obtain the deer. If deer continued at the same price of 2*l.* and salmon sold for 13*s.* 4*d.* we might then be sure that less labour was required to obtain the salmon; and if deer rose to 2*l.* 10*s.* and salmon fell to 16*s.* 8*d.* we should be convinced that both

causes had operated in producing the alteration of the relative value of these commodities.

No alteration in the wages of labour could produce any alteration in the relative value of these commodities; for if profits were 10 per cent., then to replace the 100*l.* circulating capital with 10 per cent. **55** profit, there must be a return of 110*l.*: to replace the equal portion of fixed capital, when profits are at the rate of 10 per cent. there should be annually received 16.27*l.*; for, the present value of an annuity of 16.27*l.* for ten years, when money is at 10 per cent. is 100*l.*; consequently all the game of the hunter should annually sell for 126.27*l.*; But the capital of the fisherman being the same in quantity, and divided in the same proportion into fixed and circulating capital, and being also of the same durability, he, to obtain the same profits, must sell his goods for the same value. If wages rose 10 per cent. and consequently 10 per cent. more circulating capital were required in each trade, it would equally affect both employments. In both 210*l.* instead of 200*l.* would be required in order to produce the

former quantity of commodities; and these would sell precisely for the same money, namely 126.27*l.*: they would therefore be at the same relative value, and profits would be equally reduced in both trades.

The prices of the commodities would not rise, because the money in which they are valued is by the supposition of an invariable value, always requiring the same quantity of labour to produce it.

If the gold mine from which money were obtained were in the same country, in that case, after the rise of wages, 210*l.* might be necessary to be employed, as capital, to obtain the same quantity of metal that 200*l.* obtained before: for the same reason that the hunter and fisherman required 10*l.* in addition to their capitals, the miner would require an equal addition to his. No greater quantity of labour would be required in any of these occupations, but it would be paid for at a higher price and the same reasons which should make the hunter and fisherman endeavour to raise the value of their game and fish, would cause the owner of the mine to

raise the value of his gold. This inducement acting with the same force on all these three occupations, and the relative situation of those engaged in them being the same before and after the rise of wages, the relative value of game, fish and gold, would continue unaltered. Wages might rise twenty per cent., and profits consequently fall in a greater or less proportion, without occasioning the least alteration in the relative value of these commodities.

Now suppose, that with the same labour and fixed capital, more fish could be produced, but no more gold or game, the relative value of fish would fall in comparison with gold or game. If, instead of twenty salmon, twenty-five were the produce of one day's labour, 56 the price of a salmon would be sixteen shillings instead of a pound, and two salmon and a half, instead of two salmon, would be given in exchange for one deer, but the price of deer would continue at 2*l.* as before. In the same manner, if fewer fish could be obtained with the same capital and labour, fish would rise in comparative value. Fish then would rise or fall in exchangeable value,

only because more or less labour was required to obtain a given quantity; and it never could rise or fall beyond the proportion of the increased or diminished quantity of labour required.

If we had then an invariable standard, by which we could measure the variation in other commodities, we should find that the utmost limit to which they could permanently rise was proportioned to the additional quantity of labour required for their production; and that unless more labour were required for their production, they could not rise in any degree whatever. A rise of wages would not raise them in money value, nor relatively to any other commodities, the production of which required no additional quantity of labour, which employed the same proportion of fixed and circulating capital, and fixed capital of the same durability. If more or less labour were required in the production of the other commodity, we have already stated that this will immediately occasion an alteration in its relative value, but such alteration is owing to the altered quantity of requisite labour, and not to rise of wages.

If the fixed and circulating capitals were in different proportions, or if the fixed capital were of different durability, then the relative value of the commodities produced would be altered in consequence of the rise of wages.

First when the fixed and circulating capitals were in different proportions, suppose that instead of 100*l.* fixed capital and 100*l.* 57 circulating capital, the hunter should employ 150*l.* fixed capital and 50*l.* circulating capital, and that the fisherman should on the contrary employ only 50*l.* fixed capital and 150*l.* circulating capital.

If profits be 10 per cent., the hunter must sell his goods for 79*l.* 8s. For,

To replace his circulating capital of 50*l.* with a profit of 10 per cent. would require a value of 55*l.*

To replace his fixed capital with 10 per cent. profit, the present value of an annuity for ten years of 24.4*l.* at 10 per cent. being 150*l.* .. 24.4*l.*

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79.4*l.*

If profits be 10 per cent., the fisherman must sell his goods for 173*l.* 2*s.* 7*d.*

To replace his circulating capital of 150*l.* with 10 per cent. profit 165*l.*

To replace his fixed capital with 10 per cent. profit, one-third of the hunter's 8.13*l.*

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173.13*l.*

Now if wages rise, although neither of these commodities should require more labour for their production, yet their relative value will be altered. Suppose wages to rise 6 per cent., the hunter would not require more than an increase of 3*l.* to his capital, to employ the same number of men, and obtain the same quantity of game; the fisherman would require three times the sum, or 9*l.* The profits of stock would fall to 4 per cent., the hunter would be obliged to sell his game for 73*l.* 12*s.* 2*d.*

To replace his circulating capital of 53*l.* with a profit of 4 per cent, .. .. . 55.12*l.*

To replace fixed capital, annually wasted, the present value of an annuity of 18.49*l.* for ten years when, money is at 4 per cent. being 150*l.* .. 18.49*l.*

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73.61*l.*

58 The fisherman would sell his fish for 171*l.* 11*s.*  
5*d.* viz.

To replace his circulating capital of 159*l.* with a profit  
of 4 per cent. .. .. .. .. £ 165.360

To replace fixed capital annually wasted, the present  
value of an annuity of 6.163*l.* for ten years, when  
money at 4 per cent., being 50*l.* .. .. 6.163

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£ 171.523

Game was to fish before as 100 to 218.

It would now be ... as 100 to 233.

Thus we see, that with every rise of wages, in proportion as the capital employed in any occupation consists of circulating capital, its produce will be of greater relative value than the goods produced in another occupation, where a less proportion of circulating, and a greater proportion of fixed capital are employed.

Secondly, suppose the proportions of fixed capital to be the same; but of different degrees of durability. In proportion as fixed capital is less durable, it approaches to the nature of circulating capital. It will be consumed in a shorter time, and its value reproduced in order to preserve the capital of the manufacturer. We have just seen, that in proportion as circulating capital preponderates in a manufacture, when wages rise, the value of commodities produced in that 59 manufacture, is relatively higher than that of commodities produced in manufactures where fixed capital predominates. In proportion to the less durability of fixed capital, and its approach to the nature of circulating capital, the same effect will be produced by the same cause.

Suppose that an engine is made, which will last for a hundred years, and that its value is 20,000*l.* Suppose too, that this machine, without any labour whatever, could produce a certain quantity of commodities annually, and that profits were 10 per cent.: the whole value of the goods produced would be annually 2,000*l.* 2*s.* 11*d.*; for the profit of 20,000*l.*

at 10 per cent. per annum is	£2,000
And an annuity of 2s. 11d. for 100 years, at 10 per cent. will at the end of the period, replace a capital of 20,000 <i>l.</i>	2 11
Consequently the goods must sell for	£2000 2 11

If the same amount of capital, viz. 20,000*l.*, be employed in supporting productive labour, and be annually consumed and reproduced, as it is when employed in paying wages, then to give an equal profit of 10 per cent. on 20,000*l.* the commodities produced must sell for 22,000*l.* Now suppose labour so to rise, that instead of 20,000*l.* being sufficient to pay the wages of those employed in paying the latter commodities, 20,952*l.* is required; then profits will fall to 5 per cent.: for as these commodities would sell for no more than before, viz. £22,000 and to produce them .. .. £20,952 would be requisite, there would remain no more than .. .. £1048 on a capital of 20,952*l.*

If labour so rose, that 21,153*l.* were required, profits would fall to 4 per cent.

and if it rose, so that 21,359*l.* was employed, profits would fall to 3 per cent.

But, as no wages would be paid by the owner of the machine, which would last 100 years, when profits fell to 5 per cent. the price of his goods must fall to 1007*l.* 13s. 8d. viz. 1000*l.* to pay his profits, and 7*l.* 13s. 8d. to accumulate for 100 years at 5 per cent. to replace his capital of 20,000*l.* When profits fell to 4 per cent. his goods must sell for 816*l.* 3s. 2d., and when at 3 per cent. for 632*l.* 16s. 7d. By a rise in the price of labour then, under 7 per cent., which has no **60** effect on the prices of commodities wholly produced by labour, a fall of no less than 68 per cent. is effected on those commodities wholly produced by machinery. If the proprietor of the machine sold his goods for more than 632*l.* 16s. 7d., he would get more than 3 per cent., the general profit of stock; and as others could furnish themselves with machines at the same price of 20,000*l.* they would be so multiplied, that he would be inevitably be obliged to sink the price of his goods, till they afforded only the usual and general profits of stock.

In proportion as this machine were less durable, prices would be less affected by the fall of profit, and the rise of wages. If, for example, the machine would last only ten years, when profits were at 10 per cent.

the goods should sell for			£ 3254
when at 5 per cent.	..		2590
4 per cent.	..		2465
3 per cent.	..		2344

for such are the sums requisite to place his profits on a par with others, and to replace his capital at the end of ten years; or, which is the same thing, such are the annuities which 20,000*l.* would purchase for ten years at those rates. If the machine would last only three

years, when profits were 10 per cent. the price of the goods would be	..	..	£ 8042
when at 5 per cent.	..	..	7344
4 per cent.	..	..	7206
3 per cent.	..	..	7070

If it would last only one year, when profits were 10 per cent. the goods would sell for

			£ 22,000
at 5 per cent.	..	..	21,000
4 per cent.	..	....	20,800
3 per cent.	..	...	20,600:

therefore when profits fell from 10 to 3 per cent. the

goods, which were produced with equal capitals would fall

68 per cent. if the machine would last	100 years.
28 per cent. if the machine would last	10 years.
13 per cent. if it would last	3 years.
And little more than 6 per cent. if it would last only	1 year.

**61** These results are such importance to the science of political economy, yet accord so little with some its received doctrines, which maintain that every rise in wages is necessarily transferred to the price of commodities, that it may not be superfluous to elucidate the subject still further.

A manufacturer of hats employs a hundred men at an annual expense of 50*l.* each, who produce him commodities of the value of 8000*l.* A machine calculated to last precisely a year, and to do equally well the same work as the 100 men, is offered to him for 5000*l.*, the sum, exactly, that he is expending on wages. It will be a matter of indifference to the manufacturer, whether he purchase the machine, or continue to employ the men. Now if the wages of labour rise 10 per cent. and an additional capital of 500*l.* be conse-

quently required to enable him to employ the same labour, whilst his commodities continue to sell for 8000*l.*, he will no longer hesitate, but will at once purchase the machine, and will do the same annually, while wages continue above the original 5000*l.*. But will he be able now to purchase the machine at the former price? Will not its value be increased, in consequence of the rise of labour? It would be increased, if there no stock employed in its construction, and no profits to be made to the maker of it. If, for example, the machine were produced by 100 men working one year upon it with wages of 50*l.* each, and its price were 5000*l.*, should those wages rise to 55*l.* its price would be 5500*l.*: but this cannot be the case; less than 100 men are employed, or it could not be sold for 5000*l.*; for out of the 5000*l.* must be paid the profits of the stock which employed the men. Suppose then that only eighty-five men were employed 62 at the expense of 4250*l.* per annum, and that the 750*l.*, which the value of the machine would produce over and above the wages advanced to the men, constituted the profits of the en-

gineer's stock. When wages rose 10 per cent., he would be obliged to employ an additional capital of 425*l.*, and would therefore employ 4675*l.*, instead of 4250*l.*, on which capital he would only get a profit of 325*l.* if he continued to sell his machine for 5000*l.*; but this is precisely the case of all manufacturers and capitalists; the rise of wages affects them all, If therefore the maker of the machine should raise the price of the machine in consequence of the rise of wages, an unusual quantity of capital would be employed in the construction of such machines, till their price afforded only the usual profits. The manufacturer of hats, by the employment of the machine, if he sells his hats for 1000*l.*, is precisely in the same situation as before; he employs no more capital, and obtains the same profits. The competition of trade would not long allow this; for as capital would flow to the most profitable employment, he would be obliged to lower the price of hats, till his profits had sunk to the general level. Thus then is the public benefited by machinery; these mute agents are always the produce of much less labour than that which they dis-

place, even they are of the same money value. Through their influence, an increase in the price of provisions which raises wages, will affect fewer persons; it will reach, as in the above instance eighty-five men instead of a hundred; and the saving which is the consequence, shews itself in the reduced price of the commodity manufactured. Neither machines nor any other commodities are raised in price, but all commodities which are made by machines fall, and fall in proportion to their durability.

It appears, then, that in proportion to the quantity and the **63** durability of the fixed capital employed in any kind of production, the relative prices of those commodities on which such durable capital is employed, will vary inversely as wages; they will fall as wages rise. It appears too that no commodities whatever are raised in absolute price, merely because wages rise; for they never rise unless additional labour be bestowed on them; but that all commodities in the production of which fixed capital enters, not only do not rise with a rise of wages, but

absolutely fall; fall too as much as 68 per cent., with a rise of seven per cent. in wages, if fixed capital be exclusively employed, and be of the duration of 100 years.

The above statement, which asserts the compatibility of a rise of wages, with a fall of prices, has I know, the disadvantage of novelty, and must trust to its own merits for advocates; whilst it has for its opponents, writers of distinguished and deserved reputations. It should however be carefully remembered, that in this whole argument I am supposing money to be of an invariable value; in other words, to be always the produce of the same quantity of unassisted labour. Money, however, is a variable commodity; and the rise of wages as well as of commodities, is frequently occasioned by a fall in the value of money. A rise of wages from this cause will indeed be invariably accompanied by a rise in the price of commodities: but in such cases, it will be found that labour and all commodities have not varied in regard to each other, and that the variation has been confined to money.

Money, from its being a commodity obtained from a foreign country, from its being the general medium of exchange between all civilized countries, and from its being also distributed among those countries in proportions which are ever changing with every improvement in commerce and machinery, and with every increasing difficulty of obtaining food and necessaries for an increasing population, is subject to incessant variations. In stating the principles which regulate exchangeable value and price, we should carefully 63 distinguish between those variations which belong to the commodity itself, and those which are occasioned by a variation in the medium in which value is estimated, or price expressed.

A rise in wages, from an alteration in the value of money, produces a general effect on price, and for that reason it produces no real effect whatever on profits. On the contrary, a rise of wages, from the circumstance of the labourer being more liberally rewarded, or from a difficulty of procuring the necessaries on which wages are expended, does not produce the effect of raising price, but has a great effect in lowering profits. In the one case,

no greater proportion of the annual labour of the country is devoted to the support of the labourers; in the other case, a larger portion is so devoted.

It is according to the division of the whole produce of the land and labour of the country, between the three classes of landlords, capitalists, and labourers, that we are to judge of rent, profit, and wages, and not according to the value at which that produce may be estimated in a medium which is confessedly variable.

It is not by the absolute quantity of produce obtained by either class, that we can correctly judge of the rate of profit, rent, and wages, but by the quantity of labour required to obtain that produce. By improvements in machinery and agriculture, the whole produce may be doubled; but if wages, rent, and profit be also doubled, these three will bear the same proportions to one another as before, and neither could be said to have relatively varied. But if wages partook not of the whole of this increase; if instead of being doubled, were only increased one-half; if rent instead of being doubled, were only increased

three-fourths, and the remaining increase went to profit, it would, I apprehend be correct for me to say, that rent and wages had fallen while profits had risen; for if we had an invariable standard by which to measure the value of this produce, we should find that a less value had fallen to the class of labourers and landlords, and a greater to the class of capitalists, than had been given before. We might find, for example, that though the absolute quantity of commodities had been doubled, they were the produce of precisely the former quantity of labour. Of every hundred hats, coats, and quarters of corn produced, if

the labourers had	..	25
The landlords	..	25
And the capitalists	..	50
		—
		100

And if, after these commodities were doubled in quantity, of every 100

The labourers had only	..	22
The landlords	..	22
And the capitalists	..	56
		—
		100.

In that case I should say, that wages and rent

had fallen, and profits risen; though, in consequence of the abundance of commodities, the quantity paid to the labourer and landlord would have increased in the proportion of 25 to 44. Wages are to be estimated by their real value, viz. by the quantity of labour and capital employed in producing them, and not by their nominal value either in coats, hats, money, or corn. Under the circumstances I have just supposed, commodities would have fallen to half their former value, and if money had not varied, to half their former price also. If then in this medium, which had not varied in value, the wages of the labourer should be found to have fallen, it will not the less be a real fall, because they might furnish him with a greater quantity of cheap commodities than his former wages.

The variation in the value of money, however great, makes no difference in the *rate* of profits; for suppose the goods of the manufacturer to rise from 1,000*l.* to 2,000*l.*, or 100 per cent., if his capital, on which the variations of money have as much effect as on the value of produce, if his machinery, buildings, and stock in trade rise more than 100 per cent., his

rate of profits has fallen, and he has a disproportionately less quantity of the produce of the labour of the country at his command.

If, with capital of a given value, he double the quantity of produce, and its value falls one half, and then it will bear the same proportion to the capital which produced it, as it did before.

If, at the same time that he doubles the quantity of produce by **66** the employment of the same capital, the value of money is by any accident lowered one half, the produce will sell for twice the money value that it did before; but the capital employed to produce it will also be of twice its former money value; and therefore in this case too, the value of the produce will bear the same proportion to the value of the capital as it did before; and although the produce be doubled, rent, wages, and profits will only vary as the proportions vary, in which this double produce may be divided among the three classes that share it.

It appears then that the accumulation of capital, by occasioning different proportions

of fixed and circulating capital to be employed in different trades, and by giving different degrees of durability to such fixed capital, introduces a considerable modification to the rule, which is of universal application in the early states of society.

Commodities, though they continue to rise and fall, in proportion as more or less labour is necessary for their production, are also affected in their relative value by a rise or fall of profits, since equal profits may be derived from goods which sell for 2,000*l* and from those which sell for 10,000*l*.; and consequently the variations of those profits, independently of any increased or diminished quantity of labour required for the goods in question, must affect their prices in different proportions.

It appears too, that commodities may be lowered in value in consequence of a real rise of wages, but they never can be raised from that cause. On the other hand, they may rise from a fall of wages, as they lose the peculiar advantages of production, which high wages afforded them.