

CHAPTER IX.

VALUE.

76. It will have been noticed that in Book I nothing has been said about value, or prices, or money. It was deemed best in studying production to assume that articles were made and exchanged by barter, without the use of money. It is no longer our object now to discuss how wealth can be produced, or what will increase it, but to study how it is that **articles are exchanged for one another**, how much of one thing is given for another, and how money is used to help these exchanges. It will be necessary to think a little, and to see things as they really are, and not as they seem to be on the surface. When men are using money, they seldom think of its representative character. They generally think that money itself is the thing for which every one labors and produces. There could be no greater mistake than this. In order to understand this subject better, we shall first try to explain something about value.

77. In the beginning, we must try to find out what value is. In brief, exchange **value is purchasing power**; that is, a commodity has more or less value, as it may be exchanged for more or less of other things. The value of an ox, estimated in sheep, is the number of sheep for which the ox may be exchanged. If one ox exchanges for twenty sheep, it is twenty times as valuable as one sheep, or a sheep is one twentieth as valuable as an

ox? To express it in other words, value is a ratio, or a relation between one thing and another. We must always have something with which to compare a given article in order to determine its value. We cannot say whether a thing has purchasing power, unless there is another thing to be purchased by it, any more than we could say that one man was taller than another, if no other man existed with whom to compare him. Whenever we say that a thing has exchange value, we have in mind, consciously or unconsciously, some other thing or things with which we are making a comparison.

78. This leads us to notice another matter in connection with value. If value is a ratio, or a relation of one thing to another, **a rise of value in one thing means a fall in the value of something else.** In the illustration already used, if the ox rises in value, that means that its purchasing power over sheep has increased, as indicated by the fact that the ox, for example, is now exchanged for thirty sheep, instead of twenty as before. That very fact shows that the rise in value of the ox was the same as a fall in the value of sheep. On the other hand, the value of sheep is their purchasing power; and, since it now requires thirty instead of twenty sheep to buy an ox, it is evident that the purchasing power of sheep over an ox has declined, or that their value *relatively to an ox* has fallen. This is looking at the change from the point of view of the sheep. If the value of the ox goes up, the value of the sheep goes down. If one end of a board balanced across a log goes up, the other end must necessarily go down.

79. If we can now see clearly that a commodity has value only in comparison with another thing, we can go on to explain some other questions. We have come to understand what value means. Now it will be well to learn *why a thing has value.* If we were studying about fire and heat, we should first want to know what heat was,

and then we should want to know what makes or causes heat. So we want to find out next what gives value to anything. For this purpose let us recall our definition of wealth (section 3). Wealth was there defined as something transferable, for the enjoyment of which we were willing to undergo a sacrifice. It might have been said equally well that **wealth is that which has value;** from which it is naturally inferred that a thing (1) which is transferable, and for the (3) enjoyment of which we are willing to undergo a (2) sacrifice, has value. This is true. In order to have value an article must be: (1) **one which is transferable;** (2) **one for which we are willing to undergo some sacrifice;** and (3) **one capable of satisfying some desire.**

80. First, to have exchange value, a commodity must be **transferable.** There may be other things more desirable than wealth; but, no matter how desirable an article is, it is not wealth and has no exchange value unless it can be transferred. A man's intelligence or honesty is a desirable thing, but you cannot separate it from the man and exchange it for anything else. Who ever heard of a business man, taking an inventory of his wealth, who summed up his articles of value in this way?

Hardware.....	\$5,000
House.....	2,000
Horse and carriage.....	400
Honesty.....	?
Intelligence.....	?

Does a poor man who is honest count his honesty in as a part of his wealth? No, it is absurd. "The gouty millionaire cannot, with all that he has, purchase the robust health of the laborer by the wayside, or buy for his empty-headed son the learning or the trained faculties of the humblest scholar. Hence, all that which some economists have called intellectual capital and all that which

by analogy might be called physical capital are to be excluded from the category of wealth."* So, also, a barrel of beef at the north pole or a bushel of wheat at the bottom of the sea could not have exchange value, because it would be impossible to transfer them to any one.

81. Secondly, to have value, a thing must be such that we are obliged to **undergo some sacrifice** in order to get it. It is very difficult, for example, to get pearls; because divers must go down into the sea for them, and even then they do not often find large ones. Under these conditions, a large pearl may be exchanged for many tons of coal, even though the coal is thousands of times as big as the pearl; because it is not so difficult to find coal and to mine it. The sacrifice undergone is greater in getting a pearl than in getting a piece of coal of much larger size; in fact, the number of days' labor spent in finding a large pearl would, if spent in coal-mining, produce several tons of coal. Then, if the pearl costs more labor to get it than a piece of coal, it is evident that more sacrifice is required in the case of the pearl than in the case of the coal.

We may see this matter still more clearly if we imagine pearls to be as plentiful as pebbles, and that any one strolling out might pick up as many pearls as he can now pick up pebbles. Would the pearls be as valuable as before? Certainly not. Would any one give several tons of coal or several large gold coins for a pearl when he could have one for the trouble of picking it up? The exchange value of the pearls would be no greater than the pebbles; we should give no more for a wagon-load of pearls than we should for the wagon-load of pebbles with which we grade our roads. Whenever the sacrifice or exertion necessary to get an article diminishes, it will be generally found that its value diminishes. If it requires a relatively less number of day's labor to produce a pair of shoes or a bushel of corn, the exchange value of shoes or corn will fall.

* F. A. Walker, "Political Economy," p. 6.

82. Thirdly, to have value, an article must **satisfy some human desire**. Would a thing have exchange value, that is, would you give for it desirable goods, if you did not want it? Would you give away things which had purchasing power for articles which excited in you no desire whatever? It is quite unlikely. Would a man who had all the water he wanted to drink give away the berries he had gathered by a whole day's labor for more water which he did not want, and which satisfied no thirst? Certainly not. People do not work steadily in heat and in cold to get something which satisfies no desire. In fact, the only reason why men work to produce wealth is to satisfy some want; because they are hungry, or want clothing and shelter, or a horse, or a gun, or some luxury, like a piano, or a picture. We saw once before (section 28) that wants furnish the reason for all production of wealth.

The same thing might serve a different use at different times and places. In cities where immense water-works, with costly stone walls, viaducts, and iron pipes, are required to carry the water throughout the city to each house, water brings a price per gallon, because it can not be had for the taking; but in the country, where springs or rivers furnish an unlimited supply, water has practically little or no value. Again, however, to a man perishing in a sandy desert, water would satisfy the strongest desire he has, and its use to him would be very great. He would give his horse, or all his money, for a pint of water. From this it can be seen that human wants vary widely; that the strength of the desire for the same thing may vary. The desire for food to eat is a very much more important one than a desire for an extra coat; but, after a certain amount of food has been consumed, there will be very little desire for any more. Up to a certain point the desire is intense, but after that it becomes very weak. Moreover, different classes of people have different desires to

satisfy. Some think that a comfortable living with very few luxuries is enough; others that a large house, horses, pictures, music, and foreign travel is not more than enough. The habits of living settle the character of a people's desires; the wants of a farmer might be very different from the wants of a skilled mechanic. The people of Mexico have a very different set of desires from the people of Ohio; or the people of India from those of England.

83. We have, to this point, explained, first, what value is; next, what it is that gives value to anything; and now it is our purpose to consider **how value is measured**. As in studying heat, after finding out what it is and what produces heat, we want to know how to measure it. You would say fire (or combustion) causes heat, and a thermometer measures it. It may be said that we are looking for a measure of value that corresponds with the thermometer as a measure of heat. We want to find whether there is any scale to which we can refer two commodities, and in which we can express their values, and can then compare them with each other.

The value of anything, as we have said, is its purchasing power, and we have compared an ox with sheep to explain that idea; but there are many more things exchanged than oxen and sheep. *If I have a coat, how can I know its value relatively to sheep, oxen, corn, and thousands of other things? For how much corn will the coat be exchanged? If we had one thing with which to compare the coat and corn, then we could tell their relations to one another. It is just like reducing fractions of different kinds to a common denominator; if I want to compare $\frac{1}{2}$ and $\frac{1}{3}$, I can do nothing until I have reduced them both to fractions of the same kind, as $\frac{2}{6}$ and $\frac{2}{6}$; now I know that $\frac{1}{2}$ is greater than $\frac{1}{3}$, and greater just in proportion as 8 is greater than 5. We ought then to find a **common denominator of value**.

84. First of all, the common denominator of value must itself have value, and gold and silver have been chosen by common consent for this function. If, then, we find out for how many grains Troy of gold the coat will be exchanged, we shall learn the value of the coat relatively to gold. There are 23.22 grains of pure gold in a dollar, and, if a coat can be exchanged for ten dollars, it will buy 232.2 grains of gold. This is what we call the **price** of the coat. Its price is ten dollars; but that means only that it can be exchanged for as many grains of gold as are found in ten dollars. A dollar is not an abstract thing, but is made up of something which has value. The price of a thing is only its value relatively to a common denominator, like gold or silver; **price is the amount of money for which an article may be exchanged**. But so far we have reduced only the coat to the common denominator of value; next we must do the same with the corn. We find, for example, that two bushels of corn are exchanged for 23.22 grains of pure gold, or one dollar. At this rate twenty bushels can be exchanged for 232.2 grains, or ten dollars. The **price** of twenty bushels is ten dollars, and of one bushel one-half of a dollar. Thus we have found the value of corn relatively to gold, or its price, and have thus reduced its value also to the common denominator of value. Now it will be easy to compare the value of corn with the value of the coat without an actual exchange. The coat can be exchanged for twenty bushels of corn; or the coat is twenty times as valuable as one bushel of corn; and a bushel of corn is one twentieth as valuable as the coat. Therefore, if in the same way we compare each of the thousands of commodities in the world with money, we can get their value relatively to money as expressed in their *price*, and then we can compare any of these various articles together by means of their prices. In this way we compare the values of articles by first comparing them with a given article like gold, just as we compare

distances by referring them to a particular unit, such as a foot, or a yard, or a mile. The two sides of a room being of different lengths, we find how many times a particular length, called a yard, can be applied to each distance, and then we say that one side is eighteen yards, and another is twelve yards. If we have a piece of cloth in a store, we reduce it to a common unit of length, or yard-stick, and say it is seven yards long. The operation is essentially the same when we express the value of a thing relatively to money by giving its *price*.

85. From the fact that, when there is a rise in the value of any commodity, there is a corresponding fall in the value of some other commodity, is deduced an important proposition—**there can not be a general rise or fall in the values of commodities.** Since a fall in the exchange value of one article is necessarily followed by a corresponding rise in the value of the thing with which it is compared, it is evident that these two commodities can not both rise or both fall at once. If one half of all the wealth in the country rose in value, that would of itself show that the other half fell in value, so that a general rise or fall of values is an absurdity. As Mill says, "Things which are exchanged for one another can no more all fall or all rise than a dozen runners can each outrun all the rest, or a hundred trees all overtop one another."

86. Although commodities can not all rise or fall in value at once, it is possible that the relations between one article and all others may change. That is, one commodity, say gold, might exchange for more or less of any and all other commodities; for it is conceivable that gold might, at different times, have a greater or less value (as the case might be). Now since gold, for example, can fall in value relatively to other things, the other things can be exchanged for more gold than before; but, since the amount of gold, or money, for which a thing can be exchanged is its *price*, these other things will have higher prices. So, since the

commodity out of which money is made can rise or fall relatively to everything else, **there can be a general rise or fall of prices.** That is, when gold falls in value, all other things rise in value relatively to gold; they can be exchanged for more gold than before, and their prices are higher. When gold rises in value, all other things fall in value relatively to it; they can be exchanged for less gold than before, and their prices are lower. Therefore, although there can not be a general rise or fall of values, there can be a general rise or fall of prices.

87. Exercises.—1. What is exchange value? Has a chair exchange value? Has air?

2. What is meant by saying that value is a ratio? Suppose five bushels of wheat are exchanged for ten bushels of oats; show how a rise in the value of wheat would affect the value of the oats relatively to wheat.

3. Does political economy have to do only with things which have value? Does it include the consideration of such things as truthfulness?

4. Why does a chair have value?

5. Does land have value? Is it transferable? Can land be bought and sold? What is a deed for?

6. A bushel of corn is exchanged for twenty grains of gold; a pound of mutton for four grains of gold. What is the value of corn relatively to mutton?

7. When bananas grow by the road-side in profusion in warm climates, do they have exchange value?

8. Does a diamond satisfy any desire? Are large diamonds plentiful? If diamonds were as plentiful as peas, would they have any value?

9. Why does not a cart-horse have the same value as a race-horse? Is not the former more useful than the latter?

10. Would a bag of gold be of value to a shipwrecked sailor on a rocky and deserted island? Would it satisfy any desire? Could it give him food or drink? Could he clothe himself in it?

11. When people sell grain for money, what is done with the money? Do they eat the money? In selling grain for money, is it the object to get and keep money, or to get money with which to buy something else?

12. If general prices go up, what does that signify in regard to the value of gold or silver?

13. If prices fall, is the general wealth of the country any less? Are there as many articles of value as before prices fell?

CHAPTER X.

MONEY.

88. AFTER commodities are produced, and are ready to be exchanged, all means of facilitating the exchange are of great importance. In fact, we exchange goods every day so easily that it never occurs to us to think how it is done, or what wonderful contrivances have been devised for the purpose by mankind through long centuries of experience and usage. Every man who works is actuated by a desire for something, and what he produces gives him the means of getting that which will satisfy his desires. One rich man devotes all his capital and time to employing labor in making thousands of stoves; but stoves cannot in themselves give him food, drink, shelter, or clothing. He cannot eat stoves; but he can exchange his stoves for food, or for any of the great number of things he wants. Yet it would be very troublesome to exchange one commodity directly for another, and therefore men have in the process of time contrived means of overcoming the difficulty. The two great machines discovered for facilitating the exchange of goods are **money** and **credit**. They are **the two tools of exchange** invented only after long trial and experience. At present we shall treat of money only.

89. If there were no money, it would be an extreme inconvenience to be obliged to barter one commodity for another. Anything like the trade and business we see