CHAPTER VI.

OF THE MARGINAL PAIR.

The price coincides very nearly with the estimate of the "last buyer." *E. von Boehm-Bawerk.*

Let us now assume that *three* coat owners enter the market where, as before, there is but one person with an extra pair of shoes. All of the conditions which we have noted will apply, and there will be from the start one of the three coat owners who, because of the greater intensity of his desire, will tend to lead in the bidding for the shoes, although he will try to get them with as little disutility as possible. If the three have equal abilities for exchange, the one having the greatest need or desire for the shoes will be the most capable of the capable buyers in that market, and the one with which the owner, or seller, of the shoes will most readily strike a bargain. Whenever there is more than one capable buyer for an article in a limited market, one of them will be the most capable, and will make the actual exchange, although every capable buyer will to some extent influence the fixing of the point of exchange. But whenever there is a one-sided market, with all or a greater part of the competition among the buyers, the most capable buyer—the capable buyer with the greatest desire—will tend to fix the point of exchange. This results in a correspond-

ingly great disutility to the buyers in such a market. The disutility of competition in such case is thrown upon the buyers, while the utility is enjoyed by the seller or sellers. It is natural enough, perhaps, in such conditions, that the sellers should endeavor to retain their advantage, even to the extent of persuading the buyers that such is the natural and necessary condition of every market.

The entrance of other capable buyers of shoes into this market—neither the number of sellers nor the stock of shoes being increased—could only result in greater divergence of desires between the most capable and the least capable buyer, until the disutility of obtaining a pair of shoes by exchange would approximate the disutility of making them at first hand. Thus the utility of the market would be reduced to a minimum, if not entirely destroyed. For even in a one-sided market the commercial disutility of a labor-form can not, as a rule, be made to exceed its industrial disutility to the most capable buyers; for otherwise there is in even the most capable buyers no motive for exchange.

Let us now consider a one-sided market in which there are more sellers of shoes than buyers. If there are two sellers and but one buyer, one of the sellers will make the exchange, but he will do so at a lower point than if he were the only seller. The presence of the second seller is a disadvantage to him and a corresponding advantage to the buyer. If another seller enters the market, the disadvantage to the most capable seller is increased, as is also the advantage to the buyer.

A **Capable Seller** in a given market is one who is both

able and willing to sell at the market price rather than not sell at all.

It will be noted that in such a one-sided market the most capable seller is the one who has the least desire to retain his extra pair of shoes as compared with the desire to acquire a coat. That is, he is the one most anxious to sell. It follows that if the number of sellers be increased, the number of buyers remaining the same, the point of exchange will be forced down until there remains but one unit of utility to the most capable seller. In normal conditions it can not be forced lower, for then even the most capable seller would have no motive for exchange. Therefore, in one-sided markets the point of exchange of a given labor-form will range from its disutility to the most capable buyer (highest bidder) down to its utility to the most capable (or lowest) seller, according as the advantage of the market is with the sellers or the buyers, respectively.

Let us now consider a market in which there are two sellers and two buyers of coats, each seller having but one extra coat. The most capable buyer and the most capable seller—called the most capable pair in the market—will first exchange, their point of agreement being influenced by the presence in the market of the other men. These will then be left to agree upon an exchange without reference to the first pair who, having satisfied their desires through exchange, are now out of the market.

In our discussion of utility and disutility we were led to consider the point of spontaneity, the point of disutility, the point of positive utility, and the marginal units of

utility and disutility. In the foregoing discussion of exchanges in one-sided markets we have considered, also, the point of exchange, which lies at the upper limit of commercial utility. We have now to consider the point of exchange as it is manifested in a general market.

We have been considering a small market in which men have met for the purposes of barter. In developing a larger market, it will not be necessary for us at this time to trace the various steps in the growth of the market until men have ceased to barter and have agreed upon some labor-form, as gold or silver, for use as a medium of exchange. For convenience we will for the present assume that men have adopted gold and silver as current trade metals, and that these metals have been coined into units with various fractional and multiple denominations as in the case of current coin.

After money comes into current use and a general market is established, each man produces labor-forms to be turned by sale into money, with which he purchases other labor-forms as his needs may require. This we know; but out of these seemingly simple transactions arise certain economic definitions and laws of the highest importance.

An **Ordinary Trade-Form** is a trade-form which is bought and sold in the ordinary process of the market.

A **Current Trade-Form** is a trade-form which passes current in the market as a medium of exchange.

Current trade-forms, current debit-forms, and current credit-forms constitute the money-forms of modern commerce. The additional forms will be defined later.

We have seen that in any market containing several capable buyers there is one who is most anxious to purchase. We have also seen that in a one-sided market with few sellers and many buyers the most anxious buyer is the one who will first exchange. The price may then fall to the bid of the next buyer, and so on, it being possible in such a market to have a different price for each purchase. The same shifting of price may result from a one-sided market with many sellers and but few buyers, except that the price will tend to increase with each purchase and sale, as the most anxious or cheapest sellers will first dispose of their wares. But, as is well known, in a general market in which there are many sellers and many buyers, and in which the supply of ordinary trade-forms and the demand for them tend toward an equilibrium, the price does not differ with each sale, nor does it tend to do so. On the contrary, the tendency is toward a fixed market price at which all must sell and all must buy in that market. This is one of the most interesting as well as the most important facts which we have to consider. It constitutes one of the most talked about and least understood phases of economic phenomena.

One of the first things which a buyer learns is the advantage of concealing his own desires and necessities, and of assuming an indifference which is felt only by those buyers whose desires and necessities are least of all. The seller also learns to conceal his necessities, if any such exist, but he must constantly evince his *desire* to sell by advertising, window displays, and the thousand and one expedients known to the modern merchant. The ulti-

mate effect of the tendency of buyers to conceal their desires is to *abolish,* in a general market, *all open competition among buyers.* While the ultimate effect of the tendency among sellers to attract buyers at all hazards is to *intensify,* in a general market, *the open competition among sellers.*

To illustrate: There is little, if any, conscious and open competition among the buyers of staple groceries and dry goods in an ordinary country town; but there is considerable conscious and open competition among even country merchants. In large cities there is absolutely no open competition among the buyers of goods at a mammoth department store. It matters not that one purchaser may be practically destitute of clothing and another supplied beyond his actual needs; the price is the same to both. A starving man enters a restaurant and sits at the same table with an epicure who is so surfeited that he can scarcely select from a most elaborate bill of fare a morsel that is even palatable to him; yet the starving man pays no more than the epicure. The price was fixed before they came, and neither the abnormal appetite of the one nor the lack of appetite of the other affects it in the least. They do not bid against each other. What *does* fix the price? Supply and demand? As well say, "Chops and tomato sauce" for all that the hackneyed phrase "supply and demand" means as currently used.

The difficulty of answering this question as to the determining factor or factors of market price is increased by the fact that there is nowhere a market of any considerable consequence in which the natural laws of exchange have

free play. Everywhere that we may seek to examine the market we shall find that it is affected more or less by juridical institutions, laws and customs which interfere with normal conditions. This makes it necessary for us to distinguish between normal and abnormal economic conditions, and between the normal and the abnormal market.

Juridical Institutions, Laws and Customs are institutions, laws and customs which are recognized and enforced by the judicial powers of the State.

A **Normal Market** is a market unaffected by juridical institutions, laws or customs which interfere with normal conditions.

An **Abnormal Market** is a market affected by juridical institutions, laws or customs which interfere with normal conditions.

In the following discussion of market and price and of value and cost the examination of facts and principles is confined to normal conditions except in instances in which the contrary is specially noted. This noting is usually done by the use of the term "in present conditions." By the use of this term we mean conditions of the market abnormally affected by present juridical institutions, laws and customs.

In the science of mechanics there is discussed a process called the composition of forces by means of which a single physical force is found which is the concentrated effect of two or more separate forces acting in given directions and meeting at a common center. This single force when found, or composed, is measurable and is

called the resultant. In connection with every resultant there is conceived to be a force acting in the opposite direction which just equals it and which is called an equilibrant. If Economic Science, so-called, be truly a science, it must disclose a process by means of which a single resultant may be found which is the concentrated effect of all the economic forces which center in the market. It must do this just as completely and with as much certainty as mechanical science is enabled to compose physical forces into measurable resultants and their corresponding equilibrants. That Economic Science is a true science, and that the composition of those economic forces which center in the market finds a measurable resultant in value and a corresponding equilibrant in cost we now proceed to prove.

We have seen that in any market the competition among sellers persists. In fact, the larger the market the greater the competition becomes. In the country town the merchants compete, but are comparatively at ease; while in the large city, in present conditions, men lie awake at night evolving plans for enlarging their trade at the expense of their competitors. Now, in any general market there is one seller who, in respect to a given trade-form, is most anxious to sell. If he has but a small supply of that trade-form compared with the usual demand in that market, he may lower his price and dispose of his supply without affecting the general market price. His action in so doing will be known to but few. In such case he is not, economically speaking, an integral part of the general market, but rather an isolated and incidental seller. But if

his supply of such trade-form is sufficient to affect the entire market, he becomes a marginal seller upon that market, and competition forces all other sellers to offer similar trade-forms at his price. It makes no difference how large the market, if the supply of a given seller be large enough, he may set a price which all others must meet. The marginal seller, then, is the determiner of price upon his side of the market.

The **Marginal Seller** of a given trade-form is the most anxious seller whose supply of such trade-form is sufficient to affect the entire market.

In a large market there are usually several sellers who are equally capable and equally anxious to sell, and who consequently offer a given trade-form at the same price. If their combined supplies are sufficient to affect the entire market, the price fixed by them becomes the market price. In such cases they constitute the "marginal group" of sellers, and practically act as one man.

We have seen that in any general market the open competition among buyers tends to diminish and finally to disappear. We must not conclude from this, however, that the buyers of a given trade-form have little or nothing to do with fixing its price. As a class they appear to buy at a price already fixed; and as a class, the sellers appear to fix the price. But the fact is contrary to the appearance. In the absence of monopoly the price is not fixed arbitrarily by the seller. It is largely determined by the desires of those capable but indifferent buyers whose participation is necessary to exhaust the supply in the given market.

Suppose that in a given market, at the beginning of the fruit season, 100 baskets of peaches are received and offered for sale. This fruit is perishable and must all be disposed of quickly in order to avoid deterioration and loss. Let us assume that the supply is divided among three or four dealers, and that it is necessary, in order to avoid loss, to dispose of the entire stock upon the day of its arrival. There are in that market five families able and willing, if necessary, to pay $5 a basket for peaches; ten other families who are capable buyers at not exceeding $3; fifteen other families, at not exceeding $2; seventy other families, at not exceeding $1 per basket, and all of the sellers are aware that, from the state of the demand, their entire stock can not be sold unless the market price becomes as low as $1 per basket. In the ordinary course of business in such circumstances each dealer marks his peaches at $1 per basket, and all buyers take advantage of that price.

On the next day 150 baskets of peaches are received in that market, and the capable demand of the 100 families above mentioned remains the same, but in addition to these there are fifty families who will buy peaches at not exceeding 75 cents per basket. The price of peaches for that day is 75 cents. If, on the next day, 250 baskets are received, and one hundred additional families are capable buyers at not exceeding 50 cents per basket, that sum is the price necessary to be fixed in order to exhaust the entire supply of peaches. If the price at which the entire supply can be disposed of is not known to the dealers in advance, the market price may start higher and fall dur-

ing the day; but at any given time the price tends toward uniformity among all the dealers.

For the sake of brevity and clearness of illustration we have made use of a perishable labor-form in a market in which the price may fluctuate from day to day, the material points being that at any given time there is, in ordinary circumstances, but one price in that market, and that that point is fixed, not arbitrarily by the sellers themselves, but by the capable demand of the lowest buyers whose participation is necessary to exhaust the supply in the market. If now we change the illustration to some article not immediately perishable, we shall find that the market price is relatively constant from day to day, but that such changes of price as may occur result from the demand of the most indifferent, but necessary, buyers.

This fact is recognized by all merchants, and especially by large dealers in a market where competition among sellers is close. They not only strive to secure a large share of the trade of those whose demand for a given trade-form is so great that they will buy it somewhere without urging—in which case the question is simply which merchant gets the trade—but they also constantly seek to attract buyers who are practically indifferent. Full page advertisements in metropolitan dailies, elaborate window displays, and tempting prices are resorted to not only to attract the man who wants the goods in question, but also to create desire in those who otherwise would not buy at all. It is not the men and women of wealth who drive to the store in fashionable turnouts and are met at the door with smiles of welcome, followed with fawning, and dismissed

with obsequiousness and flattery, who fix the price of staple articles; it is the people of small means who are just on the verge of expending hard earned money in some other way. The merchant must dispose of his entire stock on hand before it becomes shopworn, and for this reason he caters with low prices to those with whom it is a matter of the turning of a hand whether or not they will buy. The marginal buyer is the determiner of price upon his side of the market.

The **Marginal Buyer** of a given trade-form is the most indifferent buyer whose participation is necessary to exhaust the supply of such trade-form in the market.

As in the case of the marginal seller, the marginal buyer is often but one of a class of buyers similarly situated. These buyers collectively constitute the "marginal group" of buyers and practically act as one man.

The marginal seller and the marginal buyer in any market constitute its "marginal pair." The marginal pair are the determiners of market price in normal conditions. But from the fact that the marginal seller is anxious upon his side of the transaction, and the marginal buyer indifferent upon his, it necessarily follows that the preponderating tendency is toward the bid of the marginal buyer, and consequently toward lowness of price.

There are economic forces behind each of these factors of market price, however, which we can not fully analyze until we have considered the subject of value and cost. And there is an economic fact of great practical importance which follows from what has been said in the foregoing discussion, and which will be emphasized by the

discussion of value and cost. It is this: All individual traders above the margin in a normal market are bound by prices fixed by forces outside themselves. In the absence of some monopoly possessed by them—which would render the market abnormal—they do not control the market price, but are controlled by it.

It must at all times be remembered that the marginal seller is not merely the most anxious seller, and the marginal buyer not merely the most indifferent buyer. The marginal seller must control such a stock of trade-forms as will affect the supply of the market as a whole; and the marginal buyer must be a buyer who is needed in the given market to exhaust the supply. He must have desire enough, despite his indifference, to become an actual buyer. He must evince an effective demand.

An examination of the qualifying or limiting clauses in the definitions of marginal seller and marginal buyer will disclose the fact that the marginal seller must usually be a man of some means in order that his supply may affect the entire market; while the marginal buyer may be and presumably will be, in most cases, a man of comparatively small means. In fact, the chances are that the least capable of all the capable buyers will become the marginal buyer in any general market. These facts present another reason why the normal market is more readily affected from the side of the buyer than that of the seller with a consequent tendency toward lower prices. After we have considered the questions of value and cost and the problem of production, we shall be prepared to say that, in a general market of staple trade-forms at least, in normal condi-

tions, the price of trade-forms *already in the market* is fixed by the lowest capable demand of the marginal buyers. We shall also see that this does not controvert the fact, equally important in its place, that the further production or non-production of labor-forms *to be placed in the market* is determined by their disutility to the marginal sellers.