Part Four

Catallactics Or Economics Of The Market Society

XIV. THE SCOPE AND METHOD OF CATALLACTICS

1. The Delimitation of Catallactic Problems

THERE have never been any doubts and uncertainties about the scope of economic science. Ever since people have been eager for a systematic study of economics or political economy, all have agreed that it is the task of this branch of knowledge to investigate the market phenomena, that is, the determination of the mutual exchange ratios of the goods and services negotiated on markets, their origin in human action and their effects upon later action. The intricacy of a precise definition of the scope of economics does not stem from uncertainty with regard to the orbit of the phenomena to be investigated. It is due to the fact that the attempts to elucidate the phenomena concerned must go beyond the range of the market and of market transactions. In order to conceive the market fully one is forced to study the action of hypothetical isolated individuals on one hand and to contrast the market system with an imaginary socialist commonwealth on the other hand. In studying interpersonal exchange one cannot avoid dealing with autistic exchange. But then it is no longer possible to define neatly the boundaries between the kind of action which is the proper field of economic science in the narrower sense, and other action. Economics widens its horizon and turns into a general science of all and every human action, into praxeology. The question emerges of how to distinguish precisely, within the broader field of general praxeology, a narrower orbit of specifically economic problems.

The abortive attempts to solve this problem of a precise delimitation of the scope of catallactics have chosen as a criterion either the motives causing action or the goals which action aims at. But the variety and manifoldness of the motives instigating a man's action are without relevance for a comprehensive study of acting. Every action is motivated by the urge to remove a felt uneasiness. It does not matter for the science of action how people qualify this uneasiness from a physiological, psychological, or ethical point of view. It is the task of economics to deal with all commodity prices as they are really asked and paid in market transactions. It must not restrict its investigations to the study of those prices which result or are likely to result from a conduct displaying attitudes to which psychology, ethics, or any other way of looking at human behavior would attach a definite label. The classification of actions according to their various motives may be momentous for psychology and may provide a yardstick for a moral evaluation; for economics it is inconsequential. Essentially the same is valid with regard to the endeavors to restrict the scope of economics to those actions which aim at supplying people with tangible material things of the external universe. Strictly speaking, people do not long for tangible goods as such, but for the services which these goods are fitted to render them. They want to attain the increment in well-being which these services are able to convey. But if this is so, it is not permissible to except from the orbit of "economic" action those actions which remove uneasiness directly without the interposition of any tangible and visible things. The advice of a doctor, the instruction of a teacher, the recital of an artist, and other personal services are no less an object of economic studies than the architect's plans for the construction of a building, the scientist's formula for the production of a chemical compound, and the author's contribution to the publishing of a book.

The subject matter of catallactics is all market phenomena with all their roots, ramifications, and consequences. It is a fact that people in dealing on the market are motivated not only by the desire to get food, shelter, and sexual enjoyment, but also by manifold "ideal" urges. Acting man is always concerned both with "material" and "ideal" things. He chooses between various alternatives, no matter whether they are to be classified as material or ideal. In the actual scales of value material and ideal things are jumbled together. Even if it were feasible to draw a sharp line between material and ideal concerns, one must realize that every concrete action either aims at the realization both of material and ideal ends or is the outcome of a choice between something material and something ideal.

Whether it is possible to separate neatly those actions which aim at the satisfaction of needs exclusively conditioned by man's physiological constitution from other "higher" needs can be left undecided. But we must not overlook the fact that in reality no food is valued solely for its nutritive power and no garment or house solely for the protection it affords against cold weather and rain. It cannot be denied that the demand for goods is widely influenced by metaphysical, religious, and ethical considerations, by aesthetic value judgments, by customs, habits, prejudices, tradition, changing fashions, and many other things. To an economist who would try to restrict his investigations to "material" aspects only, the subject matter of inquiry vanishes as soon as he wants to catch it.

All that can be contended is this: Economics is mainly concerned with the analysis of the determination of money prices of goods and services exchanged on the market. In order to accomplish this task it must start from a comprehensive theory of human action. Moreover, it must study not only the market phenomena, but no less the hypothetical conduct of an isolated man and of a socialist community. Finally, it must not restrict its investigations to those modes of action which in mundane speech are called "economic" actions, but must deal also with actions which are in a loose manner of speech called "noneconomic."

The scope of praxeology, the general theory of human action, can be precisely defined and circumscribed. The specifically economic problems, the problems of economic action in the narrower sense, can only by and large be disengaged from the comprehensive body of praxeological theory. Accidental facts of the history of science of conventions play a role in all attempts to provide a definition of the scope of "genuine" economics.

Not logical or epistemological rigor, but considerations of expediency and traditional convention make us declare that the field of catallactics or of economics in the narrower sense is the analysis of the market phenomena. This is tantamount to the statement: Catallactics is the analysis of those actions which are conducted on the basis of monetary calculation. Market exchange and monetary calculation are inseparably linked together. A market in which there is direct exchange only is merely an imaginary construction. On the other hand, money and monetary calculation are conditioned by the existence of the market.

It is certainly one of the tasks of economics to analyze the working of an imaginary socialist system of production. But access to this study too is possible only through the study of catallactics, the elucidation of a system in which there are money prices and economic calculation.

The Denial of Economics

There are doctrines flatly denying that there can be a science of economics. What is taught nowadays at most of the universities under the label of economics is practically a denial of it.

He who contests the existence of economics virtually denies that man's well-being is disturbed by any scarcity of external factors. Everybody, he implies, could enjoy the perfect satisfaction of all his wishes, provided a reform succeeds in overcoming certain obstacles brought about by inappropriate man-made institutions. Nature is open-handed, it lavishly loads mankind with presents. Conditions could be paradisiac for an indefinite number of people. Scarcity is an artificial product of established practices. The abolition of such practices would result in abundance.

In the doctrine of Karl Marx and his followers scarcity is a historical category only. It is the feature of the primeval history of mankind which will be forever liquidated by the abolition of private property. Once mankind has effected the leap from the realm of necessity into the realm of freedom[1] and thereby reached "the higher phase of communist society," there will be abundance and consequently it will be feasible to give "to each according to his needs."[2] There is in the vast flood of Marxian writings not the slightest allusion to the possibility that a communist society in its "higher phase" might have to face a scarcity of natural factors of production. The fact of the disutility of labor is spirited away by the assertion that to work, under communism of course, will no longer be pain but pleasure, "the primary necessity of life."[3] The unpleasant experiences of the Russian "experiment" are interpreted as caused by the capitalists' hostility, by the fact that socialism in one country only is not yet perfect and therefore has not yet been able to bring about the "higher phase," and, more recently, by the war.

Then there are the radical inflationists as represented, for example, by Proudhon and by Ernest Solvay. In their opinion scarcity is created by the artificial checks upon credit expansion and other methods of increasing the quantity of money in circulation, enjoined upon the gullible public by the selfish class interests of bankers and other exploiters. They recommend unlimited public spending as the panacea.

Such is the myth of potential plenty and abundance. Economics may leave it to the historians and psychologists to explain the popularity of this kind of wishful thinking and indulgence in daydreams. All that economics has to say about such idle talk is that economics deals with the problems man has to face on account of the fact that his life is conditioned by natural factors. It deals with action, i.e., with the conscious endeavors to remove as far as possible felt uneasiness. It has nothing to assert with regard to the state of affairs in an unrealizable and for human reason even inconceivable universe of unlimited opportunities. In such a world, it may be admitted, there will be no law of value, no scarcity, and no economic problems. These things will be absent because there will be no choices to be made, no action, and

1. Cf. Engels, *Herrn Eugen Duhrings Umwalzung der Wissenschaft* (7th ed. Stuttgart, 1910), p.306.

2. Cf. Karl Marx, *Zur Kritik des sozialdemokratischen Parteiprogramms von Gotha*, ed. Kreibich (Reichenberg, 1920), p. 17.

3. Cf. *ibid.*

no tasks to be solved by reason. Beings which would have thrived in such a world would never have developed reasoning and thinking. If ever such a world were to be given to the descendants of the human race, these blessed beings would see their power to think wither away and would cease to be human. For the primary task of reason is to cope consciously with the limitations imposed upon man by nature, is to fight against scarcity. Acting and thinking man is the product of a universe of scarcity in which whatever well-being can be attained is the prize of toil and trouble, of conduct popularly called economic.

2. The Method of Imaginary Constructions

The specific method of economics is the method of imaginary constructions.

This method is the method of praxeology. That it has been carefully elaborated and perfected in the field of economic studies in the narrower sense is due to the fact that economics, at least until now, has been the best-developed part of praxeology. Everyone who wants to express an opinion about the problems commonly called economic takes recourse to this method. The employment of these imaginary constructions is, to be sure, not a procedure peculiar to the scientific analysis of these problems. The layman in dealing with them resorts to the same method. But while the layman's constructions are more or less confused and muddled, economics is intent upon elaborating them with the utmost care, scrupulousness, and precision, and upon examining their conditions and assumptions critically.

An imaginary construction is a conceptual image of a sequence of events logically evolved from the elements of action employed in its formation. It is a product of deduction, ultimately derived from the fundamental category of action, the act of preferring and setting aside. In designing such an imaginary construction the economist is not concerned with the question of whether or not it depicts the conditions of reality which he wants to analyze. Nor does he bother about the question of whether or not such a system as his imaginary construction posits could be conceived as really existent and in operation. Even imaginary constructions which are inconceivable, self-contradictory, or unrealizable can render useful, even indispensable services in the comprehension of reality, provided the economist knows how to use them properly.

The method of imaginary constructions is justified by its success. Praxeology cannot, like the natural sciences, base its teachings upon laboratory experiments and sensory perception of external objects. It had to develop methods entirely different from those of physics and biology. It would be a serious blunder to look for analogies to the imaginary constructions in the field of the natural sciences. The imaginary constructions of praxeology can never be confronted with any experience of things external and can never be appraised from the point of view of such experience. Their function is to serve man in a scrutiny which cannot rely upon his senses. In confronting the imaginary constructions with reality we cannot raise the question of whether they correspond to experience and depict adequately the empirical data. We must ask whether the assumptions of our construction are identical with the conditions of those actions which we want to conceive.

The main formula for designing of imaginary constructions is to abstract from the operation of some conditions present in actual action. Then we are in a position to grasp the hypothetical consequences of the absence of these conditions and to conceive the effects of their existence. Thus we conceive the category of action by constructing the image of a state in which there is no action, either because the individual is fully contented and does not feel any uneasiness or because he does not know any procedure from which an improvement in his well-being (state of satisfaction) could be expected. Thus we conceive the notion of originary interest from an imaginary construction in which no distinction is made between satisfactions in periods of time equal in length but unequal with regard to their distance from the instant of action.

The method of imaginary constructions is indispensable for praxeology; it is the only method of praxeological and economic inquiry. It is, to be sure, a method difficult to handle because it can easily result in fallacious syllogisms. It leads along a sharp edge; on both sides yawns the chasm of absurdity and nonsense. Only merciless self-criticism can prevent a man from falling headlong into these abysmal depths.

3. The Pure Market Economy

The imaginary construction of a pure or unhampered market economy assumes that there is division of labor and private ownership (control) of the means of production and that consequently there is market exchange of goods and services. It assumes that the operation of the market is not obstructed by institutional factors. It assumes that the government, the social apparatus of compulsion and coercion, is intent upon preserving the operation of the market system, abstains from hindering its functioning, and protects it against encroachments on the part of other people. The market is free; there is no interference of factors, foreign to the market, with prices, wage rates, and interest rates. Starting from these assumptions economics tries to elucidate the operation of a pure market economy. Only at a later stage, having exhausted everything which can be learned from the study of this imaginary construction, does it turn to the study of the various problems raised by interference with the market on the part of governments and other agencies employing coercion and compulsion.

It is amazing that this logically incontestable procedure, the only one that is fitted to solve the problems involved, has been passionately attacked. People have branded it as a prepossession in favor of a liberal economic policy, which they stigmatize as reactionary, economic royalism, Manchesterism, negativism, and so on. They deny that anything can be gained for the knowledge of reality from occupation with this imaginary construction. However, these turbulent critics contradict themselves as they take recourse to the same method in advancing their own assertions. In asking for minimum wage rates they depict the alleged unsatisfactory conditions of a free labor market and in asking for tariffs they describe the alleged disasters brought about by free trade. There is, of course, no other way available for the elucidation of a measure limiting the free play of the factors operating on an unhampered market than to study first the state of affairs prevailing under economic freedom.

It is true that economists have drawn from their investigations the conclusion that the goals which most people, practically even all people, are intent on attaining by toiling and working and by economic policy can best be realized where the free market system is not impeded by government decrees. But this is not a preconceived judgment stemming from an insufficient occupation with the operation of government interference with business. It is, on the contrary, the result of a careful unbiased scrutiny of all aspects of interventionism.

It is also true that the classical economists and their epigones used to call the system of the unhampered market economy "natural" and government meddling with market phenomena "artificial" and "disturbing." But this terminology also was the product of their careful scrutiny of the problems of interventionism. They were in conformity with the semantic practice of their age in calling an undesirable state of social affairs "contrary to nature."

Theism and Deism of the Age of Enlightenment viewed the regularity of natural phenomena as an emanation of the decrees of Providence. When the philosophers of the Enlightenment discovered that there prevails a regularity of phenomena also in human action and in social evolution, they were prepared to interpret it likewise as evidence of the paternal care of the Creator of the universe. This was the true meaning of the doctrine of the predetermined harmony as expounded by some economists.[4] The social philosophy of paternal despotism laid stress upon the divine mission of kings and autocrats predestined to rule the peoples. The liberal retorted that the operation of an unhampered market, on which the consumer—i.e., every citizen—is sovereign, brings about more satisfactory results than the decrees of anointed rulers. Observe the functioning of the market system, they said, and you will discover in it too the finger of God.

Along with the imaginary construction of a pure market economy the classical economists elaborated its logical counterpart, the imaginary construction of a socialist commonwealth. In the heuristic process which finally led to the discovery of the operation of a market economy this image of a socialist order even had logical priority. The question which preoccupied the economists was whether a tailor could be supplied with bread and shoes if there was no government decree compelling the baker and the shoemaker to provide for his needs. The first thought was that authoritarian interference is required to make every specialist serve his fellow citizens. The economists were taken aback when they discovered that no such compulsion is needed. In contrasting productivity and profitability, self-interest and public welfare, selfishness and altruism, the economists implicitly referred to the image of a socialist system. Their astonishment at the "automatic," as it were, steering of the market system was precisely due to the fact that they realized that an "anarchic" state of production results in supplying people better than the orders of a centralized omnipotent government. The idea of socialism—a system of the division of labor entirely controlled and managed by a planning authority—did not originate in the heads of utopian reformers. These utopians aimed rather at the autarkic coexistence of small self-sufficient bodies; take, for instance, Fourier's *phalanstere*. The radicalism of the reformers turned toward socialism when they took the image of an economy managed by a national government or a world authority, implied in the theories of the economists, as a model for their new order.

The Maximization of Profits

It is generally believed that economists, in dealing with the problems of a market economy, are quite unrealistic in assuming that all men are always

4. The doctrine of the predetermined harmony in the operation of an unhampered market system must not be confused with the theorem of the harmony of the rightly understood interests within a market system, although there is something akin between them. Cf. below, pp. 673-682.

eager to gain the highest attainable advantage. They construct, it is said, the image of a perfectly selfish and rationalistic being for whom nothing counts but profit. Such a homo oeconomicus may be a likeness of stock jobbers and speculators. But the immense majority are very different. Nothing for the cognition of reality can be learned from the study of the conduct of this delusive image.

It is not necessary to enter again into a refutation of all the confusion, error, and distortion inherent in this contention. The first two parts of this book have unmasked the fallacies implied. At this point it is enough to deal with the problem of the maximization of profits.

Praxeology in general and economics in its special field assume with regard to the springs of human action nothing other than that acting man wants to remove uneasiness. Under the particular conditions of dealing on the market, action means buying and selling. Everything that economics asserts about demand and supply refers to every instance of demand and supply and not only to demand and supply brought about by some special circumstances requiring a particular description or definition. To assert that a man, faced with the alternative of getting more or less for a commodity he wants to sell, *ceteris paribus* chooses the high price, does not require any further assumption. A higher price means for the seller a better satisfaction of his wants. The same applies mutatis mutandis to the buyer. The amount saved in buying the commodity concerned enables him to spend more for the satisfaction of other needs. To buy in the cheapest market and to sell in the dearest market is, other things being equal, not conduct which would presuppose any special assumptions concerning the actor's motives and morality. It is merely the necessary offshoot of any action under the conditions of market exchange.

In his capacity as a businessman a man is a servant of the consumers, bound to comply with their wishes. He cannot indulge in his own whims and fancies. But his customers' whims and fancies are for him ultimate law, provided these customers are ready to pay for them. He is under the necessity of adjusting his conduct to the demand of the consumers. If the consumers, without a taste for the beautiful, prefer things ugly and vulgar, he must, contrary to his own convictions, supply them with such things.[5] If consumers do not want to pay a higher price for domestic products than for those produced abroad, he must buy the foreign product, provided it is cheaper. An employer cannot grant favors at the expense of his customers. He cannot pay wage rates higher than those determined by the market if the buyers are

5. A painter is a businessman if he is intent upon making paintings which could be sold at the highest price. A painter who does not compromise with the taste of the buying public and, disdaining all unpleasant consequences, lets himself be guided solely by his own ideals is an artist, a creative genius. Cf. above, pp. 139-140.

not ready to pay proportionately higher prices for commodities produced in plants in which wage rates are higher than in other plants.

It is different with man in his capacity as spender of his income. He is free to do what he likes best. He can bestow alms. He can, motivated by various doctrines and prejudices, discriminate against goods of a certain origin or source and prefer the worse or more expensive product to the—technologically—better and cheaper one.

As a rule people in buying do not make gifts to the seller. But nonetheless that happens. The boundaries between buying goods and services needed and giving alms are sometimes difficult to discern. He who buys at a charity sale usually combines a purchase with a donation for a charitable purpose. He who gives a dime to a blind street musician certainly does not pay for the questionable performance; he simply gives alms.

Man in acting is a unity. The businessman who owns the whole firm may sometimes efface the boundaries between business and charity. If he wants to relieve a distressed friend, delicacy of feeling may prompt him to resort to a procedure which spares the latter the embarrassment of living on alms. He gives the friend a job in his office although he does not need his help or could hire an equivalent helper at a lower salary. Then the salary granted appears formally as a part of business outlays. In fact it is the spending of a fraction of the businessman's income. It is, from a correct point of view, consumption and not an expenditure designed to increase the firm's profits.[6]

Awkward mistakes are due to the tendency to look only upon things tangible, visible, and measurable, and to neglect everything else. What the consumer buys is not simply food or calories. He does not want to feed like a wolf, he wants to eat like a man. Food satisfies the appetite of many people the better, the more appetizingly and tastefully it is prepared, the finer the table is set, and the more agreeable the environment is in which the food is consumed. Such things are regarded as of no consequence by a consideration exclusively occupied with the chemical aspects of the process of digestion.[7] But the fact that they play an important role in the determination of food prices is perfectly compatible with the assertion that people prefer, ceteris paribus, to buy in the cheapest market. Whenever a buyer, in choosing between two things which chemists and technologists deem perfectly equal, prefers the more expensive, he has a reason.

6. Such overlapping of the boundaries between business outlays and consumptive spending is often encouraged by institutional conditions. An expenditure debited to the account of trading expenses reduces net profits and thereby the amount of taxes due. If taxes absorb 50 per cent of profits, the charitable businessman spends only 50 per cent of the gift out of his own pocket. The rest burdens the Department of Internal Revenue.

7. To be sure, a consideration from the point of view of the physiology of nutrition will not regard such things as negligible.

If he does not err, he pays for services which chemistry and technology cannot comprehend with their specific methods of investigation. If a man prefers an expensive place to a cheaper one because he likes to sip his cocktails in the neighborhood of a duke, we may remark on his ridiculous vanity. But we must not say that the man's conduct does not aim at an improvement of his own state of satisfaction.

What a man does is always aimed at an improvement of his own state of satisfaction. In this sense—and in no other—we are free to use the term selfishness and to emphasize that action is necessarily always selfish. Even an action directly aiming at the improvement of other people's conditions is selfish. The actor considers it as more satisfactory for himself to make other people eat than to eat himself. His uneasiness is caused by the awareness of the fact that other people are in want.

It is a fact that many people behave in another way and prefer to fill their own stomach and not that of their fellow citizens. But this has nothing to do with economics; it is a datum of historical experience. At any rate, economics refers to every kind of action, no matter whether motivated by the urge of a man to eat or to make other people eat.

If maximizing profits means that a man in all market transactions aims at increasing to the utmost the advantage derived, it is a pleonastic and perphrastic circumlocution. It only asserts what is implied in the very category of action. If it means anything else, it is the expression of an erroneous idea.

Some economists believe that it is the task of economics to establish how in the whole of society the greatest possible satisfaction of all people or of the greatest number could be attained. They do not realize that there is no method which would allow us to measure the state of satisfaction attained by various individuals. They misconstrue the character of judgments which are based on the comparison between various people's happiness. While expressing arbitrary value judgments, they believe themselves to be establishing facts. One may call it just to rob the rich in order to make presents to the poor. However, to call something fair or unfair is always a subjective value judgment and as such purely personal and not liable to any verification or falsification. Economics is not intent upon pronouncing value judgments. It aims at a cognition of the consequences of certain modes of acting.

It has been asserted that the physiological needs of all men are of the same kind and that this equality provides a standard for the measurement of the degree of their objective satisfaction. In expressing such opinions and in recommending the use of such criteria to guide the government's policy, one proposes to deal with men as the breeder deals with his cattle. But the reformers fail to realize that there is no universal principle of alimentation valid for all men. Which one of the various principles one chooses depends entirely on the aims one wants to attain. The cattle breeder does not feed his cows in order to make them happy, but in order to attain the ends which he has assigned to them in his own plans. He may prefer more milk or more meat or something else. What type of men do the man breeders want to rear—athletes or mathematicians? Warriors or factory hands? He who would make man the material of a purposeful system of breeding and feeding would arrogate to himself despotic powers and would use his fellow citizens as means for the attainment of his own ends, which differ from those they themselves are aiming at.

The value judgments of an individual differentiate between what makes him more satisfied and what less. The value judgments a man pronounces about another man's satisfaction do not assert anything about this other man's satisfaction. They only assert what condition of this other man better satisfies the man who pronounces the judgment. The reformers searching for the maximum of general satisfaction have told us merely what state of other people's affairs would best suit themselves.

4. The Autistic Economy

No other imaginary construction has caused more offense than that of an isolated economic actor entirely dependent on himself. However, economics cannot do without it. In order to study interpersonal exchange it must compare it with conditions under which it is absent. It constructs two varieties of the image of an autistic economy in which there is only autistic exchange: the economy of an isolated individual and the economy of a socialist society. In employing this imaginary construction the economists do not bother about the problem of whether or not such a system could really work.[8] They are fully aware of the fact that their imaginary construction is fictitious. Robinson Crusoe, who, for all that, may have existed, and the general manager of a perfectly isolated socialist commonwealth that never existed, would not have been in a position to plan and to act as people can only when taking recourse to economic calculation. However, in the frame of our imaginary construction we are free to pretend that they could calculate whenever such a fiction may be useful for the discussion of the specific problem to be dealt with.

The imaginary construction of an autistic economy is at the bottom of the popular distinction between productivity and profitability as it developed as

8. We are dealing here with problems of theory, not history. We can therefore abstain from refuting the objections raised against the concept of an isolated actor by referring to the historical role of the self-sufficient household economy.

a yardstick of value judgments. Those resorting to this distinction consider the autistic economy, especially that of the socialist type, the most desirable and most perfect system of economic management. Every phenomenon of the market economy is judged with regard to whether or not it could be justified from the viewpoint of a socialist system. Only to acting that would be purposeful in the plans of such a system's manager are positive value and the epithet *productive* attached. All other activities performed in the market economy are called unproductive in spite of the fact that they may be profitable to those who perform them. Thus, for example, sales promotion, advertising, and banking are considered as activities profitable but nonproductive.

Economics, of course, has nothing to say about such arbitrary value judgments.

5. The State of Rest and the Evenly Rotating Economy

The only method of dealing with the problem of action is to conceive that action ultimately aims at bringing about a state of affairs in which there is no longer any action, whether because all uneasiness has been removed or because any further removal of felt uneasiness is out of the question. Action thus tends toward a state of rest, absence of action.

The theory of prices accordingly analyzes interpersonal exchange from this aspect. People keep on exchanging on the market until no further exchange is possible because no party expects any further improvement of its won conditions from a new act of exchange. The potential buyers consider the prices asked by the potential sellers unsatisfactory, and vice versa. No more transactions take place. A state of rest emerges. This state of rest, which we may call the *plain state of rest*, is not an imaginary construction. It comes to pass again and again. When the stock market closes, the brokers have carried out all orders which could be executed at the market price. Only those potential sellers and buyers who consider the market price too low or too high respectively have not sold or bought.[9] The same is valid with regard to all transactions. The whole market economy is a big exchange or market place, as it were. At any instant all those transactions take place which the parties are ready to enter into at the realizable price. New sales can be effected only when the valuations of at least one of the parties have changed.

9. For the sake of simplicity we disregard the price fluctuations in the course of the business day.

It has been asserted that the notion of the plain state of rest is unsatisfactory. It refers, people have said, only to the determination of prices of goods of which a definite supply is already available, and does not say anything about the effects brought about by these prices upon production. The objection is unfounded. The theorems implied in the notion of the plain state of rest are valid with regard to all transactions without exception. It is true, the buyers of factors of production will immediately embark upon producing and very soon reenter the market in order to sell their products and to buy what they want for their own consumption and for continuing production processes. But this does not invalidate the scheme. this scheme, to be sure, does not contend that the state of rest will last. The lull will certainly disappear as soon as the momentary conditions which brought it about change.

The notion of the plain state of rest is not an imaginary construction but the adequate description of what happens again and again on every market.

In this regard it differs radically from the imaginary construction of the final state of rest. In dealing with the plain state of rest we look only at what is going on right now. We restrict our attention to what has happened momentarily and disregard what will happen later, in the next instant or tomorrow or later. We are dealing only with prices really paid in sales, i.e., with the prices of the immediate past. We do not ask whether or not future prices will equal these prices.

But now we go a step further. We pay attention to factors which are bound to bring about a tendency toward price changes. We try to find out to what goal this tendency must lead before all its driving force is exhausted and a new state of rest emerges. The price corresponding to this future state of rest was called the *natural price* by older economists; nowadays the term *static price* is often used. In order to avoid misleading associations it is more expedient to call it the *final price* and accordingly to speak of the *final state of rest*. This final state of rest is an imaginary construction, not a description of reality. For the final state of rest will never be attained. New disturbing factors will emerge before it will be realized. What makes it necessary to take recourse to this imaginary construction is the fact that the market at every instant is moving toward a final state of rest. Every later new instant can create new facts altering this final state of rest. But the market is always disquieted by a striving after a definite final state of rest.

The market price is a real phenomenon; it is the exchange ratio which was actual in business transacted. The final price is a hypothetical price. The market prices are historical facts and we are therefore in a position to note them with numerical exactitude in dollars and cents. The final price can only be defined by defining the conditions required for its emergence. No definite numerical value in monetary terms or in quantities of other goods can be attributed to it. It will never appear on the market. The market price can never coincide with the final price coordinated to the instant in which this market structure is actual. But catallactics would fail lamentably in its task of analyzing the problems of price determination if it were to neglect dealing with the final price. For in the market situation from which the market price emerges there are already latent forces operating which will go on bringing about price changes until, provided no new data appear, the final price and the final state of rest are established. We would unduly restrict our study of price determination if we were to look only upon the momentary market prices and the plain state of rest and to disregard the fact that the market is already agitated by factors which must result in further price changes and a tendency toward a different state of rest.

The phenomenon with which we have to cope is the fact that changes in the factors which determine the formation of prices do not produce all their effects at once. A span of time must elapse before all their effects are exhausted. Between the appearance of a new datum and the perfect adjustment of the market to it some time must pass. (And, of course, while this period of time elapses, other new data appear.) In dealing with the effects of any change in the factors operating on the market, we must never forget that we are dealing with events taking place in succession, with a series of effects succeeding one another. We are not in a position to know in advance how much time will have to elapse. But we know for certain that some time must elapse, although this period may sometimes be so small that it hardly plays any role in practical life.

Economists often erred in neglecting the element of time. Take for instance the controversy concerning the effects of changes in the quantity of money. some people were only concerned with its long-run effects, i.e., with the final prices and the final state of rest. Others saw only the short-run effects, i.e., the prices of the instant following the change in the data. Both were mistaken and their conclusions were consequently vitiated. Many more examples of the same blunder could be cited.

The imaginary construction of the final state of rest is marked by paying full regard to change in the temporal succession of events. In this respect it differs from the imaginary construction of the *evenly rotating economy* which is characterized by the elimination of change in the data and of the time element. (It is inexpedient and misleading to call this imaginary construction, as is usual, the static economy or the static equilibrium, and it is a bad mistake to confuse it with the imaginary construction of a stationary economy.[10]) The evenly rotating economy is a fictitious system in which the market prices of all goods and services coincide with the final prices. There are in its frame no price changes whatever; there is perfect price stability. The same market transactions are repeated again and again. The goods of the higher orders pass in the same quantities through the same stages of processing until ultimately the produced consumers' goods come into the hands of the consumers and are consumed. No changes in the market data occur. Today does not differ from yesterday and tomorrow will not differ from today. The system is in perpetual flux, but it remains always at the same spot. It revolves evenly round a fixed center, it rotates evenly. The plain state of rest is disarranged again and again, but it is instantly reestablished at the previous level. All factors, including those bringing about the recurring disarrangement of the plain state of rest, are constant. Therefore prices—commonly called static or equilibrium prices—remain constant too.

The essence of this imaginary construction is the elimination of the lapse of time and of the perpetual change in the market phenomena. The notion of any change with regard to supply and demand is incompatible with this construction. Only such changes as do not affect the configuration of the price-determining factors can be considered in its frame. It is not necessary to people the imaginary world of the evenly rotating economy with immortal, non-aging and nonproliferating men. We are free to assume that infants are born, grow old, and finally die, provided that total population figures and the number of people in every age group remain equal. Then the demand for commodities whose consumption is limited to certain age groups does not alter, although the individuals from whom it originates are not the same.

In reality there is never such a thing as an evenly rotating economic system. However, in order to analyze the problems of change in the data and of unevenly and irregularly varying movement, we must confront them with a fictitious state in which both are hypothetically eliminated. It is therefore preposterous to maintain that the construction of an evenly rotating economy does not elucidate conditions within a changing universe and to require the economists to substitute a study of "dynamics"

10.See below, pp. 250-251.

for their alleged exclusive occupation with "statics." This so-called static method is precisely the proper mental tool for the examination of change. There is no means of studying the complex phenomena of action other than first to abstract from change altogether, then to introduce an isolated factor provoking change, and ultimately to analyze its effects under the assumption that other things remain equal. It is furthermore absurd to believe that the services rendered by the construction of an evenly rotating economy are the more valuable the more the object of our studies, the realm of real action, corresponds to this construction in respect to absence of change. The static method, the employment of the imaginary construction of an evenly rotating economy, is the only adequate method of analyzing the changes concerned without regard to whether they are great or small, sudden or slow.

The objections hitherto raised against the use of the imaginary construction of an evenly rotating economy missed the mark entirely. Their authors did not grasp in what respect this construction is problematic and why it can easily engender error and confusion.

Action is change, and change is in the temporal sequence. But in the evenly rotating economy change and succession of events are eliminated. Action is to make choices and to cope with an uncertain future. But in the evenly rotating economy there is no choosing and the future is not uncertain as it does not differ from the present known state. Such a rigid system is not peopled with living men making choices and liable to error; it is a world of soulless unthinking automatons; it is not a human society, it is an ant hill.

These insoluble contradictions, however, do not affect the service which this imaginary construction renders for the only problems for whose treatment it is both appropriate and indispensable: the problem of the relation between the prices of products and those of the factors required for their production, and the implied problems of entrepreneurship and of profit and loss. In order to grasp the function of entrepreneurship and the meaning of profit and loss, we construct a system from which they are absent. This image is merely a tool for our thinking. It is not the description of a possible and realizable state of affairs. It is even out of the question to carry the imaginary construction of an evenly rotating system to its ultimate logical consequences. For it is impossible to eliminate the entrepreneur from the picture of a market economy. The various complementary factors of production cannot come together spontaneously. They need to be combined by the purposive efforts of men aiming at certain ends and motivated by the urge to improve their state of satisfaction. In eliminating the entrepreneur one eliminates the driving force of the whole market system.

Then there is a second deficiency. In the imaginary construction of an evenly rotating economy, indirect exchange and the use of money are tacitly implied. But what kind of money can that be? In a system without change in which there is no uncertainty whatever about the future, nobody needs to hold cash. Every individual knows precisely what amount of money he will need at any future date. He is therefore in a position to lend all the funds he receives in such a way that the loans fall due on the date he will need them. Let us assume that there is only gold money and only one central bank. With the successive progress toward the state of an evenly rotating economy all individuals and firms restrict step by step their holding of cash and the quantities of gold thus released flow into nonmonetary—industrial—employment. When the equilibrium of the evenly rotating economy is finally reached, there are no more cash holdings; no more gold is used for monetary purposes. The individuals and firms own claims against the central bank, the maturity of each part of which precisely corresponds to the amount they will need on the respective dates for the settlement of their obligations. The central bank does not need any reserves as the total sum of the daily payments of its customers exactly equals the total sum of withdrawals. All transactions can in fact be effected through transfer in the bank's books without any recourse to cash. Thus the "money" of this system is not a medium of exchange; it is not money at all; it is merely a *numeraire*, an etheral and undetermined unit of accounting of that vague and indefinable character which the fancy of some economists and the errors of many laymen mistakenly have attributed to money. The interposition of these numerical expressions between seller and buyer does not affect the essence of the sales; it is neutral with regard to the people's economic activities. But the notion of a neutral money is unrealizable and inconceivable in itself.[11] If we were to use the inexpedient terminology employed in many contemporary economic writings, we would have to say: Money is necessarily a "dynamic factor"; there is no room left for money in a "static" system. But the very notion of a market economy without money is self-contradictory.

The imaginary construction of an evenly rotating system is a limiting notion. In its frame there is in fact no longer any action. Automatic reaction is substituted for the conscious striving of thinking man after the removal of uneasiness. We can employ this problematic imaginary con-

11.Cf. below, pp. 416-419.

struction only if we never forget what purposes it is designed to serve. We want first of all to analyze the tendency, prevailing in every action, toward the establishment of an evenly rotating economy; in doing so, we must always take into account that this tendency can never attain its goal in a universe not perfectly rigid and immutable, that is, in a universe which is living and not dead. Secondly, we need to comprehend in what respects the conditions of a living world in which there is action differ from those of a rigid world. This we can discover only by the *argumentum a contrario* provided by the image of a rigid economy. Thus we are led to the insight that dealing with the uncertain conditions of the unknown future—that is, speculation—is inherent in every action, and that profit and loss are necessary features of acting which cannot be conjured away by any wishful thinking. The procedures adopted by those economists who are fully aware of these fundamental cognitions may be called the *logical method* of economics as contrasted with the technique of the *mathematical method.*

The mathematical economists disregard dealing with the actions which, under the imaginary and unrealizable assumption that no further new data will emerge, are supposed to bring about the evenly rotating economy. They do not notice the individual speculator who aims not at the establishment of the evenly rotating economy but at profiting from an action which adjusts the conduct of affairs better to the attainment of the ends sought by acting, the best possible removal of uneasiness. They stress exclusively the imaginary state of equilibrium which the whole complex of all such actions would attain in the absence of any further change in the data. They describe this imaginary equilibrium by sets of simultaneous differential equations. They fail to recognize that the state of affairs they are dealing with is a state in which there is no longer any action but only a succession of events provoked by a mystical prime mover. They devote all their efforts to describing, in mathematical symbols, various "equilibria," that is, states of rest and the absence of action. They deal with equilibrium as if it were a real entity and not a limiting notion, a mere mental tool. What they are doing is vain playing with mathematical symbols, a pastime not suited to convey any knowledge.[12]

6. The Stationary Economy

The imaginary construction of a stationary economy has sometimes been confused with that of an evenly rotating economy. But in fact these

12.For a further critical examination of mathematical economics see below, pp. 350-357.

two constructions differ.

The stationary economy is an economy in which the wealth and income of the individuals remain unchanged. With this image changes are compatible which would be incompatible with the construction of the evenly rotating economy. Population figures may rise or drop provided that they are accompanied by a corresponding rise or drop in the sum of wealth and income. The demand for some commodities may change; but these changes must occur so slowly that the transfer of capital from those branches of production which are to be restricted in accordance with them into those to be expanded can be effected by not replacing equipment used up in the shrinking branches and instead investing in the expanding ones.

The imaginary construction of a stationary economy leads to two further imaginary constructions: the progressing (expanding) economy and the retrogressing (shrinking) economy. In the formet the per capita quota of wealth and income of the individuals and the population figure tend toward a higher numerical value, in the latter toward a lower numerical value.

In the stationary economy the total sum of all profits and of all losses is zero. In the progressing economy the total amount of profits exceeds the total amount of losses. In the retrogressing economy the total amount of profits is smaller than the total amount of losses.

The precariousness of these three imaginary constructions is to be seen in the fact that they imply the possibility of the measurement of wealth and income. As such measurements cannot be made and are not even conceivable, it is out of the question to apply them for a rigorous classification of the conditions of reality. Whenever economic history ventures to classify economic evolution within a certain period according to the scheme stationary, progressing or retrogressing, it resorts in fact to historical understanding and does not “measure.”

7. The Integration of Catallactic Functions

When men in dealing with the problems of their own actions, and when economic history, descriptive economics, and economic statistics in reporting other people’s actions, employ the terms entrepreneur, capitalist, landowner, worker, and consumer, they speak of ideal types. When economics employs the same terms it speaks of catallactic categories. The entrepreneurs, capitalists, landowners, workers, and consumers of economic theory are not living men as one meets them in the reality of life and history. They are the embodiment of distinct functions in the market operations. The fact that both acting men and historical sciences apply in their reasoning the results of economics and that they construct their ideal types on the basis of and with reference to the categories of praxeological theory, does not modify the radical logical distinction between ideal type and economic category. The economic categories we are concerned with refer to purely integrated functions, the ideal types refer to historical events. Living and acting man by necessity combines various functions. He is never merely a consumer. He is in addition either an entrepreneur, landowner, capitalist, or worker, or a person supported by the intake earned by such people. Moreover, the functions of the entrepreneur, the landowner, the capitalist, and the worker are very often combined in the same persons. History is intent upon classifying men according to the ends they aim at and the means they employ for the attainment of these ends. Economics, exploring the structure of acting in the market society without any regard to the ends people aim at and the means they employ, is intent upon discerning categories and functions. These are two different tasks. The difference can best be demonstrated in discussing the catallactic concept of the entrepreneur.

In the imaginary construction of the evenly rotating economy there is no room left for entrepreneurial activity, because this construction eliminates any change of data that could affect prices. As soon as one abandons this assumption of rigidity of data, one finds that action must needs be affected by every change in the data. As action necessarily is directed toward influencing a future state of affairs, even if sometimes only the immediate future of the next instant, it is affected by every incorrectly anticipated change in the data occurring in the period of time between its beginning and the end of the period for which it aimed to provide (period of provision[13]). Thus the outcome of action is always uncertain. Action is always speculation. This is valid not only with regard to a market economy but no less for Robinson Crusoe, the imaginary isolated actor, and for the conditions of a socialist economy. In the imaginary construction of an evenly rotating system nobody is an entrepreneur and speculator. In any real and living economy every actor is always an entrepreneur and speculator; the people taken care of by the actors—minor family members in the market society and the masses of a socialist society—are, although themselves not actors and therefore not speculators, affected by the outcome of the actors' speculations.

Economics, in speaking of entrepreneurs, has in view not men, but a definite function. This function is not the particular feature of a special group

13.Cf. below, p. 481.

or class of men; it is inherent in every action and burdens every actor. In embodying this function in an imaginary figure, we resort to a methodological makeshift. The term entrepreneur as used by catallactic theory means: acting man exclusively seen from the aspect of the uncertainty inherent in every action. In using this term one must never forget that every action is embedded in the flux of time and therefore involves a speculation. The capitalists, the landowners, and the laborers are by necessity speculators. So is the consumer in providing for anticipated future needs. There's many a slip 'twixt cup and lip.

Let us try to think the imaginary construction of a pure entrepreneur to its ultimate logical consequences. This entrepreneur does not own any capital. The capital required for his entrepreneurial activities is lent to him by the capitalists in the form of money loans. The law, it is true, considers him the proprietor of the various means of production purchased by expanding the sums borrowed. Nevertheless he remains propertyless as the amount of his assets is balanced by his liabilities. If he succeeds, the net profit is his. If he fails, the loss must fall upon the capitalists who have lent him the funds. Such an entrepreneur would, in fact, be an employee of the capitalists who speculates on their account and takes a 100 per cent share in the net profits without being concerned about the losses. But even if the entrepreneur is in a position to provide himself a part of the capital required and borrows only the rest, things are essentially not different. To the extent that the losses incurred cannot be borne out of the entrepreneur's own funds, they fall upon the lending capitalists, whatever the terms of the contract may be. A capitalist is always also virtually an entrepreneur and speculator. He always runs the chance of losing his funds. There is no such thing as a perfectly safe investment.

The self-sufficient landowner who tills his estate only to supply his own household is affected by all changes influencing the fertility of his farm or his personal needs. Within a market economy the result of a farmer's activities is affected by all changes regarding the importance of his piece of land for supplying the market. The farmer is clearly, even from the point of view of mundane terminology, an entrepreneur. No proprietor of any means of production, whether they are represented in tangible goods or in money, remains untouched by the uncertainty of the future. The employment of any tangible goods or money for production, i.e., the provision for later days, is in itself an entrepreneurial activity.

Things are essentially the same for the laborer. He is born the proprietor of certain abilities; his innate faculties are a means of production which is better fitted for some kinds of work, less fitted for others, and not at all fitted for still others.[14] If he has acquired the skill needed for the performance of certain kinds of labor, he is, with regard to the time and the material outlays absorbed by this training in the position of an investor. He has made an input in the expectation of being compensated by an adequate output. The laborer is an entrepreneur in so far as his wages are determined by the price the market allows for the kind of work he can perform. This price varies according to the change in conditions in the same way in which the price of every other factor of production varies.

In the context of economic theory the meaning of the terms concerned is this: Entrepreneur means acting man in regard to the changes occurring in the data of the market. Capitalist and landowner mean acting man in regard to the changes in value and price which, even with all the market data remaining equal, are brought about by the mere passing of time as a consequence of the different valuation of present goods and of future goods. Worker means man in regard to the employment of the factor of production human labor. Thus every function is nicely integrated: the entrepreneur earns profit or suffers loss; the owners of means of production (capital goods or land) earn originary interest; the workers earn wages. In this sense we elaborate the imaginary construction of *functional distribution* as different from the actual historical distribution.[15]

Economics, however, always did and still does use the term “entrepreneur” in a sense other than that attached to it in the imaginary construction of functional distribution. It also calls entrepreneurs those who are especially eager to profit

14.In what sense labor is to be seen as a nonspecific factor of production see above, pp. 133-135.

15.Let us emphasize again that everybody, laymen included, in dealing with the problems of income determination always takes recourse to this imaginary construction. The economists did not invent it; they only purged it of the deficiencies peculiar to the popular notion. For an epistemological treatment of functional distribution cf. John Bates Clark, *The Distribution of Wealth* (New York, 1908), p. 5, and Eugen von Bohm-Bawerk, *Gesammelte Schriften*, ed. F. X. Weiss (Vienna, 1924), p. 299. The term “distribution” must not deceive anybody; its employment in this context is to be explained by the role played in the history of economic thought by the imaginary construction of a socialist state (cf. above, p. 240). There is in the operation of a market economy nothing which could properly be called distribution. Goods are not first produced and then distributed, as would be the case in a socialist state. The word “distribution” as applied in the term “functional distribution” complies with the meaning attached to “distribution” 150 years ago. In present-day English usage “distribution” signifies dispersal of goods among consumers as effected by commerce.

from adjusting production to the expected changes in conditions, those who have more initiative, more venturesomeness, and a quicker eye than the crowd, the pushing and promoting pioneers of economic improvement. This notion is narrower than the concept of an entrepreneur as used in the construction of functional distribution; it does not include many instances which the latter includes. It is awkward that the same term should be used to signify two different notions. It would have been more expedient to employ another term for this second notion—for instance, the term "promoter."

It is to be admitted that the notion of the entrepreneur-promoter cannot be defined with praxeological rigor. (In this it is like the notion of money which also defies—different from the notion of a medium of exchange—a rigid praxeological definition.[16]) However, economics cannot do without the promoter concept. For it refers to a datum that is a general characteristic of human nature, that is present in all market transactions and marks them profoundly. This is the fact that various individuals do not react to a change in conditions with the same quickness and in the same way. The inequality of men, which is due to differences both in their inborn qualities and in the vicissitudes of their lives, manifests itself in this way too. There are in the market pacemakers and others who only imitate the procedures of their more agile fellow citizens. The phenomenon of leadership is no less real on the market than in any other branch of human activities. The driving force of the market, the element tending toward unceasing innovation and improvement, is provided by the restlessness of the promoter and his eagerness to make profits as large as possible.

There is, however, no danger that the equivocal use of this term may result in any ambiguity in the exposition of the catallactic system. Wherever any doubts are likely to appear, they can be dispelled by the employment of the term promoter instead of entrepreneur.

The Enrepreneurial Function in the Stationary Economy

The futures market can relieve a promoter of a part of his entrepreneurial function. As far as an entrepreneur has hedged himself through suitable forward transactions against losses he may possibly suffer, he ceases tobe an entrepreneur and the entrepreneurial function devolves on the other party to the contract. The cotton spinner who, buying raw cotton for is mill, sells the same quantity forward has abandoned a part of his entrepreneurial function. He will neither profit nor lose from changes in the cotton price occurring in the period concerned. Of course, he does not entirely cease to

16.Cf. below, p. 398.

serve in the entrepreneurial function. Those changes in the price of yarn in general or in the price of the special counts and kinds he produces which are not brought about by a change in the price of raw cotton affect him nonetheless. Even if he spins only as a contractor for a remuneration agreed upon, he is still in an entrepreneurial function with regard to the funds invested in his outfit.

We may construct the image of an economy in which the conditions required for the establishment of futures markets are realized for all kinds of goods and services. In such an imaginary construction the entrepreneurial function is fully separated from all other functions. There emerges a class of pure entrepreneurs. The prices determined on the futures markets direct the whole apparatus of production. The dealers in futures alone make profits and suffer losses. All other people are insured, as it were, against the possible adverse effects of the uncertainty of the future. They enjoy security in this regard. The heads of the various business units are virtually employees, as it were, with a fixed income.

If we further assume that this economy is a stationary economy and that all futures transactions are concentrated in one corporation, it is obvious that the total amount of this corporation's losses precisely equals the total amount of its profits. We need only to nationalize this corporation in order to bring about a socialist state without profits and losses, a state of undisturbed security and stability. But this is so only becuase our definition of a stationary economy implies equality of the total sum of losses and that of profits. In a changing economy an excess either of profits or of losses must emerge.

It would be a waste of time to dwell longer upon such oversophisticated images which do not further the analysis of economic problems. The only reason for mentioning them is that they reflect ideas which are at the bottom of some criticisms made against the economic system of capitalism and of some delusive plans suggested for a socialist control of business. Now, it is true that a socialist scheme is logically compatible with the unrealizable imaginary constructions of an evenly rotating economy and of a stationary economy. The predilection with which mathematical economists almost exclusively deal with the conditions of these imaginary constructions and with the state of "equilibrium" implied in them, has made people oblivious of the fact that these are unreal, self-contradictory and imaginary expedients of thought and nothing else. They are certainly not suitable models for the construction of a living society of acting men.