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# ALFRED MARSHALL AND HIS THEORY ON VALUE AND DISTRIBUTION

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The Classicists, were based on the objective view of value, through which they brought the concept of supply into their work, while the Psychological School accepted subjective value as the basis of their system till they came to view demand as the determiner of supply. Again, the Mathematical School, aiming at the conception of the entire economic function, and via this the solution in part of the various reciprocally connected phenomena, conceived of the rising and lowering of the volume of supply and demand and the inner-dependence of the various markets, that is, the theory of Economic Equilibrium. Other economists undertook to explain the work of the classicists through combinative doctrines while at the same time avoiding their nistic explanations as well as those of the Austrians, so that the conception of economic equilibrium would become completely obvious in time. The Neo-classicists, Alfred Marshall, John Bates Clark, Thomas Nixon Carver, etc., turned in this direction.

The leader of the School, Alfred Marshall,[1] was born in London in 1842. His fa-

1. Schumpeter: *Ten Great Economists, from Marx to Keynes,* London 1966 p. 91. T. Theodotou: *Des quelques théories sur la valeur en Economie Politiques,* Paris, 1924. A. Loria: *Alfredo Marshall,* Roma, 1924. Del Vecchio: *L' opera d' Alfredo Marshall,* in "Giornale degli Economisti", 1924, p. 613ff. M. Fanno: *Alfredo Marshall, in "Annali di Economia",* 1925, p. 216ff. G. Pirou: *Memories of Alfred Marshall,* London, 1925. J.M. Keynes: *Memoir of Marshall* in "Economic Journal", 1924, p. 315ff. W. Taussing: *Alfred Marshall in* "Quarterly Journal of Economics", 1924, p. 11ff. W.R. Scott: *Alfred Marshall,* London, 1926. J. Viner: *Marshall Economics, The Man and his Time,* in "The American Economic Review", 1941, p. 223ff. J. Schumpeter: *Marshall's Principles* in "American Economic Review", 1941, p. 236ff. H.M. Robertson: *Alfred Marshall aimș and methods illustrated from his treatment of distribution,* in "History of Political Economy", No 1, 1970. Anna Li Donni: *Il consumer surplus nella moderna dottrina economica* in "Annali della Facoltà di Economia e Commercio dell' Univer-

ther worked as a teller in the Bank of England and his ambition was to see his son quickly ascend the scale of the hierarchy of the clergy. However, the young student of the Merchant Taylor School displayed an inclination toward mathematics so that he later enrolled at the University of Cambridge and received his doctorate in Mathematics (1865). His investigative bent in the direction of the interpretation of man and his society led him to the study of Moral Philosophy and then Biology and Sociology. At Cambridge he had the opportunity to associate with the philosophers, Green, Maurice, Clifford and Sidwick, and became a connoisseur of the philosophical conceptions of Kant and Hegel. Also he had studied Mill, Bentham and Spencer deeply and he was profoundly influenced by their conceptions. Nor was Alfred Marshall less influenced by Darwin. From 1885 till 1908 Marshall taught Political Economy at Cambridge, the originator and founder of the Economic School named after him. He died in London in 1924 bequeathing a great theoretical work which Keynes characterized as equal in value to Adam Smith.

Marshall along with Bentham and John Stuart Mill, is the forerunner of contemporary views on welfare and in spite of the fact that he was sympathetic to socialism he did not hesitate to declare that views such as those of Owen, Lasalle and Marx had no relation to reality. For Marshall a socialist is the one who aims at the improvement of society and of the condition of work, while a collectivist is the one who desires the transfer of the means of production to the State.[2] Marshall nevertheless always respected all systems but naturally thought that his was the best and most applicable one.

Perspicacious and elegant in the formulation of his theories, eclectic, a humanist and at the same time a utilitarian, Alfred Marshall, constituted a stage in the history of economic thought. A creative and profilic writer, Marshall acquired great fame. Among his most important works are, "Memorandum into the effects which differences between curriencies of different nations have in international trade" a synopsis of the ideas which he presented after a directive from the English government, related to currency matters and, *Principles of Economics* (1884), *Distribution and Exchange* (1890), *Industry and Trade* (1919), *Money and Commerce* 1(1923) works which his student Pigou published under the title, *Official Papers of Marshall,* London, 1926.

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The significance of the work of Marshall is due not only to the fact that he rene-

tità di Palermo", Anno XXV III No 3-4, 1974 p. 121ff. Contributo all' Economia del benessere nell' evoluzione del pensiero economico in "Rivista Italiana di Economia Demografia e Statistica" Vol. XXV N3, 1971 p. 198ff.

2. Memorials of Alfred Marshall, London 1925, p. 90ff.

wed the theory of the Classical School concerning value, adding marginal utility as an indispensible factor for the formation of the value of goods, but also to the fact that while the Classical School endeavored to interpret economic phenomena statically, Marshall introduced a new element, that of time, thus conceiving the economy dynamically.[3]

Marshall, examining utility in relation to the goods and the individual, observed that the aggregate utility of a good increased for an individual with every increase of quantity, but not faster than this increase. In this simple language he meant the more the reserves of a good increase, the less desirable it is. Thus from this every increase of the aggregate utility of a good through addition of this results in the increase of additional satisfaction but also the lessening of marginal utility[4] which determines the quantity of demanded goods. The intensity of demand giving rise, to a certain extent of the supply, also determines the cost.

Marshall also examined the other volume, the supply, to proceed to the distinguishing of cost, which, according to him, included:[5] the *total labor, direct or indirect* which was required for the production of a good plus the *waiting* for the acquisition of the necessary capital which will be used for production. This cost, the real cost of production, composed of effort and sacrifice is covered by a monetary unit, the money cost of production. Thus in regards to the cost which must be undertaken in order that the factors of production are compensated, Marshall talks about *special cost* relating to the particular expenditure for each product and *supplementary cost* in which is included the general expenses. The cost of the factors of production as well as the particular ones and the supplementary cost comprise the *total cost*. Marshall also spoke about *marginal cost,* that is, the highest cost under which it is possible for production to be continued under the given prices in the market.

The demand is the aggregate quantity expended for the marketing of a good at this price (demand price) so that the buyers will be disposed to buy more of that which they possess. This is established as the *effective demand* since the price which the buyers are disposed to pay coincides with the price the sellers are willing to dispose of their commodities at.[6]

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3. A. Marshall: *Principles,* 8th edit, 1947, Chaps III, VIII, p. 334. The above ideas of Marshall developed between 1870 and 1880 and thus in 1873 in a paper he read at the Cambridge Reform Club entitled, "The Future of the Working Class" it bacame obvious that he had received the influence of the law of wages as well as those ideas of John Stuart Mill. In 1883 he continued the same trend of ideas as can be easily see in his lecture delivered in Bristol (*Memorials:* p. 101).

4. Marshall was as Jevons, Menger and Walras a contemporary discoverer of the theory of marginal utility but did not publish it, as also the later discoverer J.B. Clark (Memorials p. 22 G.J. Stigler: Essays in the History of Economics, Chicago University Press, 1967 p. 184-85).

5. A. Marshall: *Principles* p. 22ff.

6. Here it is necessary to emphasize the avoidance of confusion between *stationary* and *static* which is met in various writers. In a stationary economy we have a dynamic equilibrium however, with the dynamic condition of the economy we can have a dynamic as well as a stationary equilibrium, though the latter in a dynamic economy is difficult to realize. In a dynamic of the economy within a short period

If however, the cost of production determines the extent of supply and marginal utility the demand, time influences their equilibrium. In a stationary economy, in which the percentage of the flow of the various sources of wealth remains constant during a unit of time, of course, the general principle will be that the general limits of production, consumption, distribution and exchange will stay as they are, even if moving, the value being determined by the cost.[7] There will be no distinction between long and short term periods. Every activity will be ascribed primarily to one and only one cause, without the existence of action and reaction between cause and effect. There will be no reflex influence of demand, no fundamental difference between the immediate and the distant influences of economic causes. Conversely, however, economics proves that when we avoid this abstract conception, each economic force accepts the influence of other forces. Every change in technique, population, etc., changes the volume of the product and through this the cost. This has an influence on demand and this in its turn on the cost. These inter-reactions, however, occur within time. According to Marshall, the problems related to the problem of value can be assessed in various manners, the best way would be the placing of these problems according to various time periods, especially according to *short periods* and *long periods*.[8]

When we speak about a short period, according to Marshall, we mean the price within a short period wherein the supply cannot be adjusted to the demand, while for a long period we mean the possibility of supply being adjusted to the changes in demand. When the price is given for the offered goods, the demand and the marginal utility under it determine the value. However, in a long period, the cost of production determines the price. Cost of production and marginal utility are mutually complementary like the blades of a pair of scissors. The principle of the cost of production, he says, and the principle of marginal utility unquestionably comprise the parts of a single law of supply and demand and each of these principles could be compared with one of the two blades of the pair of scissors, where it is not possible to determine which of the two blades results in the cutting. "The shorter the examined period is the greater the influence of demand and the longer the period the greater the influence of the cost of production on value".[9]

During the short periods the existing equipment in machines, suitable industrial organization and the supply of capable and specialized personnel, lack the required time, but are completely adjusted to demand. Consequently, supply must be harmonized with demand, in accordance with the means of production, which is arranged for the production of useful things because there is no margin of time; just as in the

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supply is unable to adjust to demand, so that we have a dynamic equilibrium, that is, an equilibrium which is constantly changing, but over a long period this adaptation can be achieved, where we have a static equilibrium within a dynamic economy during the moment of this application. And therefore the static equilibrium is without the element of time.

7,8,9. A. Marshall: p. 363ff.

case in which the supply is shown to be insufficient, more means of production are disposed. On the other hand, if the supply is greater than necessary, the means of production is partially used, without the existence of the necessary time, so that the supply is significantly reduced with the gradual transformation of the machines for another use. "It is obvious" Marshall says, "that there is no and sharp line of division between 'long' and 'short' periods. Nature has drawn no such lines in the economic conditions of actual life and in dealing with practical problems they are not wanted."[10]

The usual or the normal price of supply which directs the cost is that which preserves the production at a stable level. When the amount supplied in the market is enough that the demand price which directs marginal utility is higher than the supply, the production will be increased until it reaches a stable level of produced quantity, where it coincides with the prices of equilibrium.[11]

Alfred Marshall also introduced into the formulation of prices the concepts of *elasticity of demand* and *elasticity of supply,*[12] observing that for the former the demand is changed in large part by the nature of the need, which the sought-after commodity must satisfy. If, for example, it is a question of absolutely necessary goods (objects of every day use) the needs are essential and determined and because of this, the demand does not have a great deal of elasticity. Conversely, in the case where it is a question of objects, not of primary needs, these have a great elasticity of demand.[13] The phenomenon of elasticity as it relates to supply is observed wherein this is changed according to the change in prices.[14]

Marshall then proceeds on into the relationship which exists between the values of two commodities and the causes which govern each commodity and discusses *complementary goods*. The demand for ready goods is immediate, but behind this demand is the indirect demand for complementary goods. (The demand, for example, for a thread machine is at the same time a demand for its accessories). The demand can also relate to products from this source like wool or sheep, or to the various uses. The leather, for example, is sought by the makers of travel items, shoe makers, etc. This demand which is direct and at the same time indirect, Marshall calls *joint demand.*[15] The common demand does not only refer to products but also services,

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10. Thus Marshall based himself on the quantity as adaptable and changable when there is a lack of equilibrium, while Walras based himself on the price.

11. The first to conceive of the idea of elasticity was Gregory King, who formulated his famous law in which the price of a commodity of constant demand (wheat) increased proportionally much more in relation to the decrease of its supply and vice versa. (H. Guitton: *Essai sur la loi de King,* Paris, 1938 and J. Delevski: *La valeur mathématique économique de la loi de King* in "Revue d' Économie Politique", p. 481ff).

12. Marshall: p. 102ff.

13. Ibid: p. 456-457.

14. Ibid: p. 380ff.

15. A. Marshall: pp 124-133, 467-472. Dupuit (1848) also spoke about benefice du consumateur [see A. Marshall: *Principes d' Economie Politique (French trans. by S. Jourdan and Sav. Borissy),* Paris,

i.e., the demand for builders means a demand for plumbers and electricians, the increase of the wages of the former entailing an increase in the price of the latter.

In the case where there arises the increase or decrease in the supply of some product, i.e. salt for the making of bread, this will have reverberations in the price of the remaining goods which are involved in the production of bread. This relationship between the various demands which influence each other, Marshall called *composite demand.*

This tyranny of ready goods over the immediate demand for them can be avoided through substitute goods. To be precise, substitution contributes either to the lowering of the price of one good or constitutes a barrier to a further rise of prices. In daily life this is the reason why it is observed that the marginal increase of one good is replaced by the marginal increase of other goods without lessening the obtained satisfaction.

But as we have the common demand for goods for the same destination, we have the supply of things having the same source. These products Marshall called *joint products* and their supply *joint supply.* These products cannot be produced separately (wheat -hay, cattle- hides of cattle), at the same time they have the same price at least in most cases.

Their values are dependent on one another in supply. Their supply, *composite supply,* indicates in the market the relationships which exist between these products and the relationships of the prices. If the price of one goes up the price of the other goes up at the same time and vice versa. If, for example, the price of leather is high, the price of the animals will also be high.

Besides the above contributions of Marshall to the formulation of prices he also introduced the concept of *consumer surplus,* that is, the surplus obtained by the consumer if because of special conditions he managed to acquire goods more cheaply than what he had expected to pay[16] and the concept of *producer's surplus* which is the price achieved by the producer compared to the original one he had calculated.

Marshall also spoke about monopoly maintaining that the position of the monopolist was strong, since he was able to determine the price. The prima facie concern of the monopolist is to adjust supply to demand not in a way so that the sales price precisely covers the expenditures of production but in a manner where the largest possible total net revenue can be achieved. The elasticity of demand of this good produced by him constitutes the compass so that according to the type of good he will profit more through the decrease of supply and the raising of the price than through the increase of the supply and the lowering of the price. From this calculation arises the size of the net revenue.[17]

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1907, p. 264]. Marshall as well as Edgeworth always endeavored to analyse the problem of the distribution of profit in international trade, based on the "consumer's surplus", ignoring the significance of the law of comparative costs.

16. A. Marshall: pp. 124-133, 830-831, 842.

17. A. Marshall: pp. 477ff and 502ff.

As for the distribution of wealth, examining the labors reward, Marshall observed that supply and demand have a combinative influence on wages and neither of them can seek preponderance, like the blades of a pair of scissors. "Wages" he says, "tend to equal the net product of labour; its marginal productivity rules the demand-price for it; and on the other side, tends to retain a close though indirect and intrieste relation with the cost of rearing, training and sustaining the energy of efficient labor. The various elements of the problem mutually determine (in the sense of governing) one another; and incidentally this secures that supply-price and demand-price equality; wages are not governed by demand-price nor by supply-price but by the whole set of causes which govern supply and demand".[18]

And investigating these forces determining supply and demand, Marshall explained that demand means need and satisfaction instead of sacrifice, because the entreprenor makes a sacrifice paying wages, so that he will obtain labor. But it is precisely the supply (wages) and the return (product) which makes him think of what is the best combination for achieving the greatest profit. Thus he combines the various factors substituting these till he achieves the best combination which will show what amount will be demanded of each factor and, in this connection, labor. As to the supply of labor, this, as well as all the other factors, will depend on its reserves and the disposition of those desiring to work. Thus we have, besides the calculation of the entreprenor and the calculation of the laborer, the one who choses higher wages and greater effort or a lower wage and less effort, that is, in accordance with his evaluation between rest and enjoyment, an evaluation which is not independent of the kind of labor.

"The longer a man works, or even is on duty," Marshall says, "the greater is his desire for a respite, unless indeed he has become numbed by his work; while every hour's additional work gives him more pay, and brings him nearer to the stage at which his most urgent wants are satisfied; and the higher the pay, the sooner this stage is reached..." "It depends then on the individual, whether with his growing pay new wants arise and new desires to provide comforts for others or for himself in after years; or he is soon satiated with those enjoyments and more opportunities for activities that are themselves pleasurable. No universal rule can be laid down..." "Meanwhile we may conclude that increased renumeration causes an immediate increase in supply of efficient work, as a rule; and that exceptions to this rule just noticed are seldom on a large scale, though they are not devoid of significance".[19]

Marshall observed that the need for necessities or luxury or superluxury goods, is the cause for the cutailment or the prolonging of the laboring time. These needs do not only differ according to the individual but also according to the sex, country, people, etc. The higher the level of civilization of a country in which the worker lives,

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18. A. Marshall: p. 532.
19. A. Marshall: pp. 528-531.

the more complex these needs are and the more he is obliged to remain at his work, pursuing a higher wage, to satisfy them. On the other hand, in underdeveloped countries these needs are simpler and the spiritual horizons of the working class more narrow, so that the undertaking of labor for the satisfaction of these elementary and simple needs does not require a great duration of labor. More generally, all the kinds of conditions play a basic role in the determination of the labor supply. Because if the population increases and the spiritual level of the people is low, so that the forces favoring progress, such as all kinds of discoveries, the improvement of the means of transportation and technological development, may not be able to check the decline in wages brought about by the increase in population and the new generation may start off from a lower level than the preceeding one. Consequently, we have a rise in wages in the progressive countries as opposed to the underdeveloped ones. This rise increases the force, physical, spiritual and even more, of the suceeding generations. All things being equal an increase in labor demand will result in the increase of the wage of this labor supply[20] resulting in the scattering of this less significant employment, till there is a decline in the marginal productivity of labor and a fall of wages below the expeditures for its subsistence, to the benefit of the other factors when the over-supply to them will increase the marginal productivity of labor, till its wage will cover the expenditures for its subsistence and there will simultaneously arise an equilibrium between supply and demand.[21]

In the theories Alfred Marshall presented we perceive in what manner he attempted to combine the classical concepts with those of the marginalists so as to discover the causes which rule the supply and demand of labor in the formulation of its recompence.

As for business profit Alfred Marshall, with whom Sidwick, Newcomb, etc, coincide, maintained that the businessman was the ruling mind who had the capability of organizing production profitable, combining the various factors of production and assuming the danger of his business with the safest interest against the capital introduced by him into the business.[22] There are only afew who have the abilities for this and they who have them must doubtless be rewarded. This reward is what is en-

20. A. Marshall: p. 532.

21. Antonio Graziadei, speaking in relation to this, says: "Marshall founded his theory concerning the equilibrium of prices and more generally the diagram of his entire marvelous treatise on supply and demand. His observations of the partial equilibriums between supply and demand and prices were projected sufficiently abstractly in relation to the requirements of a composed economy, though they were poorly adjusted to dynamic phenomena, but he did achieve a degree of clarity which no one had achieved up till that time". (A. Graziadei: *Il salario e l' interesse*, Roma, 1949, p. 10).

22. A. Marshall: *Principles* p. 313 and *Official Papers by Alfred Marshall*, editor A.G. Pigou, London, 1926 p. 356. In these viewpoints of Marhsall we find the influence of Say but particularly that of von Thünen, since the German writer emphasized that profic (Geverbsprofit) is a combination of business activities toward the attainment of profit (Unternehmergewinn) rewarded through its organizational capability (Industriebelohming) and is comprised of net revenue over all costs including interest (H.M. Robertson: op cit. p. 57).

joyed from the business profit. This profit is achieved either through favorable circumstances or, more ususally, after arduous endeavors of the businessman and the maneuvers which he has made to, place his capital in the most profitable enterprises. Since there is competition between the businessmen, Marshall says that there is a supply and demand of organizational abilities and that the business profit consists of the equilibrium price of supply and demand, capital and organazational ability. During a short period the demand will determine the reward of the businessmen, while during a long period it will be the supply.

As for the balancing of profits Marshall, following the thought of Smith, believes that during the long period there is a tendency for the general balancing of profits, something which does not occur during the short periods.

Besides the normal profit we also, according to Marshall and others, due to the change of the composition of capital or the rationalization of the disposed means by the entreprise, have this differential profit continually being changed within free competition and remaining stable only in the case where the product is produced monopolistically.

According to Marshall the sacrifice of present satisfaction for that of the future calls for abstinence, except that this term is difficult to understand since most who accumulate wealth live in luxury with large expenditures. Therefore, abstinence has the meaning of the avoidance of consumption with the goal of augmenting wealth in the future, so that he precisely believes that the term waiting refers to the future prospectives.[23] The waiting is recompensed through the interest, the level of which is formulated in the market under the influence of two causes. One of these is the demand for capital based on its marginal productivity, and the other the supply, which is due to the waiting. And both of these causes must be examined in relation to time. Thus, for long periods, savings corresponds to demand for capital, restoring the equilibrium between disposed and demanded capital. Conversely, for the short periods the demand of this is essentially what regulates interest.

Also examining land rent, Marhsall observes that land rent would not exist if the population was of such a size that it did not exploit all the lands.[24]

This occurs more intensely with the increase of population through the additional putting down of capital and labor for the more intensive exploitation of the land, thus raising the prices, until the laboring produce is benefited under the most favorable terms.[25] Thus Marhsall does not consider land rent as a section of the price of agricultural products, but a surplus beyond price. Every change in cultivation is

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23. That is, the delay of satisfaction and the waiting caused by this (A. Marshall: p. 220ff). Th viewpoint that the term of waiting is the determiner and not that of abstinence was first formulated by Mac Vane («Journal of Economics», Harvard, 1887) mentioned by Marshall on page 233.

24. A. Marshall: p. 534ff and 629ff.

25. This rent Marshall extended for every case of exploitation, untill we have a kind of *quasi rent*. (A. Marshall: p. 412). This viewpoint also seems to have been adopted by Pareto.

subject to the change in prices of the products of the soil in connection with the volume of supply or demand toward the achievement of greater rent.[26]

However, for the interpretation of the economic phenomena of value, prices, profit, interest, etc., Marshall maintained that we had to take into account not only the economic but the social factors as well, their connections and their reciprocal influence.

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The above theories of Marshall constituted a stage in our economic science which were the starting point from which evolved the tow basic streams of modern economics, the welfare economics and the policy of full employment.

Marshall, as we have seen, extended the ideas which were formulated by the Schools of Vienna and Lausanne. And it is true that Marshall was basically ocuupied with *partial equilibrium;* from here, however, he went on to *general equilibrium.* He adapted economics more to reality, as much from the viewpoint of the individual, that is, the complex of individual psychology, as from the viewpoint of society, that is, the existing institutions. In addition, Marshall oriented economic thought to the study of concrete institutions such as monopoly and for him the most important of all is the combinative viewpoint of marginal utility and cost through the element of time[27] and the outlooks dependent on this.[28]

Marshall was under the influence of Darwin and Spencer, foreseeing in the economy a continual organic development toward progress. "The Mecca of the economist" he says, "lies in economie biology rather than in economic dynamics".[29] And this progress is due to technique, which incitest the economy upward, and not catastrophe, as the evolution was conceived by Karl Marx. Thus Alfred Marshall speaking about *external and internal economies*[30] wanted for the former to include the

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26. A.D. Sideris: *Alfred Marshall* in "Archeion Ekonomikon kai Koinonikon Epistimon", Vol. XVIII, 1937, p. 92.

27. The study of economic equilibrium invitably leads to concepts outside of time and that is why the equations of Walras are not related to the changability of time. This though does not mean that Walras as well as Jevons did not recognize time when they were dealing with concrete economic events. Marshall will maintain that the basic economic concepts cannot make abstractions of the element of time especially when we are dealing with economic balance. The economic phenomena, consequently cannot be examined without the element of time. This dynamic view of equilibrium by Marshall created a revolution in economics similar to that created by Pascal in mathematics, (G. Granger: Méthodologiė Économique, Paris 1955 p. 84-85).

28. The concept of Marshall about prevention will influence Keynes. Besides, the liquidity preference concerns, as Granger underlines, time, because it is the psychology of time. (Granger: ibidem).

29. A. Marshall: *Principles,* 8th edit, xiv. For these ideas of Marshall and their polite criticism see: N. Georgescu-Roegen: *Analytical Economic Issues and Problems,* Cambridge, Mass, 1966.

30. T. Scitovsky: *Two Concepts of External Economics* in "Journal of Political Economy", Vol. LXII, No. 2, p. 154.

entire economy "creatively" based on its organic unity and the spread of technique from one enterprise to another and also the diffusion of aggregate knowledge on every economic unity in opposition to the latter which refers to one and only one economic unit.