
The Physiocratic Theory of Value

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THE PHYSIOCRATIC THEORY OF VALUE has not yet been given adequate recognition or analysis. Some typical texts on the history of economic thought do not even mention this aspect of Physiocratic thought at all.*(2)

Sometimes it receives cursory attention in a few paragraphs.*(3) but even then the conclusion may be drawn that the Physiocrats did not, in fact, have a theory of value.*(4)

Like the other earlier theories of value, the Physiocrats' theory is not to be found under this heading in any specific part of their literature. Its threads can only be picked up by delving into voluminous writings which at first sight seem to have little, if anything, to do with the subject. This is probably the principal reason why this aspect of Physiocratic thought has been neglected, but there have been other contributory factors. One may be the fact that the "sterility" attributed to commerce and industry in Physiocratic doctrine has probably encouraged the view that such a doctrine cannot also contain a realistic theory of value. Furthermore, one wonders whether the desire to renew acquaintance with this group of French economists may also have been stifled by seemingly authoritative statements to the effect that it would today be impossible to uncover anything new in the Physiocrats' writings.*(5)

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This paper attempts to show that much of interest can still be uncovered from the writings of the Physiocrats. The emphasis here is on the theory of value as expounded by Francois Quesnay *(6) but it is deemed useful to adopt a broad approach to the subject so that certain related aspects of the doctrine which deserve closer attention may also be highlighted.

Scope and Method of Quesnay's Political Economy

In his *Philosophie Rurale* (1763) *(7) Quesnay states that the task of political economy is to "seek . . . for the best methods of enabling the human race to subsist and increase". *(8) It is because of this emphasis on human welfare that Marshall credited the Physiocrats with the achievement of giving to economics "its modern aim of seeking after such knowledge as may help to raise the quality of human life". *(9)

Quesnay's method was a compromise between deduction - represented, for instance, by his *a priori* assumption about a natural order - and induction based on a study of economic realities in mid-eighteenth century Europe. Throughout, his aim was to search for the principles which governed the economic interrelationships of men. His researches revealed certain regularities in economic life which could be systematically isolated and studied and whose characteristics could be described in the form of economic laws. Some of these laws were of a general character but others - and this is often forgotten - were specifically limited in their validity to less developed agricultural nations such as France at that time. This ought constantly to be borne in mind in evaluating his theories, including those presented in this paper.

It was this recognition that economics - or political economy - was susceptible to scientific enquiry that earned Quesnay and his followers their position as the first scientific school in economics.

The Invisible Hand

In Quesnay's writings there is a strong hint of economic determinism, of a materialistic interpretation of history. This is significant. It is even possible that Marx, who was willing to concede his admiration for the Physiocrats

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by defending some of their doctrines, may in this regard have been influenced by them. *(10) Quesnay sees the "essence" of the "common weal" and the "root" of humanity in subsistence. "All the moral and physical parts of which society is constituted derive from this and are subordinate to it". *(11)

What we would today call the economic motive was, for Quesnay, inherent in man from the earliest times. "Man is compelled by need to seek his food, and induced by desire to obtain it for himself and to secure it with the least possible toil and trouble." *(12) This motive can become a basic institution of a harmonious or well-ordered society, i.e. one which suffers from neither tyranny nor anarchy. *(13) In a passage strongly reminiscent of Smith, he says: "The whole magic of well-ordered society is that each man works for others, while believing that he is working for himself." *(14) This is Adam Smith's invisible hand: the individual, although "he intends only his own gain", is "led by an invisible hand to promote an end which was no part of his intention . . . By pursuing his own interest he frequently promotes that of society more effectually than when he really intends to promote it". *(15)

Exchange and Value

For the Physiocrats, exchange performed a vital role in the harmonious or well-ordered society. Just how vital this role was, has

frequently been overlooked - probably because of a misinterpretation of the Physiocratic notion of the "sterility" of trade - and as a result a crucial aspect of the Physiocrats' theory of value has received relatively little attention. Thus Quesnay emphasized the importance of trade and exchange when he said that products "constitute wealth only insofar as they are necessary to man and *insofar as they are exchangeable*" *(16) (italics added).

In his article *Corn*, Quesnay brings out explicitly the relationship between trade and the creation of exchange value ("wealth") in the form of the idea that exchange is the basic prerequisite for the creation of "wealth": "No man who lives in society provides for all his needs with his own labour; he obtains what he lacks through the sale of the produce of his labour.

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Thus everything becomes exchangeable, everything becomes wealth, through the medium of mutual trade between men." *(17) In one of Quesnay's writings on the theory of value, in the article *Hommes*, he makes the now familiar distinction between free goods and economic goods (to use modern terminology) or what he called "goods" and "marketable wealth". ". . . not all goods constitute marketable wealth: the air which we breathe, the water which we fetch from the river and all other goods or forms of wealth which are in plentiful supply and available to everyone, are not exchangeable. They are goods, but not wealth". *(18) Here is an assertion that the value in exchange or price of a good depends on its scarcity.

Market Price

In the case of exchangeable goods (i.e. goods other than free goods) market price is determined by supply and demand: Exchangeable wealth is that which is exchanged with monetary wealth, in accordance with the price which constitutes its market value. Wealth is marketable or exchangeable only to the extent that its possessors are able to sell it and that it is sought after by purchasers." *(19)

This process of exchange is greatly facilitated by the use of money as a medium of exchange: Through the intermediacy of money, men who possess an item of exchangeable wealth of any kind whatsoever can acquire with it any other kind of exchangeable wealth, in proportion to the relative prices of the items concerned." *(20)

Quesnay's description of the market mechanism was, of course, not an original contribution as expositions of the laws of supply and demand are found in much earlier writings. *(21) But Quesnay's reference to "relative

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prices" is indicative of his interest in the theory of value: in the factors underlying market prices. Here he breaks new ground.

The Theory of Value

For reasons that will be explained later, Quesnay's analysis is generally confined to the case of perfect competition. Generally the buyer "has an interest in buying at the lowest possible price" and the seller "has an interest in selling at the highest possible price".*(22) But because of free competition both among sellers and among buyers, the individual buyer "is obliged to buy at a price higher than that in which he has an interest in buying, and the other is obliged to sell at a lower price than he would like".*(23) To paraphrase, on the perfect market the individual buyer and seller is unable to exert an independent influence on the market price.

In his article *Men* Quesnay specified in some detail the factors underlying demand and supply. On the demand side it is use value or utility and on the supply side it is cost of production.

Utility

"Men", Quesnay states, "stand in need of the utilities provided by different items of wealth."*(24) But utility does not determine value. "We should not confuse the price of items of exchangeable wealth with their use value, for these two values rarely have any connection with each other."*(25) He illustrates this as follows:

A diamond, the least useful of items of exchangeable wealth, almost always has a market value which greatly exceeds the market value of wealth in the form of food . . . except in the case of an unusually severe scarcity of . . . food . . .*(26)

Adam Smith subsequently repeated the same idea in his familiar passage:

"A diamond . . . has scarce any value in use; but a great quantity of other goods may frequently be had in exchange for it."*(27)

While the Physiocrats

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could not solve this paradox of value, to the extent that they failed to make a clear distinction between total and marginal utility, it is noteworthy that they came near to expressing the law of diminishing utility.

Quesnay points out, for example, that there are exceptional times when the market price, determined as it is by supply and

demand, may be said to be related to its use value. He cites the instance of an extreme scarcity of food when "its price rises without limit and then it is its use value which determines, by chance, its market value". *(28) This explanation reminds the present-day reader of the Marshallian "market period" analysis when, given the supply - and in this case a completely inelastic supply - demand becomes the primary determinant of the price level. *(29) It is interesting to note, too, that we have here, by implication, a reference to consumer's surplus, i.e., to the fact that normally the use value of a product exceeds the market price paid by the consumer."

*(30)

Cost of Production

Quesnay had a clear conception of opportunity cost. He explains this concept at length with reference to the optimal allocation of labour resources (in his article *Hommes*) and only a brief quotation is given here to illustrate his view:

In considering the employment of men, the government ought to estimate their utility not only with reference to the work which they actually do, but also . . . with reference to the considerable utility which the kingdom could derive from them . . . through other, more advantageous work *(31)

Quesnay integrates cost of production into his theory of value by isolating what he calls the fundamental price of a product, which is determined by the expenses or costs which have to be incurred in its production or preparation. *(32) The market price may differ from the fundamental price and three instances of such differences are given.

Firstly, if products are sold for less than their cost of production, a loss is

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made which, if it continues for any significant period of time, will cause production of the product to be abandoned. *(33) Quesnay shows in some detail how low prices for agricultural products can impoverish the rural areas and how the adverse effects of this may spread to the non-agricultural population. *(34)

Secondly, a proper price (*bon prix*) is one which "is high enough to encourage people to maintain or increase their production". *(35) Here the market price is equal to or above the fundamental price (cost of production).

Thirdly, if the market price greatly exceeds the fundamental price because of scarcity, it may impose a burden on the consumers and the price may be regarded as excessively high. *(36) But if local scarcity is not the cause of the high price, e.g. if corn is abundantly available and still enjoys a high price because of a strong foreign demand, the entire local population may benefit. The benefits accruing to producers will be shared with the workers in the form of higher wages and greater purchases from the non-agricultural population; these benefits could outweigh the burden imposed by the high price of corn.

A sound agricultural policy was one which avoided large and frequent variations in prices of commodities with their concomitant disruptive effects on the economy. According to Quesnay the best way of attaining this aim was by letting local and international trade be free:

. . . by means of free and unobstructed trade between different countries those which in a particular year are suffering from a scarcity are supplied by those which have an abundance, while in another year the latter, who are now in their turn suffering from a scarcity, are supplied by the former. Thus, as a result of this general intercommunication and these successive and mutual alternations of abundance and scarcity, prices always remain at an intermediate level, determined by the average fundamental price in these countries which are joined together by trade. *(37)

Given free trade resulting in the creation of a world-wide market, the market price would be much more stable, in the long run, than it could be in an isolated national market. The price would tend towards the level of the average fundamental price of supplying countries.

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Elsewhere Quesnay made clear his conviction that French agriculture potentially had a comparative advantage over other countries. Under conditions of free trade French farmers could therefore expect to continue to obtain a net product, i.e. a surplus over costs, such as results from a *bon prix*. Under such conditions capital investment in agriculture would increase, with beneficial consequences for the entire economy.

The Exchange Value of Manufactures

This relatively sophisticated theory of value, as applied to agricultural products, makes way for a dualistic theory when Quesnay deals with manufactured goods. While market prices are also determined by demand and supply, *(38) two market structures are distinguished.

First, there are certain industries where imperfect competition obtains. Examples are the pictures of great painters, the products of pre-eminent artists and goods produced by firms enjoying exclusive privileges granted by the government. Here surplus profits are made and there is no predetermined relationship between market price and cost of production. Supply is restricted and the market

price may greatly exceed the cost of production, "since there are so few of them that competition between them does not force them to lower the price of their labour, to the benefit of those who buy their work". *(39)

The second category embraces the industries - the vast majority - where there is perfect competition. Manufacturers of cloth, tailors and cobblers are given as examples. Because of perfect competition there are no surplus profits in the long run. In fact, these handicraftsmen and other small-scale manufacturers are no different from "the cook and the musician" *(40) in that all of them "consume as much as they produce; the product of their labour is equal to the cost of their labour, and no surplus of wealth results from it". *(41)

One may be tempted to regard this as a labour theory of value, particularly because the Physiocrats elsewhere stress the value added by labour in the production (and distribution) process: "The costly labour of the lacemaker adds an increase of market value to the thread which constitutes the raw material of the lace . . . the glass-maker's labour quadruples the value

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of his raw material . . ." etc. *(42) However, the Physiocrats do note that during the production process the value of every product increases in proportion to the amount and quality not only of the labour, but also of the raw materials *(43) and capital necessary to produce it. But their conclusion remains the same: because of perfect competition there is no surplus profit, at least in the long term, so that market prices tend to the level of cost of production, including a normal profit to the entrepreneur which is merely a payment for his labour.

This is therefore a cost-of-production theory rather than a labour theory of value. Only to the extent that labour was typically the major factor of production in the small scale handicraft industry that characterized France at the time, would it be possible to say that the theory approximated a labour theory of value.

Three points arising from this exposition need to be stressed: First, the theory does not intend to state an immutable economic law for all ages and circumstances. It is merely a generalization based on conditions prevailing in industrial life at the time.

A second and closely related point is that one's judgment about the validity of Quesnay's theory of value will depend to a large extent on whether one agrees with his assumption about the severity of competition in manufacture and commerce, which resulted in the elimination of surplus profits.

Thirdly, the theory is logically independent of the Physiocratic doctrine about agriculture. This is important for there may have been a tendency on the part of critics of the Physiocrats to make the validity of this cost-of-production theory of value dependent upon Quesnay's doctrine of agriculture as the only truly productive activity. Such an approach seems to be based on a misinterpretation of the Physiocratic doctrines.

Quesnay regarded agriculture *(44) as being the only sector capable of yielding a net product. Other activities, though useful, were (in France at the time) ancillary, wholly dependent for their continued existence on the health of agriculture. They relied not only on raw materials and food yielded by agriculture but also on markets created by the agricultural sector. These *markets were represented not only* by landowners, farmers and farm workers but also by the state and church to the extent that these drew taxes, tithes

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and other revenues from the farming sector. All of this meant that the bulk of the non-agricultural activities could not exist unless there was a net product in the agricultural sector. It was in this respect that these other activities were sterile; and it is in this sense that one should interpret a statement such as: "It is only those who cause to be generated from landed property products whose value exceeds their costs who produce wealth, or annual revenue." *(45)

Any inference from such statements that other industries could not produce products whose market values exceeded their costs, is clearly contradicted by the instances given above where Quesnay showed that profits could arise in non-agricultural activities.

The Theory of Wages

The foregoing exposition of the theory of value leads logically to the Physiocratic theory of distribution, for a cost-of-production theory, to be meaningful, must include an explanation of factor prices. The national product is divided into rent, wages, profit *(46) and interest. *(47) It is not the purpose of this paper to discuss the theory of distribution but some attention will be given to the theory of wages because it seems to have been somewhat neglected in the literature and because of the primacy of wages in either a labour or cost-of-production theory of value.

The Subsistence Theory of Wages

Wages were determined by the demand for and supply of labour. Quesnay and his followers also distinguished between markets for different types of labour. While it was possible in some occupations to earn high incomes because of natural or artificial shortages of certain special skills, it could be concluded that, on the whole, there was a strong tendency for the labour market to be

balanced in the employer's favour. *(48) The supply of almost all types of labour tended to outstrip the demand for it. This severe competition for available jobs was exemplified by the opposition of workers to the introduction of labour-saving machinery. *(49)
Competition among workers

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therefore tended to reduce the wage earned by the bulk of the population to a level equal to the minimum required for the subsistence of the worker and his family. *(50) This was true of urban as well as rural workers. There were exceptions: the single worker or childless family might save something out of their income; but likewise there were workers with large families who were unemployed or whose incomes were insufficient to keep their families alive. The subsistence theory does not deny the existence of these exceptions; it is merely a broad generalization. As Turgot said in his *Reflexions* (this became the so-called "doctrine of necessary wages"): "It might happen - and indeed it often does happen - that the worker's wage is only equal to what is necessary for his subsistence." *(51) Quesnay is even more explicit: "The rate of wages and consequently the amount of comfort and luxury which wages can purchase, are fixed at the irreducible minimum by the action of competition which prevails . . ." *(52) This is another instance where the Physiocrats' thoughts have been neglected in favour of that of later writers such as Ricardo, J. S. Mill and Marx. It seems clear, for example, that the Physiocrats can be said to have anticipated the iron law of wages by nearly a century. *(53)

It needs to be stressed that this does not imply that the Physiocrats regarded subsistence wages as either desirable or inevitable; what they did was merely to analyse the actual state of affairs existing in their day. They acknowledged that this situation could be remedied, but only in the long run. Thus, recognizing the need for a balance between population and the means of subsistence - as subsequently also stressed by Malthus and others - Quesnay said

One should aim less at augmenting the population than at increasing the national income, for the condition of greater comfort which is derived from a good income is preferable to that in which a population exceeds its income and is ever in urgent need of the means of subsistence. *(54)

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The Wages Fund

This quotation is suggestive of a notion of a wages fund. In fact, the whole idea of the net product in agriculture being the sole source for the maintenance of the "sterile" population also suggests this - and may have inspired subsequent thinking about this subject, including that of Smith. As Smith said: "The demand for those who live by wages, it is evident, cannot increase but in proportion to the increase in the funds which are destined for the payment of wages." *(55)

In his *Dialogue on the Work of Artisans*, Quesnay is quite specific about the wages fund. Speaking of wage-earners, he says: "The more highly you pay them the more each of them will be able to expand his consumption. But then there will be fewer wage-earners and fewer consumers competing with one another for the purchase of your products, *since the total quantity of rages is limited*" *(56) (italics added).

However, the Physiocrats - unlike some later exponents of similar theories - realized that this statement was of limited validity and that in the long run employment did not have to be constrained in this way. In fact, one of the Physiocrats' most significant contributions was to suggest ways in which France could escape from the thralldom of a static national income.

Conclusion

This exposition has revealed certain similarities in approach as well as in the contents of Quesnay's theory of value and price, on the one hand, and that of Smith and Ricardo on the other. This is hardly surprising when it is borne in mind that these economists were to a large extent inspired by the same predecessors. Thus Petty influenced Smith and also Cantillon; *(57) the latter, in turn, influenced Quesnay as well as Smith. As the exact nature of such mutual influences is impossible to assess, it is no easy matter to gauge the originality of Quesnay's thinking about value.

Nevertheless, Quesnay's theory of value is more refined than that of either Petty or Cantillon. It is therefore possible that the similarities between the Physiocratic and classical theory of value may be due to the fact the

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former exerted an independent, direct influence on the latter. If, on the other hand, it is true that Smith's views were formed before he went to France or came into contact with the writings of the Physiocrats, *(58) the least that can be said is that there existed before the publication of *The Wealth of Nations* a French theory of value which was comparable with the subsequent classical formulation.

Among the more notable specific contributions of the Physiocrats were their analyses of the following: demand and utility (which