

THE FOUNDERS
OF
POLITICAL ECONOMY

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TO MY WIFE

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PREFACE

THIS little book is a result of studies which I have pursued since 1910, chiefly in the British Museum. The work was interrupted by the war, and I was only able to bring it to an end after the conclusion of peace.

Unfortunately I was prevented from resuming after the war my investigations in London, so that as far as the beginnings of political economy in the sixteenth and seventeenth centuries are concerned I could not go as deeply as I should have liked into the matter. I was obliged to base the first chapter of this book in the first instance on reprints of early economic tracts which were obtainable in Warsaw.

I have no intention of giving in the following pages a complete list of all theories which have been formulated since antiquity. My aim is a more modest—or perhaps a more ambitious—one. I have been endeavouring to find among the doctrines advanced more than one hundred years ago such theories as still to-day can help us to understand economic phenomena. Such—critical, and at the same time constructive—is the scope of this book. I have tried to separate the chaff from the corn and to put in evidence theories on which modern economic science can build.

Warsaw, February 26, 1921.

Koszykowa 22.

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CHAPTER I

THE BEGINNINGS OF POLITICAL ECONOMY

The Origin of Economic Science. Economic Laws.

WHAT is political economy? It is the science which deals with laws governing the production, distribution, and exchange of wealth. We know that not all will accept this definition—but this is not the place to discuss its foundation. We are quoting it simply to lay emphasis on the fact that in speaking of the founders of political economy, we have in mind those writers who in observing economic phenomena have tried to explain their regular recurrence and who have formulated economic laws.

The conception of laws in political economy is relatively new. It was quite unknown to Antiquity and to the Middle Ages. When, in the fourteenth and fifteenth centuries, writers began to discuss economic problems, it was not their object to determine scientific laws: they simply pointed out what men should do in order to satisfy a particular moral standard. The Canonist doctrine was rather a body of rules as to conduct than of conclusions as to fact. Is the pursuit of wealth justified? Is the lending of money on interest sinful? These are the problems which were

discussed by the theologians of the fifteenth century.¹

The writings of the Mercantilists are equally devoted to what is generally called "art" as distinguished from science. They try to find out the measures which enable a country to obtain the greatest possible quantity of precious metals.²

The conception of economic laws can hardly be traced farther back than to the second half of the seventeenth century. Its development is intimately connected with the transition of the system of State intervention to a policy of free trade. When the regulation of the whole economic life ceased to be in harmony with the new social conditions, it became clear that there exists a natural order of things which cannot be neglected by the legislator.

¹ A bibliography and an account of the Canonist doctrine may be found in Ashley's *Economic History*, Vol. I, Part II, Chapter VI.

² The conception that the Mercantilists were eager to increase the stock of precious metals because they identified money and wealth is absolutely erroneous. Only a superficial study of their writings can lead to such a conclusion. Locke, for instance, says in his *Considerations of the Consequences of the Lowering of Interest and Raising the Value of Money* that "gold and silver, though they serve for few, yet they command all the conveniences of life, and therefore in a plenty of them consist riches" (*Works of John Locke*, 1801, Vol. V, p. 12). It would be quite wrong to draw from this sentence the conclusion that Locke confounded the possession of gold and silver with wealth. He points out that countries "stored" with gold and silver mines are poor, "the digging and refining of these metals taking up the labour, and wasting the number of people." For this reason he declares that the Chinese have pursued a wise policy in not suffering the mines they have to be wrought. (*Ib.*, p. 12.) "Riches

The idea of *natural laws*, as different from the *positive* ones, emerged out of the discussion of the usury laws and the export prohibitions of the seventeenth century. In his *Considerations of the Consequences of Lowering the Interest and Raising the Value of Money* (1691), Locke discusses the question "Whether the price of the hire of money can be regulated by law?"¹ To this he gives a negative answer. "It is vain," he says, "to go about effectually to reduce the price of interest."² The *natural rate*³ cannot be altered and the most severe penalties cannot attain this aim, "for where the temptations are strong, there the fear of penalties to follow will have little restraint, especially if the crime be hard to be proved."⁴

The same opinion is expressed by Sir Dudley

do not consist in having more gold and silver, but in having more in proportion than the rest of the world or than our neighbours. . . . The Kingdoms and States would be by no one jot richer "if by the discovery of new mines the quantity of gold and silver in the world becoming twice as much as it is, their shares of them should be doubled." (*Ib.*) Why, then, did the Mercantilist writers attach such great importance to the possession of gold and silver? To this Locke gives an answer which is to-day not less correct than at the end of the seventeenth century. "Trade, then," says Locke, "is necessary to the producing of riches, and money necessary to the carrying on of trade" (p. 14). Money in circulation is "driving the several wheels of trade," and in consequence a certain proportion of money to trade is necessary (p. 21).

In 1884 W. Cunningham drew attention to the fact that Adam Smith's account of the Mercantilist doctrine is not correct. (*Adam Smith und die Merkantilisten. Zeitschrift für die gesamte Staatswissenschaft*, 1884, pp. 41-64.)

¹ Locke, sc., Vol. V, p. 4.

³ *Ib.*, pp. 5, 9, etc.

² *Ib.*, p. 10. *idem*, p. 63.

⁴ *Ib.*, p. 6.

North in his *Discourses upon Trade* (1691). If the legislators, he says, should attempt to restrain interest in a country where it is at 10 or 12 per cent, "it would soon appear that such laws would not be effectual to do it." The rate of interest cannot differ from that "which the Reason of Trade" settles.¹

The same subject had been already broached twenty-nine years earlier by Sir William Petty in his *Treatise of Taxes and Contributions* (1662). In speaking of "the natural standard of usury and exchange" and of the laws endeavouring to limit usury, Petty draws attention to the "vanity and fruitlessness of making civil positive laws against the laws of nature."²

To a similar criticism the writers of the second half of the seventeenth century subjected the regulations prohibiting the export of gold and silver. "It is death in Spain," says Locke, in speaking of a proposal to hinder the exportation of money and bullion, "to export money: and yet they who furnish all the world with gold and silver, have least of it amongst themselves. Trade fetches it away from that lazy and indigent people, notwithstanding all their artificial and forced

¹ pp. 7, 8. Hollander's *Reprint*, pp. 20, 21. On p. ix (Reprint, p. 13) North says: "That no laws can set prices in trade, the rates of which must and will make themselves. But when such laws do happen to lay any hold, it is so much impediment to trade, and therefore prejudicial."

² p. 38, Hull, *Economic Writings of Sir William Petty*, Vol. I, p. 48. Of the futility of fixing by law the rate of interest Petty speaks equally in his *Quantulumcunque concerning Money* (1682), p. 8. Hull, *Ec. Wr.*, Vol. II, p. 447.

contrivances to keep it there. It follows trade, against the rigour of their laws; and their want of foreign commodities makes it openly be carried out at noonday."¹

"To prohibit the exportation of money," says Petty, "is a thing almost impracticable, it is almost nugatory and vain."² All these prohibitions "*are against the laws of nature.*"³

In criticizing the proclamation forbidding the exportation of wool which was issued with the object of protecting the wool industry against Dutch competition, Petty says: "Were it not better to draw over a number of their choice workmen, or send our most ingenious men thither to learn; which if they succeed; it is most manifest that this *were the more natural way, than to keep the infinite clutter about resisting of Nature, stopping up the windes and seas.*"⁴ Petty is in favour of abolishing the "burthensome, frivolous, and antiquated Impositions and Offices" which tried by regulations to make food cheaper than in Holland. This is no better than "*to persuade water to rise out of itself above its natural spring.*"⁵

¹ *Considerations*, sc. Vol. V, p. 72. North is equally critical of all laws prohibiting the export of money. Such prohibitions only obstruct foreign trade. *Discourses*, sc., pp. 13, 14. *Hollander's Reprint*, p. 26.

² *Treatise of Taxes*, pp. 38, 39. *Hull, Ec. Wr.*, Vol. I, p. 57.

³ *Quantulumcunqus* s.c., p. 6. *Hull, Ec. Wr.*, Vol. II, p. 445.

⁴ *Treatise of Taxes*, p. 41. *Hull Ec. Wr.*, Vol. I, pp. 59, 60. The italics are mine.

⁵ *Ib.* In his *Political Arithmetick* (1690) Petty says: "Too many matters have been regulated by laws, which Nature . . . ought only to have governed." Preface, *Hull*, p. 243.

The writers of the second half of the seventeenth century were already aware of the fact that economic phenomena were subject to laws, and that the omnipotence of the legislator had its natural limits. The clearest and most general formulation of this idea may be found in the writings of Petty.

Once the conception of a natural order of things had been realized, a study of the natural laws which govern economic phenomena imposed itself. In this respect, too, of all writers of the seventeenth century, Petty was the most explicit. "We must consider in general that as wiser physicians," he says, "tamper not excessively with their patients, rather observing and complying with the motions of nature, than contradicting it with vehement administrations of their own, so in Politicks and Oeconomicks' the same must be used; for *Naturam expellas furca licet usque recurrit.*"²

¹ This expression is very near to being "Political Economy." In his *Political Anatomy of Ireland* (1691) Petty speaks of the most important consideration in "Political Oeconomics," p. 63. Hull, Vol. I, p. 181.

² *Treatise of Taxes*, p. 41, Hull, Vol. I, p. 60. Petty dwells in a similar manner on the necessity of a scientific inquiry in his preface to the *Political Anatomy of Ireland*. He says: "Sir Francis Bacon, in his *Advancement of Learning*, hath made a judicious parallel in many particulars between the Body Natural and Body Politick, and between the arts of preserving both in health and strength: And it is as reasonable that as anatomy is the best foundation of one, so also of the other; and that to practise upon the Politick, without knowing the symmetry, fabrick, and proportion of it, is as casual as the practice of old women and empyricks," Hull, p. 129.

Theory of Money

Though the conception of economic laws, which is the angular stone of political economy, originated only in the second half of the seventeenth century, some vague remarks which can be considered as the germs of modern theories can be found even in the works of Greek writers. Xenophon's statements on the advantages of the division of labour, Aristotle's analysis of the problem of value, etc., are often adduced as a proof of this.¹

It would be wrong, however, to overrate the importance of these very vague remarks. It was not until much later that economic phenomena became the objects of scientific inquiry. The first branch of economic theory which took a definite shape was the theory of money. Already in the second half of the fourteenth century had been written a treatise dealing with this problem, by Nicolas Oresme, bishop of Lisieux. It is entitled, *Tractatus de origine, natura, jure, et mutationibus monetarum*.²

This treatise was written at a moment when France was passing through a most grave economic

¹ Rambaud, J. *Histoire des doctrines économiques* (1902), pp. 13, 17, etc.

² The treatise was translated by the author himself under the title *Traictie de la Première Invention des Monnoies*. William Roscher, in 1862, for the first time drew attention to the scientific importance of Oresme's work in a paper presented to the Académie des sciences morales et politiques. Roscher's paper was published together with the Latin and French text by L. Wolowski in 1864 (*Traictie de la Première Invention des Monnoies de Nicole Oresme et Traité de la Monnoie de Copernic*). Oresme died in 1382.

crisis. The whole system had been deeply shaken by the continuous debasement of the currency. In 1348 the monetary standard was altered eleven times, in 1349 nine times, in 1381 eighteen times, etc.¹ Has the Prince the right to debase the currency in such a manner? This is the question to which Oresme tries to give an answer.²

He examines this problem not only from a point of view of justice, but he shows the deplorable economic consequences of such a financial policy. These are the more dangerous because they do not make themselves felt immediately, but slowly undermine the whole social structure.³ Gold and silver disappear from circulation,⁴ trade relations with foreign countries are cut off, all payments become uncertain, and the Prince himself suffers because his revenues are paid in a money which has lost its fixed value.⁵

A perturbation of all social relations is the necessary result of such a state of affairs.⁶ Speculators, counterfeiters, and all unscrupulous merchants, enrich themselves⁷: those who form the best part of the community fall into poverty.⁸

The importance of Oresme's *Tractatus* does not, however, consist exclusively in an analysis of the

¹ Roscher's Communication in L. Wolowski's *Traictis*, p. xxvi.

² "Prologue du Traducteur" to the French version, p. ii.

³ Chapter xx, Wolowski, p. cxxiii.

⁴ *Ib.*

⁵ *Ib.*

⁶ *Ib.* chap. xxi, p. cxxv.

⁷ *Ib.*

⁸ *Ib.*, pp. cxxiv and cxxv.

monetary system of France at the end of the fourteenth century. In investigating contemporary facts he put forward some general principles relating to the theory of circulation. He defines money as an "artificial instrument for moving easier natural riches."¹ He shows, as it seems, for the first time why gold and silver are best suited for performing the function of money. It is because the precious metals can easily be transported and "small portions of them can buy and move natural richness in great quantity." For this reason it has been convenient to make the coins from a precious and scarce material.² Oresme at the same time points out that only those commodities can serve as coins on which it is possible to make impressions which are not easily effaceable. Not all precious objects fulfil these conditions: "Precious stones, pepper, glass, and similar commodities do not possess these qualities, but only gold, silver, and copper."³

Oresme gives an historical account of the origin of money, which in the earlier stages of its evolution was measured by weight. For simplifying the process of exchange stamps were affixed which made the verification of the value of each piece of metal more easy.⁴

¹ "Instrumentum artificialiter adinventum pro naturalibus divitiis levius permutandis," ch. i, Wolowski, p. xciv. Oresme calls money artificial richness, and draws attention to the fable of Midas, who died from hunger while surrounded by gold.

² Chap. II, *De qua materia debet esse moneta*, Wolowski, p. xcv.

³ Chap. IV, *De forma seu figura monetae*, pp. xcvi, xcix.

⁴ *Ib.*, p. xcvi.

Another monetary treatise was written in 1526 by the famous astronomer Copernicus, by order of the Polish king, Sigismund. The conditions which gave rise to this treatise, entitled, *Monetae Cudendae Ratio*, were similar to those prevailing in France at the time of Oresme. The monetary system in the Prussian provinces was completely disorganized by the debasement of the currency, and Copernicus was charged to find a remedy.¹

"Among the innumerable calamities," he says, in the first sentence of his treatise, "which ordinarily cause the downfall of kingdoms, principalities, and republics, there are four, which according to my opinion are the most dangerous ones: discord, great mortality, sterility of the soil, and the deterioration of money. The evidence of the first three is so great that nobody does ignore them. But as regards the fourth, concerning money, very few, some men of great ability excepted, take any interest in it. This, because it ruins the State not at once, but by small degrees, by an action which is in a certain sense hidden."²

While Oresme was defining money as a medium of exchange, for Copernicus it is "a common

¹ The treatise of Copernicus was only discovered in 1815, and published for the first time by Bentkowski in 1816 in the *Pamiętnik Warszawski*. It was reprinted by Wolowski, together with the *Tractatus* of Oresme. In 1914 Jastrow published the Latin text, together with an earlier German version, in the *Archiv für Sozialwissenschaft*, Vol. XXXVIII, pp. 734-751 (*Kopernikus Münz und Geldtheorie*).

² *Monetae Cudendae Ratio*, ed. Wolowski, sc., p. 49.

measure of estimation of values."¹ This measure must be fixed, otherwise no normal relations between buyers and sellers can exist.²

When the Government is debasing the currency, and when the whole country is suffering from it, those who know the real value of the coins take advantage of the situation. The goldsmiths are smelting down the old good pieces so that only the bad ones remain in circulation.³

Copernicus is aware of the fact that by debasing the currency the Government is diminishing its value. "From this," he says, "comes the general complaint that gold and silver, corn, and all provisions and all necessaries rise in price. Our negligence prevents us from seeing that the dearness is caused by the deterioration of the coins. The prices rise and fall namely in proportion to the conditions of the currency."⁴ The worse they are, the higher are the prices charged by the merchants and artisans.⁵ "It is on gold and silver that money is based, and these metals determine its value."⁶

The problem of the debasement of the currency which was the subject of Oresme's and Copernicus's inquiries was discussed during the seventeenth century almost everywhere in Europe. In England an anonymous writer, in his *Compendious or Briefe Examination of certayne ordinary Complaints* (1581) drew a very vivid picture of the disastrous effects of the monetary policy of his time.

¹ *Ib.*³ *Ib.*, p. 62.⁵ *Ib.*, p. 64.² *Ib.*⁴ *Ib.*⁶ *Ib.*, p. 62.

He shows that the prices had risen by one-third and that not all incomes had kept pace with this increase. Those receiving payments according to agreements made when the money had its full value, as landlords, officials, etc., were suffering most, while others, as farmers, for instance, were benefited by the change.¹ The author, in the same manner as Oresme and Copernicus, points out that the debasement of the currency entails the disappearance of the better coins from circulation. This observation was expressed fifteen years later by Thomas Gresham in the form of a general law. In his *Reply to the Defence of the Bank setting forth the Unreasonableness of their Slow Payments* (1596) he formulated this law as follows: "When two sorts of money are current in the same nation of like value by denomination, but not intrinsically, that which has the least value will be current, and the other as much as possible hoarded."²

In Germany an anonymous writer defends in a pamphlet entitled *Gemeine Stimmen von der Mütze* (1530) the principles of a sound monetary currency.³

¹ This treatise was reprinted in 1893 by Dr. W. Cunningham and Miss Lamond under the title, *A Discourse of the Common Weal of this Realm of England* (Cambridge University Press). Miss Lamond attributes the authorship with considerable probability to John Hales. The work, written in the summer of 1549, was not published until 1581, when W. S., whoever he may have been (the book has been attributed to William Stafford, William Smith, etc.), brought it up to date, and issued it as his own composition.

² Quoted by McLeod, *The Theory of Credit*, 1894, Vol. II, Part I, p. 398.

³ Reprinted by W. Lotz under the title, *Die drei Flugschriften über den Münzstreit der sächsischen Albertiner und Ernestiner um 1530*. Leipzig, 1893.

In France Bodin's *Discours sur le rehaussement et diminution des monnaies, pour response aux paradoxes du Sieur de Malestroit* (1578) deals with the same problem.¹ In Italy during the sixteenth century monetary questions were discussed by different authors who exposed the dangers of an alteration of the *bonitas intrinseca* of the coins.²

In the seventeenth century Rice Vaughan, in his *Discourse of Coin and Coinage* (between 1630-5), gives a general view of the origin of money, the materials of which it has been formed, its uses, and the abuses to which it has been subjected.³ At the end of the same century Locke, in his *Considerations of the Consequences of the Lowering of Interest and Raising the Value of Money* (1691), formulates in a very explicit form the same principles which have been already put forward by Oresme and Copernicus. "An ounce of silver," he says, "whether in pence, groats, or crowns-pieces, stivers, or ducatoons, or in bullion, is, and always eternally will be, of equal value to any other ounce of silver, under what stamp or denomination soever."⁴ And he continues: "For let another piece be coined of the same weight, wherein half the silver is taken out, and copper, or other alloy, put into the

¹ Vide Baudrillart, *Jean Bodin et son temps*. 1853.

² L. Cossa, *Histoire des doctrines économiques*, 1899, pp. 184, 185.

³ This pamphlet has been reprinted in McCulloch's *Tracts on Money*, published for the Political Economy Club. Unfortunately I was not able to obtain this volume.

⁴ Locke's works, sc., Vol. V, p. 82.

place, every one knows it will be worth but half as much."¹

Among the authors of the eighteenth century who before the publication of Turgot's *Réflexions*, and of Adam Smith's *Wealth of Nations*, discussed monetary problems, Harris (*Essay on Money and Coins*, 1757-8) and Galiani (*Della Moneta*, 1750) occupy a leading place.

The Quantity Theory of Money

In connexion with the monetary discussions of the sixteenth century the quantity theory of money was formulated. Already Copernicus had noticed that "money loses its value when it has been too much multiplied."²

In the second half of the sixteenth century the revolution in prices which had been brought about by the discovery of the rich gold and silver mines in America, and by their afflux to Europe gave a stimulus to an investigation of the causes of high prices, Bodin, in his book entitled, *Reponse aux Paradoxes de M. de Malestroit touchant l'encherissement de toutes les choses et des Monnayes* (1568), tried to show that the great mass of precious metals which had been brought to Europe after

¹ *Ib.*, p. 83. The same principles are formulated by Locke in his *Further Considerations Concerning Raising the Value of Money*. "Money differs," he says, "from uncoined silver only in this, that the quantity of silver in each piece of money is ascertained by the stamp it bears; which is set there to be a public voucher of its weight and fineness." *Ib.*, p. 152.

² Wolowski's edition, sc., p. 52.

the discovery of America had caused the increase of prices, wages, and of land values.

The quantity theory was developed in the seventeenth and eighteenth centuries. It was recognized that for deciding if the quantity of money corresponds to the circulating requirements of a country, it is necessary to take into consideration the quickness with which it passes through the channels of the economic system. Petty, for instance, in trying to determine "how much money is necessary to drive the trade of the nation," points out that there are weekly and quarterly cycles. If the money should change hands fifty-two times in a year, as, for instance, in the case of wages, one million of money would serve the ends of circulation. If quarterly cycles, "according to our custom of paying rent or gathering taxes," should prevail, ten millions would be requisite.¹ Similar ideas are expressed by Locke. Money must be in some proportion to trade, "but what proportion that is," he says, "is hard to determine, because it depends not barely on the quantity of money, but the quickness of circulation. The very same shilling may at one time pay twenty men in twenty days: at another rest in the same hands one hundred days together."² Cantillon in his

¹ *Verbum Sapienti*, pp. 13, 14. Hull's *Ec. Wr.*, pp. 112, 113. The *Verbum Sapienti* was printed in 1691, and written probably in 1665. In his *Treatise on Taxes*, Petty likewise points out that "the money requisite to our trade" depends on the frequency of commutations. He adds that where there are banks, "there less money is necessary to drive the trade," p. 18. Hull's *Ec. Wr.*, p. 36.

² *Works*, sc., p. 23.

Essai sur la Nature du Commerce en général, written about 1725 and published thirty years later, similarly points out that the greater the velocity of circulation the smaller the amount which is necessary for driving the trade of a country.¹

Hume, in his *Essays, Moral, Political, and Literary* (1742), tried, in applying the quantity theory, to explain how the precious metals were distributed among the different countries of the world as to accommodate themselves to the requirements of their trade. Every superabundance of monetary signs in causing an increase of prices necessarily entails an afflux of gold and silver to countries with lower prices, and a scarcity has a contrary effect. "Suppose," says Hume, "four-fifths of all the money in Great Britain to be annihilated in one night and the nation reduced, to the same conditions with regard to specie as in the reigns of the Harrys and Edwards, what would be the consequence? Must not the price of all labour and commodities sink in proportion, and everything be sold as cheap as they were in those ages? What nation could then dispute with us in any foreign market, or pretend to navigate or to sell manufactures at the same price, which

¹ The importance of Cantillon's *Essai* has been much exaggerated by Jevons (*Cantillon and the Nationality of Political Economy, Contemporary Review*, 1881). Hardly any new and original theories can be found in this book. The author is only repeating theories formulated much earlier by Petty. See on the subject Maurice Pasquier, *Sir William Petty, Ses idées économiques*, 1903, pp. 265-9.

to us could afford sufficient profit? In how little time, therefore, must this bring back the money which we had lost and raise us to the level of all neighbouring nations?"¹

The study of early political economy shows us that, beginning with the fourteenth century, almost all writers dealing with monetary problems had a very clear conception of the *rôle* and function which was performed by money in the social organism. They were aware of the fact that an increase of money is not necessarily advantageous to society, "for money," says Petty, "is but the fat of the Body Politick, whereof too much doth as often hinder its agility, as too little makes it sick."²

The Law of Supply and Demand

The quantity theory of money contained already the germs of the law of supply and demand, in making the rise and fall of prices dependent on the greater or smaller quantity of monetary signs circulating in a country. In this manner was established the existence of a parallelism between *demand* and the movement of prices.

Even earlier perhaps it had been noticed that supply had a contrary effect. So, for instance, Aristotle had already made the observation that in the case of a famine the price of corn increased.³

¹ Ed. Ward, Lock, and Tyler, pp. 185, 186.

² *Verbum Sapienti*, p. 14. Hull, *Ec. Wr.*, p. 113. On the Mercantilist conception of money, see note 2 on p. 2.

³ Rambaud, sc., p. 17.

The influence of scarcity on the rise of prices was analysed in the sixteenth century by Davanzati; in the seventeenth century by Montanari.¹

At the end of the seventeenth century we find already the two elements—supply and demand—combined in one formula. "So that plenty," says Barbon, in his *Discourse of Trade* (1690), "makes things cheap, and scarcity dear."²

Locke develops the law of supply and demand with more detail. "All things," he says, "that are bought and sold, rise and fall their price in proportion as there are more buyers or sellers. Where there are a great many sellers to a few buyers, there, use what art you will, the thing to be sold will be cheap. On the other side, turn the tables and raise up a great many buyers for a few sellers, and the same thing will immediately grow dear."³ "He that will justly estimate the value of any thing," continues Locke, "must consider its quantity in proportion to its vent, for this alone regulates the price."⁴

¹ Cossa, sc., p. 258.

² p. 18. Hollander's *Reprint*, p. 15. A less clear formulation of the law of supply and demand may be found in Sir Dudley North's *Discourses upon Trade*. "The consideration of all these matters," he says, "makes out an universal maxime that as more buyers than sellers raiseth the price of a commodity, so more borrowers than lenders will raise interest" (p. 8). Hollander's *Reprint*, p. 21.

³ Locke, *Considerations*, sc., p. 39

⁴ *Ib.*, p. 40. In the eighteenth century Hume and Cantillon formulated the same law. "It seems a maxim," writes Hume, "almost self-evident that the prices of everything depend on the proportion between commodities and money, and that any considerable alteration on either have the same effect, either

The law of supply and demand was applied by the writers of the seventeenth century not only to prices, but also to the movement of interest. "The natural fall of interest," says Petty, "is the effect of the increase of money."¹ Locke writes that the natural interest of money is raised when the money of the country is but little in proportion to the debts of the inhabitants and to the trade of the country.² These views were criticized by Hume, who was of the opinion that not the quantity of money but the accumulation of riches had a deciding influence on the rate of interest. "High interest," he says, "arises from three circumstances: a great demand for borrowing, little riches to supply that demand, and great profits arising from commerce. Low interest, on the other hand, proceeds from three opposite circumstances."³ Similar views are expressed by Massie in his *Essay on the Governing Causes of the Natural Rate of Interest* (1750).⁴

of heightening or lowering the price. Increase the commodities, they become cheaper, increase the money, they rise in their value. As, on the other hand, a diminution of the former and that of the latter have contrary tendencies," *Essays*, sc., p. 173. Cantillon points out that *abundance* and *scarcity* (*abundance et rareté*) have a deciding influence on prices.

¹ *Political Arithmetick*, p. 99. Hull's *Ec. Wr.*, p. 362.

² *Considerations*, sc., pp. 9, 10.

³ *Essays*, sc., p. 173.

⁴ "That the profits of trade, in general," writes Massie, "are governed by the proportion which the number of traders bears to the quantity of trade," p. 55. Hollander's *Reprint*, p. 52. In the seventeenth century North, a contemporary of Petty and Locke, advanced the theory that it is the increasing *stock* of the nation which makes interest low. (*Discourses upon Trade*, sc., p. 4. Hollander's *Reprint*, p. 18.)

Value in Use and Value in Exchange

The observation that according to a greater or smaller demand the same object could fetch a different price, led to a distinction between the value in use called by the writers of the seventeenth century intrinsic, and the value in exchange. "The intrinsic, natural worth of any thing," says Locke, "consists in its fitness to supply the necessities, or serve the conveniences of human life; and the more necessary it is to our being, or the more it contributes to our well-being, the greater it is worth."¹ Petty, in his *Dialogue of Diamonds*, defines the intrinsic value in a similar manner. "The dearness or cheapness of diamonds," he says, "depends upon two causes, one intrinsec which lyes within the stone it self and the other extrinsec . . . there must be four intrinsick causes of dearness and cheapness, vizt Weight, Extent, Colour, and Clearness."²

This value in use, however, has no influence on the exchangeable value of commodities. "There is no such intrinsic, natural, settled value in any thing," says Locke, "so as to make any assigned quantity of it, consistently worth any assigned quantity of another."³ "What more useful or necessary things are there," he writes in another place, "to the being, or well-being of men, than air and water? And yet these have generally no price at all, nor yield any money: because their

¹ *Considerations*, sc., p. 42.

² *Hull's Ec. Wr.*, pp. 625, 626

³ *Considerations*, sc., p. 42.

quantity is immensely greater than their vent, in most places of the world. But, as soon as ever water . . . comes anywhere to be reduced into any proportion to its consumption, it begins presently to have a price, and is sometimes sold dearer than wine. Hence it is that the best and most useful things are commonly the cheapest: because, though their consumption be great, yet the bounty of Providence has made their production large and suitable to it.”¹

Natural and Market Value

The writers of the seventeenth century having already formulated—as stated above—the law of supply and demand, Petty, in studying the problem of price movements, went deeper into the matter. He tried to determine not only the market fluctuations but also the natural value about which the market prices oscillated. “*Natural* dearness or cheapness,” he says “depends upon the few or more hands requisite to necessaries of Nature: as corn is cheaper where one man produces corn for ten than where he can do the like but for six.”² “If a man can bring to *London*,” he writes in another passage of his *Treatise of Taxes*, “an ounce of silver out of the earth in *Peru*, in the same time that he can produce a bushel of corn, then one is the *natural price* of the other; now if by reason of new and more easie mines a man can get two ounces of silver as easily as formerly he did one,

¹ *Ib.*, p. 41.

² *Treatise of Taxes*. Hull's *Ec. Wr.*, p. 90.

then corn will be as cheap at ten shillings the bushel, as it was before at five shillings *caeteris paribus*."¹

From these passages it has been often inferred that the Ricardian theory of value had been already formulated by Petty. This is true only to a certain degree. According to Petty the natural value of commodities is determined not only by labour but also by land. "But that which I would say upon this matter is that all things ought to be valued by two natural denominations, which is *land and labour*; that is, we ought to say a ship or garment is worth such a measure of land, with such another measure of labour."² "Labour," he says, "is the father and active principle of wealth, as lands are the mother."³

Petty tried to "make a par and equation between lands and labour, so as to express the value of any thing by either alone."⁴ His effort in this respect can be considered only as an historical curiosity without any practical importance.

Theory of Production

The theory of production arose in a similar manner as the conception of natural laws and the theory of money out of the discussion of con-

¹ Hull's *Ec. Wr.*, p. 50. The same idea is expressed on p. 43.

² Hull's *Ec. Wr.*, p. 44.

³ *Ib.*, p. 68. The same idea occurs in a slightly different phraseology on p. 377, "Hands being the father, as lands are the mother and womb of wealth." Cantillon in his *Essay* simply reproduced this idea.

⁴ Hull's *Ec. Wr.*, p. 181. On p. 45 Petty similarly tries to turn "one into the other."

crete problems of the day. As is generally known, the seventeenth century is characterized by a struggle for political supremacy between England, France, and Holland. Charles II, contrary to the interests of his country in his relations with France, pursued a subservient policy, accepting bribes from Louis XIV.

Sir William Petty in his *Political Arithmetick*, written in 1671, but not published till 1691, tried to prove that this policy was not justified by any relative weakness on the part of England. For this he takes a method which "is not yet very usual; for instead of using only comparative and superlative words and intellectual arguments, I have taken the course . . . to express my self in terms of *Number, Weight, or Measure*; to use only arguments of sense, and to consider only such causes as have visible foundations in Nature."¹

Petty warns his readers against being dazzled by the splendours of the Court of Louis XIV, and taking those splendours to be a proof that the wealth of France was greater than that of England. He argues that "a small country and a few people by its situation, trade, and policy, may be equivalent in *Wealth and Strength* to a far greater people and territory."²

In taking Holland as an example, he explains the wealth of this country by its natural situation, the use of improvements and machines, and the application of the division of labour.

¹ Preface, Hull's *Ec. Wr.*, p. 244.

² *Political Arithmetick*, p. 1. Hull's *Ec. Wr.*, p. 249.

"In *Holland* and *Zealand*," he says, "there is scarce any place of work, or business, one mile distant from a navigable water, and the charge of water carriage is generally but one-fifteenth or one-twentieth part of land carriage; wherefore if there be as much trade there as is in *France*, then the *Hollanders* can out-sell the *French* fourteen-fifteenths of all the expence, of all travelling, postage, and carriage whatsoever. . . ."¹ Petty speaks equally of the defensibility of the country by reason of its situation, the advantages she derives from good harbours, fishing, etc.²

As far as improvements in agriculture are concerned, Petty shows that "bad land may be improved and made good; bog may by draining be made meadow; heath-land may (as in *Flanders*) be made to bear flax and clover-grass, so as to advance in value from one to an hundred. . . ."³ Petty mentions also the economy of labour which is due to the use of machines: "One man by art," he says, "may do as much work as many without it; viz. one man with a mill can grind as much corn as twenty can pound in a mortar; one printer can make as many copies as one hundred men can write by hand; one horse can carry upon wheels as much as five upon their backs; and in a boat or upon ice as twenty."⁴ In another passage, speaking of the Dutch windmills, he says

¹ p. 13. Hull's *Ec. Wr.*, p. 256.

² p. 14. Hull's *Ec. Wr.*, p. 257.

³ p. 1. Hull's *Ec. Wr.*, p. 249.

⁴ *Id.*

that "a mill made by one man in half a year will do as much labour as four men for five years together."¹

It is generally believed that Adam Smith was the first one to expose the advantages of the division of labour.² A study of Petty's works shows us that this writer had already, more than a hundred years before the publication of Smith's *Wealth of Nations*, drawn attention to this factor. In discussing the reasons why the Hollanders sail for less freight than others, he says, "For as cloth must be cheaper made, when one cards, another spins, another weaves, another draws, another dresses, another presses and packs; than when all the operations above-mentioned were clumsily performed by the same hand; so those who command the trade of shipping, can build long slight ships for carrying masts, fir-timber, boards, balks, etc."³ He is even more explicit on this subject in speaking in *Another Essay on Political Arithmetick* (1682) of the advantages which England can gain by manufacturers. "For in so vast a city manufacturers will beget another, and each manufacturer will be divided into as many parts as possible, whereby the work of each artisan will be simple and easie; As for example. In the making of a watch, if one man shall make the wheels, another the spring, another shall engrave the

¹ p. 12. Hull's *Ec. Wr.*, p. 256.

² Sometimes Xenophon is quoted as predecessor of Smith in this respect.

³ *Political Arithmetick*, p. 19. Hull's *Ec. Wr.*, p. 260.

dial-plate, and another shall make the cases, then the watch will be better and cheaper, than if the whole work be put upon any one man."¹

From this we see that in investigating the causes of Holland's wealth Petty analyses in his writings the three requisites of production which are classified to-day under the head of Nature, Capital, and Labour.

Theory of Distribution

As far as the theory of money, of prices, and of production, is concerned, the first economic laws governing these phenomena had already been discovered in the sixteenth and seventeenth centuries. The theory of distribution only came into existence much later.

In the writings of the early economists we look in vain for a discussion of the problem according to what laws the national income is divided among the landlords, the capitalists, and the labourers. Only a few remarks relating to rent and interest may be found in the works of Petty and Cantillon.

Petty tries to explain in his *Treatise of Taxes* "the mysterious nature" of rent.² According to him the rent of agricultural lands is determined by the excess of their produce over the expenses of cultivation.³ In this respect his theory is similar to that which was formulated in the eighteenth century by the Physiocrats. Petty, however, has

¹ pp. 36, 37. Hull's ed., p. 473.

² *Treatise of Taxes*, p. 24. Hull's *Ec. Wr.*, p. 42.

³ *Ib.*, Hull's *Ec. Wr.*, p. 43. *seq.*

noticed equally the differential character of rent. "If the corn," he says, "which feeds London, or any army, be brought forty miles thither, then the corn growing within a mile of London or the quarters of such army shall have added unto its natural price so much as the charge of bringing it thirty-nine miles doth amount unto."¹ "Hence," he continues, "it comes to pass, that lands intrinsically alike near populous places, such as where the perimeter of the area that feeds them is great, will not only yield more rent for these reasons, but also more years purchase than in the remote places."²

Cantillon distinguishes three forms of "rent." A rent paid by the farmer to the landlord, a rent which serves for the maintenance of the servants and horses necessary for the cultivation of land, and the rent which is an equivalent of the capital invested by the farmer. These three rents must be considered as the original source or as the stimulating force of the whole process of cultivation, because half of the rent is not consumed by the rural population but serves for the maintenance of the artisans in the towns.

As far as interest is concerned, Petty gave an explanation similar to that which was advanced much later by the Physiocrats. Interest must exist, because the capitalist in buying land obtains a rent. "As for usury," says Petty, "the least that can be is the rent of so much land as the

¹ *Ib.*, p. 30. Hull's *Ec. Wr.*, p. 48.

² *Ib.* Hull's *Ec. Wr.*, p. 49.

money lent will buy, where the security is undoubted."¹ In other passages Petty considers interest as a reward "for forbearing the use of your own money,"² as a "compensation for this inconvenience."³ These passages can be classified under the head of the "theory of abstinence" which was expressed by Senior in the nineteenth century.

* * * *

Study of the works quoted in this chapter shows us that since the fourteenth century men in observing economic phenomena had begun to notice that they are subjected to laws. Oresme had remarked already that the debasement of the currency was causing great perturbations, and Copernicus pointed out that by this their purchasing power was being diminished. So the principle that the quantity of gold and silver contained in the coins determined their value was already expressed at the beginning of the sixteenth century. At the end of this century Gresham's law was formulated and the quantity theory of money developed by Bodin.

The greatest progress in the period preceding the time of the Physiocrats and of Adam Smith was accomplished, however, in the second half of the seventeenth century. The conception of a natural order of things, different from the positive one, finds a theoretical expression in the works of

¹ *Ib.*, p. 29. Hull's ed., p. 48.

² *Quantulumcunque*, p. 7. Hull's *Ec. Wr.*, p. 446.

³ *Treatise of Taxes*, p. 29. Hull's *Ec. Wr.*, p. 47.

Petty. The law of supply and demand as regulating the movements of prices and of the rate of interest was already known to Locke, Petty, and Barbon. In the works of the authors of this time a distinction between the value in use and value in exchange is equally made, and Petty tries to discover a *natural value* round which the market prices are oscillating: The first outlines of the theory of distribution begin also to appear.

During the first half of the eighteenth century economic science was, as far as the discovery of new laws is concerned, almost stationary. In this respect the works of Cantillon and Hume do not mark such a great step forward as is generally believed.

Though the germs of economic theories can be found already in the fourteenth, sixteenth, and seventeenth centuries, the origin of political economy as a separate science is of much later date. All the authors of whom we have spoken in this chapter formulated economic theories, not in special inquiries devoted to a definite science, but mostly in discussing political, fiscal, and commercial problems of the day. It was only the Physiocrats (in the first instance Turgot) who for the first time severed this connexion, and by doing so laid the foundation for a new science.

CHAPTER II

THE PHYSIOCRATS

The Conception of Natural Laws

THE Physiocrats based for the first time their whole system on the conception of laws governing economic phenomena. Their ideas on this subject are intimately connected with the philosophy of the seventeenth and eighteenth centuries, which in trying to overthrow absolutism formulated the theory of natural laws.

The Physiocrats oppose the *natural order* (*ordre naturel*), which is instituted by God, to the *positive order* (*ordre positif*), which is the work of the legislator. "All men," says Quesnay, in his treatise on natural law, "and all human authorities must be liable to the supreme laws which have been created by the Almighty (*Être suprême*). These are unchangeable, irrefutable, and the best which can exist. Positive laws, on the contrary, are rules which have been instituted by the authority (autorite souveraine) for the establishment of the order of the administration, of government, and for the defence of the society."¹ Those laws, however, must be adapted to the natural

¹ *Oeuvres économiques et philosophiques de F. Quesnay*, edited by A. Oncken, 1888, p. 375.

order. "Without this fundamental institution," says Quesnay, "the government and the conduct of men can only be covered by mist, and must be full of errors, confusion, and disorder; without the knowledge of natural laws, namely such as should serve for a foundation to human legislation and as a supreme rule of men's conduct, it is not visible, what is really just and what unjust."¹

The conception of economic laws is still very misty in the Physiocratic system. Their merit consists, however, in this, that, having drawn attention to the existence of the "ordre naturel," they tried to discover the laws governing economic phenomena, and by doing so they became pioneers of economic science.

The name of Physiocrats indicates in itself that this system is based on natural laws (phisis—nature, kratos—force). In the beginning its founders were called "Economistes," and only when Du Pont de Nemours published (in 1767) the works of Quesnay, under the title, *La Physiocratie ou Constitution Naturelle du Gouvernement, le plus avantageux au genre Humain*, was the word created. On the title page of the book we find the following motto of Quesnay's, which characterizes in a few words the whole Physiocratic system:—

"Ex natura, jus et leges.

Ex homine, arbitrium, regimen et coercitio.

F. Q."

¹ *Ib.*, p. 376.

The Physiocrats and Adam Smith

The Physiocratic system was discovered by economic science only in the nineteenth century. For a long time it was considered simply as a doctrine which regarded agriculture as the only source of wealth. Mercantilism and Physiocratism were, according to the early historians of political economy, false systems, and only on the publication of Adam Smith's *Wealth of Nations* was taken, according to them, the first step towards the constitution of economic science.

A closer examination shows, however, that between the system of Adam Smith and the doctrines of the Physiocrats there does not exist such a deep abyss. Du Pont de Nemours, in publishing Turgot's works in 1809-11, had already drawn attention to the fact that in his *Réflexions sur la formation et la distribution des richesses* (which appeared nine years before Adam Smith's *Wealth of Nations*) were contained¹ the most important economic theories of production and distribution.²

To these words of Du Pont, however, little attention was paid, and in the first half of the nineteenth century the Physiocratic system did not occupy in the history of economic thought the place which was due to it. Even such a thorough historian of economic doctrines as Bruno Hildebrand wrote in 1848 that "they have only resolved some practical questions of the moment in connexion with the policy of the time, but that

¹ *Oeuvres de Turgot*, edited by Daire, 1844. Vol. I, p. 67.

their writings did not possess a deeper theoretical value."¹

It was only after the publication of the works of the Physiocrats by Daire, in 1846, that a more just appreciation of the system of Quesnay and Turgot gained ground. Von Schell again had drawn, in 1868, attention to the relation which exists between the fundamental theories of Smith and Turgot. "Without wishing to decide," he wrote, "which of the two books stands scientifically higher, it is possible to determine that not from the publication of Smith's work is it possible to date the beginning of a new science. The fundamental principles were already expressed in the Physiocratic system and the scheme and the principal theories were already sketched in Turgot's *Réflexions*. These gave to political economy for the first time a system in the modern sense of the word."²

The date of the origin of political economy has thus been put back, and the years of the publication of Quesnay's *Tableau Économique* (1758) and of Turgot's *Réflexions* (the book, written in 1766, was published in 1770) are regarded to-day as corner-stones of political economy.

How is the relation which exists between the

¹ B. Hildebrand, *Die Nationalökonomie der Gegenwart und Zukunft*, 1848, p. 8.

² Von Schell. *Turgot als Nationalökonom. Zeitschrift für die gesamte Staatswissenschaft*, 1868, p. 267. The discussion as to the relation of Turgot and Smith has of late received some valuable contributions: S. Feilbogen, *Smith and Turgot*, 1892; E. Cannan, Introduction to his edition of Smith's *Lectures*.

theories of Turgot and Smith to be explained? At first sight it would seem that Smith, who from Christmas, 1765, to October, 1766, was in Paris, and who often met there in society the leaders of the Physiocratic school, had borrowed from them the fundamental doctrines of his system. Schelle, the best historian of the Physiocratic school, tells us that even after having left France Smith remained in correspondence with Turgot.¹

The supposition that Smith owes much to Turgot is, however, erroneous. Turgot's book, though written in 1766, was only published six years before the *Wealth of Nations*, and then only in the periodical, *Ephémérides du Citoyen*. As this was not in the Advocates' Library at Edinburgh in 1776, and is not among the collection of Adam Smith's books which Dr. James Bonar has catalogued, we are justified in assuming that this work remained unknown to Adam Smith.²

The discovery of Adam Smith's *Lectures*, delivered in 1763, has finally dissipated the myth that Smith's *Wealth of Nations* is only a plagiarism of Turgot's *Réflexions*.

We know from these *Lectures*, of which we will speak later on (p. 68 seq.) with more detail that already before his journey to France the outlines of Smith's system were in shape. After his return Smith simply completed his work by adding different chapters. It is pretty certain that his

¹ Schelle, *Turgot*, 1909, p. 123.

² Cannan's Introduction to Adam Smith's *Lectures on Justice, Police, Revenues, and Arms*, 1896, p. xxiii.

theory of distribution had been formed under the influence of Quesnay's *Tableau Économique*, to which he refers in his *Wealth of Nations*.

The main body of Book II, "Of the Nature, Accumulation, and Employment of Stock," is also not to be found in his *Lectures*. There is nothing at all about capital, and the problem of stock is only touched upon in a few sentences. It is very probable that in this respect Smith owes much to Turgot, who, together with Quesnay, laid the foundations of the theory of capital.

These seem to be the only doctrines expressed in Smith's *Wealth of Nations* which can be attributed to his French predecessors. The foundations of his system were already developed in his *Lectures* at a moment when he had no connexion with the Physiocrats.

Here, as happens often in history, great theories originated simultaneously in minds working independently one from the other. This may certainly be said of Turgot and Smith. It is also necessary to keep in mind the fact that though there is a resemblance between their theories, it would be wrong to identify them. In Turgot's *Réflexions* the fundamental economic doctrines are only lightly sketched, so that during more than half a century they were not noticed. It was Adam Smith who drew the great lines of the economic system so strongly that they became visible to all.

Three Classes in the Physiocratic System

The Physiocratic system is based on the division of society into three classes: the *productive class* (classe productive), the *sterile class* (classe stérile), and the *class of proprietors* (classe des propriétaires). This division corresponds to the social structure of France at the end of the eighteenth century.

1) The *productive class* is represented by the farmers, who pay a rent to the landlords, who till the soil and pay the expenses of cultivation.

2) The *class of proprietors* includes the sovereign, the landlords, and all persons receiving the *taille* (tithe). This class is called by Turgot *disposable* (disponible), because it is the only one "which, not being bound by the need of subsistence to a particular labour, can be employed for the general needs of the Society, such as war and the administration of justice . . ."¹

3) The *sterile class* is composed of all citizens occupied in other employments. First of all it includes the *artisans*. Turgot calls this class *stipendiary*, to avoid the expression "*sterile*," which has roused the indignation of the industrial and commercial circles.

It is necessary to point out that the Physiocrats in using this name did not question the usefulness of the artisans. "The unproductive labours," writes abbé Baudeau, "are not only useful, but among civilized nations they constitute the charm,

¹ *Réflexions*, § xv, quoted after Ashley's translation (*Economic Classics*, edited by W. J. Ashley).

the foundation of life, the support, and the well-being of human society. . . . It is not for the sake of diminution and of degradation of the importance of this kind of very useful labour that it is necessary to distinguish the fertile or productive labour from the sterile or unproductive."¹ Quesnay and Mirabeau draw attention to the fact that the sterile class contributes to an increase of the productivity of the cultivator, by relieving him from all other than agricultural labour.²

What is, then, the difference between the productive and sterile classes? According to the Physiocrats, it consists in the fact that only the productive class gives a net income, "the produit net," which is the pivot of their whole system. "The husbandman," says Turgot, "gathers beyond his subsistence, a wealth which is independent and disposable, which he has not bought and which he sells. He is, therefore, the sole source of the riches, which by their circulation animate all the labours of society; for this reason he is the only one whose labour produces over and above the wages of labour."³

The artisan, on the contrary, does not gain more than the recompense of his labour, he causes no revenue to come into existence, either for himself or for others.⁴ "In such a manner," says

¹ *Oeuvres des Physiocrates*, edited by Daire, 1846, Vol. II, p. 659.

² Quesnay, *Article "Hommes," Revue d'Histoire des doctrines économiques et sociales*, 1908, p. 68. Mirabeau, *Philosophie rurale*, Vol. I, pp. 44 and 86.

³ *Réflexions*, sc., § vii.

⁴ *Ib.*, § xvii.

Quesnay, "the product created by the artisan is only equal to the subsistence destroyed by him. Here, then, in the case of industrial production, there is no augmentation of riches, because the value of those products is only increased by the price of the articles consumed by the workmen."¹

- "Between the two kinds of labour there is this difference," says Turgot, "that the labour of the cultivator produces his own wages, and in addition the revenue which serves to pay the whole class of artisans and other stipendiaries; while the artisans receive simply their wages, that is to say their part of the produce of the land in exchange for their labour; and do not produce any revenue."²

From this the Physiocrats draw the conclusion that the soil is the only source of wealth. "May the sovereign and the nation never forget," says Quesnay, "that the earth is the only source of riches, and that it is increased by agriculture."³

✓ The division of society into productive and unproductive classes seems at first sight very convincing, and still to-day we meet writers who, as Oncken, for instance, pretend that it has not been scientifically refuted.⁴ This theory, however, does not stand criticism at the moment, when, passing from generalities, we try to draw a strict line of demarcation between the two classes.

¹ *Oeuvres*, sc., p. 237.

² *Réflexions*, sc., § xvii.

³ *Oeuvres*, ed. Oncken, sc., p. 331.

⁴ *Ib.*, Preface, p. xix.

Does the miner who brings the minerals to the surface belong to the first or second category? It would seem that because the earth is the source of all riches he should produce in the same manner as the cultivator a net income, "this free gift of nature," as it is called by the Physiocrats. For this reason Quesnay, Mirabeau, Baudeau, and Du Pont, included mines and quarries under the head of productive labour.¹ But is not the product of the miner, as is the work of the artisan, only "equal to the subsistence destroyed by him"? Mirabeau saw this, and pointed out that the fisher and the miner do not produce a net income.²

Similar doubts also had Turgot, who tried to define otherwise than Quesnay, and his adepts, the difference between productive and unproductive labour. Quesnay considered that the production of material objects was a characteristic feature of productivity. Turgot, on the contrary, applied this denomination only to the organic process of nature. Productive is, according to him, only the class which "draws from the land riches which are continually springing up afresh" (*tire de la terre des richesses continuellement renaissantes*).³

Turgot drew the logical consequences from this definition; he does not consider the work of the miner as productive. "A field," he says in his *Mémoire sur les mines et carrières*, "produces every

¹ Pervinquière, *Contribution à l'étude de la notion de la productivité dans la physiocratie* (Thèse de doctorat), Paris, 1906, pp. 59-70 and 84-96.

² *Philosophie rurale*, sc., Vol. I, p. 379.

³ *Réflexions*, sc., § viii.

year fresh fruits. . . . The same cannot be said of a mine; it does not produce any fruits, it is itself a fruit to be plucked."¹ A few pages further on Turgot arrives at the following conclusion: "According to the principles which I have developed the proprietor of a mine does not possess any other property than that which he has obtained by his labour; in the strict sense of the word he cannot have a net income" (*produit net*).²

But the definition of productivity of Turgot does not satisfy us any more than that of Quesnay. Is not the cultivator, from the Physiocratic point of view, who produces flax, hemp, tobacco, or any other raw material, and exchanges it against corn, unproductive as well as the artisan? Do not the words of Quesnay, "that he is only creating a product equal to the subsistence destroyed by him," apply equally to him? Is it possible, then, to speak of a net income?

A close examination of this problem shows us that the Physiocratic classification is based on an optical illusion. The husbandman who is cultivating corn and other articles of food is living in a state of "natural economy," in which his principal wants are satisfied with the help of his own products, and only the surplus is exchanged. This fact fascinated the Physiocrats so much that they considered this surplus as a source of the national income. The product of the artisan, the miner, the flax and tobacco-planter, is, on the contrary,

¹ *Oeuvres*, ed. by Daire, Vol. II, p. 159.

² *Ib.*, p. 163.

principally destined for the market, and only a small part is consumed at home. Nearly the whole production is exchanged against food and other necessaries. The net income cannot in consequence appear distinctly, as in the "natural economy," as a certain mass of products which remain after consumption. This, however, is not proof that the *produit net* is exclusively a characteristic feature of agriculture. In industry, commerce, etc., a net income exists, not as a natural surplus, but is formed in the process of exchange. The artisan, the miner, the tradesman, receive as well as the cultivator not only the subsistence which is necessary for their maintenance during the process of production, but also a surplus, the *produit net* of the Physiocrats. The accumulation of capital in the towns, the profits obtained by manufacturers, are a proof of it.

This was overlooked by the Physiocrats, and, as we shall see later on, became the stumbling block of their system.

If it is possible to speak of a superiority of agriculture in comparison with industry, it can be done only in the sense that the cultivator is producing the most necessary article—food. "We have here neither," says Turgot, "a primary of honour or dignity; it is one of *physical necessity*. The husbandmen, we may say in general terms, can get on without the labour of the other workmen, but no workman can labour if the husbandman does not enable him to live."¹ In a similar manner

¹ *Réflexions*, sc., § v.

writes Quesnay : “ The productive class can always exist independently, thanks to the fruits of its own labour. The other, left to itself, could not obtain any subsistence by its sterile labour.”¹

Out of all the classification of the Physiocrats which has been defended with so much dialectic, and which has given rise to a no less dialectic criticism, there remains only the plain fact that agriculture in supplying us with the most necessary products of life is the foundation of economic well-being.

The Theory of Capital

One of the most original parts of the Physiocratic system is its theory of capital. While the division of society into three classes can be found already in Cantillon's *Essai* ; while the theory that money does not constitute wealth but is only a medium of exchange can be found in much earlier works (p. 17), the theory of capital is a purely Physiocratic invention. It may be said that little attention has been paid to this fact, and it is generally believed that the introduction of the conception of capital into political economy is the work of Adam Smith. This is not true, and no doubts can be entertained to-day that Smith owes his theory of capital to the

¹ *Oeuvres*, ed. Oncken, sc., p. 453.

Physiocrats, who treated it under another name, that of "avances."¹

The Physiocratic theory of capital originated in connexion with the discussion of the different systems of agriculture. There existed in France at the beginning of the eighteenth century two principal methods of cultivation, the so-called *petite culture* and *grande culture*. The first, developed principally in Southern France, consisted in a division of the crop between the proprietor of the land and the peasant, and was known under the name of *métayage*. In arrangements of this kind the proprietor made all the advances of the cultivation, he furnished at his own expense the labouring cattle, the ploughs and other instruments of husbandry, the seed, and the maintenance of the peasant, who gave exclusively his labour. The *grande culture* was to be found in Northern France, where the land was cultivated by rich farmers who were paying annually a fixed revenue to the landlord, and who were making the advances of cultivation.

¹ Daire had already drawn attention to the fact that the "avances" are synonymous with Smith's capital (*Oeuvres des Physiocrates*, sc., Vol. I, p. xiii, Note 1). Karl Marx has also pointed out in his *Theorien über den Mehrwert* (Vol. I, p. 34) that Smith's merit, as far as the theory of capital is concerned, reduces itself to this, that he used more rigid terms for a phenomenon already investigated by the Physiocrats. But, nevertheless, economic students overlook this fact, and even such a thorough historian of economic theories as Böhm-Bawerk quotes in his *Kapital und Kapitalzins* (Vol. II, second ed., p. 24), in speaking of Turgot's theory of capital, only a quite secondary sentence, and does not pay any attention to what he has said of the "avances."

The first of the two systems in comparison with the second gave only small crops, and the question arose: What were the causes of this difference? Quesnay, in his article *Fermiers*, written for the *Grande Encyclopédie*, attributed it to the fact that in the *grande culture* horses, and in the *petite culture* oxen, were used for the ploughing of the soil. Turgot did not agree with this explanation, and he tried to prove that not the ploughing team but the use of what he called *avances* was responsible for the greater productivity of the *grande culture*.¹

✓Advances are all preparatory labours which are necessary for the production of commodities. "Even if one should till the land with one's hands," says Turgot, "it would be necessary to sow before reaping: it would be necessary to live until after the harvest. The more perfect and energetic the cultivation of the land becomes, the more considerable are these advances. There is need of cattle, of implements of husbandry, of buildings to hold the cattle and store the produce; it is necessary to pay a number of persons, proportioned to the extent of the undertaking, and to enable them to subsist until the harvest."²

These advances are the cause of the greater productivity of the *grande culture*. "It is only by means of considerable advances that we obtain

¹ G. Schelle, *Turgot*, 1909, pp. 103, 104.

² *Réflexions*, sc., § lii. Turgot's advances correspond to Böhm-Bawerk's roundabout processes, which, according to him, are a characteristic feature of capitalistic production.

a large return, and that the lands produce a good deal of revenue," says Turgot.¹ It is the doctrine of the productivity of capital which is also shared by Quesnay. "It is not so much men," he writes, "who must be attracted to the country, but riches; when the riches used in the cultivation are great less men are necessary on the land, and it is then that agriculture flourishes, giving a greater revenue."² In a similar manner l'abbé Baudeau points out that advances are saving labour. "A good plough," he says, "driven by four horses can during a day plough up more land than ten men working with a hoe." And applying the same principle to the mining industry, Baudeau adds that in mines and quarries machines are used for the sake of saving labour.³

These advances render the process of production longer, they retard consumption, and this is why the cultivator, in taking advantage of them, must be in possession of stored means of subsistence. "The first cultivator," says Turgot, "has taken the seed he has sown from plants which the earth had of itself produced; while waiting for the harvest he has lived by hunting and fishing, and upon wild fruits: his tools have been branches of trees, torn down in the forests. . . ." ⁴ But with the development of Society and the separation of professions, when many had "only their arms to

¹ *Ib.*

² *Oeuvres*, sc., p. 333.

³ *Oeuvres des Physiocrates*, ed. Daire, sc., Vol. II, p. 824.

⁴ *Réflexions*, sc., § liii.

maintain themselves, it was necessary that those who thus lived on wages should begin by having something in advance, either to procure the materials upon which to labour or to maintain them while waiting for the payment of their wages."¹

In the earliest times these reserves necessary for the maintenance of the labourers were kept in form of food and raw materials.² But "when the produce they gathered was difficult to keep, they must have sought to procure for themselves in exchange articles of a more durable nature, whose value would not be destroyed by time. . . ."³

"Possessions of this kind," says Turgot, "resulting from the accumulation of annual produce not consumed, are known by the name of *moveable riches* (*richesses mobilières*)."⁴ As soon as men became acquainted with money they found out that "it was the most unchangeable of all the articles of commerce, and the easiest to keep without trouble . . . by any one who wished to accumulate."⁵

These accumulated riches are called by Turgot capital. "Whoever," says Turgot, "either from the revenue of his land, or from the wages of his labour, or of his industry, receives each year more values than he needs to spend, may place this superfluity in reserve and accumulate it: these accumulated values are what is called a *capital*."⁶

As we see, Turgot investigates here two quite

¹ *Ib.*, §lix.

² *Ib.*, §lx.

³ *Ib.*, §xlix.

⁴ *Ib.*, §l.

⁵ *Ib.*

⁶ *Ib.*, §lvi.

different economic problems. He tries to explain the process of production in showing how the use of machines, agricultural implements, etc., increases the productivity of labour. But, besides this, he deals with the problem of *moveable riches*, which enable the producer using roundabout processes to wait until his product shall be ready.

The problem of capital appears in Turgot's *Reflections* still in a third form. The § xxix is entitled, "*Of capitals in general, and of the revenue of money.*" Here Turgot is dealing with capital, not as a means of production, but as a factor of distribution, as a source of income. "There is another way of being rich without labouring and without possessing lands. . . . This way consists in living upon what is called the revenue of one's money, or upon the interest one draws from the money placed on loan."

Already Turgot did not distinguish quite clearly these three different problems. But political economy of the nineteenth century has effaced all lines of demarcation, and the conceptions of capital as a means of production, as movable riches and as a source of income have been confounded.

The confusion which has resulted is so great that to this moment the theory belongs to the most chaotic chapters of political economy. Some, writing on capital, speak of the means of production, and give the name even to the branch or stone by an orang-outang for getting

plus, les frais annuels
de 500^{fr} que la terre
exige de 600^{fr} qui est la
des avances qu'exige ce
page omicron.

tree. Others, again, speak of capital as a fund which maintains labourers during the process of transformation of raw materials into manufactured goods. Others consider capital exclusively as a source of revenue.

This lack of exactness in terminology had deplorable effects. The use of the same term in the theory of production and distribution for quite different phenomena has shunted, as we shall see later on, the whole theory of interest on a wrong line.

The problem of the *avances* has not only been developed by Turgot; we find it also as one of the pillars of Quesnay's *Tableau Économique*.

The Theory of Distribution. The Tableau Économique

Quesnay's *Tableau Économique* forms, with Turgot's *Réflexions*, the foundation of the Physiocratic system. Their whole theory of distribution is contained in the *Tableau*, and other writings of Quesnay's disciples are only commentaries on and supplements to it. The Physiocrats surrounded this work with the greatest reverence. Well known is the sentence of the Marquis de Mirabeau quoted by Smith, that there have been, since the world began, three great inventions which have principally given stability to political values than have any other. The first is the invention of writing, the second the invention of money, the third the invention of agriculture.

As we see, the *Tableau Économique*.¹ Other disciples of Quesnay have followed in a similar manner.

¹ *Ib.*, § lix.

² *Ib.*, § lx. (1766), Vol. I, pp. 52, 53.

TABLEAU ÉCONOMIQUE.

Objets à considérer, 1°. Trois sortes de dépenses, 2°. leur source; 3°. leurs avances; 4°. leur distribution; 5°. leurs effets, 6°. leur reproduction; 7°. leurs rapports entr'elles; 8°. leurs rapports avec la population; 9°. avec l'Agriculture; 10°. avec l'industrie; 11°. avec le commerce; 12°. avec la masse des richesses d'une Nation.

DÉPENSES PRODUCTIVES <small>relatives à l'Agriculture, &c.</small>	DÉPENSES DU REVENU, <small>l'impôt prélevé, se partage avec Dépenses productives et avec Dépenses stériles</small>	DÉPENSES STÉRILES <small>relatives à l'industrie, &c.</small>
<p><i>Avances annuelles</i> pour produire un revenu de 600^{fr} sans 600^{fr}</p> <p>600^{fr} productif net.....</p>	<p><i>Revenu</i> annuel de</p> <p>600^{fr}</p>	<p><i>Avances annuelles</i> pour les Ouvrages des Dépenses stériles, sans 300^{fr}</p> <p>300^{fr}</p>
<p>Productions <i>En argent</i> 300^{fr}</p> <p>300^{fr} reproduisent net.....</p>	<p>300^{fr}</p>	<p>Ouvrages, &c.</p> <p>300^{fr}</p>
<p><i>En argent</i></p> <p>150^{fr} reproduisent net.....</p>	<p>150</p>	<p><i>passé 100</i></p> <p>150</p>
<p>75^{fr} reproduisent net.....</p>	<p>75</p>	<p>75</p>
<p>37.10^{fr} reproduisent net.....</p>	<p>37.10</p>	<p>37.10</p>
<p>18.15^{fr} reproduisent net.....</p>	<p>18.15</p>	<p>18.15</p>
<p>9.7.0^{fr} reproduisent net.....</p>	<p>9.7.0^{fr}</p>	<p>9.7.0^{fr}</p>
<p>4.13.9^{fr} reproduisent net.....</p>	<p>4.13.9</p>	<p>4.13.9</p>
<p>2.6.10^{fr} reproduisent net.....</p>	<p>2.6.10</p>	<p>2.6.10</p>
<p>1.3.5^{fr} reproduisent net.....</p>	<p>1.3.5</p>	<p>1.3.5</p>
<p>0.11.8^{fr} reproduisent net.....</p>	<p>0.11.8</p>	<p>0.11.8</p>
<p>0.5.10^{fr} reproduisent net.....</p>	<p>0.5.10</p>	<p>0.5.10</p>
<p>0.2.11^{fr} reproduisent net.....</p>	<p>0.2.11</p>	<p>0.2.11</p>
<p>0.1.5^{fr} reproduisent net.....</p>	<p>0.1.5</p>	<p>0.1.5</p>

&c.

REPRODUIT TOTAL.....600^{fr} de revenu; de plus, les frais annuels de 600^{fr} et les intérêts des avances primitives du Laboureur, de 300^{fr} que la terre restitue. Ainsi la reproduction est de 1500^{fr} compris le revenu de 600^{fr} qui est la base du calcul, abstraction faite de l'impôt prélevé, et des avances qu'exige sa reproduction annuelle, &c. Voyez l'Explication à la page suivante.

Adam Smith speaks with a certain irony of this sectarian estimate,¹ and the critics of the nineteenth century have very often treated the zigzag lines of the *Tableau Économique* as unintelligible hieroglyphs.

It must be admitted that the form chosen by Quesnay is not a very happy one, but if we represent his fundamental ideas in a different form, the whole process of exchange and of the distribution of wealth will appear before us in rough outlines.

It is not without some reason that Marx characterizes the *Tableau Économique* as the most genial conception of political economy,² and Hector Denis compares the circulation of wealth, represented by Quesnay, with the revolution which has been caused in biology by the discovery of the circulation of the blood.³ Cannan points out similarly that "in the fact that it attempts to give a comprehensive view of the total results of the industry of a year, it marks an enormous advance in economic theory."⁴

If we want to understand the *Tableau Économique* we must first of all keep in mind the fact that it represents the state of France in the eighteenth century, and that Quesnay has before his eyes the *grande culture* based on cultivation by rich farmers paying a rent to the landlord.

¹ Adam Smith, *Wealth of Nations*, ed. Cannan, Vol. II, p. 177.

² *Theorien über den Mehrwert*, sc., Vol. I, p. 92.

³ *Histoire des systèmes économiques et socialistes*, Vol. I, p. 83, seq.

⁴ Introduction to Adam Smith's *Lectures*, p. 29.

Quesnay distinguishes three kinds of "avances" : *avances foncières*, *avances annuelles*, and *avances primitives*.

Avances foncières, or *ground advances*, are the investments made by the proprietors for making the soil fit for cultivation. "Before one begins the cultivation," says Du Pont de Nemours, "it is necessary to cut the forests, to clear them, to prepare the buildings in which the crop may be placed."¹

Avances annuelles, or *annual advances*, are the investments which must be repeated every year ; they are composed of wages, seed, etc. They correspond to what Smith has called *circulating capital*.

Avances primitives, or *primitive advances*, are of a more durable nature. "The annual reproduction," says Baudeau in his *Explication du Tableau Économique*, "entails expenses which do not renew themselves as a whole every year ; in a garden one may see the same wheelbarrow, the same watering-pot, the same greenhouses, the same agricultural implements of every kind, which serve during several years."²

The relation of annual to primitive advances is not everywhere the same. Vineyards require much hand labour, while in the cultivation of corn instruments have a much greater part. Quesnay, in his *Tableau Économique*, took an average based on the proportion which existed in the

¹ *Oeuvres des Physiocrates*, ed. Daire, sc., Vol. I, p. 341.

² *Ib.*, p. 823-824.

farms of northern France, where the primitive advances were five times as great as the annual ones. Quesnay starts from the supposition that in French agriculture ten milliards of *avances primitives* and two milliards of *avances annuelles* were invested.¹

In the process of reproduction the cultivator must receive first of all these two milliards, and besides this a part of the primitive advances, which Quesnay calculates at the rate of ten per cent, which are composed of the interest of the borrowed capital, of the cost of maintaining the agricultural implements, and of the compensation for the risks and losses of the cultivation.²]

Thus the annual advances (two milliards) and one tenth of the primitive advances amount together to three milliards. These expenses are called by Quesnay *reprises*, and are supported entirely by the farmer. Two thirds of this sum are composed of agricultural products, one third of articles produced by the artisans.³

These three milliards give a net income (*produit net*)⁴ of two milliards, so that the whole reproduction amounts to five milliards. The net income is paid by the farmers to the landlords.

¹ *Ib.*, Vol. II, p. 826. *Oeuvres*, ed. Oncken, sc., p. 313.

² *Oeuvres des Physiocrates*, ed. Daire, sc., Vol. II, p. 833.

³ *Ib.*, Vol. II, p. 857.

⁴ As regards the nature of this net produce, there existed a difference of opinion between Quesnay and Turgot. Quesnay considered the net produce as being a recompense for the ground advances, while, according to Turgot, the revenue net is a pure gift of nature. Schelle, *Turgot*, sc., p. 118. *Oeuvres des Physiocrates*, ed. Daire, sc., Vol. I, p. 345. *Réflexions*, sc., § xiv.

The scheme on page 50 shows the process of reproduction according to Quesnay's *Tableau Économique*. Of the five milliards, produced with advances of three milliards, the *proprietors* receive two milliards. For one milliard they buy articles from the artisans, for one milliard from the cultivators. The *productive class* consumes two milliards worth of agricultural products; for one milliard it buys manufactured articles from the artisans, who in exchange for this sum receive food. The *artisans* buy for the one milliard they receive from the proprietors raw materials from the cultivators. Under such conditions society is in a state of equilibrium; the *productive class*, namely, always begins the reproduction after the crop with the same advances of three milliards, of which two milliards are received from the *artisans*, and one directly from the *proprietors*.

If we look at the reproduction of wealth sketched by Quesnay we see that the well-being of the class of proprietors and artisans depends on the *produit net*. If this net produce should cease to exist all this structure would be shaken. The industry would disappear and the urban population would be obliged to seek employment in agriculture.¹ A society without a net produce "does not possess," says Mirabeau, "conditions of security, freedom, and well-being; it has no disposable wealth and men, who are the foundation of a rich, strong, and mighty State. All these things can only be found in the revenue. The revenue

¹ *Oeuvres*, ed. Oncken, p. 453.

increases the population and contributes to the development of industry, it gives the means for the defence of the country, for the maintenance of the clergy, for the support of law and property."¹ "The well-being of humanity," says Du Pont de Nemours, "is intimately connected with a great net produce."²

The extent of the net produce depends on the magnitude of advances which are necessary for a good cultivation. In his sixth *Maxim*, Quesnay says that the advances of the husbandman must be sufficient, because otherwise the expenses of cultivation absorb a relatively greater part of the crop, and the cultivation gives then only a small net produce.³ The diminution of these *reprises* has a detrimental influence on the well-being of society. It entails a "downfall of the national reproduction and a decrease of the population which can be easily demonstrated by numbers."⁴ "Woe to the proprietors, woe to the tradesmen, to the artists, to the workmen of all employments, woe to the sovereigns, woe to the States!" writes Baudeau, "if these advances (*reprises*) are taken from the cultivators, in other words from the soil, whose fertility depends on them."⁵

From this the Physiocrats draw the conclusion that all measures which are an obstacle to the investment of advances in agriculture should be avoided by the Government.

¹ *Philosophie rurale*, sc., Vol. III, p. 309.

² *Oeuvres des Physiocrates*, ed. Daire, sc., Vol. I, p. 346.

³ *Oeuvres*, ed. Oncken, sc., p. 332.

⁴ *Ib.*, pp. 319, 320.

⁵ *Oeuvres des Physiocrates*, ed. Daire, sc., Vol. II, p. 825.

In liberty the Physiocrats see the best means of attaining this aim. In his *Maxims* which are annexed to the *Tableau Économique* Quesnay demands that the export of corn should not be prohibited; the whole reproduction depending, namely, on the extent of the market ("*Tel est le débit, telle est la reproduction*"¹). The export of agricultural produce increases the revenue, and this has a favourable influence on the economic state of the whole country.²

Quesnay demands that all commercial monopolies should be abolished, because they increase the cost of production and diminish the net produce. "The cost of transport," he says, "though necessary, must be regarded as an expense diminishing the income of the landlords; in consequence commerce must be liberated of all monopolies and charges which would have a destructive influence on the revenue of the sovereign and of other proprietors."³

The postulate of the Physiocrats of introducing an unique tax (*impôt unique*) on the net produce is also based on their theoretical propositions. They think that taxes laid on other revenues have a detrimental influence on the accumulation of advances and on the whole process of reproduction. "The tax must not be destructive," says Quesnay. "It should not be imposed on the wealth of farmers; the advances of the farmer should be

¹ *Oeuvres*, ed. Oncken, sc., p. 334.

² *Ib.*, p. 352.

³ *Ib.*, p. 321.

treated as immovables which must be kept carefully for the production of taxes, of income, and for the maintenance of all classes of citizens; otherwise the tax becomes a rapine, and causes a downfall which quickly ruins the State."¹

Theory of Money

We know to-day that the doctrine according to which money does not constitute wealth, but is only a medium of exchange, is not as new as it was believed to be during the greater part of the nineteenth century. In this respect no new discovery can be ascribed to the Physiocrats. Money, according to Quesnay, plays only a part as a medium of exchange, and in consequence a superabundance of monetary signs is only prejudicial to a nation, because wealth which could be used in agriculture and increase the whole reproduction remains without any real use.²

Quesnay draws equally attention to the fact that nations with a developed system of credit need less money than others which have not reached this stage. "Among such nations," says Quesnay, "there are many men, known for their wealth, whose written promise is considered to be quite trustworthy and guaranteed by their wealth; in this manner all greater transactions are based on credit or on bills of exchange (*papiers valables*) which replace money and facilitate trade. In

¹ *Oeuvres*, ed. Oncken, sc., p. 348.

² *Ib.*, p. 348, § 324.

consequence it is not possible to judge of the wealth of a country according to the greater or smaller quantity of money they possess."¹ Spain, though having a superabundance of gold and silver, is a poor country ; England, on the contrary, is famous for her well-being because she possesses real riches.²

The influence of the velocity of circulation on the quantity of money necessary in a country has equally been observed by Quesnay. "The same amount of money (necessary for the exchange of the national production) can be assumed to be greater or smaller, the velocity of circulation, namely, can replace in a considerable proportion the quantity of money."³

The theory of money has been presented in the most systematical form by Turgot. He investigates the question why gold and silver are especially fit for performing the function of money. "These two metals are, then," he says, "of all merchandise the most easy to verify as to their quality, to divide as to their quantity, to keep for ever without alteration, and to transport to all places at the least expense. Everyone who has a surplus commodity, and has not at the moment any need of another commodity for use, will hasten to exchange it for money ; with which he is more sure, than with anything else, to be able to procure the commodity he shall wish for at the moment he is in want of it."⁴

¹ *Ib.*, p. 325.

² *Ib.*, p. 238.

³ *Ib.*, p. 315, Note 1.

⁴ *Réflexions*, sc., § xlii

Thus, in Turgot's *Réflexions*, we may find a very clear analysis of the causes which, "independently of all convention and of all law,"¹ have constituted gold and silver universal money.

Criticism of the Physiocratic System

The criticism of the Physiocratic system is not characterized by much depth. Those who were criticizing them were principally anxious to save the honour of industry and commerce, which was questioned by Quesnay and his school when they applied the name of productive exclusively to agriculture. Since Say it has been many times repeated that neither in agriculture nor industry can man produce matter, and that his whole activity reduces itself to causing matter to assume properties by which from having been useless to us it becomes useful. "From nothing" (*du néant*), says Say, "we cannot create any atom of matter."² John Stuart Mill makes use of the same arguments.³

The honour of industry has been saved by this method, but the Physiocratic system has hardly been overthrown by this dialectic quibble which could not efface the difference existing between agriculture and industry. While the first increases the quantity of materials and foodstuffs of which

¹ *Ib.*, § xliii. To the theory of money are devoted § xxxviii and xli.

² J. B. Say, *Cours complet d'économie politique*, 1828, p. 170.

³ J. S. Mill, *Principles of Political Economy*, Book I, Chapter III.

society can dispose, the second transforms them only. The word "produce" can be easily replaced by another one without changing the character of the whole system. Turgot himself wrote in his *Réflexions* that the productive class "*produces, or, rather, draws* from the land riches which are continually springing up afresh."¹

The theory of the Physiocrats that the well-being of society depends on the greatness of the net produce is far from being wrong, it is only one-sided. Not only the *produit net*, but also the skill and dexterity with which the artisans transform raw materials into manufactured goods, have an influence on the wealth of the nation. There, where industry does not flourish, where antiquated methods are in use, even with a great net produce the national wealth will be comparatively small.

The Physiocrats were partly aware of the fact that the division of labour has a beneficial influence on social well-being. This has been noticed by Turgot, who deals with the question in two paragraphs (III and IV). In speaking of the division of labour between the artisan and the cultivator, he says that "every one profited by this arrangement, for each by devoting himself to a single kind of work succeeded much better in it."² Quesnay³ and Mirabeau⁴ also remarked in a general way upon this.

¹ *Réflexions*, sc., § viii.

² *Ib.*, § iv.

³ Article "Hommes," *Revue d'Histoire des doctrines économiques*, 1908, sc., p. 68.

⁴ *Philosophie rurale*, sc., Vol. I, pp. 4 and 86.

But no one of the Physiocrats considered this factor in connexion with the net produce, and their theory of production remains in consequence incomplete.

The weakest part of the Physiocratic system is its theory of distribution. Here, however, most of the critics did not discover their mistakes, but, on the contrary accepted their doctrines. The theory, according to which rent is a free gift of nature, passed with some alterations into the system of Smith and of his followers.

This theory is quite wrong, because it mixes up the existence of material *net produce* with the formation of *net revenue*. The two are not identical and synonymous conceptions.

We know, to take Quesnay's *Tableau Économique* as an example, that the agricultural class produces more than it consumes. But does it follow from this that the cultivator receives a net income? If, instead of selling his product for five milliards, as Quesnay supposes, he should obtain only three milliards, the equivalent of the advances which are necessary for the cultivation, there would be no net income. Why the product of the cultivator is sold for five and not for three milliards is the problem which must be investigated. This the Physiocrats did not see, thinking that a natural surplus of agricultural products is a sufficient explanation of rent.

For solving the problem of rent the Physiocrats should have investigated first of all the laws which govern the exchangeable value of commodities.

According to what principle does the exchange between the cultivator and the artisan take place? In this respect the answer of the Physiocrats is most simple and *naïf*.

The theory of value of the Physiocrats is composed of different unco-ordinated remarks about value in use and in exchange, about the cost of production and scarcity, the influence of offer and demand.¹ But we look in vain for a systematic inquiry into the laws which govern the exchange of industrial against agricultural products. For the solution of this problem political economy had to wait more than fifty years, until the publication of David Ricardo's *Principles of Political Economy*.

The observation of life should have taught the Physiocratic writers that the *net produce*, as a form of revenue, was not purely a rural phenomenon. The manufacturer and tradesman receive an interest from their capital in the same manner as the proprietor gets a rent for his land. This is hardly in accordance with the contention of the Physiocrats that the revenue is exclusively a gift of nature. The Physiocrats were aware of this inconsistency and they tried in vain to find a way out of this difficulty. Turgot pretends in one sentence that the interest from capital is an artificial phenomenon, caused by a lack of com-

¹ Different remarks on the value can be found in Quesnay's article, "*Hommes*," *sc.*; in Turgot's treatise, *Valeurs et monnaie*, (*Oeuvres*, ed. Daire, *sc.*, pp. 83-93), and in Le Trosne's article, *De l'intérêt social*, (*Oeuvres des Physiocrates*, ed. Daire, Vol. II, *sc.*, pp. 887-903.)

petition.¹ In other paragraphs he develops the theory of *fructification*. Since the possessor of a capital can buy land of a certain revenue, it is quite natural that, placing his capital in another trade, he demands an equivalent revenue.² The same theory has been expressed by Quesnay,³ who, however, explains in another passage the interest from capital as a compensation for the risks of enterprise.⁴

In his *Tableau Économique*, however, Quesnay did not pay any attention to the existence of this phenomenon. The sterile class does not retain anything of the produced wealth, it works simply for its subsistence. This applies to the manufacturers as well as to the workmen.⁵

¹ *Réflexions*, sc., § 4.

² *Ib.*, § lviii.

³ The fructification theory is exclusively ascribed to Turgot, whereas it was formulated a few months before the publication of the *Réflexions*, in an article of Quesnay, entitled, *Observations sur l'intérêt de l'argent* (1766). *Oeuvres*, éd. Oncken, sc., pp. 399-406.

The fructification theory is wrong, because the valuation of land is made according to the rate of interest. Compare on this subject Böhm-Bawerk's *Kapital und Kapitalzins*, sc., Vol. I, pp. 71-80.

⁴ *Oeuvres*, éd. Oncken, sc., p. 313. The problem of interest has been investigated most exhaustively by Turgot in § lxxvi., lxxxviii., etc.

Turgot considered that a low rate of interest is beneficial for society (§ xc). Quesnay, on the contrary, was of opinion that if the revenue from primitive advances is less than 10 per cent, the nation is in a state of decadence.

⁵ "In every kind of work," says Turgot, "it cannot fail to happen, and, as a matter of fact, it does happen, that the wages of the workman are limited to what is necessary to procure him his subsistence." *Réflexions*, § vi.

In considering the Physiocratic system as a whole, we may say that it resembles those early drawings of the human body which can be found in old medical books. Only some organs are represented there, others being quite neglected. The ground rent dominates the whole process of distribution, in which there is no place for interest or wages. Nevertheless, we are much indebted to the Physiocrats for having separated political economy from other sciences and for having tried to embrace for the first time in one system the whole economic process of production, distribution, and exchange.

CHAPTER III

ADAM SMITH

DURING a long period, as already mentioned above, the origin of political economy was dated from the moment of the publication in 1776 of Adam Smith's *Wealth of Nations*. This can be explained easily by the fact that though the theories developed by him had been partly formulated earlier, he alone presented them in such strong lines that they attracted general attention. To-day his book is still popular for its clearness of style and its well-chosen examples.

Smith's theoretical system has, as will be shown below, very great defects. Nevertheless, to him must be ascribed the merit of having created the method of political economy. There are no theoretical discussions on this subject in his *Wealth of Nations*, and one cannot wonder why in this respect he has been often misunderstood. Some have considered him a representative of the deductive, others, again, of the inductive, method. It has often been repeated, especially on the Continent, that Smith based himself on a one-sided analysis of human nature in which he saw only the egotistical moment. For an understanding of Smith's method as applied in his *Wealth of Nations* it is necessary to say a few words about his sociological system.

Smith's Sociological System

In his *Inquiry into the Nature and Causes of the Wealth of Nations* Smith based himself on what has afterwards been called the *economic principle* according to which man in pursuit of material objects tries always to obtain the greatest quantity with the least effort. From this it was wrongly inferred that Smith saw only the base side of human nature. This conclusion, however, is not compatible with the fact that he is the author of a treatise entitled *Theory of Moral Sentiments*, in which a high tribute is paid to altruism. "How selfish soever man may be supposed," he says, "there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it. Of this kind is pity or compassion, the emotion which we feel for the misery of others, when we either see it, or are made to conceive it in a very lively manner. That we often derive sorrow from the sorrow of others, is a matter of fact too obvious to require any instances to prove it; for this sentiment, like all the other original passions of human nature, is by no means confined to the virtuous and humane, though they perhaps may feel it with the most exquisite sensibility. The greatest ruffian, the most hardened violator of the laws of society, is not altogether without it."¹ ?

¹ Reprinted in Adam Smith's *Essays, Philosophical and Literary* (Ward, Lock & Co.), p. 9.

How are these ideas to be put in accordance with Smith's economic system, where sympathy and compassion are hardly mentioned? Originally it was believed that during his journey to France, which had been undertaken between the publication of his *Theory of the Moral Sentiments* and of his *Wealth of Nations*, Smith from an idealist had become an extreme materialist.

Against such a manner of treating the problem protested, in 1877, August Oncken in his book *Adam Smith and Immanuel Kant*, in which, developing ideas put forward by Buckle, he tried to prove that these two works of Smith form a part of one system and not opposite entities.

New investigations have proved the exactness of this conclusion. In the first instance the discovery of notes taken by a student attending Smith's lectures in 1763 has thrown much light on the problem. These notes, which were published in 1896 by Cannan under the title *Lectures on Justice, Police, Revenue, and Arms*, prove that Smith's *Wealth of Nations* is only part of a work which embraced the whole of social science.

Smith's first biographer, Dugald Stewart, had already informed us that Smith's lectures on Moral Philosophy were composed of four parts. The first contained Natural Theology, in which he considered the proofs of the being and the attributes of God, and those principles of the human mind upon which religion is founded. The second comprehended Ethics, strictly so called, and consisted chiefly of the doctrines which he

afterwards published in his *Theory of the Moral Sentiments*. In the third part he treated at greater length of that branch of morality which relates to justice, and which, being susceptible of praise and accurate rules, is for that reason capable of a full and particular explanation. In the last part of his lectures he examined those political regulations which are founded not upon the principles of *justice* but those of *expediency*, and which are calculated to increase the riches, the power, and the prosperity of the State. What he delivered on this subject contained the substance of the work he afterwards published under the title of *An Inquiry into the Nature and Causes of the Wealth of Nations*.¹

Smith's lectures show us clearly that his economic system was ready before his journey to France, and that in 1763, as well as in his *Wealth of Nations*, he based his theories on the *economic principle*. It is clear, therefore, that there is no foundation for pretending that his ideas were modified in Paris when he met Helvetius, Hollbach, and the Encyclopedists.

How, then, are sympathy and the economic principle put in harmony in Smith's sociological system? To this his works give us an answer. "It is thus that man, who can subsist only in society," says Smith in his *Theory of Moral Sentiments*, "was fitted by nature to that situation for which he was made. All the members of human society stand in need of each other's

¹ Quoted by Cannan in his preface to Smith's *Lectures*, p. xiv.

assistance, and are likewise exposed to mutual injuries. Where the necessary assistance is reciprocally afforded from love, from gratitude, from friendship and esteem, the society flourishes and is happy. All the different members of it are bound together by the agreeable bands of love and affection, and are, as it were, thereby drawn to one common centre of mutual good offices."¹

"But though the necessary assistance should not be afforded from such generous and disinterested motives," adds Smith; "though among the different members of the society there should be no mutual love and affection, the society, though less happy and agreeable, will not necessarily be dissolved. Society may subsist among different men, as among different merchants, from a sense of its utility, without any mutual love or affection; and though no man in it should owe any obligation, or be bound in gratitude to any other, it may still be upheld by a mercenary exchange of good offices, according to an agreed valuation."²

Sympathy and self-interest are then, according to Smith, the two ties which are uniting society. In this respect the philosophy of Smith is a development of a theory which originated in Greece, and which was very popular in the eighteenth century, according to which there is a tendency towards harmony in nature which is only disturbed by

¹ *sc.* p. 78 (Part II, Sect. II, Chap. III).

² *Ib.*

human institutions.¹ In this respect Smith's social philosophy has the same foundations as that of the Physiocrats.

The two works of Smith are parts of a great social synthesis. In the *Theory of Moral Sentiments* he isolates *sympathy*, in his *Wealth of Nations* the *economic principle*, and he shows how they lead to harmony. "To feel much for others," he says in his *Theory*, "and little for ourselves . . . constitutes the perfection of human nature, and can alone produce among mankind that harmony of sentiments and passions in which consists their whole grace and propriety."²

In investigating economic phenomena Smith detects other ties uniting humanity. "Man," he says, "has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. He will be more likely to prevail if he can interest their self-love in his favour and show them that it is for their own advantage to do for him what he requires of them." "It is not from the benevolence of the butcher," he concludes, "the brewer, or the baker, that we expect our dinner, but from their regard to their own interests. We address ourselves, not

¹ Cliffe Leslie: *The political economy of Adam Smith, in Essays in Political and Moral Philosophy*, p. 154. The problem of the influence of philosophical systems on Smith has been treated by Wilhelm Hasbach: *Die allgemeinen philosophischen Grundlagen der von Francois Quesnay und Adam Smith begründeten politischen Oekonomie* (Leipzig, 1890), and *Untersuchungen über Adam Smith und die Entwicklung der politischen Oekonomie* (Leipzig, 1891).

² *Essays*, sc., p. 24 (Part I, Sect. I, Chap. V.).

to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages."¹

Smith's Method

In his *Wealth of Nations* Smith applied the economic principle not because he did not know human nature, but because he saw that this factor exercised a dominating influence on economic phenomena.

Smith, in his analysis, begins by making abstraction of all other motives. At the same time he starts from the proposition that the economic principle can act without any hindrance.

So, for instance, in the sixth chapter of the first book he points out that the *natural price* of a commodity is equal to its cost of production. The *market price* cannot in the long run deviate from this price. When a market price of a commodity rises above the natural level the high wages, profits, etc., will prompt capitalists and workmen to employ more labour and stock in preparing that product, and in consequence of the increased supply the price will fall. If, on the contrary, the market price falls below the natural, the low wages and profits will prompt all producers to withdraw a part of their labour and stock from that employment. The supply will decrease, and in consequence the market price will again be readjusted to its natural level.²

¹ *W. of N.*, ed. by Cannan, Vol. I, p. 16.

² *Ib.*, Vol. I., pp. 57-60.

Smith, basing himself on the economic principle, deduces economic laws. But he is quite aware of the fact that those laws do not always correspond to real conditions, which often present an obstacle to the influence exercised by this principle. The market price can adjust itself to the natural level only "when there is perfect liberty or when the dealer may change his trade as often as he pleases."¹

Those conditions do not always exist, and Smith shows us "how particular accidents, sometimes natural causes, and sometimes particular regulations of police, may in many commodities keep up the market price for a long time together a good deal above the natural price."² So, for instance, the exclusive privileges of corporations, statutes of apprenticeship, and all those laws which restrain in particular employments the competition to a smaller number than might otherwise go into them have a tendency to increase the price much above its natural level. Such are the effects of every monopoly.³

Smith applies the same method to the theory of wages and profits. In a state of *perfect liberty* they have a tendency towards equality. But political and social conditions counterbalance this tendency, and Smith devotes much space to an analysis of the inequalities of wages and profits, arising partly from the nature of the employments themselves, partly from the restricting policy of Europe.⁴

Adopting the same method, Smith shows in the

¹ *Ib.*, p. 58. ² *Ib.*, p. 62. ³ *Ib.*, p. 61. ⁴ *Ib.*, pp. 101-144.

first chapter of Book III what would be the natural progress of opulence, if there were freedom of trade. Capital of a growing society would be first directed to agriculture, afterwards to manufactures, and last of all to foreign commerce.¹ This order, however, has been in many respects reversed by artificial means, which are described by Smith with much detail in subsequent chapters.

Smith, then, having established some laws by way of *deduction*, verifies and corrects them by way of *induction*. His method is based on the use of both these modes of scientific inquiry.

The laws formulated by way of deduction do not completely correspond to reality. There arises, then, the question whether the method based on the *economic principle* has a foundation. This has been contested by the representatives of the historical school, who were of the opinion that a descriptive method only is appropriate to the character of political economy.

— This assertion rests on a false assumption as to the scope of every scientific inquiry. No scientific law, either natural or economic, can correspond exactly to reality, which is always a combination of an indefinite number of factors. Scientific research in *isolating* the principal and essential factors formulates laws which are necessarily an abstraction. This, however, is not useless, because it facilitates the understanding of real phenomena.

The naturalist does not find in the empiric world either strictly exact species and forms or typical

¹ *Ib.*, pp. 355-359.

relations. Real gold, real water—without mentioning more complicated phenomena of the organic and inorganic world—are not material fit for the construction of theories. It is only in the laboratory that the student, having obtained a chemically pure gold, having decomposed water into oxygen and hydrogen, can begin his scientific inquiry. (In social science a laboratory in which a whole society can be put under glass is not at the disposal of the student, but by way of abstract thinking he can obtain ideal types with the help of which he formulates laws.) The endeavours of those who, simply observing real life, try to unravel it, can be compared with the endeavours of mathematicians, who, by measuring real objects, would like to discover the foundations of geometry and who would forget that these objects are not identical with the ideal types of a geometric proposition, and that every measurement contains elements of inexactitude.¹

The law of gravitation does not exclude the flight of birds and has not lost its importance since the discovery of aeroplanes and balloons. In the same manner the fact that man is sometimes guided by other motives than the *economic principle* is not a proof of the impossibility of using in economic science the deductive method based on this principle. Does this method enable us to understand better the regularity which we can observe in economic life? This is the crucial

¹ C. Menger, *Die Irrtümer des Historismus in der deutschen Nationalökonomie* (Wien, 1884, p. 9).

point of the whole problem. The fact that with an increase of demand prices are rising, that on the contrary a greater supply makes them fall, the observation of the movements of capital from industries with low profits to undertakings where they are higher, the tendency of workmen to seek employment in trades where wages are high: all these are proofs of the dominating influence of the *economic principle*. Smith was consequently right in basing economic theory on this principle, and in treating other factors only as correctives modifying its action.

Theory of Production

Smith's *Wealth of Nations* has as a systematic treatise grave defects. The fundamental architectonic lines are badly constructed, and only some fragments are worked out with great care and mastery. One of the most striking proofs of this is Smith's theory of production.

His first chapters, dealing with the division of labour, are perhaps the most famous part of his book. The example of the pin factory where, thanks to the division of the whole process among ten workmen, every one of them can produce during a day 4,800 pins, has become classical.¹

As a theory of production, however, which Smith intended to give, this part is exceedingly weak. The wealth of a society is regulated, according to Smith, first by the skill, dexterity, and judg-

¹ *W. of N.*, ed. Cannan, p. 7.

ment, with which labour is generally applied, and secondly by the proportion between the number of those who are employed in useful labour and that of those who are not so employed. This second factor, however, is of no great importance according to Smith. Among the savage nations of hunters and fishers every individual who is able to work is more or less employed in useful labour. Such nations are, however, miserably poor. Among civilized and thriving nations, on the contrary, though a great number of people do not work at all yet the produce of the whole labour of the society is great.¹

Smith attributes this exclusively to the greater dexterity and skill with which labour is applied; he does not, however, investigate the whole problem, and deals only with its most important aspect, the *division of labour*.²

Smith pointed out himself that the division of labour could find only a small application in agriculture.³ This should have convinced him that it was wrong to base the whole theory of production on this one factor. Certainly the Physiocrats were justified in laying emphasis on the fact that the well-being of society depends on the greatness of the *net produce*. In dealing with the origin of this surplus in agriculture they investigated the influence of investments which, in form of machines, manuring, draining, etc., increase the productivity of the soil. Smith does not touch these problems, and instead of giving us

¹ *Ib.*, pp. 1 and 2.

² *Ib.*, p. 5.

³ *Ib.*, p. 8.

a theory of production he simply wrote an essay on the division of labour.

The Theory of Capital

In Smith's *Wealth of Nations* capital appears in a similar manner as in the Physiocratic system, in three forms :—

1. As an instrument of production.
2. As a fund maintaining the workmen.
3. As a source of revenue.

To the theory of capital Smith has devoted the whole second book of his *Wealth of Nations*. Nevertheless, the theory of the Physiocrats, contained in a few sentences, is in many respects much better formulated. The scope of the inquiry has been without doubt much more clearly defined by Turgot.

The Physiocratic conception of capital as a means of production originated, as pointed out above, in connexion with the discussion concerning the productivity of the *grande culture* and the *petite culture*. The superiority of the first in comparison with the second in this respect is explained by Turgot by the application of *avances*, in other words, of agricultural implements, machines, draining, etc.

Smith does not mention capital at all in connexion with the theory of production. Capital, in form of machines, instruments, etc., appears only in the second book of the *Wealth of Nations*, where Smith develops the theory of capital as a source of revenue. He distinguishes the stock,

of which we will speak later on, from capital. Capital is, according to Smith, that part of the stock which is used for the purpose of obtaining a revenue. On this function of capital as a source of income Smith lays great emphasis. "That part [of the stock]," he writes, "which he (the owner) expects to afford him a revenue is called his capital."¹

Capital as an Instrument of Production.
Capital of a Society

Having defined the character of this capital, Smith changes his subject, formulating the theory of what he calls "the capital of a society." "The general stock of any country or society is the same with that of all its inhabitants or members, and therefore naturally divides itself into the same three portions, each of which has a distinct function or office."² The first portion is reserved for immediate consumption, and the characteristic feature of it is that it affords no revenue or profit. It consists in the stock of food, clothes, household furniture, etc., which have been purchased by their proper consumers, but which are not yet entirely consumed.

The second of the three portions is the fixed capital which affords a revenue or profit without circulating or changing masters.

The third portion is the circulating capital, which affords a revenue only by circulating or changing masters.³

¹ Vol. I, ed. Cannan, p. 261. ² *Ib.*, p. 263. ³ *Ib.*, p. 264.

Smith defines more exactly the character of these two forms of capital. The fixed capital is composed of—

1. All useful machines and instruments of trade which facilitate and abridge labour.
2. All profitable buildings, as shops, warehouses, workhouses, farmhouses, etc.
3. Improvements of land, as clearing, draining, enclosing, manuring.
4. Acquired and useful abilities of all the inhabitants or members of the society.

The circulating capital is composed of—

1. Money.
2. The stock of provisions in the possession of the sellers—the butcher, the grazier, the farmer, the corn merchant, the brewer, etc.
3. The materials, whether altogether rude or more or less manufactured, of clothes, furniture, buildings, etc., which are not yet made up.
4. Completed works in the hands of the merchant or manufacturer not yet disposed of.¹

As we see, Smith enumerates here a motley collection, composed not only of machines, buildings, etc., but of money, acquired talents, etc. What could have decided Smith to embrace under the name of capital of a society such different objects? It seems that he wanted to create a bridge between the capital as a source of revenue and as a means of production. Seeing that machines, instruments, draining, etc., increase the

¹ *Ib.*, pp. 264, 265.

productivity of labour, and that the capital affords a revenue to the proprietor, he supposed that between these two phenomena a causal relation must necessarily exist.

In enumerating, namely, the different categories of the "capital of the society," Smith lays emphasis on their productivity. Machines and instruments "facilitate and abridge labour," profitable buildings "are a sort of instruments of trade, and can be considered in the same light." Improvements of land "may very justly be regarded in the same light as those useful machines which facilitate and abridge labour." The same words Smith applies to the acquired and useful abilities. "The improved dexterity of a workman," he says, "may be considered in the same light as a machine or instrument of trade which facilitates or abridges labour, and which, though it costs a certain expense, repays that expense with profit."¹

The circulating capital Smith tries equally to define as a kind of machine. "All useful machines and instruments of trade are originally derived from a circulating capital, which furnishes the materials of which they are made, and the maintenance of the workmen who make them. They require, too, a capital of the same kind to keep them in constant repair. . . . The most useful machines and instruments of trade will produce nothing without the circulating capital, which affords the materials they are employed upon and the maintenance of the workmen who employ them."²

¹ *Ib.*

² *Ib.*, pp. 265, 266.

From these passages, by which Smith tried to motivate the inclusion of the different groups of objects under the head of capital of a society, it clearly results that he tried to find this wonder producing matter which increases the productivity of labour and at the same time is the source of revenue. But he remarked himself that though he had watered the capital as a means of production with "acquired and useful abilities," and with money, etc., he did not succeed in the discovery of special objects which had the *physical property* of yielding a revenue. The fact that the same objects, according to the mode whereby they are used, may give or not give a revenue did not escape his attention. A dwelling-house contributes nothing to the revenue of its inhabitant, but if it is let to a tenant, it yields a revenue to its proprietor. "Clothes, and household furniture, in the same manner, sometimes yield a revenue, and thereby serve in the function of a capital to particular persons. In countries where masquerades are common, it is a trade to let out masquerade dresses for a night. Upholsterers frequently let furniture by the month, or by the year. . . ."¹

Those examples should have convinced Smith that in trying to find the source of revenue in the productive capital he was on a wrong tack. Smith did not, however, draw this conclusion. He simply pointed out that the capital of a society, or, in other words, the productive capital, is not identical with the capital of its inhabitants which

¹ *Ib.*, pp. 263, 264.

yields a revenue to the proprietor, leaving the whole problem in an impasse.

The successors of Smith were less careful in investigating the same subject. Say introduced into the theory of production three factors: labour, nature, and capital. As in the theory of distribution we find similarly three forms of revenue: wages, rent, and interest from capital, the economists writing after Say simply identified capital as a means of production with capital yielding interest. Forgetting the masquerade dresses and furniture let by upholsterers, they drew the conclusion that capital yields interest *because* it facilitates production. The confusion which resulted in political economy became finally so great that the distinction which Wagner and Rodbertus made between capital as a means of production and capital as a source of revenue was considered to be a great discovery.¹

Stock and Capital

To the *movable riches* of Turgot corresponds the *stock* of Adam Smith. In the rude state of society it is not necessary, according to Smith, that any stock should be accumulated or stored beforehand in order to carry on the business. If a man "is hungry, he goes to the forest to hunt; when his coat is worn out, he clothes himself with the skin of the first large animal he kills: and when his hut begins to go to ruin, he repairs it, as well

¹ This problem has been admirably developed by Böhm-Bawerk, *Kapital und Kapitalzins*, Vol. II, Second ed., p. 29.

as he can, with the trees and the turf that are nearest it."¹

✓ This changes, however, when division of labour has once been thoroughly introduced. The far greater part of men are supplied by the produce of other men's labour, which they purchase. This purchase can only be made after the produce of man's own labour has not only been produced, but also sold. A stock of goods of different kinds, therefore, must be stored up somewhere, sufficient to maintain him, and to supply him with the materials and the tools of his work till such time as both these events can be brought about. "A weaver," says Smith, "cannot apply himself entirely to his peculiar business, unless there is beforehand stored up somewhere, either in his own possession or in that of some other person, a stock sufficient to maintain him and to supply him with the materials and tools of his work, till he has not only completed, but sold, his web."²

[The accumulation of stock must be previous to the division of labour, and labour can only be more and more subdivided in proportion as stock is previously more and more accumulated.]³

[In the subsequent chapters Smith replaces the word *stock* by the term *capital*.] "The number of its [a nation's] productive labourers," he says, "it is evident can never be much increased, but in consequence of an increase of capital, or of the funds destined for maintaining them."⁴

¹ *W. of N.*, Vol. I, ed. Cannan, p. 258. ³ *Ib.*, p. 259. *Idem*, p. 2.

² *Ib.*, p. 258, 259.

⁴ *Ib.*, p. 325.

Productive and Unproductive Labour

This, at first sight so insignificant a change of terms, has very unfortunately influenced Smith's distinction of *productive* and *unproductive* labour. Smith, namely, in connecting *productivity* with the stock, has in mind the *purely material process* by which the wealth of a nation is increased. In connecting it with capital, he considers that the yielding of a revenue is a characteristic sign of *productivity*. Smith mixes up these two problems without noticing it, and in consequence his distinction between productive and unproductive labour becomes very chaotic.

There are two kinds of labour according to Smith. "There is one sort . . . which adds to the value of the subject upon which it is bestowed: there is another which has no such effect. The former, as it produces a *value*, may be called productive; the latter, unproductive. Thus the labour of a manufacturer adds, generally, to the value of materials which he works upon, that of his own maintenance *and of his master's profit*. The labour of the *menial servant*, on the contrary, *adds to the value of nothing.*"¹

Smith says here clearly that the labour of the workman is productive, because it gives a *profit*; the labour of the menial servant is unproductive, because it has no such effect.

On the same page, however, Smith makes a distinction between the two kinds of labour on

¹ *Ib.*, p. 313. The italics are mine.

the basis of a quite different criterion. "The labour of the manufacturer," he says, laying emphasis on the material difference, "fixes and realizes itself in some particular subject or vendible commodity, *which lasts for some time at least after that labour is past. . . . The labour of the menial servant, on the contrary, does not fix or realize itself in any particular subject, or vendible commodity.*"¹

In this unproductive class Smith ranks "some both of the gravest and most important, and some of the most frivolous professions: churchmen, lawyers, physicians, men of letters of all kinds; players, buffoons, musicians, opera-singers, opera-dancers, etc." *They do not produce any material objects.* "Like the declamation of the actor, the harangue of the orator, or the tune of the musician, *the work of all of them perishes in the very instant of its production.*"²

Smith did not notice that the production of lasting material objects and the process of formation of revenue were not identical things. Waiters and cooks in a hotel give a profit to their masters, and from the capitalistic point of view they must be ranked in the productive class. Their products, however, do not last longer than objects produced by menial servants, whose labour, according to Smith, is unproductive. "A proprietor of theatres, music halls, etc.," writes Marx, "buys for a time the right of disposing of the

¹ *Ib.* The italics are mine.

² *Ib.*, p. 314. The italics are mine.

labours of actors and musicians. . . . He buys what is called unproductive labour, whose services perish in the very moment of its production, and do not fix or realize themselves in any particular subject or vendible commodity. The sale of these services, however, to the public restores to the proprietor not only the advanced wages, but yields a profit."¹

We have seen already that Smith did not succeed in the creation of two corresponding conceptions of capital in the theory of production and distribution. The attempt to draw, between productive and unproductive labour a line of demarcation which would divide lasting material objects from immaterial and perishing commodities, and at the same time occupations yielding a profit from those which did not afford a revenue, failed equally. This was a natural result of the disregard of the fact that the process of the formation of value and the production of riches were quite different things. In this respect he committed the same error as the Physiocrats who confounded the *net product* with the *net revenue*. (See page 62, seq.)

*Capital as a Source of Revenue. Fixed and
Circulating Capital*

Up to now we have made acquaintance with two conceptions of capital in Smith's system—with capital as a means of production, and with

¹ Marx, *Theorien über den Mehrwert*, sc., Vol. I, p. 271.

capital as a fund maintaining labourers. We pass on to an analysis of capital as a source of revenue. Already from the previous passages it has been seen that Smith attached great importance to this problem. [Capital, according to his definition, is that part of the stock which the proprietor expects to afford him *a revenue*.¹] Capital, in his conception, is intimately connected with the idea of *revenue and profit*.

[Smith distinguishes two kinds of capital—*fixed* and *circulating* capital. Here also the lack of a clearly defined scope prevents Smith from making an exact distinction between the two kinds of capital.

The Physiocrats, in trying to unravel the process of formation of revenue, discovered that one part of the capital used realizes itself entirely in the annual produce (wages, seed, etc.), and that another part only partly entered in its price (machines, instruments, profitable buildings, etc.). According to this difference they made a distinction between *avances annuelles* and *avances primitives*.

Smith, in establishing the two categories of fixed and circulating capital, had partly the same process in mind. But he mixes it up with another classification, which can be made according to the *external and material* forms through which capital is passing. Capital can appear to our eye in form of money, raw materials, finished goods, etc. There is in economic life a steady circulation of capital from one form to another, and it is why

¹ Vol. I, p. 262.

Smith calls money, the stock of provisions, completed work in the hands of the merchant, etc., circulating capital.

At the same time, however, he adopts the classification of the Physiocrats. Machines, instruments, profitable buildings, etc., are *fixed capital*; wages, raw materials, *circulating capital*. The distinction between *avances annuelles* and *avances primitives* could be textually substituted here in Smith's classification.

Wavering between the two classifications, Smith finally took as a criterion the purely exterior fixity of different parts of capital. Fixed capital is, according to him, that part which yields a revenue or profit to its employer "while it either remains in his possession or continues in the same shape."¹ Circulating capital, on the contrary, "is continually going from him in one shape and returning to him in another, and it is only by means of such circulation, or successive exchanges, that it can yield him any profit."² Basing himself on this distinction, he arrives at the conclusion that seed is properly a *fixed capital*. "Though it goes backwards and forwards between the ground and the granary, it never changes masters, and therefore does not properly circulate."³ Now it is clear that from the Physiocratic point of view, which seems to be more appropriate to the aim of

¹ *Ib.*, p. 261.

² *Ib.*, p. 262.

³ *Ib.*, p. 263. The problem of the distinction by Smith and the Physiocrats of fixed and circulating capital has been very well treated in Marx's *Kapital*, Vol. II, Chap. X.

an economic inquiry, seed must be grouped together with wages under the head of circulating capital. Here also Smith did not succeed in freeing his mind of the exterior and material form of the process of formation of revenue.

The Defects of Smith's Theory of Capital

We may conclude that the theory of capital in the form in which Smith presented it to us is exceedingly misty. Smith treats under the name of capital three quite different economic categories—capital as a means of production, as a fund for the maintenance of labourers, and as a source of revenue. No one of these conceptions is exactly separated from the others; they are mixed together, and in every group there is a confusion between the problem of *production of wealth* and the problem of *creation of revenue*, which are fundamentally different. Under the head of productive capital, or what Smith calls a capital of a society, he classifies acquired abilities, money, etc., and so creates a conception which makes it possible to use the name of capital for almost all material and immaterial goods. In analysing capital as a *fund for the maintenance of labourers* Smith, in discussing the problem of productive and unproductive labour, failed to see that *technical productivity* and the *process of formation of revenue* are quite different things. In observing how a capital in transforming its value yields a profit Smith made no clear distinction between

fixed and circulating capital, and confounded once more the *material transformation of commodities* with the mode in which their *value is reproduced.*]

The followers of Smith have done all they could to efface the very few distinct lines which can be found in his theory of capital. Capital as a source of production has been completely identified with capital as a source of revenue. The definition of capital, the difference between productive and unproductive labour, between fixed and circulating capital, all this became the ground of a most confused discussion, in which the real importance of the problem was quite forgotten. It may be said without much exaggeration that nearly all the literature dealing with the problem of capital since Adam Smith has not advanced economic science in any appreciable degree.

[Political economy will only be able to form an order from this chaos which is characteristic of the actual state of the theory of capital if it makes a clear distinction between three different problems which economists have tried to solve with the help of the same term.

The first problem is a purely technical one; it is devoted to the investigation of the influence of the division of labour, of machines, agricultural improvements, etc., on the quantity and quality of produced material objects.

The necessity of a certain *stock* without which it is impossible to make use of these improved methods of cultivation and industry, must be treated under a separate head.

In the capitalistic society this stock, together with a number of other objects, assumes the form of a *capital yielding a revenue*. The reproduction of this capital together with a profit is quite different from the purely technical process of production of wealth.

Theory of Distribution

The Physiocrats considered rent to be the only source of income. Interest from capital and wages were not included in their general system of distribution.

Smith for the first time put the theory of distribution on a larger basis in pointing out that the whole annual produce divides itself into three parts. "Wages, profit, and rent," he says, "are the three original sources of all revenue as well as of all exchangeable value. . . . Whoever derives his revenue from a fund which is his own, must draw it either from his labour, from his stock, or from his land. The revenue derived from labour is called wages. That derived from stock, by the person who manages or employs it, is called profit. That derived from it by the person who does not employ it himself, but lends it to another, is called the interest or the use of money. . . . The revenue which proceeds altogether from land, is called rent, and belongs to the landlord."¹

As far as the three kinds of income belong to different persons they can be easily recognized.

¹ Vol. I, p. 54.

Sometimes, however, they are confounded) So, for instance, a gentleman who farms a part of his own estate, after paying the expense of cultivation, should gain both the rent of the landlord and the profit of the farmer. He is apt to denominate, however, his whole gain profit and thus confound rent with profit. Common farmers seldom employ an overseer. They generally, too, work a good deal with their own hands as ploughmen, harrowers, etc. What remains of the crop after paying the rent, therefore, should not only replace for them their stock employed in cultivation, together with its ordinary profits, but pay them the wages which are due to them both as labourers and overseers.¹

(Smith has shown in this manner that the scientific conceptions of rent and profit do not correspond to those created by common language. *Profit*, according to him, is that part of the income which is derived from *capital*; that from *land* is called *rent*; and that from *labour* falls under the name of *wages*.

Smith has laid the foundations of the theory of distribution, but he has not solved the problem. We do not find in his *Wealth of Nations* any theory of rent or profit which can be accepted.) His attitude in this respect is very undecided. Different, quite opposed theories, can be found in his treatise, but he did not develop any one of them so as to give a satisfactory answer.

(We have seen already that some germs of the *theory of productivity*, according to which capital

¹ *Ib.*, p. 55.

affords a profit thanks to the increase of the effectiveness of labour, can be traced in Smith's system (p. 82). The quite opposed socialistic theory which considers that profit is a part of the workman's product of which he has been deprived is also presented by him. In the original state of things which precedes the appropriation of land and the accumulation of stock, the whole produce of labour belongs to the labourer. But as soon as land becomes private property and a stock must be advanced for the maintenance of the labourer, rent and profit appear as *deductions* from the produce of the labourer.¹

[In other passages Smith develops a quite different doctrine according to which profit is an *addition* to wages. Labour, according to him, cannot be the only circumstance determining the value of an object. "An additional quantity, it is evident," says Smith, "must be due for the profits of the stock which advanced the wages and furnished the materials of labour."²]

[Smith, in trying to explain rent, wavered in the same manner between different solutions. The theories according to which rent is a *gift of nature*, a result of *monopoly*, and of a *different* productivity of the soil, can be found in the *Wealth of Nations*.

"Land, in almost any situation," says Smith, "produces a greater quantity of food than what is sufficient to maintain all the labour necessary for bringing it to market. . . . The surplus, too, is always more than sufficient to replace the stock

¹ *Ib.*, p. 67.

² *Ib.*, p. 51.

which employed that labour, together with its profits. Something, therefore, always remains for a rent to the landlord."¹ We have here before us the Physiocratic theory of rent which Smith tried to develop in showing that with the increase of the produce yielded by the soil rent must increase.²

["The rent of land," says Smith in another passage, "is naturally a monopoly price."³ Here Smith explains the existence of rent by the fact that all the soil is appropriated and that the demand for land surpasses its supply. "As soon as the land of any country," he says, "has all become private property, the landlords, like all other men, love to reap where they never sowed, and demand a rent even for its natural produce."⁴

In speaking of mines, Smith applies the theory of *differential rent*, which was developed later on by Ricardo. He points out, namely, that the price of coal is determined by the least productive mine which does not afford rent.⁵ He applies this theory equally to agricultural rent, writing that land varies not only with its fertility but with its situation, whatever be its fertility. "Land in the neighbourhood of a town gives a greater rent than land equally fertile in a distant part of the country."⁶

(Smith did not solve the problem of interest and rent.) His chapters dealing with these phenomena contain a great deal of unco-ordinated observations

¹ *Ib.*, p. 147.

³ *Ib.*, p. 146.

⁵ *Ib.*, p. 166.

² *Ib.*, p. 165.

⁴ *Ib.*, p. 51.

⁶ *Ib.*, p. 148.

and remarks, but we look in vain for deeply thought out theory.

Where complex economic phenomena were concerned Smith did not succeed in unravelling them. His mind was much better suited for the investigation and description of those phenomena which could be observed on the surface of economic life. Here is the field of his greatest triumphs. Nobody before him has described in the same masterly way the oscillations of prices, interest, and wages, which are produced by a greater or smaller supply or demand. His chapters dealing with these problems can be considered even to-day as classic and unsurpassed.

The Law of Supply and Demand

[The writers of the seventeenth century had already observed that with an increase of supply prices fall, and that with a rise of demand they go up (p. 17, *seq.*) Smith developed this observation with more details. In the same manner as his predecessors he distinguishes a *natural* and a *market price*. The natural price is composed of the average rate of wages, profit, and rent.¹ The market price gravitates steadily round this central point, "it is either above or below or exactly the same with its natural price," according to the state of demand and supply. "The market price of every particular commodity," says Smith, "is regulated by the quantity which is actually brought to market, and

¹ *W. of N.*, ed. Cannan, p. 57.

the demand of those who are willing to pay the natural price of the commodity."¹ He shows how when the quantity brought to market falls short of the effectual demand the market price rises above the natural level, how a great supply on the contrary makes it fall below it.

These deviations from the natural price can be only temporary, because capital and labour, directing themselves always to the trades with higher interest and wages, bring the market price down to its natural level. If the price of a commodity is below the natural price, labour, land, and capital are withdrawn from its employment; if it is, on the contrary, above, all will be prompted to employ more labour, capital, etc., in that trade.² "The natural price, therefore," says Smith, "is, as it were, the central price, to which the prices of all commodities are continually gravitating."³

Smith, in describing this mechanism of gravitation, laid the foundation for Ricardo's theory of value, which is based on it.⁴)

[Smith applied equally the law of demand and supply to the theory of wages. Before him in the eighteenth century it was generally believed that the workman does not earn more than is necessary for his maintenance. It was the theory of a *minimum of existence* represented by the Physiocrats (p. 64). Smith proved that this theory

¹ *Ib.*, p. 58.

² *Ib.*, p. 59.

³ *Ib.*, p. 60.

⁴ Smith's theory of value is dealt with in the next chapter.

was wrong. The level of wages depends in the first place on the demand for labourers, and this, again, is influenced by the increase of national wealth. "It is not, accordingly," says Smith, "in the richest countries, but in the most thriving, or in those which are growing rich the fastest, that the wages of labour are highest. England is certainly in the present times a much richer country than any part of North America. The wages of labour, however, are much higher in North America than in any part of England."¹ The minimum of existence is only the limit below which for any considerable time the ordinary wages cannot fall.²

[While the increase of capital raises wages, it diminishes profits. "As capitals increase in any country," says Smith, "the profits which can be made by employing them necessarily diminish. It becomes gradually more and more difficult to find within the country a profitable method of employing any new capital." There arises in consequence a competition between different capitals which lowers profits.³

Smith, together with Hume and other writers, disapproves of the theory of Locke that the quantity of money influences the rate of interest. An increase of capital and not money is responsible for its fall.⁴

¹ *Ib.*, p. 71.² *Ib.* p. 69.³ *Ib.* p. 335.⁴ *Ib.*

Theory of Money

The second chapter of Book II of the *Wealth of Nations* deals with the theory of money. (To this Smith did not add anything essentially new. In the same manner as the Physiocrats he emphasizes the fact that money is exclusively the great wheel of exchange.) [The influence of banks on the economy with which exchanges are effected has been treated by him with much detail. The introduction of paper money, instead of gold and silver, he considers as an advance because it enables a country to convert its dead stock into an active and productive stock.] "The gold and silver money," says Smith, "which circulates in any country may very properly be compared to a highway, which, while it circulates and carries to market all the grass and corn of the country, produces itself not a single pile of either. The judicious operations of banking, by providing, if I may be allowed so violent a metaphor, a sort of waggon-way through the air, enable the country to convert, as it were, a great part of its highways into good pastures and cornfields, and thereby to increase very considerably the annual produce of its land and labour."¹

[It is curious to notice that Smith had already made the observation that paper money can have a higher value than a metallic one.] "A prince," he says, "who should enact that a certain proportion of his taxes should be paid in a paper

¹ *Ib.*, p. 304.

money of a certain kind, might thereby give a certain value to this paper money; even though the term of its final discharge and redemption should depend altogether upon the will of the prince. If the bank which issued this paper was careful to keep the quantity of it always somewhat below what could easily be employed in this manner, the demand for it might be such as to make it even bear a premium, or sell for somewhat more in the market than the quantity of gold or silver currency for which it was issued."¹ As an example Smith quotes the agio of the notes of the Bank of Amsterdam over current money. It is interesting to find here that such facts as served in the beginning of the twentieth century to Knapp as a basis for his *Staatliche Theorie des Geldes* were already known to Smith.

Smith's Social Policy

During a long time Smith was regarded as an opponent of every intervention of the Government as far as economic and social problems are concerned. The doctrine of free trade was intimately connected with his name. (A careful study of his works shows, however, that Smith was not a *doctrinaire* who did not admit any exceptions to the general rules he laid down.) In the *deductive* part of his writings he points out that there is a natural tendency towards harmony in economic relations which can only be disturbed by the intervention of the State. In passing, however,

¹ *Ib.*, p. 311.

to a verification of these abstract laws in more real conditions, in investigating the historic and contemporary problems of England, he ascribes to the intervention of the Government a very important rôle.

According to Smith the Government has three different duties to fulfil: 1. The duty of protecting the country from invasion. 2. The duty of protecting every individual as far as possible from the injustice and oppression of every other member. 3. The duty of erecting and maintaining public works which are beneficial to the community, but which it can never be to the interest of individuals to erect, because they do not repay the expense.¹

In reading the *Wealth of Nations* we see that Smith understood these duties in a very wide sense. Reforms which he advocates are quite in accordance with the spirit of the nineteenth and twentieth centuries.

Though Smith is of opinion that import duties are prejudicial to the economic interests of the community, he admits there are exceptions: 1. When a particular industry is necessary for the defence of the country, like shipping.² 2. When there is a tax on the produce of the like home manufacturer.³ 3. When foreign nations restrain by high duties or prohibitions the importation of goods.⁴

"The defence of Great Britain," he says, in speaking of the necessity for protecting industries which are useful for the defence of the country,

¹ *W. of N.*, Vol. II, p. 185.

³ *Ib.*, Vol. I, p. 429.

² *Ib.*, Vol. I, p. 427.

⁴ *Ib.*, Vol. I, p. 431.

"depends very much upon the number of its sailors and shipping. The act of navigation, therefore, very properly endeavours to give the sailors and shipping of Great Britain the monopoly of the trade of their own country. . . ."¹ For the same reason he is in favour of State aid to the manufacture of sail-cloth, gunpowder, etc.²

Speaking of the necessity for protecting every individual against oppression by others he had evidently also the relation of capitalist and workman in mind. Though he is opposed to all laws trying to keep down wages, he thinks that regulations in favour of workmen are always just and equitable, as, for instance, the law obliging different trades to pay their workmen in money and not in goods.³

Smith equally approved of usury laws,⁴ and he was in favour of restricting the absolute freedom of banks. "Such regulations may no doubt," he adds, "be considered as in some respect a violation of natural liberty. But those exertions of the natural liberty of a few individuals, which might endanger the security of the whole society, are, and ought to be, restrained by the laws of all Governments; of the most free, as well of the most despotical."⁵

The third obligation incumbent on the State is the maintenance of public works which are very beneficial to the community but which do not

¹ *Ib.*, Vol. I, p. 427.

⁴ *Ib.*, p. 338.

² *Ib.*, Vol. II, p. 24.

⁵ *Ib.*, p. 307.

³ *Ib.*, Vol. I, p. 143.

afford any revenue to the individual. These are chiefly institutions for facilitating commerce, as roads, canals, etc.,¹ and educational establishments. Smith was one of the pioneers of compulsory education.

He shows how division of labour destroys intellectual, social, and martial virtues, unless it is accompanied by education.² This is why the public should facilitate, encourage, and even impose the acquisition of the rudiments of education by establishing parish schools.³

All this shows that Smith was not an enemy of every State intervention. His doctrine cannot be identified with a policy of a "*laissez faire, laissez passer*" admitting of no exceptions.

Smith was in favour of economic liberty in the largest sense of the word, but he was not blind to the difficulties which rendered the complete realization of this plan impossible. Quesnay he reproaches with being a doctrinaire who thought that the political body can only thrive and prosper under a certain precise regimen, the exact regimen of perfect liberty and perfect justice.⁴ In a letter written to Roger he calls Turgot a very honest man who, however, did not know the world, and thought that all that was good could be realized.⁵

Smith was a relativist in the full sense of the word, and though he believed that there is a natural tendency towards liberty, he was not

¹ *Ib.*, Vol. II, p. 214.

³ *Ib.*, p. 270.

² *Ib.*, p. 267, and *Lectures*, p. 256.

⁴ *Ib.*, p. 172.

⁵ John Rae, *Life of Adam Smith*, p. 205.

blind to the fact that in historical development artificial restraints of this liberty are of great advantage. He admits that companies having a monopoly, though in the long run burdensome and useless, are useful for the first introduction of some branches of commerce.¹ He considers that the grant of a temporary monopoly to a joint stock company may sometimes be reasonable.²]

Having shown the disadvantages of corn laws, he concludes, however, that the English protective system relating to this branch of trade has been, with all its imperfections, "though not the best in itself, the best which the interests, prejudices, and temper of the times could admit of. It may perhaps in due time prepare the way for a better."³

Smith was not in favour of a radical change in the commercial policy of his time. "To expect, indeed," he says, "that the freedom of trade should ever be entirely restored in Great Britain, is as absurd as to expect that an Oceana or Utopia should ever be established in it. Not only the prejudices of the public, but, what is much more unconquerable, the private interests of many individuals irresistibly oppose it."⁴ In a similar very cautious manner he speaks about changes in the colonial system. Only a gradual relaxation of the monopoly is desirable.⁵

¹ *Lectures*, p. 130, and *W. of N.*, Vol. II, p. 224.

² *W. of N.*, Vol. II, p. 245.

³ *Ib.*, Vol. II, p. 45.

⁴ *Ib.*, Vol. I, p. 435.

⁵ *Ib.*, Vol. II, p. 106.

In summing up all we have said we may conclude that Adam Smith advanced political economy a great deal. He created its method, he laid the foundations of the theory of distribution. Though he did not discover the theory of the division of labour and the law of supply and demand in any way, yet, thanks to his presentation, they became generally recognized principles of political economy. From rude fragments, such as they were in the works of his predecessors, they became artistically worked out masterpieces in the *Wealth of Nations*.

CHAPTER IV

DAVID RICARDO

*'The Centenary of the Publication of Ricardo's
Principles'*

WHEN, in 1876, one hundred years had elapsed since the publication of Adam Smith's *Wealth of Nations*, the representatives of economic science assembled in the Political Economy Club in London to celebrate this date. The French Finance Minister, Léon Say, Emile de Laveleye, and others, came from the Continent to London to take part in the celebration.

The hundredth anniversary of the publication of Ricardo's *Principles of Political Economy* passed in 1917 quite unnoticed. This may be ascribed partly to the fact that during the war nations had more concrete problems to solve than the abstract theory of value. But I think that even in time of peace no international celebration of this anniversary would have taken place. It must be confessed that most of the economists on the Continent are convinced that Ricardo's system has only an historical value, and even in England the number of those who, together with Ashley,¹

¹ *The Rehabilitation of Ricardo* (*Economic Journal*, September, 1891).

Gonner,¹ and Marshall,² are plying their spades for him, is not very great. Numerous are those who share the opinion of Jevons that Ricardo, "that able but wrong-headed man, has shunted the car of economic science on to a wrong line."³

To-day, after an interval of more than a hundred years, which have elapsed since the publication of Ricardo's *Principles*, it is necessary to examine again the question whether the judgment of posterity is just. Is Ricardo really the "wrong-headed man" represented by Jevons; is the contention of the historical school that his abstract system is not in agreement with real conditions true?

To render an answer to these questions it is necessary first of all to give an outline of Ricardo's economic system. It is not an easy task to find our way through the chapters of his *Principles*.

Ricardo himself declared, as recorded by Sismondi, that "there were not more than twenty-five persons in England who had understood his book."⁴ It is certain that to-day he would make the same remark. This lack of understanding of his system must be ascribed in the first place to Ricardo himself. The faulty architecture of his *Principles* is the greatest obstacle preventing the reader from easily following his developments.

¹ Preface to Ricardo's *Principles*.

² *Principles of Economics*, Vol. I.

³ Quoted by Gonner in his edition of Ricardo's *Principles*, 1908, p. 432.

⁴ Quoted by J. B. Hollander, *David Ricardo: A Centenary Estimate*, 1910, p. 50.

It is a characteristic feature of Ricardo's *Principles* that in the first chapters he operates with propositions which are explained only later on in a few short passages. And so one need not wonder that even one of the profoundest critics of economic theories — Böhm-Bawerk — is of the opinion that Ricardo never gave a justification of his theory of value.¹

Ricardo's System

Ricardo's *Principles* are devoted only to one division of the problems which form the field of research of political economy—to the theory of distribution. "To determine the laws," he says in the preface, "which regulate the distribution is the principal problem in Political Economy: much as the science has been improved by the writings of Turgot, Stuart, Smith, Say, Sismondi, and others, they afford very little satisfactory information respecting the natural course of rent, profit, and wages."²

Ricardo tries to determine the proportions of the whole produce of the earth which in different stages of society will be allotted to the three classes of the community, under the names of rent, profit, and wages; depending mainly on the fertility of the soil, on the accumulation of capital, and the skill and ingenuity of labour.³

¹ E. v. Böhm-Bawerk, *Geschichte und Kritik der Kapitalzins-Theorien*, 2nd ed., p. 506.

² *Principles*, ed. Gonner, p. 1.

³ *Ib.*

For an understanding of Ricardo's theory of distribution it is necessary to keep in mind the fact that in formulating his laws he speaks of the three classes which take part in *agricultural* production. "The produce of the earth," he says in the first sentence of his *Principles*, "all that is derived from its surface by the united application of labour, machinery, and capital, is divided among three classes of the community; namely, the proprietor of the land, the owner of the stock or capital necessary for its cultivation, and the labourers by whose industry it is cultivated."¹

Cannan, in quoting this passage, makes the observation that Ricardo throughout his work always appears to treat a farm as a kind of type of the industry of the whole country and to suppose that the division of the whole produce can be easily inferred from the distribution on a farm.²

Ricardo's proprietor of land is the English landlord, owning a great estate and taking no part in production. The owner of capital is represented neither by the banker of the City nor the manufacturer, but by the farmer, "the owner of the stock or capital necessary for the cultivation of land."

It has been often urged against Ricardo that he was looking in writing his *Principles* through the spectacles of the City banker. It is true that in

¹ *Ib.*

² E. Cannan, *A History of the Theories of Production and Distribution in English Political Economy*, 2nd ed., 1903, p. 341.

the chapters devoted to the flow of capital from one employment to another one can discover the pen of the well-trained observer of the money market. But as far as the background of the whole system is concerned one may say that it resembles more the *grande culture* of the Physiocrats than the London Stock Exchange. In investigating the laws of distribution, he looks at economic phenomena from the windows of his estate in Gloucestershire (Gatcomb Park), seeing only the three classes which figure in agricultural production. Here is the field of his observations relating to the theory of distribution. Only after having taken this into account may we understand his theories concerning rent, profit, and wages.

The Foundations of Ricardo's Theory of Value

✓ The whole system of Ricardo is based on his theory of value. His aim is to determine the laws governing the exchangeable value of commodities; in other words, he tries to explain why a quantity of one product is given for a certain quantity of another.

At the head of the first chapter we find the problem and its solution. "The value of a commodity, or the quantity of any other commodity for which it will exchange," writes Ricardo, "depends on the *relative quantity* of labour which is necessary for its production, and not on the greater or less compensation which is paid for that labour."¹

¹ *Principles*, edited by Gonner, 1908, p. 1.

He says, "has nowhere analysed the effects of the accumulation of capital and the appropriation of land on the relative value. It is of importance, therefore, to determine how far the effects which are avowedly produced on the exchangeable value of commodities by the comparative quantity of labour bestowed on their production, are modified or altered by the accumulation of capital and the payment of rent."¹

How does Ricardo prove that in the capitalistic as well as in the primitive state of society the relative value of commodities depends on the quantities of labour bestowed upon them?

It is characteristic of the construction of his work that only in the fourth chapter (On Natural and Market Price) we find a solution of this problem, which he develops on the first pages of his *Principles*.

Ricardo starts from the principle that capital and labour are always leaving industries with smaller wages and profits and that they are seeking a more lucrative employment. "Whilst every man is free," writes Ricardo, "to employ his capital where he pleases, he will naturally seek for it that employment which is most advantageous; he will naturally be dissatisfied with a profit of 10 per cent, if by removing his capital he can obtain a profit of 15 per cent. This restless desire on the part of all the employers of stock to quit a less profitable for a more advantageous

¹ *Principles*, 1st ed., p. 16. Ashley's reprint (*Economic Principles of Ricardo's*), p. 14.

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¹ *Principles*, 1st ed., p. 16. Ashley's reprint (*Economic Principles of Ricardo's*), p. 14.

business, has a strong tendency to equalize the rate of profits of all. . . ."¹

Ricardo is speaking of a tendency; he knows quite well that "in consideration of the security, cleanliness, ease, or any other real or fancied advantage which an employment may possess over another,"² the capitalist and the labourer will require higher or lower wages or profits.² He did not overlook the fact that it is sometimes difficult to withdraw capital from an employment in which it has been engaged,³ and he very well observed the mechanism by which an equalization of the rate of profits was brought about. He saw how the "monied class . . . employed on discounting bills" was regulating the flow of capital, directing it always towards the more advantageous employments.⁴

Reading with attention Ricardo's *Principles*, one sees how wrong is the assertion so often repeated by the historical school that he lived in an artificial world which did not correspond to the real state of things. He was not blind to the fact that in practice the tendency to the equalization of profits had to overcome many obstacles. He nevertheless founded his theory on this assumption because it dominates the whole of economic life. "When we look," he wrote, "to the markets of a large town, and observe how regularly they are applied, both with home and foreign commodities, in the quantity in which they are labour."

¹ *Principles*, 6th ed., pp. 65, 66.
67.

³ *Ib.*, pp. 171, 176, 254, 255.

⁴ *Ib.*, p. 66.

required . . . we must confess that the principle which apportions capital to each trade in the precise amount that it is required, is more active than is generally supposed."¹

It is only with a clear comprehension of the foundations of Ricardo's theory of value that it is possible to understand why equal quantities of labour possess the same value in exchange. If it were not the case, if a product of ten labourers were sold dearer than other products on which the same quantity of labour had been bestowed, the profits obtained by the manufacturers would surpass the average rate. This in the long run is impossible, because capital would flow in this direction, the quantity of the articles produced for sale would increase, and the price would necessarily fall to its natural level. "If the natural price of cloth were twenty shillings per yard," writes Ricardo, "a great increase in the foreign demand might raise the price to twenty-five shillings, or more, but the profits which would then be made by the clothier would not fail to attract capital in that direction, and although the demand should be doubled, trebled, or quadrupled, the supply would ultimately be obtained, and cloth would fall to its natural price of twenty shillings."²

The tendency of profits toward an equal level is, as we see, the foundation of Ricardo's theory of value. Equal quantities of labour must be exchanged one against the other because otherwise this principle would be disturbed. Ricardo's

¹ *Ib.*, p. 67.

² p. 288.

theory of value is, as may be inferred from this, not absolute, but it depends on the tendency of profits toward an equal level. We can trace it in reading Sections IV and V of the first chapter, in which Ricardo tries to prove "that the principle that the quantity of labour bestowed on the production of commodities regulates their relative value, is considerably modified by the employment of machinery and other fixed and durable capital."²

The Influence of Fixed and Circulating Capital on the Relative Value of Commodities

The distinction between fixed and circulating capital drawn by Ricardo is quite different from that established by the Physiocrats and Adam Smith. We know that the Physiocrats made a difference between *avances annuelles* and *avances primitives* according to the principle that the value of the first was transferred wholly to the commodity, and that the value of the second only partly realized itself in the commodity which it contributed to produce (p. 53 *et seq.*). Smith called fixed capital that part which affords a profit to its owner without changing masters, circulating capital that part which yields a revenue in continually going from him in one shape and returning in another.

Ricardo makes a new distinction. "According as capital," he says, "is rapidly perishable, and requires to be frequently reproduced, or is of

² p. 23.

slow consumption, it is classed *as* the rate of profits. circulating or of fixed capital. The value of labour buildings and machinery are valuable.

It is said to employ a large portion of fixed capital. A shoemaker, whose capital is chiefly employed on the payment of wages which are expended on food and clothing, commodities more perishable than buildings and machinery, is said to employ a large proportion of his capital as circulating capital."¹

This definition does not make a clear distinction between circulating and fixed capital. Ricardo saw that himself in pointing out that "the division is not essential and that the line of demarcation cannot be accurately drawn."² In another passage he dwells on the fact that it is difficult to define strictly where the distinction between circulating and fixed capital begins, "for there are almost infinite degrees in the durability of capital. The food of a country is consumed and reproduced at least once in every year; the clothing of the labourer is probably not consumed and reproduced in less than two years; whilst his house and furniture are calculated to endure for a period of ten or twenty years."³

Ricardo made this difference between fixed and circulating capital for the purpose of showing that not only labour but also the time necessary for the exchange of a commodity has an influence on its relative value. Under the term of fixed capital he understands a capital which *needs more time*

¹ pp. 24, 25.

² p. 24, Footnote ¹.

³ p. 131.

theory of value is, as usual in order to reproduce its not absolute, but

profits towards. Ricardo illustrates his theory by the following in reading. A machine produced in the period of one year by one hundred workmen, getting £50 per annum, will cost, if the rate of profits is 10 per cent, £5,500 (£5,000 plus £500). If the produce of this machine is to be sold only after the lapse of another year, the manufacturer will be obliged to add to the amount of £5,500 10 per cent for profits, so that the labour of one hundred workmen will be worth £6,050. The labour of one hundred men employed in the manufacture of commodities which can be sold after one year is worth only £5,500. "Here, then," writes Ricardo, "are capitalists employing precisely the same quantity of labour annually on the production of their commodities, and yet the goods they produce differ in value on account of the different quantities of fixed capital, or accumulated labour, employed by each respectively."¹

In developing this problem further, Ricardo seeks to discover how far a rise of wages will influence the relative value of the two kinds of commodities. The passages dealing with this problem are most difficult to understand, because only much later (in the fifth chapter, devoted to wages) does he give an explanation of his theory put forward in the first. According to this doctrine, with which we will deal later on in detail, *a rise of wages has no influence on the prices of*

¹ p. 28.

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commodities, and affects only the rate of profits.
 "There can be no rise in the value of labour without a fall of profits."¹

According to him the produce of one hundred workmen will always be worth £5,500, and it makes no difference if the labourer gets £50, £51, or £52. With the rise of wages to £51 the rate of profits will fall from 10 per cent to 8 per cent, and with a rise to £52 to 6 per cent. Such a fall of profits must, according to Ricardo, have an influence on all commodities which have been produced with "fixed capital." To the value of the machine, which is the produce of one hundred workmen, and which costs £5,500, 10 per cent, 8 per cent, and 6 per cent will be added respectively.

According to the example quoted by Ricardo the value of a commodity produced by one hundred workmen will be, if the capital is returned to its employer:—

AFTER ONE YEAR (Circulating Capital)				AFTER TWO YEARS (Fixed Capital)	
WAGES					
Of One Work- man	Of 100 Work- men	PROFITS Total	%	TOTAL VALUE	
£50	£5,000	£500	10	£5,500	.. £5,500 + 10% = £6,050
£51	£5,100	£400	8	£5,500	.. £5,500 + 8% = £5,940
£52	£5,200	£300	6	£5,500	.. £5,500 + 6% = £5,830
£53	£5,300	£200	4	£5,500	.. £5,500 + 4% = £5,720

From this example Ricardo draws the conclusion that with a rise of wages "all commodities which

¹ *ib.*

² The table has been constructed on the basis of figures given by Ricardo on pp. 28-30.

are produced by very valuable machinery, or in very valuable buildings, or which require a great length of time before they can be brought to market, would fall in relative value, while all those which were chiefly produced by labour, or which would be speedily brought to market would rise in relative value."¹ From the table given above we see that the relative value of the two commodities will be when wages are:—

£50	as	100	to	110
£51	as	100	to	108
£52	as	100	to	106
£53	as	100	to	104

This reasoning induced Ricardo to modify his theory of value. On account of the different degrees of durability of capital, "or, which is the same thing, on account of the time which must elapse before one set of commodities can be brought to market,"² commodities produced by the same quantity of labour will exchange in different proportions according to the rate of wages. Ricardo points out, however, that this factor is only of secondary importance. We see from the table reproduced above that a very great fall in profits, which is, according to Ricardo, synonymous with a rise in wages, would modify the relative value of the two commodities only in a small degree. "The greatest effects which could be produced on the relative prices of these goods from a rise of wages," says Ricardo, "could not exceed 6 or 7 per cent; for profits could not,

¹ p. 29.

² p. 27.

probably, under any circumstances, admit of a greater general and permanent depression than to that amount."¹

Not so with the other great cause of the variation in the value of commodities, namely, the increase or diminution in the quantity of labour necessary to produce them. "If to produce the corn, eighty, instead of one hundred, men should be required, the value of the corn would fall 20 per cent, or from £5,500 to £4,400. If to produce the cloth the labour of eighty, instead of one hundred, men would suffice, cloth would fall from £6,050 to £4,950."²

For these reasons Ricardo, in the subsequent parts of his work, considers all the great variations which take place in the relative value of commodities to be produced by the greater or less quantity of labour which may be required to produce them.

All this complicated reasoning belongs to the most unsatisfactory parts of Ricardo's *Principles*. His foundation—the definition of fixed and circulating capital—can hardly be considered as a solid ground on which it is possible to build a theory. We have pointed out already that Ricardo himself admitted that his line of demarcation is not accurately drawn.

But the lack of precision is not the only fault of his distinction. Ricardo—what is more important—mixed up the technical durability of commodities with the rapidity with which capital

¹ p. 29.

² pp. 29. 30.

is returned to its employer. It is true that in some cases the two things are identical. So, for instance, a capital invested in a machine lasting ten years must be returned to its employer in the same lapse of time. Often, however, the technical durability and the time during which the value of a capital is transferred to the commodities produced are quite different. The coal heating the steam-engine is destroyed in the process of production, the iron or gold which is used as raw material for the production of goods lasts often for centuries; nevertheless, the capital invested in those three commodities returns with the same rapidity for the manufacturer.

There is a third objection which must be raised against the distinction which is made by Ricardo between fixed and circulating capital. There is no room in his definition for raw materials. In Ricardo's *Principles* the fixed capital is represented by machines, the circulating capital by wages; the third requisite of production—raw materials—has completely escaped his attention.

Ricardo, as well as Smith, in trying to make a distinction between fixed and circulating capital, entangled himself in contradictions and failed in the attempt to draw a clear and well-defined line of demarcation.

He confounded two quite different things: the rapidity with which capital is returned to its employer with its technical durability. The division of the Physiocrats, who draw a distinction between *avances annuelles* and *avances primitives*,

affords in this respect a much better solution. It is based on the principles according to which the whole value of the circulating capital realizes itself in the commodity, while only a portion of the fixed capital is transferred to the commodity which it contributes to produce. Smith and Ricardo had this distinction in mind, but they did not see clearly the line of demarcation, and gave us in consequence very confused conceptions¹ of the two kinds of capital.

We shall see in subsequent pages that Ricardo's theory, according to which a rise of wages does not entail a rise of prices, but occasions a fall of profits, is based on false propositions. In consequence the conclusions which he draws from this theory must be abandoned. We have devoted so much space to them only because they show clearly that Ricardo's whole theory of value is based exclusively on the tendency of profits towards an equal level. If this equality can be obtained only by an exchange of unequal quantities of labour, commodities will exchange in this proportion.

The Value of Rare Objects.

Ricardo applied his theory only to such commodities "as can be increased in quantity by the exertion of human industry, and on the production of which competition operates without restraint."¹ The value of rare statues and pictures, scarce books and coins, wines of peculiar quality, "is

¹ p. 7.

wholly independent of the quantity of labour originally necessary to produce them, and varies with the varying wealth and inclinations of those who are desirous to possess them."¹

Some critics urge in objection to this theory of value the lack of uniformity, the existence of two different explanations of the same phenomenon. This objection is unfounded, because Ricardo, in excluding rare objects, only applied his general principle. Here the mechanism equalizing the rate of profits and forcing the manufacturers to exchange equal quantities of labour is suspended. If a Rembrandt or a Rubens, finished in a few days, is sold for £100,000, a manufacturer of shoes, stockings, or sausages, attracted by the high rate of profits, will not be able to withdraw his capital and to place it in the production of genuine masterpieces.

The Relativity of Ricardo's Theory of Value

In other passages Ricardo draws the attention of the reader also to the fact that where the equalization of profits is impossible commodities cannot exchange according to the quantity of labour bestowed upon them. So, for instance, in the chapter on foreign trade, he points out that capital can easily move from one province to another, but that it is difficult to move it from one country to another. In consequence, "the labour of one hundred Englishmen cannot be given for the produce of the labour of

¹ *Ib.*, p. 6.

eighty Englishmen, but the produce of the labour of one hundred Englishmen may be given for the produce of the labour of eighty Portuguese, sixty Russians, or one hundred and twenty East Indians."¹ Ricardo draws attention to similar facts several times, especially in the chapters dealing with taxation.²

The exceptions and modifications which Ricardo introduced in his system show clearly that all his theory of value was based on the tendency of profits towards an equal level. }

The Causes of Changes in the Value of Commodities

In formulating his theory of value Ricardo tried not only to find the laws according to which commodities exchange one against another, but he investigated also, or, rather, principally, the causes why they *change* their relative value.

This can be clearly seen from the chapters in which he investigates the influence of wages on the formation of value. He points out that a day's labour of a working jeweller is more valuable than a day's labour of a common labourer, and he is not inattentive to the different qualities of labour, and the difficulty of comparing an hour's or a day's labour in one employment with the same duration of labour in another. But as the inquiry "relates to the effect of the *variations* in the relative value of commodities . . . it will be of little importance to examine into the comparative degree of esti-

¹ p. 116.

² p. 171, *seq.* 254 255.

mation in which the different kinds of human labour are held. We may fairly conclude that whatever inequality there might originally have been in them, whatever the ingenuity, skill, or time necessary for the acquirement of one species of manual dexterity more than another, *it continues nearly the same from one generation to another . . .*"¹ "In comparing, therefore," writes Ricardo, "the value of the same commodity, *at different periods of time*, the consideration of the comparative skill and intensity of labour required for that particular commodity needs scarcely to be attended to, as it operates equally at both periods."²

Ricardo explains the changes which we observe in the relative value of commodities by changes of the quantities of labour which have been bestowed upon them. "If a piece of cloth be now of the value of two pieces of linen," he writes, "and if, in ten years hence, the ordinary value of a piece of cloth should be four pieces of linen, we may safely conclude that either more labour is required to make the cloth or less to make the linen, or that both causes have operated."³ "If the shoes and clothing of the labourer," says Ricardo in another passage, "could, by improvements in machinery, be produced by one fourth of the labour now necessary to their production, they would probably fall 75 per cent."⁴ "Economy in the use of labour," we read a few pages further on, "never fails to reduce the relative

¹ p. 16.³ p. 16.² *Ib.* The italics are mine.⁴ p. 10.

value of a commodity, whether the saving be in the labour necessary to the manufacture of the commodity itself, or in that necessary to the formation of the capital, by the aid of which it is produced.”¹

Once we have understood the guiding principle of Ricardo's theory of value, these sentences become quite clear for us. A manufacturer who for the production of a commodity needs more labour than before is obliged to increase its price, otherwise his profit would fall below the average level. The producer, on the contrary, who has saved labour by introducing new appliances will be forced by the flow of capital to lower his prices.

Ricardo not only considered that changes in the quantity of labour necessarily modify the relative value of goods, but he was of opinion that there was *no other cause* of such a change of relative value. Neither changes of wages nor changes of profits could exercise in this respect any influence, because, “whether the profits of capital were greater or less, whether they were 50, 20, or 10 per cent, or whether the wages of labour were high or low, they would operate equally on both employments.”²

*Ricardo's Theory of Value and the Theory of
Marginal Utility*

It must seem strange to everybody that after a discussion which has lasted more than a hundred

¹ p. 20.

² p. 18.

years the problem of value has not yet been settled. Still, to-day, two different theories opposed to each other have their adherents in economic theory. One school believes that Ricardo was right in determining the value of commodities by the quantities of labour bestowed upon them; the other school rejects this theory, and is of opinion that only a psychological analysis of human motives can give a solution of the problem. The works of Jevons and of the Austrian school have contributed very much to a great popularity of this theory, known under the name of "marginal utility." What is the reason of this deep divergence which exists in economic theory? It must be attributed to the difference of standpoints from which students look at the same phenomenon.

The problem investigated by the classical school and by the adherents of the theory of marginal utility is the same. Though the latter deal principally with the value in use, the aim of their investigation is the same as that of Smith and Ricardo. The word value, according to Jevons, does not mean anything else than the relation in which commodities are exchanged.¹ Böhm-Bawerk writes with a still greater emphasis: "What is the problem of the theory of value? It is clear that its only aim is to explain the relation in which commodities are exchanged in reality. We want to know why one coat has a value in exchange equal to twenty yards of linen,

¹ *Theory of Political Economy*, 4th ed., p. 77. *Idem*, p. 21.

why ten pounds of tea are equal to half a ton of iron. . . ."¹

Too often the real aim of the theory of value has been forgotten, and the discussions on this subject have dealt with philosophical and psychological problems which were in no relation to the objects of political economy.

Though the classical and the subjective school pursue the same aim, the methods by which they try to solve the problem are quite different.

When we read the works of the representatives of the theory of marginal utility, we have the impression that men are born with all that is necessary for the satisfaction of their wants. We meet Robinsons who are meditating the most advantageous means of exchanging goods *they possess* against others they would like to obtain.

The answer given by the subjective school to this question is quite correct. Its principal error consists in overlooking the whole process of production which exercises a determining influence on the relative value of commodities.

It is on this side that Smith and Ricardo approach the problem. They ask, under what conditions will the *producer* consider that it is worth while for him to *produce* a commodity for exchange? The theories of Smith and of Ricardo have been often identified, though they are quite different.

Smith applies his theory only to that "early

¹ Böhm-Bawerk, *Geschichte der Kapitalzins-Theorien*, 2nd ed., p. 536.

and rude state of society which precedes both the accumulation of stock and the appropriation of land." Smith does not tell us why, under such conditions, "if it usually costs twice the labour to kill a beaver which it does to kill a deer, one beaver should naturally exchange for, or be worth, two deer." May we conclude from this that Smith's contention is without any foundation? Certainly not. In such a stage of social development, preceding the division of labour, which Smith has in mind, a man has the choice to kill a deer himself or to obtain it by way of exchange against another commodity. It is clear that if during one day he can kill two deer or one beaver, he will not work two days for exchanging his product against a number of deer or beavers which he can procure himself by hunting one day. This is why in that early and rude state of society depicted by Smith one beaver naturally must exchange for two deer. The tastes of the primitive hunters could exercise no influence on the relative value of the killed animals. If we understand Adam Smith's theory in this sense, it becomes clear what he meant in writing that "what every thing is really worth to the man who has acquired it and who wants to dispose of it . . . is the toil and trouble which it *can save to himself* . . ."

The theory of Smith applies only to the primitive state of society, because after the division of labour has taken place a man has generally no choice of producing a commodity himself or of acquiring it by exchange. A carpenter is not in the position

to make his shoes, and a tailor does not possess the materials and the knowledge to build his house.

Ricardo has completed Smith's theory in showing that not only in the primitive, but also in the modern society there exists a tendency towards exchanging equal quantities of labour. Here, however, this result is brought about by a quite different mechanism, by the tendency of profits towards an equal level. Here also subjective estimations have no influence. Even if the buyers would like to give more for iron than for gold they would be prevented, as Ricardo remarked in a letter to Malthus, from doing it.¹

The classical and the subjective theory of value bear a distinctive mark of the period of their origin. When Ricardo wrote his *Principles* England was passing through the stage of the industrial revolution, and its agriculture was under the influence of the Continental blockade. The problem why the price of manufactured goods had fallen and why, on the contrary, that of agricultural products was rising was at the centre of the discussion.

To this question Ricardo gave an answer which perhaps in all its details is not quite correct, but which, according to his own words, is "the nearest approximation of truth."² If a yard of linen has twice the value of a pound of iron, it would be wrong to pretend that *exactly* twice as much labour has been bestowed on the first article; but there can be no doubt that in general outlines the assertion is true. If after a lapse of time the price

¹ *Letters to Malthus*, p. 173.

² *Ib.*, p. 176.

of iron rises, while the price of linen remains unaltered, our conclusion that the quantity of labour necessary to produce the first article has increased will be absolutely true.

Certainly Ricardo was correct in writing: "If fewer men were required to cultivate the raw cotton, or if fewer sailors were employed in navigating, or shipwrights in constructing the ship, in which it was conveyed to us; if fewer hands were employed in raising the buildings and machinery, or if these, when raised, were rendered more efficient, the stockings would inevitably fall in value, and consequently command less of other things. They would fall because a less quantity of labour was necessary to their production, and would therefore exchange for a smaller quantity of those things in which no such abridgment of labour had been made."¹

That period in which the theory of marginal utility has found so many adherents has not known the perturbations observed by Ricardo at the time of the Napoleonic wars. This explains why the attention of this school has been attracted more by the daily movements than by the permanent changes of relative values. Ricardo himself, in a letter to Malthus, drew attention to the cause of the misunderstanding between the two theories of value: "You have always in your mind," he wrote, "the immediate and temporary effects of particular changes, whereas I put these immediate and temporary effects quite aside, and

¹ *Principles*, p. 19.

fix my whole attention on the permanent state of things which will result from them."¹

The existence of the classical and the subjective theories of value may still to-day be attributed to the same cause.

Since Petty political economy had tried to discover the central point—the natural price—about which the market prices oscillated. Ricardo was the first to give a solution of this problem. The representatives of the theory of marginal utility did not see that such a central point existed, and they endeavoured only to explain the phenomena observable on the surface, to which the older theory had applied the law of offer and demand. Neither Jevons nor the Austrian school discovered anything essentially new, and their only merit consists in the distinction they made between utility and value in use. While Smith contended that things which have the greatest value in use have frequently little or no value in exchange, as water and air, Jevons, Menger, and Böhm-Bawerk proved that water as such had great utility, but that its value in use depended on the quantity of which a man could dispose. For the traveller in the desert a glass of water was worth a kingdom, for a man living near a spring it had no value at all.

Herein is concluded the merit of the founders of the theory of marginal utility. When they tried to build a system of political economy on this theory they failed completely. This applies in

¹ *Letters to Malthus*, p. 127.

the first degree to the Austrian school, and especially to their theory of profits which is based on the theory of marginal utility.¹

While writers like Böhm-Bawerk and Menger must be credited with having contributed largely to a revival of those theoretical studies on the Continent which were proclaimed by the historical school, they yet failed entirely in their endeavour to overthrow the Ricardian theory of value.

Theory of Rent

Is the fact that the proprietor of land receives without any toil a revenue called rent not in contradiction to the theory according to which the relative value of commodities depends on the quantity of labour which has been bestowed upon them? This is the problem which is investigated by Ricardo in the second chapter of his *Principles*. In Ricardo's theory of rent we can distinguish four elements:—

1. Ricardo starts from the proposition that the

¹ Menger and Böhm-Bawerk distinguish goods of first and second order, in other words commodities for consumption and for production. The machines, raw materials, etc., belonging to the second class derive their value from the first. But as a certain time is necessary to transform machines, raw materials, etc., into ready-made goods, the manufacturer in buying them deducts a special sum and this is the origin of profits and of interest. According to Böhm-Bawerk a machine of ten days' labour must cost always less than another commodity which is destined for direct consumption and on which the same quantity of labour has been bestowed. We know quite well that the tendency of profits towards an equal level would render such conditions impossible.

relative value of commodities, whether they be manufactured, or the produce of the mines, or the produce of land, is always regulated, not by the less quantity of labour that will suffice for their production under circumstances highly favourable, and exclusively enjoyed by those who have peculiar facilities for production, but by the *greater quantity of labour necessarily bestowed on their production* by those who have no such facilities.¹ "Corn," says Ricardo, "is regulated by the productiveness of the portion of capital last employed on the land, and paying no rent."² He contends that in the same manner the least fertile mine regulates the price of coal.³

2. The price of this marginal product—we shall apply this name to the commodity produced under the most unfavourable conditions—is composed exclusively of wages and of the average rate of profits. "The metal produced from the poorest mine that is worked," says Ricardo, "must at least have an exchangeable value, not only sufficient to procure all the clothes, food, and other necessaries consumed by those employed in working it, and bringing the produce to market, but also to afford the common and ordinary profits to him who advances the stock necessary to carry on the undertaking."⁴ The price of the marginal product does not contain anything above this sum. The capital last employed on the land is paying no rent.⁵

¹ p. 50. The italics are mine.

⁴ p. 62.

² p. 55.

⁵ p. 55.

³ pp. 62, 63, 317.

Smith's standpoint was in this respect quite different. He supposed that the original rule which regulated the exchangeable value of commodities, namely, the comparative quantity of labour by which they were produced, had been altered by the appropriation of land and the payment of rent. According to Smith, not only wages and profits, but also rent enter as component parts into the price of commodities.

Ricardo protests against this theory. According to him the corn which is produced by the greatest quantity of labour is the regulator of the price of corn; and rent does not and cannot enter in the least degree as a component part of its price. "Adam Smith," he says, "therefore cannot be correct in supposing that the original rule which regulated the exchangeable value of commodities, namely, the comparative quantity of labour by which they were produced, can be at all altered by the appropriation of land and the payment of rent. . . . Rent is not a component part of the price of commodities."¹

3. As the price is regulated by the most unfavourable conditions, the proprietors of more fertile lands receive a revenue which surpasses the average rate of profits. Suppose that for the support of the actual population it is necessary to cultivate land of different fertilities, Nos. 1, 2, and 3, which with an equal employment of capital and labour yield a crop of one hundred, ninety, and eighty quarters of corn. The quantity

¹ p. 55.

of eighty quarters is supposed to be equal to the wages and ordinary profits of the cultivation. The proprietor of land No. 1 will then dispose, after deduction of wages and the ordinary profits, of twenty quarters of corn, and the proprietor of land No. 2 of ten quarters, which they will be able to sell at the market price.¹

4. The tendency of profits towards an equal level will transform this extra revenue into rent. The farmer, namely, receives the same profit in cultivating land No. 3, for which he pays no rent, or in cultivating lands Nos. 1 or 2, for which the proprietor receives twenty or ten quarters respectively. The rent cannot be smaller, because if the original tenant refused to pay it, "some other person would be found willing to give all which exceeded that rate of profit to the owner of the land from which he derived it."² "There cannot be two rates of profit."³ This is the principle on which not only Ricardo's theory of value, but also his theory of rent is based.

This theory leads Ricardo to the conclusion that "with every step in the progress of population, which shall oblige a country to have recourse to land of a worse quality, to enable it to raise its supply of food, rent, on all the more fertile land, will rise."⁴ "Whatever cause," says Ricardo elsewhere, "may drive capital to inferior land, must elevate rent on the superior land."⁵ Every im-

¹ p. 47.

² p. 49

³ *Ib.*

⁴ p. 47.

⁵ p. 397.

provement in agriculture, on the contrary, which enables the country to abandon the cultivation of less fertile soils must lower rent. "If a million of quarters of corn," writes Ricardo, "be necessary for the support of a given population, and it be raised on land of the qualities of Nos. 1, 2, and 3; and if an improvement be afterwards discovered, by which it can be raised on Nos. 1 and 2, without employing No. 3, it is evident that the immediate effect must be a fall of rent."¹

The theory of rent formulated by Ricardo had already been discovered before him. The existence of a differential rent had been observed by Petty (p. 27). James Anderson, a Scotch farmer, explained its character exactly in 1777.² It seems that Anderson's pamphlet was unknown to Ricardo, but he calls in his preface attention to the fact that others had discovered this theory before him. "In 1815," says Ricardo, "Mr. Malthus, in his *Inquiry into the Nature and Progress of Rent*, and 'A Fellow of University College, Oxford,' in his *Essay on the Application of Capital to Land*, presented to the world, nearly at the same moment, the true doctrine of rent."³

It would be wrong, however, to conclude from this that there is nothing new in Ricardo's theory of rent. It must not be forgotten that he for the first time developed it as a part of the theory of

¹ p. 56.

² *Inquiry into the Nature of the Corn Laws, with a view to the new Corn Bill proposed for Scotland* (Edinburgh, 1777).

³ *Principles*, p. 1.

value. Besides this, to do justice to Ricardo, we must remember how misty were the conceptions relating to rent which were generally accepted before the publication of his *Principles*. The Physiocratic theory, according to which agricultural production had a special property of creating rent, was not only taken over by Adam Smith, but had many adherents among the contemporaries of Ricardo. Smith's theory, according to which rent increases with the fertility of soil, was questioned by nobody before the publication of Ricardo's *Principles*.

Neither in the article on Political Economy in the *Encyclopedia Britannica*, in 1810, nor in other treatises of this period, does there appear to be any feeling that Adam Smith's theory as to the causes of variations of rent is seriously inadequate or erroneous.¹

Malthus, for instance, who himself had formulated the theory of differential rent, contended that its existence is "a clear indication of a most inestimable quality in the soil which God had bestowed upon man—the quality of being able to maintain more persons than are necessary to work it."²

Ricardo for the first time proved that this theory was wrong and that rent appears in all employments where different quantities of labour are necessary for the production of the same commodity. The laws which govern the rent of

¹ Cannan, sc., p. 312.

² *Essay on Rent* quoted by Cannan, sc., p. 224.

mines differ in nothing from those which can be observed in agriculture.¹

While Smith and Malthus were looking upon rent as upon a gift of nature, and were of the opinion that it must grow with the increase of fertility, Ricardo proved that "rent may be lower in a country where lands are exceedingly fertile than in a country where they yield a moderate return, it being in proportion rather to relative than absolute fertility—to the value of the produce and not to its abundance."²

The theory of differential rate was known already before Ricardo, but he for the first time deduced from it all its consequences.

One must admire the logical structure of Ricardo's theory of rent. It contains only one feeble point. His contention that the last cultivated soil does not afford rent corresponds to primitive conditions under which uncultivated land is not appropriated, but does not apply to more developed societies where every piece of land has an owner. Here, even for the use of the most unfertile land, a rent must be paid.

Adam Smith had already drawn attention to this fact, showing that the proprietor of barren rocks and of a shore covered with kelp receives a rent, and he concluded that therefore the price paid for the use of land is a monopoly price.³

¹ Chap. XXIV, *Doctrine of Adam Smith concerning the Rent of Land*, and Chap. XXXII, *Mr. Malthus' Opinions on Rent*.

² *Principles*, p. 398.

³ *Wealth of Nations*, sc., Vol. I, p. 146.

Here, then, rent enters as a component part of the price of commodities. This naturally is not in accordance with Ricardo's conclusion, according to which the cause of the increase of price of agricultural products can only be sought in a greater quantity of labour which has been bestowed upon them. The fact that rent is paid to the proprietor has certainly an influence on the price of commodities. Besides the differential rent, whose laws have been so admirably developed by Ricardo, there exists rent as a monopoly price. This rent is the consequence of the appropriation of land and of the fact that in densely populated countries the demand for land is greater than the supply. In his letters Ricardo admitted himself that in this respect his theory was inadequate and that even the most unfertile soil afforded in more developed societies a rent to its proprietor. This monopoly rent, however, is, according to Ricardo, so small that no objection can be raised to leaving it out of account.¹

In this respect Ricardo is certainly right. Unhappily there does not exist a critical study of the history of rent which would allow us to verify this conclusion exactly. Only in observing the most important changes in the price of rent in the nineteenth century may we prove that Ricardo's theory corresponds to facts.

It is certain that Ricardo was led to his theory of rent by the observation of contemporary

¹ The passages on this subject can be found in Diehl's *Erläuterungen zu David Ricardo's Grundsätzen*, Vol. II, p. 171, seq.

phenomena. During the Napoleonic wars the population and wealth of England had increased. At this moment the Corn Bill of 1804 was passed, and the Continental blockade was proclaimed by Napoleon. In consequence the country was obliged to become, as far as agricultural products were concerned, self-sufficient. Soils of a poorer quality were taken into cultivation, and the prices of corn rose considerably (from 60 shillings for a quarter in 1804 to 108 shillings in 1813)¹ and the rent of land increased proportionately.²

A quite contrary phenomenon could be observed in the seventies of last century, when, in consequence of the taking into cultivation of the fertile American prairie lands, the prices of agricultural products fell in the world markets. The profits of the farmers decreased below the average level, and in consequence of it the proprietors of land were obliged to lower their rents by 30 per cent.³

These examples completely confirm the theory of Ricardo that the taking into cultivation of unfertile soils increases rent, while the passage towards more fertile soils lowers it. "The labour of nature," says Ricardo, "is paid, not because she does much, but because she does little. In proportion as she becomes niggardly in her gifts, she exacts a greater price for her work. Where

¹ Diehl, sc., Vol. II, p. 315. See the chart illustrating the fluctuations of prices from 1793-1815 in Cannan's *History of Theories*, sc., p. 150.

² Baumstark, *Volkswirtschaftliche Erläuterungen vorzüglich über David Ricardo's System*, pp. 512-514.

³ Diehl, sc., Vol. II, p. 374.

she is munificently beneficent, she always works gratis."¹

I am certain that if in the future the history of rent comes to be systematically investigated, we shall convince ourselves that monopoly rent plays, in comparison with the differential rent, only a secondary part.

Theory of Wages

The structure of Ricardo's theory of wages is very similar to the mechanism of his theory of value. In the same manner as he distinguishes a market and a natural price, he makes a distinction between the natural and the market price of labour. Wages, according to Ricardo, always tend to their natural level as well as prices.

What is the natural price of labour? "The natural price of labour," says Ricardo, "is that price which is necessary to enable the labourers one with another to subsist and to perpetuate their race, without either increase or diminution."² The natural price of labour "therefore depends on the price of the food, necessaries, and conveniences required for the support of the labourer and his family."³

It would be wrong to suppose that Ricardo confounded the physiological minimum with the natural price of labour. He was not inattentive

¹ *Principles*, sc., p. 53. Note 1.

² p. 70.

³ *Ib.*

to the fact that the minimum of existence depends to a great extent on the standard of life of the population. "An English labourer," he says, "would consider his wages under their natural rate, and too scanty to support a family, if they enabled him to purchase no other food than potatoes, and to live in no better habitation than a mud cabin; yet these moderate demands of nature are often deemed sufficient in countries where 'man's life is cheap' and his wants easily satisfied."¹

Wages rise and fall according to the greater demand and supply of labour; necessarily, however, they return always to the natural level. The movement of population is, according to Ricardo, that mechanism which brings this gravitation about. When wages are high the population increases rapidly, when they are low the progress is only slow. This exercises a direct influence on wages. "When, however," says Ricardo, "by the encouragement which high wages give to the increase of population, the number of labourers is increased, wages again fall to their natural price, and indeed from a reaction sometimes fall below it." When, on the contrary, the market price of labour is below its natural level, the privations reduce the number of labourers, and their wages will rise again in consequence of the insufficient supply.²

The foundations of this theory are very weak. The definition of natural wages as depending on

¹ p. 74.

² pp. 71, 72.

the habits and customs of the people is lacking in precision. His conception of laws regulating the movement of population is not in accordance with reality.

Statistical inquiries have shown that a rise of wages does not necessarily entail an increase of population, as was supposed by Ricardo. Ricardo himself was aware of the fact that his generalization was based only on contemporary observations and could not be regarded as a natural law. He says that the workman getting high wages can, instead of marrying earlier, employ a portion of the increased wages in furnishing himself abundantly with food and necessaries. An increase of population is, in consequence, not a necessary effect of high wages. "But . . . so great," adds Ricardo, "are the delights of domestic society, that in practice it is invariably found that an increase of population follows the amended condition of the labourer."¹

Ricardo, in formulating his theory of wages, did not only try to prove that wages tend always to their natural level, but he was of the opinion that the progress of society and the increase of rent were steadily lowering this level.

The demand for labour depends, namely, on the increase of capital. Is this increase rapid, wages rise much above their natural level; a slow accumulation of capital has a quite contrary effect. The market price of labour falls then below its natural price, and the condition of the labourers is most wretched.

¹ p. 400.

According to Ricardo, as we will see later on, with the increase of rent the rate of profits must fall, and this, again, necessarily lowers wages. "In the natural advance of society," he says, "the wages will have a tendency to fall, as far as they are regulated by supply and demand; for the supply of labourers will continue to increase at the same rate, whilst the demand for them will increase at a slower rate. If, for instance, wages were regulated by a yearly increase of capital, at the rate of 2 per cent, they would fall when it accumulated only at the rate of $1\frac{1}{2}$ per cent. They would fall still lower when it increased only at the rate of 1 or $1\frac{1}{4}$ per cent. . . ."¹

From the examples quoted by Ricardo we may represent the influence of the fertility of the cultivated land on wages, as follows:—²

	Crop on the last cultivated Soil. Quarters.	Price of Corn. £ s. d.	Annual Wages.			
			Nominal Wages. £ s. d.			Real Wages. Quarters. of Wheat.
1st period	180	4 0 0	24	0	0	6.00
2nd ..	170	4 4 8	24	14	0	5.83
3rd ..	160	4 10 0	25	10	0	5.66
4th ..	150	4 16 0	26	8	0	5.50
5th ..	140	5 2 10	27	8	6	5.33

According to this example real wages would fall with the progress of society and the taking into cultivation of less fertile soils from 6.00 to 5.33 quarters.

¹ p. 77.

² This table is based on the figures published by Ricardo on pp. 79, 80, and 90, of his *Principles*.

The Quantity Theory of Money

The quantity theory of money is the link uniting Ricardo's theory of profits with the rest of his system. This theory, formulated already by Bodin, Hume, Locke, and Cantillon, was brought again to the surface by the events which followed the suspension of cash payments by the Bank of England in 1797. The price of bullion rose from 77s. 9d. in 1800 to 90s. in 1810, so that the agio on gold reached 15 per cent above the Mint price. The question arose, what were the causes of this depreciation of bank-notes? While the high price of gold was ascribed by most writers entirely to the scarcity of that article, arising out of an unusual demand for gold on the Continent, Ricardo gave in his pamphlet entitled *The High Price of Bullion, A Proof of the Depreciation of Bank-Notes* (1810) another explanation. According to him the high price of bullion was caused by an excess of paper circulation. This view was shared by the famous Bullion Committee.¹

✓ *Is an Increase of Wages followed by a Rise of Prices?*

Ricardo generalized the quantity theory which originally had been formulated only in as far as inconvertible paper money was concerned, and he drew from it the conclusion that *an increase of wages cannot raise prices.*

¹ *The Bullion Report* has been reprinted by Cannan under the title, *The Paper Pound of 1797-1821* (London, 1919). The conclusions of the Committee may be found on p. 66, *seq.*

This proposition dominates his whole theory of profits. "Before I quit this subject," he says in the first chapter, "it may be proper to observe that Adam Smith, and all writers who have followed him, have, without one exception that I know of, maintained that a rise in the price of labour would be uniformly followed by a rise in the price of all commodities. I hope I have succeeded in showing that there are no grounds for such an opinion. . . ."¹

Ricardo tries to prove the truth of this proposition by starting from two different suppositions: first that the mine from which money is obtained is situated in the same country in which wages vary; secondly, that gold is of foreign production. In the first instance Ricardo takes for granted that profits in different employments tend towards an equal level; in the second instance he applies the quantity theory.

To understand why, when "the mine is situated in the same country," prices cannot rise with wages, it is necessary to go back to the first edition of Ricardo's *Principles*. Important passages are omitted in the subsequent editions, making his trend of thought very obscure. From the first edition one may see clearly that Ricardo started from the proposition that profits cannot differ for longer periods in different employments. No alteration in the wages of labour could produce any alterations in the value of the commodities produced with equal capitals by the fisherman, the

¹ pp. 38, 39.

hunter, and the gold miner, for, "if profits were 10 per cent, then, to replace the £100 circulating capital with 10 per cent profit, there must be a return of £110: to replace the equal portion of fixed capital, when profits are at the rate of 10 per cent, there should be annually received £16·27; for the present value of an annuity of £16·27 for ten years, when money is at 10 per cent, is £100; consequently all the game of the hunter should annually sell for £126·27."¹ It is clear that the produce of the miner and of the hunter on which the same quantity of fixed and circulating capital has been expended must fetch equally £126·27. Should an increase of wages by £10 induce the hunter and the fisherman to raise their prices in the same proportion, their profits would be higher than those of the miner, whose product would decrease in value in comparison with other commodities. A tendency of profits towards an equal level, according to Ricardo, renders such a situation impossible. "This inducement acting with the same force on all these three occupations," says Ricardo, "and the relative situation of those engaged being the same before and after the rise of wages, the relative value of game, fish, and gold, would continue unaltered."²

Ricardo saw that this reasoning was artificial, because gold was a foreign product, and in consequence the equalization of profits could not be

¹ *Principles*, 1st ed. Ashley's *Reprint*, p. 22.

² *Principles*, ed. Gonner, p. 22.

brought about as easily as was supposed in pure theory.¹

Nevertheless, he thinks that wages cannot entail a rise of prices, and he tries to prove it with the help of the quantity theory of money. According to him prices can rise only if the quantity of gold in a country increases. Now it is, according to Ricardo, a positive contradiction to affirm that this may happen. If all commodities rose in price, "gold could not come from abroad to purchase those dear commodities, but it would go from home to be employed with advantage in purchasing the comparatively cheaper foreign commodities."² "The importation of gold," repeats Ricardo, "and a rise in the price of all home-made commodities with which gold is purchased or paid for, are effects absolutely incompatible."³ The extensive use of paper money does not alter this situation, for paper money conforms, or ought to conform, to the value of gold, and therefore its value is influenced by such causes only as influence the value of the metal.⁴

"It appears, then," concludes Ricardo, "that the rise of wages will not raise the prices of commodities, whether the metal from which money is made be produced at home or in a foreign country."⁵

¹ Another reason why an equalization of profits cannot be easily brought about must be sought in the speculative character of gold mining.

² pp. 81, 82.

³ p. 82.

⁴ *Ib.*

⁵ p. 82.

Criticism of the Quantity Theory

It is strange that Ricardo, in formulating such a general and rigid quantity theory, did not take into account the elasticity of the modern banking system which had been noticed by the Bullion Committee. "The effective currency of the country," says the Report, "depends upon the quickness of circulation and the number of exchanges performed in a given time, as well as upon its numerical amount; and all the circumstances which have a tendency to quicken or to retard the rate of circulation, render the same amount of currency more or less adequate to the wants of trade."¹ The quantity theory of money has, nevertheless, still to-day adherents who, as Irving Fisher,² Ashley,³ and Lehfeldt,⁴ contend that there is a rigid relation between the gold reserve of banks and the quantity of fiduciary signs put by them into circulation. These authors are of the opinion that when the quantity of gold increases in a country, bank-notes, cheques, deposits, etc., rise in the same proportion.

This conclusion is not confirmed by facts. In this respect the period from 1880 to 1895 affords us an interesting illustration, showing that an increase of gold production and of cash reserves can be accompanied by a decline of prices. (As is generally known, the wave of falling prices

¹ Cannan's *Reprint*, sc., p. 57.

² *The Purchasing Power of Money*.

³ *Gold and Prices*, 1912.

⁴ *Gold, Prices, and the Witwersrand*, 1919, p. 21, seq.

proceeded without any greater interruption from 1873 to 1895.)

Since 1883 the effects of the gold discoveries in the Transvaal began to make themselves felt, and the world output which had been hitherto declining nearly doubled in the course of eight years, rising from 149 to 299 metric tons in 1895.¹ The cash reserves of the principal European banks of issue were swollen by great amounts of gold.

Cash Reserves²

YEARLY AVERAGES.

	Bank of England. Million £.	Reichsbank. Million Marks.	Banque de France. Million Francs.
1870-4	.. 21.6	.. —	.. —
1875-9	.. 25.9	.. 555.7	.. 1,982.4
1880-4	.. 22.9	.. 603.7	.. 1,981.4
1885-9	.. 20.6	.. 786.3	.. 2,332.1
1890-4	.. 25	.. 905.6	.. 2,786.6

The cash reserve of the Bank of England rose from 1880-4 to 1890-4 by 2.1 million pounds, that of the Reichsbank by 301.9 million marks, and that of the Banque de France by 805 million francs.

It would be wrong to suppose that the circulation increased in the same proportion. In England the amount of notes held by the public fell from 26 million pounds in 1880-4 to 25.3 million in 1890-4. In France and Germany we observe an

¹ Lehfeldt, *sc.*, p. 111.

² The averages are based on data published by the *National Monetary Commission, Statistics for Great Britain, Germany, and France, 1867-1909*; Washington, 1910, pp. 79, 80, 194, 195, 293.

extension of the circulation; the proportion, however, of cash to the issued notes advanced more rapidly. For the Banque de France the proportion was 73·6 in 1880-4 and 85·2 per cent in 1890-4; for the Reichsbank it rose in the same period from 81·8 to 91·9 per cent.¹

These figures show clearly that the quantity theory cannot be applied in its rigid form to a system of convertible paper money. An increase of gold production and of gold reserves may remain without any influence on the quantity of monetary instruments in a country, being simply compensated by a decrease of paper circulation.

Ricardo's conclusion, therefore, that a rise of wages will not raise the prices of commodities, whether the metal from which money is made be produced at home or in a foreign country is erroneous. Ricardo did not succeed in demonstrating the truth of this proposition, either by assuming a tendency of profits towards an equal level or in applying the quantity theory.

Under a regime of convertible paper money prices do not rise because the amount of gold

	BANK OF ENGLAND		REICHSBANK. BANQUE DE FRANCE.			
	Notes held by Public.	Million £	Proportion of Cash to Notes in circulation.			
1870-4	..	25	..	—	..	—
1875-9	..	28·1	..	83·3	..	81·6
1880-4	..	26	..	81·8	..	73·6
1885-9	..	24·4	..	90·6	..	83·4
1890-4	..	25·3	..	91·9	..	85·2

From *National Monetary Commission*, sc., pp. 79, 80, 194.
195, 293.

increases, but, on the contrary, if prices rise the elastic monetary system adapts itself to the new conditions in putting into circulation a greater amount of notes. Tooke and Newmarch had, in 1838, already drawn attention to this fact,¹ and since then everyday observation enabled us before the war to verify the truth of this conclusion.

The Theory of Profits

Ricardo's theory of profit is based on his quantity theory of money. As the increase of wages caused by the cultivation of less fertile soils cannot be followed by a rise of prices, the rate of profits must steadily fall with the progress of society.

From the figures quoted by Ricardo the following table, illustrating the influence of the fertility of soil on profits, may be constructed.²

	Fertility of the last cultivated soil. Crop		PROFITS			
			Real Profits.	Nominal Profits.	Per cent.	
1st period	180	quarters	120	quarters	£480	16
2nd ..	170	..	111·7	..	£473	15·7
3rd ..	160	..	103·4	..	£465	15·5
4th ..	150	..	95	..	£456	15·2
5th ..	140	..	86·7	..	£445	14·8

According to Ricardo the rate of profits, which in the first period of cultivation amounted to 16 per cent, falls steadily until it reaches 14·8 per cent in the fifth period.

Ricardo himself probably felt that his reasoning

¹ *History of Prices*, 1838-57.

² pp. 90, 93, 94.

was not very convincing. This is why he adds at the end of the chapter devoted to profits that even if with the rise of wages prices should increase the capitalist would obtain less for his money. His profits would be precisely the same amount as before, but he would be obliged to pay more for all commodities.¹ "Thus," concludes Ricardo, "I have endeavoured to show, first, that a rise of wages would not raise the price of commodities, but would invariably lower profits; and secondly, that if the prices of all commodities could be raised, still the effect on profits would be the same."²

The Influence of Rent on the Distribution of Wealth

What is the influence of a rise of rent on wages and profits? This is the problem which dominates the whole inquiry

According to Ricardo the passage to the cultivation of less fertile soils increases rent and so diminishes the produce which is left for distribution between the farmer and the labourer.

Let us suppose five historical periods in the development of agriculture and five classes of soil, yielding 180, 170, 160, 150, and 140 quarters of corn. In the first period only the most fertile soils will be cultivated, in the second the lands yielding 170 quarters will be taken into cultivation, in the third those yielding 160 quarters, etc. We may represent this evolution in the following manner:—

¹ p. 106.

² p. 107.

	SOIL I.	SOIL II.	SOIL III.	SOIL IV.	SOIL V.
1st period ..	180 qrs.				
2nd	180 ..	170 qrs.			
3rd	180 ..	170 ..	160 qrs.		
4th	180 ..	170 ..	160 ..	150 qrs.	
5th	180 ..	170 ..	160 ..	150 ..	140 qrs.

The rent in these five periods will amount in quarters to :—

	SOIL I.	SOIL II.	SOIL III.	SOIL IV.	SOIL V.
1st period ..	0				
2nd	10	0			
3rd	20	10	0		
4th	30	20	10	0	
5th	40	30	20	10	0

The quantity which remains for distribution between the farmer and labourer decreases steadily with the increase of rent. It amounts in the first period to 180, in the second to 170, in the third to 160, in the fourth to 150, in the fifth to 140 quarters. Having eliminated rent, the problem of the distribution of the rest between wages and profits becomes, as Ricardo stated in a letter to MacCulloch, more simple.

How is the produce left after the payment of rent divided between the farmer and the labourer ?

Is the whole burden of the increase of rent supported only by one class or do we assist in a diminution of the income of both ? Ricardo thought that this second solution was true. According to the examples given in his *Principles*, the distribution of income can be represented as follows :—

	Fertility of the last Cultivated Soil.	Quantity of Corn remaining after Payment of Rent.	Part of ten Labourers. ¹	Part of the Farmer. ²
1st period ..	180	180	60	120
2nd	170	170	58	112
3rd	160	160	57	103
4th	150	150	55	95
5th	140	140	53	87

We know that the diminution of the labourer's wages is, according to Ricardo, the result of a decrease of the rate of profits. "In the natural advance of society," says Ricardo, "the wages of labourers will have a tendency to fall, as far as they are regulated by supply and demand; for the supply of labourers will continue to increase at the same rate, whilst the demand for them will increase at a slower rate."³

The weakest point of all this reasoning is a too great simplification of economic conditions. In Ricardo's *Principles* the accumulation of capital depends exclusively on the savings of the farmer. He forgets completely that the landlord also transforms a part of the rent he receives into capital. No account is taken of the savings of the banker, the manufacturer, etc. Ricardo's theory of distribution is the most genial attempt hitherto undertaken to investigate the influence of a rise of rent on wages and profits. But it is only an attempt, and not a final solution.

¹ In round figures. See p. 146 of this book.

² p. 77.

³ *Principles*, p. 77.

Ricardo's Economic and Social Postulates

The necessity of taking into cultivation less fertile soils is accompanied, according to Ricardo, by two great evils:—

1. With the increase of rent, profits and wages, as shown above, must fall. The revenue of only one class is increased, while that of all others is being diminished.

2. In agriculture men's labour becomes with the natural progress of society less productive.

From these theoretical premises Ricardo draws the conclusion that only a policy of free trade is in the interests of the community.

A free importation of corn has in this respect a salutary influence, because it counteracts the tendency of falling profits. "However extensive a country may be where the land is of a poor quality, and where the importation of food is prohibited," says Ricardo, "the most moderate accumulations of capital will be attended with great reductions in the rate of profit, and a rapid rise in rent; and, on the contrary, a small but fertile country, particularly if it freely permits the importation of food, may accumulate a large stock of capital without any great diminution in the rate of profits, or any great increase in the rent of land."¹

While in agriculture labour becomes in the natural progress of society less productive, in industry we observe a quite contrary phenomenon.

¹ pp. 105, 106.

Here, by improvements in machinery, by the better division and distribution of labour, and by the increasing skill, both in science and art, of the producers, the progress of society is accompanied by increased returns.¹

Society can, in consequence, counteract to a certain degree the tendency of diminishing returns in agriculture by importing its food from more thinly populated countries in exchange for manufactured goods. To this problem Ricardo devoted a special pamphlet entitled, *On Protection to Agriculture* (1822), in which he tried to prove that corn laws are detrimental to the well-being of society.

Free trade, then, is, according to Ricardo, the great panacea against all social and economic evils. "By stimulating industry, by rewarding ingenuity, and by using most efficaciously the peculiar powers bestowed by nature, it distributes labour most effectively and most economically; while, by increasing the general mass of productions, it diffuses general benefit, and binds together by one common tie of interest and intercourse the universal society of nations throughout the civilized world."²

Together with the works of the Physiocrats and of Adam Smith, Ricardo's *Principles* played a prominent part in the history of the free trade movement. His theories influenced in another respect the social history of the nineteenth century. His rather pessimistic view on the future of

¹ p. 71.

² p. 114.

humanity gave to the socialistic camp the weapons for the attack on the capitalistic regime (Lassalle's "brazen law of wages").

These political struggles belong partly to the past, but Ricardo's work has not lost its theoretical importance. We owe to him the most precious gems of political economy—the theory of value and the theory of rent.

CHAPTER V

THE POST-RICARDIAN PERIOD

"*Von Ricardo zur Vulgärökonomie*": such is the title which Marx has given to the fourth volume of his *Mehrwerttheorien*. This title is perhaps too crude, but it is quite correct in so far as it lays emphasis on the deep precipice which separates classical political economy from the economic theories of the subsequent period. Ricardo's *Principles* are the last stage of great theoretical discoveries for which we ransack in vain more recent publications. During a period of now more than a hundred years the progress of political economy has been very slow, and the results are very poor in comparison with the great efforts which were made.

The followers of the classical writers have contributed to the progress of economic science less by the originality of their theories than by the systematization of the inheritance left by the founders of political economy.

We know that neither Smith nor Ricardo has given us a system which, as far as its architectonic lines are concerned, can be regarded as achieved. Neither the scope nor the method of political economy is strictly delineated.

J. B. Say was the first systematizer of political

economy. His *Traité d'Économie Politique* (1803) is divided into three parts:—

1. *De la Production des Richesses*; 2. *De la Distribution des Richesses*; 3. *De la Consommation des Richesses*.

James Mill has added to these three divisions the theory of exchange. In his *Elements of Political Economy* (1821) we find the following chapters:—

1. *Production*; 2. *Distribution*; 3. *Interchange*; 4. *Consumption*.

John Stuart Mill did not include consumption, because, as he rightly pointed out, we do not possess any law of consumption which could form the object of theoretical inquiry.² Thus the definition of political economy, as a science dealing with laws governing the production, distribution, and exchange of commodities, has been formed.

The classical writers did not discuss what scientific method is most appropriate to economic inquiries, but they simply applied it. Only subsequent authors tried to give to this problem a more systematic form. In the first instance, John Stuart Mill, in his *System of Logic* (1843), Cairnes (*The Character and Logical Method of Political Economy*, 1875), J. N. Keynes (*The Scope and Method of Political Economy*, 1891), and Karl Menger (*Untersuchungen über die Methode der Sozialwissenschaft und der Politischen Oekonomie insbesondere*, 1883), contributed to clear up the question of the method which enables us to formulate economic laws.

² *Essays on Some Unsettled Questions of Political Economy*, second ed., 1874, p. 132, Note 1.

The theory of production has made but very slow progress during the nineteenth century. As the only discovery of importance, Heinrich von Thünen's law of relativity, developed in his book entitled, *Der isolierte Staat in Beziehung auf Landwirtschaft und Nationalökonomie* (1826), can be quoted. According to Thünen more scientific and more productive systems of agriculture can develop themselves only where the price of corn is high. In districts with low prices they cannot exist, and there less productive systems are more appropriate. As the price which the cultivator receives is higher in the neighbourhood of a town than in estates which are situated further away (the cost of carriage which must be deducted is far greater), the intensity of cultivation must decrease with the distance from the central market. Close to the walls of the town we shall find gardens, in more remote districts a system of rotation of crops, in a third zone the three-field system. Finally, we shall enter a zone where all cultivation of agricultural products for sale in the town ceases and where cattle breeding is the principal occupation of the inhabitants.

The correctness of Thünen's conclusions has been verified by all students of rural economy. Not only in Central Europe can the formation of zones, according to the theory of Thünen, be observed, but even in antiquity we can notice a similar regularity.¹

¹ This has been demonstrated by H. Wiskemann in his study, *Die antike Landwirtschaft und das von Thünensche Gesetz*, 1859.

Thünen's theory not only gives us a key for understanding the causes of existence of different agricultural systems at the same moment, but it affords also an explanation of the process of evolution. "The isolated State," says Thünen, "represents, as far as agriculture is concerned, the picture of the same country in different ages. A hundred years ago only the three-field system existed in Mecklenburg, and this system was exclusively in accordance with the conditions of this period. In the earliest ages hunting and cattle breeding were probably the only source of nourishment of the inhabitants. In the next century the system of rotation of crops will be perhaps as developed as the Mecklenburg system (Koppelwirtschaft) is to-day."¹

The prophecies of Thünen have been verified. Thanks to him we possess to-day a theory of the causes which govern agrarian evolution and the distribution of different agricultural systems.

As far as industry is concerned, theory is in a more backward state. We know only to-day, chiefly from the studies of Karl Bücher (*Die Entstehung der Volkswirtschaft*, 1st ed., 1893) that the stages through which industrial production passes are more or less everywhere the same. But hitherto nobody has tried to discover the law which explains this regularity. The heroic theory, according to which every progress is due to invention, has been abandoned, but has not been replaced by a better explanation.

¹ 2nd ed., p. 262.

Since Ricardo's *Principles* hardly any progress has been made as far as the theory of distribution is concerned. Thünen gave only a special illustration of Ricardo's theory of rent, making its rate dependent not on the quality of the soil, but on the distance from the market.

The problem of *interest* and *profit* has been discussed by almost all economic writers, and many new theories have been advanced. Some authors have thought that interest is the result of the technical productivity of capital (Lord Lauderdale, Roscher); others have tried to solve the problem with the help of a psychological analysis. To this category belongs Senior's theory of abstinence, and Böhm-Bawerk's theory of present and future goods. All these theories overlook one fact, that interest on capital is an historical phenomenon, while the productivity of capital and the psychological motives which have been adduced may be found among all societies, the most rude as well as the most advanced. Only socialist writers like Marx and Rodbertus saw in the interest on capital a comparatively modern institution, but they failed equally in the attempt to formulate a theory which could be accepted.

To the wages theories which may be found in the works of classical writers—the theory of an existence minimum (Turgot, Ricardo) and the theory of supply and demand—subsequent authors added a theory according to which the rate of wages depends on the productivity of the labourer.¹

¹ The wages fund theory is only a special type of the theory of supply and demand.

This theory is based on some examples, but it does not take into account many facts which are not in accordance with it and can hardly be considered as an economic law.

On the background of Ricardo's *Principles* all these "theories" make a very poor impression, not only because they do not succeed in solving finally any problem, but also for other reasons. All the authors of the post-Ricardian period who have investigated the problem of interest, wages, and rent, are lacking in the large perspective which is characteristic of Ricardo's work. No one of his followers has even tried to embrace in the same manner the whole problem of distribution in one system. Ricardo's *Principles* was the last attempt to investigate how changes of the component parts of the revenue of a country which are distributed among the landowners, the capitalists, and the labourers, mutually affect each other.

Relatively greater is the progress which has been accomplished by the writers who have investigated the problem of money. During the nineteenth century the mechanism of exchange has become more complicated, and in the first instance English writers like Bagehot (*Lombard Street: A Description of the Money Market*, 1873), Goschen (*The Theory of Foreign Exchanges*, 1861), and others, have contributed to unravel the problems connected with its working.

Taken as a whole, however, the theoretical advances of political economy since Ricardo's *Principles* are comparatively very irrelevant. The last decades especially have been very barren.

This is probably due in the first place to the precipice which during the last thirty years has been dividing theory from the observation of reality. Theory has partly lost contact with problems of economic life. Instead of being an instrument facilitating the understanding of complicated economic phenomena, it has become an end in itself. Empty discussions about definitions, voluminous books developing quite artificial premises, have brought us partly back to the scholastic age.

Another school of writers, on the contrary, has fallen into the opposite extreme. It has rejected all theory and has not even tried to make a distinction between essential and accidental phenomena. This school has forgotten that facts cannot constitute the ultimate aim of a science which must try to discover the regularity and harmony which at the first glance escape the human eye.

These two currents, of which the first was represented by Austrian writers, the other by the Historical school, gave to modern political economy, especially on the Continent, its most characteristic imprint.

One may not wonder that under such conditions the progress of political economy has been very slow and that its results have hardly satisfied anybody. Theory and observation of facts must cling together, and only by a combination of both can satisfactory results be obtained.

The Great War has clearly shown of what little use all our economic knowledge has been where most simple theoretical problems had to be solved.

When, for instance, the question if after the war the rate of interest will be high or low became acute, writers began to discuss what capital really is, and each gave a different definition and different solutions of the problem. In Germany economic writers of high standing, as, for instance, the Vice-Chancellor and former Professor of Political Economy at the University of Berlin, Helfferich, claimed that Germany can wage war indefinitely because "money remains in the country." They imagined that money expended in financing military operations would return in form of war loans, and that this circle could last for centuries. Almost all economists in Germany believed in the truth of this absurd doctrine, and only the University of Breslau, which was a little doubtful about it, organized an inquiry on the subject.¹

All the rich economic literature which had been accumulating for more than a century could not afford a solution of a problem which really belongs to the A B C of our science. Could anything illustrate better the deplorable state of political economy?

What a difference there is in this respect from other sciences! In meteorology, in astronomy, in chemistry, and in physics, we have some simple laws which have made it possible to foretell the weather, the constellations of stars, the result of

¹ Heinrich Dietzel, *Die Nationalisierung der Kriegsmilliarden. Eine Behandlung des von der Breslauer Fakultät der Rechts und Staatswissenschaften gestellten Themas: "Wahres und Falsches an der zurzeit viel gebrauchten Redewendung": "Das Geld bleibt im Lande,"* 1919.

the combination of two forces, or of two bodies. Political economy is still very far from such a stage of perfection.

The divergence between the two currents of which we have spoken is certainly in a great part responsible for it. Only a combination of theory with the observation of reality can bring us out of the existing muddle.

It may be said that in this respect classical political economy has shown the right way. The Physiocrats, Smith, and Ricardo, in laying down the foundations of economics, did not try to find perfect abstract definitions, but in their systems theoretical thinking was put at the disposal of problems which had a concrete meaning. The conception of capital, as we have seen above, originated in connexion with the question why the *grande culture* gave a better crop than the *petite culture*. In formulating his theory of value Ricardo explained why in the course of history the price of agricultural products rises, while industrial commodities become cheaper.

The followers of the classical writers separated all these conceptions of capital, value, etc., from their natural connexion, and imagined that nicety of definition is the ultimate aim of economic science. They forgot that these conceptions were created for practical purposes, and that the help they afforded in this respect gave them their real value.

Political economy must try to bring back the divergent currents to the common point from which they started.

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