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THE EMERGENCE OF ECONOMICS
IN THE
EIGHTEENTH CENTURY

by

Nathan Rosenberg

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The spirit of the age affects all the arts; and the minds of men, being once roused from their lethargy, and put into a fermentation, turn themselves on all sides, and carry improvements into every art and science. Profound ignorance is totally banished, and men enjoy the privilege of rational creatures, to think as well as to act, to cultivate the pleasures of the mind as well as those of the body. David Hume¹

Many historians of economic thought have pointed out that the emergence of economic analysis as a serious discipline, in the last third of the eighteenth century, was broadly coincident with those great technological innovations which have come to be identified with the industrial revolution. Indeed, the major works of those two great Scotsmen, Adam Smith's Wealth of Nations and James Watt's steam engine with separate condenser, were brought into the world at almost precisely the same instant in historical time. However, it is deceptively easy from our retrospective point of view to press the connection too far. The emergence of systematic economic theorizing in the eighteenth century itself constitute an historical phenomenon calling for explanation, although such an analysis would carry us far beyond the scope of the present paper.

This paper will not be primarily concerned with many of the perennial standbys of histories of economic thought - issues of priority, influence, and lineage - not that these matters are without great intrinsic interest. Rather, primary attention will be focused on some of the major "stepping stones" by which we may trace the development of the system of ideas and analytical propositions which constituted the birth and infancy of economic theory.

1. David Hume, "Of Refinement in the Arts," David Hume: Writings on Economics E. Rotwein, (editor) (The University of Wisconsin Press, Madison, 1955), p. 22.

The emergence of economic analysis in the 18th century was the joint product of two sets of forces whose direct origins stretch back over several centuries, the first of which will be alluded to only briefly and the second of which actually merges with the central subject matter of this paper. These are: (1) the increasing commercialization - market orientation - of economic activities, and (2) the increasing secularization of thought processes. In numerous ways western European man was asserting his intellectual independence of the highly restrictive confines of the medieval world view, and insisting upon the freedom to conceptualize and create abstractions about human affairs which would have been unthinkable to his medieval forebears. Economic theory was one such conceptualization.¹

The economic life of feudal society was characterized by a high degree of self-sufficiency of the manorial unit, the limited development of urban populations, and the meagre volume of international or, more generally, long-distance trade. The free play of market forces was severely circumscribed by an elaborately defined network of obligations, duties and privileges between persons of different rank and status.² Only a small proportion of all purposeful economic activity was

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1. Cf. Tawney: "There is no place in medieval theory for economic activity which is not related to a moral end, and to found a science of society upon the assumption that the appetite for economic gain is a constant and measurable force, to be accepted, like other natural forces, as an inevitable and self-evident datum would have appeared to the medieval thinker as hardly less irrational or less immoral than to make the premise of social philosophy the unrestrained operation of such necessary human attributes as pugnacity or the sexual instinct." R. H. Tawney, Religion and the Rise of Capitalism, (Harcourt, Brace and Co., New York, 1926. Pelican Books Edition, 1947), p. 35.
 2. "The very essence of feudal property was exploitation in its most naked and shameless form, compulsory labor, additional corvees at the very moments when the peasant's labor was most urgently needed on his own holding, innumerable dues and payments, the obligation to grind at the lord's mill and bake at the lord's oven, the private justice of the lord's court." Tawney, op. cit., p. 56.

undertaken in response to, and determined in accordance with, signals transmitted by a freely operating market mechanism. Economic activity was firmly enveloped within a political and social structure which subjected the pattern of resource allocation and decision-making to innumerable non-economic constraints. Indeed, the very notion that factors of production should be bought and sold in the market place was, in most cases, quite foreign to medieval thought.

From the point of view of our current interest, the most important discernible trend throughout the three or four centuries directly preceding the eighteenth was the gradual expansion of the sphere of influence of the market economy and its increasing importance in determining resource use and income distribution. **This trend** has been described by Marx in the following rather lurid prose.

The bourgeoisie, wherever it has got the upper hand, has put an end to all feudal, patriarchal, idyllic relations. It has pitilessly torn asunder the motley feudal ties that bound man to his "natural superiors," and has left remaining no other nexus between man and man than naked self-interest, than callous "cash payment." It has drowned the most heavenly ecstasies of religious fervor, of chivalrous enthusiasm, of philistine sentimentalism, in the icy water of egotistical calculation.

It is suggested that it is this earlier process of the growing importance of market-oriented activity which provides the key to an understanding of the emergence of economic theory in the eighteenth century. The forces contributing to the gradual erosion of feudal and manorial institutions and to their eventual displacement were numerous and pervasive. The explorations and

1. Karl Marx, The Communist Manifesto, p. 35. Page reference is to reproduction of the Manifesto in Karl Marx and Frederick Engels, Selected Works (Foreign Languages Publishing House, Moscow. 1951), 2 vols.

discovery of the western hemisphere and the all-water route round the Cape to India and the far east brought with them an enormous expansion in opportunities for profit-making through market-oriented activities. An additional stimulus flowed from the price inflation resulting from the influx of precious metals from the New World in the sixteenth century.¹ Of decisive importance also was the growth of population and the increasing percentage of this growing population which was coming to be concentrated in an urban environment.² In large measure, and for obvious reasons, the destruction of feudal life and institutions was historically coterminous with the growth of urban life. The growth of cities served to transform the whole structure of market opportunities, the absence of which so largely accounted for the high degree of self-sufficiency in manorial life.³ The growth of urban populations, with their concomitant demand for food products and other raw materials, meant that a growing proportion of agricultural activity was now coming to be oriented toward the production of commodities for sale in markets rather than for subsistence within the producing unit. These same trends were further

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1. Earl Hamilton, "American Treasure and the Rise of Capitalism, 1500-1700," Economica, November 1929. Cf. also Earl Hamilton, American Treasure and the Price Revolution in Spain, 1501-1650 (Harvard University Press, Cambridge 1934).
 2. Although the City of London was, in many ways, sui generis, one estimate places its population at 60,000 in 1540, over 300,000 in 1640, and 700,000 in 1750. Herbert Heaton, Economic History of Europe, (Harper and Co., New York, 1948, Revised Edition), p. 310.
 3. Henri Pirenne, Medieval Cities (Princeton University Press, Princeton, 1925); Henri Pirenne, Economic and Social History of Medieval Europe (Routledge and Kegan Paul Ltd., London, 1936). Cf. also Book III of Adam Smith's Wealth of Nations, and G. N. Clark, The Wealth of England from 1496 to 1760 (Oxford University Press, London, 1946).

intensified by the growth of the woolen industry which contributed so much to the transformation of the English countryside. The growth of "The great staple trade of the kingdom," as it came to be called, brought with it a large scale conversion of English agriculture to the raising of sheep.

Throughout all of these changes the entire traditional basis of land ownership and use was being altered beyond recognition. As agriculture became increasingly oriented toward commercial relationships, so the relationship between the landlord and the cultivator became more commercial in tone, as exemplified by the commutation of labor services and the similar conversion of the multiplicity of feudal obligations into money payments. In addition, the extensive enclosure movements and confiscation and subsequent sale of church properties following the Protestant Reformation all served to sweep away long-established patterns of land use.¹ More positively, resource use was coming more and more to be determined by profit and loss calculations with respect to the production of commodities for sale in distant markets. Customary and traditional usages, insofar as they conflicted with the dictates of the market, were being increasingly swept aside. In their place was coming to be established, not only market-oriented behavior, but the establishment of markets where none had previously existed - i.e., markets where land and labor themselves were coming to be bought and sold at prices reflecting market considerations. In many respects it was this which was of most decisive importance in the period under consideration.

1. E. Lipson, The Growth of English Society (Adam and Charles Black, London, 1949); Tawney, *op. cit.*; Paul Mantoux, The Industrial Revolution in the Eighteenth Century (Jonathan Cape, London, 1928).

Commodity markets were not new; but the subjection of the factors of production to evaluation in the market place, the actual buying and selling of such factors, and the determination of their ~~final~~ ^{final} ~~uses~~ ^{uses} on the basis of purely market criteria, was an historical innovation of major importance. The ideological counterpart of this transformation was the discussion of the propriety of the values established in such markets, as evidenced, e.g., by the protracted controversy associated with the breaking down of the church prohibition against usury, or by the debate over the poor laws and guild system, both of which impeded the establishment of free labor markets.

Although initially the new 18th century economics took the form of sporadic and unsystematic insights into the inconsistency or self-defeating nature of mercantilist regulations, these gradually swell and enlarge into the 18th century in the form of an overall conception of the self-regulating nature of economic activity which is **centered** around freely-operating commodity and factor markets. Increasing emphasis is placed upon the inevitable failure of regulations which ~~ran~~ counter to the weight of market forces. As the reader is told in the Preface to Sir Dudley North's Discourses Upon Trade,¹ published in 1691.

...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.

The idea that the forces of the market place establish in at least partial identity of interest between producer and consumer, is further ~~asserted~~, although not demonstrated, in the statement,

That there can be no Trade unprofitable to the Publick; for if any prove so, men leave it off; and wherever the Traders thrive, the Publick, of which they are a part, thrives also.

1. Reprinted in J.R. McCulloch (ed.) Early English Tracts on Commerce

Similarly, with respect to usury laws, Cantillon was to remark some decades later, with heavy sarcasm:

Nothing is more amusing than the multitude of **Laws** and **Canons** made in every age on the subject of the Interest of Money, always by Wiseacres who were hardly acquainted with Trade and always without effect.

A detailed discussion of Mercantilism would take us far beyond the scope of the present paper.² It should be emphasized, however, that what is called Mercantilism consists of an enormously diverse collection of literature - largely polemical and hortatory - dealing with the economic policies which would be appropriate to the government of a country pursuing the goals of national wealth and power.³ The pursuit of these goals was typically considered to involve a careful regulation of a country's trade relations with the rest of the world for the purpose of issuing a so-called "favorable balance of trade." In the course of such discussion useful concepts were developed - the notion of summarizing a country's trade relations with the rest of the world in the form of a "balance" being, itself, one such concept - and certain important problems were at least isolated and

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1. Richard Cantillon, Essai sur la Nature du Commerce en General, Edited with an English Translation and other material by Henry Higgs (Published for the Royal Economic Society by Macmillan & Co., Ltd., 1931), p. 211.
 2. The two indispensable references on Mercantilism are: Eli Heckscher, Mercantilism (George Allen and Unwin Ltd., London, 1934), two volumes; and Jacob Viner, Studies in the Theory of International Trade (Harper and Brothers, New York, 1937), chapters I and II. Also useful are: Edgar Furniss, The Position of the Laborer in a System of Nationalism (Kelley and Millman, Inc., New York, 1957); and Joseph Schumpeter, History of Economic Analysis, (Oxford University Press, New York, 1954), especially Part II, chapter 7.
 3. Jacob Viner, "Power versus Plenty as Objectives of Foreign Policy, in the Seventeenth and Eighteenth Century," World Politics, I (October 1945), pp. 1-

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and posed. But mercantilist theory, in the sense of some attempt at systematic exploration of cause-effect relationships within a carefully defined and internally consistent analytical framework, was extremely limited. Indeed, economics as an analytical system emerged in the 18th century in substantial measure as a result of an extended critique of the consequences of mercantilist regulation. The first, tentative steps forward in examining the nature of the interdependencies of the economic system also involved spelling out the inconsistencies and self-defeating aspects of mercantilist regulations.

An important contributor to the system of economic ideas which emerged in the 18th century was Bernard Mandeville, who achieved considerable notoriety early in the century through the publication (and subsequent "vindication") of his The Fable of the Bees: of, Private Vices, Publick Benefits.¹ Mandeville was not an economist; however, he did perceive, albeit on a largely intuitive level, many of the interdependencies in the social system which were to become the central preoccupation of later generations of economists. In this sense one of the fundamental intellectual achievements of 18th century economics lay in the transition from the intuitions and shrewd perceptions of Mandeville to the mechanics and analytics of Adam Smith.

Mandeville's central theme is that "Public Benefits" are primarily the product of "Private Vices" and not of private virtues. His paradox is achieved by a highly ascetic self-denying definitions of virtues. Mandeville insists upon

1. First published as a sixpenny pamphlet in 1705, under the title The Grumbling Hive: or Knaves turn'd Honesty, and in 1714 and later under its better-known title. All references here are to the superb two volume edition, The Fable of the Bees, edited by F. B. Kaye and published by Oxford University Press in 1924. Subsequently referred to as Fable.

regarding as vice all behavior which does not proceed from purely altruistic motives. Vice is taken to include all behavior which is the result of egoistic or self-regarding motives, and on this basis Mandeville has no difficulty in demonstrating that practically all human action - even those acts ostensibly undertaken in response to virtuous motives - is ultimately reducible to some form or other of ego gratification.

Mandeville's writings are an embodiment - indeed a celebration - of the secular virtues. Mandeville glorifies egoism and insists that what the traditional morality had regarded as evidence of human frailty and self-regarding behavior was, in fact, the very substance of social organization and the basis for social cohesion.

After this I flatter myself to have demonstrated that, neither the Friendly Qualities and kind Affections that are natural to Man, nor the real Virtues he is capable of acquiring by Reason and Self-Denial, are the Foundation of Society; but that what we call Evil in this World, Moral as well as Natural, is the grand Principle that makes us sociable Creatures, the solid Basis, the Life and Support of all Trades and Employments without Exception: That there we must look for the true Origin of all Arts and Sciences, and that the Moment Evil ceases, the Society must be spoiled, if not totally dissolved. (Fable, vol. I, p. 369)

Mandeville's conception of human behavior as basically acquisitive and self-regarding was scarcely unique. Mandeville does not differ so much, e. g., from his mercantilist predecessors or contemporaries in their understanding of the basic springs of human action. What is highly important in Mandeville is his continuous and explicit insistence that socially-desirable consequences follow from the individual's pursuit of self-interest.¹ The notion that the freely

1. "Thus God and Nature linked the general frame,
And bade Self-love and Social be the same." Alexander Pope, Essay on Man III.

functioning market mechanism provides a system of signals and inducements such that the interaction of egoistic motives somehow works to the public good is central to the emerging laissez-faire doctrine. Mandeville's importance, in this respect, is his contribution to the popularization and eventual acceptance of the idea that, in the absence of regulation, an economy organized around the price mechanism automatically adjust itself to the public needs.

As it is Folly to set up Trades that are not wanted, so what is next to it is to increase in any Trade the Numbers beyond what are required. As things are managed with us, it would be preposterous to have as many Brewers as there are Bakers, or as many Woollen-drappers as there are Shoe-makers. This Proportion as to Numbers in every Trade finds it self, and is never better kept than when no body meddles or interferes with it. (Fable, Vol. I, pp. 299-300)

And, in a similar vein:

In the Compound of all Nations, the different Degrees of Men ought to bear a certain Proportion to each other, as to Numbers, in order to render the whole a well-proportion'd Mixture. And as this due Proportion is the Result and natural Consequence of the difference there is in the Qualifications of Men, and the Vicissitudes that happen among them, so it is never better attained to, or preserv'd, than when no body meddles with it. Hence we may learn, how the short-sighted Wisdom, of perhaps well-meaning People, may rob us of a Felicity, that would flow spontaneously from the Nature of every large Society, if none were to divert or interrupt the Stream. (Fable, vol. II, p. 353)

In developing his central argument Mandeville is led into a sophisticated analysis of the nature and consequences of human interdependence in a complex society, and he had many astute things to say about the causes and consequences of the division of labor in society. Mandeville places tremendous weight upon the division of labor as the engine of economic improvement over the ages.

Man...naturally loves to imitate what he sees others do, which is the reason that savage People all do the same thing: This hinders them from meliorating their Condition, though they are always wishing for it: But if one will wholly apply himself to the making of Bows and Arrows, whilst another provides Food, a third builds Huts, a fourth makes Garments, and a fifth Utensils, they not only become useful to one another, but the Callings and Employments themselves will in the same Number of Years receive much greater Improvements, than if all had been promiscuously follow'd by every one of the Five. (Fable, vol. II, .p. 284)

And, in a somewhat more elegant allusion:

What a Noble as well as Beautiful, what a glorious Machine is a First-Rate Man of War, when she is under Sail, well rigg'd, and well Mann'd! As in Bulk and Weight it is vastly superior to any other moveable Body of Human Invention, so there is no other that has an equal Variety of differently surprizing Contrivances to boast of. There are many Sets of Hands in the Nation, that, not wanting proper Materials, would be able in less than half a Year to produce, fit out, and navigate a First-Rate: yet it is certain, that this Task would be impracticable, if it was not divided and subdivided into a great Variety of different Labours; and it is as certain, that none of these Labours require any other, than working Men of ordinary Capacities... We often ascribe to the Excellency of Man's Genius, and the Depth of his Penetration, what is in Reality owing to length of Time, and the Experience of many Generations, all of them very little differing from one another in natural Parts and Sagacity. (Fable, vol. II, p. 141-42).

Mandeville, in his discussion of division of labor, is a clear precursor of Adam Smith, who, in the initial chapters of his Wealth of Nations, attaches enormous importance to the division of labor as an engine of economic progress. Although it would be absurd to suggest that Smith could only have arrived at his conception through a familiarity with Mandeville, it is quite clear that Smith in fact read and digested Mandeville carefully and certainly derived

inspiration and instruction from this reading.¹ Indeed, Smith has quite obviously even borrowed specific examples directly from Mandeville. His discussion of the division of labor involved in the production of a day-labourer's coat (Wealth of Nations, pp. 11-12) may be traced to the Fable of the Bees (vol. I, pp. 169-70, 356-48). Moreover, there is that well-known and oft-quoted passage in the Wealth of Nations (p. 14) that

...man 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 shew 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, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.

This passage is clearly the direct offspring of the following remarks in Mandeville's Fable (vol. II, p. 349):

... The whole Superstructure (of Civil Society) is made up of the reciprocal Services, which Men do to each other. How to get these services perform'd by others, when we have Occasion for them, is the grand and almost constant Sollicitude in Life of every individual Person. To expect, that others should serve us for nothing, is unreasonable; ~~therefore~~ all Commerce, that Men can have together, must be a continual bartering of one thing for another.

In spite of his insight into the overall functioning of an economic system, the nature of some of the important interdependent relations within it, and the role of exchange among specialized producers, Mandeville never discusses the terms on which exchanges take place - i. e., prices are never introduced as

1. Adam Smith, Theory of Moral Sentiments (Sixth edition, 1790) volume II pp. 305-19; Adam Smith, Wealth of Nations (Modern Library Edition), Book I, chapters I and 2; Adam Smith, Lectures on Justice, Police, Revenue and Arms (Reported by a Student in 1763 and edited by Edwin Cannan. Kelley and Millman, Inc., New York, 1956), especially pp. 157-182.

an explicit variable. It is for this reason that, despite his important contribution to economic ideas and to social thought, Mandeville does not himself qualify as an economist. He fully appreciated the importance of the price system but he never seriously analyzed its workings. Mandeville anticipated many of the conclusions and policy recommendations of later economists without anticipating the analytical scaffolding. Although he is a strong proponent of the market economy, he supports its desirability with persuasive arguments and anecdotes, but with very little theory.

As the 18th century progressed it was perhaps inevitable that the growing importance of market activity in economic affairs and the growth of a highly influential middle class should serve to focus attention on the operation of market forces and to stimulate a search for the self-regulating "laws" of the market place. Increasingly through the century, and here partly as a result of the growing revulsion against the panoply of mercantilist controls and regulations, attention is turned to the manner in which the price mechanism functions in the absence of external interventions or impediments. At the ~~same time, and closely related~~ analysis of the normal functioning of the market is developed in order to demonstrate the self-defeating nature of mercantilist regulations, given the sort of objectives which were presumed to be the goal of mercantilist policy-making.

One of the most impressive of these developments dealt with the manner in which the distribution of precious metals among nations was controlled by the automatic forces of the market place. This analysis was historically of particular significance, because it involved a demonstration that the central doctrine of mercantilist policy - the favorable balance of trade - was, of economic necessity, self-defeating in nature. Although each of the component parts of this analysis

were "in the air" for several decades, they were ~~first~~ combined and presented with considerable cogency and vigor by David Hume in his short essay "Of the Balance of Trade," published in his Political Discourses in 1752.¹

The appropriate balance between a country's exports and imports, Hume argues, is maintained by a combination of price level adjustments and international movements of the precious metals. For this reason the mercantilist concern with the balance of trade on the grounds that, in the absence of a positive state policy the country might lose its supply of precious metals, involves, says Hume,

...a groundless apprehension; and I should as soon dread, that all our springs and rivers should be exhausted, as that money should abandon a kingdom where there are people and industry. Let us carefully preserve these latter ~~advan-~~ advantages; and we need never be apprehensive of losing the former. (p. 61)

Attempts to maintain a "favorable" **balance** of trade may be successful in the short-run. However, reasoning via the quantity theory of money, Hume argues that the resulting influx of specie must raise domestic prices relative to foreign prices. These price level changes, in turn, reduce the relative attractiveness of domestic goods and increase the relative attractiveness of foreign goods. Thus, the price level changes resulting from the initial

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1. All references to Hume are to the recent volume David Hume: Writings on Economics, Eugene Rotwein (ed.) (University of Wisconsin Press, Madison, 1955). The usefulness of this volume is enhanced by the ~~lengthy and~~ illuminating introduction by Professor Rotwein in which Hume's economic writings are placed in the broader context of Hume's philosophical and other works.

A much similar analysis, dealing with the fashion in which a freely-operating price mechanism distributes the stock of precious metals among countries participating in international trade, had been developed by Richard Cantillon in his Essai sur la Nature du Commerce en General, Part II. This great work, although written between 1730 and 1734, was not published until 1755. We have it on the considerable authority of Professor Viner that there is no evidence that Hume derived anything directly from Cantillon.

favorable balance of trade and subsequent inflow of specie bring, in their wake, an increase in the importation of (relatively cheap) goods from abroad and a reduction in the export of (relatively expensive) domestic goods. The consequence of a favorable balance, therefore, is to set in motion a chain of events resulting in its own elimination. By a simple inversion of this logic, an "unfavorable" balance of trade is similarly self-correcting. The loss of precious metals leads to a reduction in domestic prices, and the differential between domestic and foreign price levels leads to an increase in the volume of exports and a reduction in imports. Thus, the market, if left to itself, may be relied upon to establish equilibrium relationships between stocks of precious metals, price levels, and the volume and value of exports and imports. (pp. 61-63)

Thus the quantity of money will, without human intervention, automatically adjust itself to the level of trade and economic activity in each country. Market forces will "...preserve money nearly proportionable to the art and industry of each nation."¹

Hume's conclusion is that "...a government has great reason to preserve with care its people and its manufactures. Its money, it may safely trust to the course of human affairs, without fear or jealousy." (p. 77)

Another important contribution of Hume lay in his theory of interest which constituted a major step beyond the earlier preoccupation with the absolute quantity of money and with the prevailing practice of looking upon

1. p. 63. Along the way Hume also disposes of one of the cruder types of mercantilist argument. "We fancy, because an individual would be much richer, were his stock of money doubled, that the same good effect would follow were the money of every one increased; not considering, that this would raise as much the price of every commodity, and reduce every man, in time, to the same condition as before," (p. 68)

the determination of interest rates as entirely a monetary phenomenon. Hume's analysis of interest is referred to here not only because of the intrinsic importance of the subject matter but because Hume's approach to it is a model of analytical rigor and systematic treatment within a supply-demand framework.

Lowness or highness of interest rates had typically been explained in terms of abundance or scarcity in the available quantity of precious metals. But alterations in the quantity of money by themselves, Hume asserts, affect the price level rather than the rate of interest: the latter is determined, essentially, by the supply and demand for real savings.

High interest arises from three circumstances: A great demand for borrowing; little riches to supply that demand; and great profits arising from commerce: And these circumstances are a clear proof of the small advance of commerce and industry, not of the scarcity of gold and silver. Low interest, on the other hand, proceeds from the three opposite circumstances: A small demand for borrowing; great riches to supply that demand; and small profits arising from commerce: And these circumstances are all connected together, and proceed from the encrease of industry and commerce, not of gold and silver (p. 49).

Hume proceeds from this point into a highly perceptive historical and sociological examination of the forces which, in turn, determine the conditions of supply and demand. Hume argues that a commercial society will generally experience low interest rates and a society dominated by large landed proprietors will experience high interest rates. This is because the manners and customs, and the dominant values of a commercial society are such as to inculcate industriousness, frugality and love of gain. "...An encrease of commerce, by a necessary consequence, raises a great number of lenders, and by that means produces lowness of interest." (p. 54) Simultaneously, the

increased competition attendant upon the growth of commerce reduces rates of profit. "It is needless, therefore, to enquire which of these circumstances, to wit, low interest or low profits, is the cause, and which the effect? They both arise from an extensive commerce, and mutually forward each other."

(p. 55)

Where there is a large landed interest, however,

...pleasures, such as they are, will be the pursuit of the greater part of the landholders, and the prodigals among them will always be more numerous than the misers. In a state, therefore, where there is nothing but a landed interest, as there is little frugality, the borrowers must be numerous, and the rate of interest must hold proportion to it. The difference depends not on the quantity of money, but on the habits and manners which prevail.

The proper role of the physiocrats - and, in particular of Francois Quesnay (1694-1774) - has long been misunderstood or denigrated, in large measure because of their apparent obsession with the agricultural sector of

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1. p. 50. Cf. Cantillon, Essai, Part II, chapters 9 and 10. The futility of attempting to fix interest rates at levels distant from that determined by the "altercations" of borrowers and lenders in the market place is effectively stated by Cantillon, whose insight into the mechanics of market processes was unsurpassed:

If the Prince or Administrators of the State wish to regulate the current rate of interest by law, the regulation must be fixed on the basis of the current market rate in the highest class, or thereabout. Otherwise the law will be futile, because the Contracting parties, obedient to the force of competition or the current price settled by the proportion of Lenders to Borrowers, will make secret bargains, and this legal constraint will only embarrass trade and raise the rate of interest instead of settling it. The Romans of old after several laws to restrict interest passed one to forbid altogether the lending of money. This law had no more success than its predecessors. The law of Justinian to restrain patricians from taking more than 4 per cent., those of a lower order 6 per cent., and traders 8 per cent. was equally amusing and unjust, whilst it was not forbidden to make 50 and 100 per cent. profit in all sorts of business. (Essai, p. 221)

the economy. In their insistence that it is only the agricultural sector which produces a produit net it must be admitted at once that they confused productivity in its economically relevant meaning - i.e., productive of economic value - with a physical and therefore irrelevant interpretation of productivity.¹ The real contribution of the physiocrats has always been properly appreciated, however, by economic theorists of the first rank. Of the physiocratic system, Adam Smith said: "This system...with all its imperfections, is, perhaps, the nearest approximation to the truth that has yet been published upon the subject of political economy";² and many years later Marx was to describe Quesnay's Tableau Economique as "Incontestably the most brilliant idea for which political economy had up to then been responsible."³

To the undisciplined observer, economic activity in a society characterized by an extensive division of labor presents itself as, at best, chaotic and centrifugal. Economic life, after all, includes transactions among a multitude of buying and selling units of all conceivable descriptions, involving an inconceivable number and variety of factor inputs, intermediate goods, and final goods and services. In order to reduce this welter of activity to meaningful form, it is necessary that we organize the data of economic activity in terms

1. As Marx stated: "Their error flows from the fact that they confused the increase of material substance, which as a result of natural growth and reproduction distinguishes agriculture and stock-raising from manufacture, with the increase of exchange value." Karl Marx, Theories of Surplus Value (Laurence and Wishart, London, 1951), p. 56.

2. Adam Smith, Wealth of Nations, p. 642.

3. Marx, op. cit., p. 71.

of some manageable aggregates, that we reduce the endless diversity and multiplicity of the real world in a manner which will enable us to make the abstractions and simplifications appropriate to the problem at hand.¹ When we link up the behavior of our aggregates in a manner which illuminates causal relationships and specifies the exact nature of the interdependencies and flows among them, we have a unified theoretical structure or economic model. And this is precisely what Quesnay presented in his Tableau Economique - a highly primitive but nevertheless serviceable economic model.²

The Tableau Economique³ is a picture of a society categorized into three classes: tenant farmers (classe productive), the only class in society whose economic activity generates a "surplus"; a proprietary or land-owning class (classes des proprietaires) whose property rights enable it to appropriate the surplus; and a "sterile" class (classe sterile) engaged in the manufacture of non-agricultural goods. The Tableau has the important features of distinguishing clearly between the circulation of money and the circulation of real goods

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1. Although "taxonomy" has been a term of opprobrium in economics at least as far back as Veblen, who employed it as one of his favorites in a considerable armory of epithets, it cannot be stressed too strongly that the setting up of appropriate schemes of classification is absolutely indispensable to all serious analytical work. Indeed, much of the most important work of the outstanding 18th century economists - Cantillon, Quesnay, Smith - consisted in setting up classifications for economic data which, whatever their limitations, enabled economic analysis to progress far beyond the very tentative and stumbling beginnings of the previous century.
 2. Quesnay's conception of a circular flow of economic activity is anticipated by Cantillon in his Essai sur la Nature du Commerce en General. Cantillon, moreover, had a lively appreciation, and presented a clear definition, of the central role of the entrepreneur in the organization of economic life. See Joseph J. Spengler, "Richard Cantillon: First of the Moderns," The Journal of Political Economy, August and October 1954.
 3. The best starting point, in English, for studying the Physiocrats is Ronald Meek, The Economics of Physiocracy (Harvard University Press, Cambridge, 1963). An excellent introduction may be found in Joseph Schumpeter, History of Economic Analysis (Oxford University Press, New York, 1954), pp. 223-243.

and of demonstrating how monetary exchanges are merely instrumental in facilitating the flow of real goods among the major classes of society. Attention is firmly fixed upon the process of production underlying all exchange activity. Indeed, the very notion that the results of all economic activity could be reduced to the measurement of a flow of final output, representing the result of all productive activity for some particular time period, was itself an achievement of major proportions.¹

The Tableau, in idealized, schematic form, demonstrates how the annual product of the economy circulates among these classes in a manner which not only caters to their current consumption needs but also in such a way as to enable the productive activity of the economy to go on repeating itself through future time periods. In other words, Quesnay's scheme shows the conditions which must be fulfilled in a given time period in order to enable a similar volume of output to be produced in each subsequent time period. The importance of this latter accomplishment cannot be exaggerated because it involved the development of a theory of the nature and role of capital. If the output of the economy is to be maintained at some constant rate, it is essential that a

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1. Smith's indebtedness to the physiocrats for weaning him away from the long-standing English preoccupation with the wealth concept, appears to be acknowledged in his chapter of the Wealth of Nations (Book III, chapter IX) dealing with the physiocratic system: "...in representing the wealth of nations as consisting, not in the unconsumable riches of money, but in the consumable goods annually reproduced by the labour of the society; and in representing perfect liberty as the only effectual expedient for rendering this annual production the greatest possible, its doctrine seems to be in every respect as just as it is generous and liberal." (p. 642) The retention of the term "wealth" in the title to Smith's book is unfortunate, and he occasionally confuses stock and flow concepts in the text.

certain portion of the annual output to be devoted to the replacement of the productive assets which wear out or are consumed as part of the productive process itself. Productive activity during any time period, therefore, involves the utilization of wealth which is, as it were, "advanced" from the previous time period, and without which current output could not, of necessity, be maintained. The essential germ of later theories of capital (and wages) lay in Quesnay's "avances."

From what has already been said it should be plain that the publication of Adam Smith's *Wealth of Nations* in 1776 marked the culmination of a process of development which had been many decades in the making, and not the sudden initiation of a method of analysis for which there was no extensive precedent. It in no sense involves an attempt to reduce Smith's enormous stature in the history of economic thought to state that he was as much a systematic organizer and synthesizer as an innovator.¹

The Wealth of Nations is a comprehensive treatise, ranging far and wide over the realms of ideas and of human history and institutions. The present discussion does not even attempt anything like a summary of the contents of this great book, or to reduce it to a neat theoretical model. Smith was not neat in his theorizing, nor was he, by inclination, a systematic model builder. The *Wealth of Nations* abounds in lengthy historical excursions ("Digressions")

1. Indeed, the closer one looks at examples in the history of economic thought, the more difficult it becomes to distinguish between synthesis and innovation. This is partly because we can always find the component parts of ideas or analytical systems (or, more often perhaps, at least the vocabulary) in the works of the "predecessors" of any major economist. This is, in part, an optical illusion which comes from our unavoidably retrospective manner of examining the past. Much of what is found is, inevitably, in the eyes of the beholder.

and tedious exposition;¹ and its author continuously introduces extensive materials which are often of only marginal relevance. Of the five Books which constitute the Wealth of Nations, the last three are highly interesting and indeed crucial to a full understanding of Smith as an economist; nevertheless, Books I and II (which together constitute slightly over one-third of the total text) can stand quite independently as the core of Smith's theoretical work.

Adam Smith embraces (perhaps "revels in" would be even more appropriate) the logic of the market mechanism which was, during his lifetime (1723-1790) still in the process of extending its dominance throughout economic life. Indeed, Smith regards it as his function to show the superiority of the free market to one which is controlled or inhibited by outside forces. Smith perceived that the unregulated market provides a central institution for the rational organization of all economic activity, and he is impressed with the beneficence (although certainly not the perfection) of its operation. The Wealth of Nations provides (essentially in Book I) for the first time, a fully articulated and carefully elaborated analysis of the manner in which the price mechanism introduces order into economic affairs.

Smith has, perhaps, been best known on a popular level for his policy recommendations of maximum reliance on the free competitive market mechanism in the allocation of resources and the distribution of income and a minimum role for government in economic activity. The reasons for this, however, have been misunderstood. It was not because he reposed great confidence in the

1. "I am always willing to run some hazard of being tedious," Smith disarmingly informs his reader, "in order to be sure that I am perspicuous." (p. 29)

members of the business community but precisely because he was extremely mistrustful - indeed even cynical - of business men, that he made his recommendations. Smith scarcely lost an opportunity ~~to~~ make some sort of critical or at least snide reference to businessmen in general. The Wealth of Nations is studded with references to "The sneaking arts of underling tradesmen..." (p. 460); traders presenting their views "...with all the passionate confidence of interested falsehood" (p. 463); and "the clamour and sophistry of merchants and manufacturers" (p. 128), etc. The business community could always be expected to attend to its own self-interest. Smith's proposed "system of natural liberty" consisted, in fact, of an economic order so contrived that, given his full conception of human behavior, the relentless individual pursuit of self-interest would usually act to promote the broader economic interests of society as a whole.

It is one of the great, and insufficiently appreciated, virtues of the Wealth of Nations and one of the sources of its decisive superiority over all previous works in economics, that Smith attempted to spell out, with considerable care, the nature of the institutional order within which the price mechanism worked most effectively. Throughout the entire work Smith is engaged in an evaluation of specific institutions in terms of their effectiveness in promoting the economic welfare of society, in view of the conflicting forces which, he ~~felt, impel~~ the human agent to action (and to inaction).¹

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1. The following several paragraphs dealing with the role of institutions in Smith's analytical system are reproduced with minor changes from the author's article "Some Institutional Aspects of, the Wealth of Nations," The Journal of Political Economy, (copyright 1961 by the University of Chicago) December 1960, pp. 557-70. The author is grateful to the Editor of that Journal and to the University of Chicago Press for kind permission to reproduce these materials.

In addition to the well-known "constant, uniform and uninterrupted effort of every man to better his condition," Smith attached great importance to the belief that the generality of mankind is intractably slothful and prone to indolence. A major counterbalance to the desire for and the pursuit of wealth, therefore, is a love of ease and inactivity. "It is the interest of every man to live as much at his ease as he can," (p. 718)

A corollary of this position is that, although it is the desire for wealth which prods and lures mankind to put forth his greatest efforts, the attainment and possession of wealth are regarded by Smith as almost universally corrupting. For, once such wealth has been acquired, man naturally gives vent to his desire for ease. "The indolence and vanity of the rich" (p. 683) is fully as important a force in Smith's system as is the desire for riches itself. For "a man of a large revenue, whatever may be his profession, thinks he ought to live like other men of large revenues; and to spend a great part of his time in festivity, in vanity, and in dissipation" (p. 766).¹

Finally, and most important, Smith regards it as a strategic component of the human personality that man is naturally deceitful and unscrupulous and will quite willingly employ predatory practices so long as such practices are available to him. "Such it seems, is the natural insolence of man, that he almost always ~~disdains~~ to use the good instrument, except when he cannot

1. Thus, wealthy landlords suffer from "that indolence, which is the natural effect of the ease and security of their situation" (p. 249). At the same time "The high rate of profit seems every where to destroy that parsimony which in other circumstances is natural to the character of the merchant. When profits are high, that sober virtue seems to be superfluous, and expensive luxury to suit better the affluence of his situation" (p. 578).

or dare not use the bad one." (p. 751)

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Given these human characteristics, it is plain that the mere absence of external restraints and the freedom to pursue self-interest do not suffice, in Smith's view, to establish social harmony or to protect society from "the passionate confidence of interested falsehood." What are required are institutional mechanisms which are so structured as to compel man, in his "natural insolence," "to use the good instrument."

The ideal institutional order for Smith is one which places the individual under just the proper amount of psychic tension. The individual applies himself with maximum industry and efficiency when the reward for effort is neither too low (slaves, apprentices) nor too great (monopolists, large landowners).¹ However, more complicated than the intensity dimension of individual effort is the matter of the direction into which this effort is channeled. Smith is, in effect, searching for the appropriate definition of an institutional order which will eliminate zero-sum (or even negative-sum) games. It is the function of institutional arrangements to cut off all avenues (and they are many) along which wealth may be pursued without contributing to the welfare of society. Such a goal in practice requires a careful balancing of incentive, of provision of opportunity to enlarge one's income, against the need to minimize the opportunities for

1. The manifest impossibility of acquiring and enjoying wealth is, of course, completely stultifying to economic efficiency: "The experience of all ages and nations, I believe, demonstrates that the work done by slaves, though it appears to cost only their maintenance, is in the end the dearest of any, A person who can acquire no property, can have no other interest but to eat as much, and to labour as little as possible. Whatever work he does beyond what is sufficient to purchase his own maintenance, can be squeezed out of him by violence only, and not by any interest of his own" (p. 365). On the other hand, as already cited: "A man of a large revenue, whatever may be his profession, thinks he ought to live like other men of large revenues; and to spend a great part of his time in festivity, in vanity, and in dissipation" (p. 766).

A central, unifying theme in Smith's Wealth of Nations, then, is his critique of human institutions on the basis of whether or not they are so contrived as to frustrate man's baser impulses ("natural insolence") and antisocial proclivities and to make possible the pursuit of self-interest only in a socially beneficial fashion. Indeed, Smith's basic argument in this respect applies to the whole spectrum of social contrivances and is not restricted to economic affairs. The question is, in each case, where institutions do, or do not, harness man's selfish interests to the general welfare. This, is, of course, the basis for Smith's critique of mercantilism.

The violence of Smith's polemic against mercantilism lay in the fact that it enabled merchants to better their condition in a manner which did not contribute to the nation's economic welfare. As a result of the dispensation of monopoly grants, of the arbitrary bestowal of "extraordinary privileges" and "extraordinary restraints" upon different sectors of industry by the government, the individual merchant was able to enrich himself without at the same time enriching the nation.¹ For, as Smith clearly recognizes, the pursuit of one's economic interest is not necessarily confined to the economic arena. When it spills over into the political arena, it leads to actions which detract from, rather than add to, the economic welfare of society. By contrast, the competitive order which Smith advocated was an institutional arrangement which was characterized, negatively, by the absence of all special privilege and sources of market influence and, positively, by the all-pervasive and uninhibited pressures of the market

1. "...the bounty to the white herring fishery is a tonnage bounty; and is proportioned to the burden of the ship, not to her diligence or success in the fishery; and it has, I am afraid, been too common for vessels to fit out for the sole purpose of catching, not the fish, but the bounty" (p. 486).

place. The price system, as Smith saw it, was an intensely coercive mechanism. Its decisive superiority as a way of organizing economic life lay in the, fact that, when it was surrounded by the appropriate institutions, it tied the dynamic and powerful motive forces of self-interest to the general welfare. Its free operation would, in most cases, leave the individual producer no alternative but to pursue his economic interests in a manner conducive to the national welfare.¹

Within this broader framework we may explore Smith's approach to the analysis of a market-oriented economy. Smith's analysis of the manner in which the market mechanism allocates resources, distributes income and more generally, smoothly regulates the interdependencies resulting from the extensive division of labor, is the subject of Book I of the Wealth of Nations.

Smith initiates his Inquiry into the Nature and Causes of the Wealth of Nations (by way of indicating the significant full title of the book) by insisting that

The greatest improvement in the productive powers of labour, and the greater part of the skill, dexterity, and judgment with which it is any where directed, or applied, seem to have been the effects of the division of labour. (p. 3)

From this point he proceeds by way of his pin factory illustration to a statement of the ways in which increasing division of labor lead to increasing productivity.

This great increase of the quantity of work, which, in consequence of the division of labour, the same number of people

1. For Smith's own qualifications of this proposition see Jacob Viner, "Adam Smith and Laissez-Faire," chapter v of J.M. Clark et al., Adam Smith, 1776-1926: Lectures to Commemorate the Sesquicentennial of the Publication of "The Wealth of Nations" (Chicago: University of Chicago Press, 1928).

are capable of performing, is owing to three different circumstances; first, to the increase of dexterity in every particular workmen; secondly, to the saving of the time which is commonly lost in passing from one species of work to another; and lastly, to the invention of a great number of machines which facilitates and abridge labour, and enable one man to do the work of many. (p. 7)

The division of labor - its causes, consequences, and the limits imposed upon its growth by the extent of the market - in turn is the subject matter of the first three chapters of Book I.¹ Although the division of labor becomes, with Adam Smith, the generating forces behind economic growth, it generates also a state of reduced individual self-sufficiency and increasing interdependence among the members of society which pose major problems of economic organization. The increasing number of exchange transactions and the familiar difficulties which inevitably emerge out of attempting to satisfy individual needs through barter, leads to the introduction and increasing use of money (chapter IV).

At this point Smith poses the central question of price determination, or "value in exchange," as he calls it.² Since, with increasing division of labor, exchange transactions assume a role of increasing importance, the terms on which these exchanges take place (price ratios or exchange coefficients) is obviously crucial, and it is in his analysis of price determination that Smith establishes himself as a first class economic theorist. In the remaining

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1. For a detailed examination of Smith's treatment of the subject of the division of labor, see Nathan Rosenberg, "Adam Smith and the Division of Labor: Two Views or One?", Economica, May 1965.
 2. It is at this point also that he establishes the fateful disjunction between "value in use" and "value in exchange." (p. 28)

chapters of Book I Smith provides a map of the economic universe within which the detailed mechanics of the price system can be examined and the behavior and responses of individual decision-making units related to the larger aggregates which constitutes the economy. It goes without saying that there are serious deficiencies and innumerable sources of confusion. Indeed, Viner has remarked of the Wealth of Nations that: "Traces of every conceivable sort of doctrine are to be found in that most catholic book, and an economist must have peculiar theories indeed who cannot quote from the Wealth of Nations to support his special purposes."¹ But from our present perspective this is of secondary importance. Economic analysis was now provided with a conceptual framework and an analytical apparatus which was to be the starting point for all subsequent analysis of economic activity - Alfred Marshall's Principles of Economics no less than Ricardo's Principles of Political Economy and Taxation or Marx's Capital.

Smith introduces, in chapter V ("Of the Real and Nominal Price of Commodities, or of their Price in Labour, and their Price in Money"), the use of labour as a measure of exchangeable value which will be highly stable, and not reflect changes due to purely spurious phenomena such as price level changes which continually alter the measuring rod of money. No more will be said of the so-called labor theory of value beyond the dogmatic assertion that Smith himself never seriously attempted to explain the determination of relative prices in an advanced society by recourse to labor inputs alone.²

1. Op. cit., p. 126.

2. See Donald Gordon, "What Was the Labor Theory of Value," American Economic Review Papers and Proceedings, May 1959, pp. 462-472; Paul H. Douglas, "Smith's Theory of Value and Distribution," chapter IV of J. M. Clark et al., op. cit.

This is made ~~perfectly~~ obvious in the subsequent chapter VI ("Of the Component Parts of the Price of Commodities"). Smith does, indeed, open the chapter by stating

In that early and rude state of society which precedes both the accumulation of stock and the appropriation of land, the proportion between the quantities of labour necessary for acquiring different objects seem to be the only circumstance which can afford any rule for exchanging them for one another. If among a nation of hunters, for example, 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. (p. 47).

This, however, is scarcely affirmation of a labor theory of value since, in Smith's "rude state of society which precedes both the accumulation of stock and the appropriation of land," labor is by assumption the only scarce factor input. When he leaves this trivial example and discusses a society where stock (capital) has been accumulated and land privately appropriated, it is apparent that the determination of commodity prices involves the summation of factor payments in the form of wages, profit and rent: "Wages, profit, and rent are the three original sources of all revenue as well as of all exchangeable value." (p. 52). The prices of all commodities, then, are composed of the wages of labor, the profits of stock and the rent of land.

In every society the price of every commodity finally resolves itself into some one or other, or all of those three parts; and in every improved society, all the three enter more or less, as component parts, into the price of the far greater part of commodities. (p. 50)

This delineation of the three basic factor payments as representing, simultaneously, the income stream to society and the constituent cost components of all commodity prices, provides the logical basis for chapter VII, "Of the Natural and Market Price of Commodities." In this chapter Smith develops what we would currently call static equilibrium analysis.

There is, in every society, an ordinary or average rate of wages, profit and rent which may be regarded as their "natural rates," and the summation of these natural rates of return to the factors of production establishes a natural price for commodities.

When the price of any commodity is neither more nor less than what is sufficient to pay the rent of the land, the wages of the labour, and the profits of the stock employed in raising, preparing, and bringing it to market, according to their natural rates, the commodity is then sold for what may be called its natural price. (p. 55)

In contrast with the natural price, which is really a long-run equilibrium price (a rough approximation of the Marshallian long-run normal price), is the actual or market price, which is a short-run phenomenon:

The market price of every particular commodity is regulated by the proportion between the quantity which is actually brought to market, and the demand of those who are willing to pay the natural price of the commodity, or the whole value of the rent, labour, and profit, which must be paid in order to bring it thither. (p. 56)

The market price, then, will deviate from the natural price, since market prices are determined by the forces of supply and demand in the market place. However, under competitive conditions, there will be a tendency for the price to approach the natural price (which is, Smith merely asserts, "the lowest which the sellers can commonly afford to take").¹ Moreover, it is the tendency for the price to approach its natural level which ensures an optimum allocation of the economy's scarce resources. A competitive market transmits signals to suppliers of productive factors in the form of abnormally high or low incomes which induce them, in pursuit of their own income maximization, to allocate resources in a

1. "The natural price, therefore, is, as it were, the central price, to which the prices of all commodities are continually gravitating. Different accidents may sometimes keep them suspended a good deal above it, and sometimes force them down even somewhat below it. But whatever may be the obstacles which hinder them from settling in this center of repose and continuance, they are constantly tending towards it." (p. 59)

manner which best accords with the demands of the consuming public.

When the quantity of any commodity which is brought to market falls short of the effectual demand, all those who are willing to pay the whole value of the rent, wages, and profit, which must be paid in order to bring it thither, cannot be supplied with the quantity which they want. Rather than want it altogether, some of them will be willing to give more. A Competition will immediately begin among them, and the market price will rise more or less above the natural price... (p. 56)

On the other hand,

When the quantity brought to market exceeds the effectual demand, it cannot be all sold to those who are willing to pay the whole value of the rent, wages, and profit, which must be paid in order to bring it thither. Some part must be sold to those who are willing to pay less, and the low price which they give for it must reduce the price of the whole. The market price will sink more or less below the natural price.... (p. 57)

Since "The natural price itself varies with the natural rate of each of its component parts, of wages, profit, and rent; and in every society this rate varies according to their circumstances, according to their riches or poverty, their advancing, stationary, or declining condition," (p. 62) Smith devotes the last four chapters of Book I to an extensive analysis of the rates of return to each of the three factors of production and a single chapter to the examination of wage and profit differentials. In this manner the distribution of income is posed as a problem of factor pricing, as a logical extension of the previous study of commodity price determination, since natural price involves natural wage, profit, and rent. These chapters, in conjunction with the earlier ones, provide a unified picture of the manner in which the competitive price mechanism automatically allocates resources and distributes incomes. Market prices in excess of natural prices imply abnormally high rates of return to productive factors and an inducement for owners of factors to shift their resources into the production of the commodity in question. Conversely, market prices below

natural prices imply rates of remuneration below the natural rates and therefore owners of productive factors will withdraw and redirect their resources into alternative employments. In all of this the competitive market mechanism yields rational solutions to economic problems without the intervention of outside authorities. Rational resource use implies a procedure for the evaluation of resources, a mechanism for inducing their owners to employ resources in the "proper" fashion, and an appropriate institutional framework. Smith's achievement, and therefore the crowning achievement of 18th century economics, was to provide an analysis of the operation of these market forces and the conditions which determine their effectiveness.

This is not the place to dwell upon the further details of Smith's analysis or upon the innumerable inconsistencies and deficiencies of his system. To attempt to do so would, in any case, involve a history of economic thought of the subsequent 150 years.¹ For, just as Whitehead once remarked that western philosophy is a series of footnotes upon Plato², so in even greater measure has economic theory since Adam Smith been preoccupied with the intellectual legacy of the Wealth of Nations.

1. It is necessary to note, however, that one main source of error lay in carrying too far the notion of a self-regulating economy and attributing to the market economy self-regulating mechanisms - with respect, for example, to the level of employment - which it did not in fact possess.

2, "The safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato." Alfred North Whitehead, Process and Reality (Macmillan and Co., New York, 1929), p. 63,