### Chapter IV

**Economic Thought and Other Intellectual Developments**

**Chapter IV**

**ECONOMIC THOUGHTS 1815-1914**

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Book V. The Consolidation of Nation States and Industrialization, 1815-1914
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CHAPTER IV. ECONOMIC THOUGHT AND OTHER INTELLECTUAL DEVELOPMENT FROM 1815 TO 1914

After the appearance of the *Wealth of Nation* (1776) by Adam Smith, over four decades later David Ricardo published the *Principles of Political Economy and Taxation* (1817), and Thomas Malthus the *Principles of Political Economy* (1820), which became the main stream of classical economics - called political economy. However, teaching was wholly inadequate. In countries like Germany, Italy, Spain, and Scotland provided regular lectures on political economy but as complement to other lines of study such as law or philosophy, rather than independently organized curriculum of training in economics per se. “In the United States a professorship of Moral Philosophy and Political Economy was found at Columbia in 1818, and a professor of chemistry was commissioned to lecture on economics at South Carolina College in 1824.” In England, one was found at Oxford in 1825 – the first incumbent was Senior; the one at University College, London in 1828 – the first incumbent was McCulloch; the one at Dublin in 1832 – the first incumbent was Longfield; and there was a chair of history, commerce, and finance at the East India College in Haileybury to which Malthus was appointed in 1805. During 1815-1871, European countries had experienced radical changes: reaction and revolution, nationalism and unification, the rise of state power and imperialism, industrialization and the service revolution, mass society with the progress of laboring classes. Those are accompanied with the development of political ideologies.

The previous three chapters analyzed the backgrounds of politics and religion, economy and society, and political philosophy of the century. Since the theories of economics are closely related to other sciences, a short review of socio-political backgrounds may give us a refreshment. (i) The superiority of industry and commerce during 1815-70 allowed the British the free trade policy of economic liberalism led by the conservative party. British colonial and foreign policies were also linked to a general political and moral attitude based on utilitarianism, initiated by Bentham and J. S. Mill. (ii) The abolition of serfdom in Russia and the agrarian reforms in Germany and Austria (so-called Liberation of the Peasant) were carried out in the similar spirit of economic liberalism, making the peasants the free proprietor of a free holding and of leaving him to his own devices. In France, this had been done through the French Revolution. The differences of economic structures and social conditions between states brought different laws and regulations, which stimulated different economic principles. (iii) British labor laws developed along three lines: factory legislation, legalization of trade union, and a Poor Law Amendment Act. Moreover, Gladstonian finance reduced the function of the state to a minimum and rationalized the remaining function of state. The profit motive and the propensity to save were considered of paramount importance for the economic progress of all classes in Great Britain as well as in other states. The income tax was brought into Britain for the Napoleonic Wars, which had been abolished when the emergency was over (1816) but had been reintroduced by Peel (1842) to reduce import duties. In 1853, however, Gladstone proposed to abolish it again in seven years, with the principle of the balanced budget. (iv) Great Britain legalized the de facto gold standard: in 1844, “the Bank Charter Act established that Bank of England notes were fully backed by gold and they became the legal standard. According to the strict interpretation of the gold standard, this 1844 act marked the establishment of a full gold standard for British money.” “Towards the end of the 19th century, some silver standard countries began to peg their silver coin units to the gold standards of the United Kingdom or the United States. In 1898, British India pegged the silver rupee to the pound sterling at a fixed rate of 1s 4d, while in 1906, the Straits Settlements adopted a gold exchange standard against sterling, fixing the silver Straits dollar at 2s 4d.” When adopting the gold standard, many European nations changed the name of their currency.2
Chapter IV. Economic Thought and Other Intellectual Developments

In the intellectual scenery, the philosophical current was observed as spirit of the time. In Great British, philosophical radicals gathered around Bentham and James Mill, and John Stuart Mill established Utilitarianism in the intellectual centers, especially in Cambridge. In Germany, the Kantian philosophy was transformed into metaphysical idealism led by Fichte, Shelling, and Hegel. Hegel’s political writings were also challenged by young Hegelians including Ludwig Feuerbach and Karl Marx, and others such as Arthur Schopenhauer, Soren Kierkegaard, and Friedrich Nietzsche. They transformed German idealism. In France, professional philosophy continued to keep up a Cartesian tradition, but curiously interwoven with ideal that hailed from the English empiricists. “Influenced by the utopian socialist Henri Saint-Simon, Comte developed the positive philosophy in an attempt to remedy the social malaise of the French Revolution, calling for a new social doctrine based on the sciences.”

Through those intellectual changes, economic thought made progress. (1) John Stuart Mill, in his Principles of Political Economy (1848), attempted to rescue the essential tenets of Ricardo’s Principles (1817) that caused many criticisms. A number of subsequent developments in economic thought emerged from these criticisms, including (2) Karl Marx who is popularly associated with the economic systems of socialism and communism, in his Das Kapital (1867-83).

The three economists independently developed an economic theory of (3) marginal analysis: Stanley Jevons in England published the Theory of Political Economy (1871), Carl Menger in Austria the Principles of Economics (1871), and Leon Walras in Switzerland the Elements of Pure Economics (1874). Jevons and Menger thought they were revolutionizing economic theory by replacing a supply-oriented cost of production theory of value with a demand-oriented utility theory of value. However, their hopes were not realized because their exclusive emphasis on the demand side was as deficient as the classical stress on the supply side. Walras recognized the mutual interdependence of supply, demand, and market as the parts of an economy. Jevons and Walras also applied mathematics to develop economic theory, which led to the use of mathematic models in economic thinking. Leon Warlas’s (4) general equilibrium model was seminal in studying of economic theories. The marginal analysis was extended by the second generation. Alfred Marshall in England published the Principles of Economics (1890) that established (5) Neoclassic economics. One of Marshallian weaknesses in theory was failure to examining the forces determining the levels of income and employment, which was undertaken by J. M. Keynes in the 1930s. The analyses of Walrasian general equilibrium and Marshallian partial equilibrium were so impressive that they deserve to be called the fathers of neoclassical economics. Their theories were merged into Microeconomics present time.

Neoclassical economics was challenged by the (6) German historical school, such as Gustav von Schmoller and Werner Sombart, who emphasized the historical method in economic studies. In America, there were Thorstein Veblen, Wesley Clair Mitchel, and John R. Commons; who were called the Institutional School. Orthodox mainstream economics often do not engage in these broader questions of which (7) economic system is preferable: socialism or capitalism. Socialist economic thought was in part a reaction to the failures of a capitalistic society. Ludwig von Mises asserted that socialism could not efficiently allocate resources; Frederick A. Hayek published The Road of the Serfdom (1944); and Joseph A. Schumpeter the Capitalism, Socialism, and Democracy (1942). Meanwhile, (8) the socio-cultural evolution was significantly related with the change of economic thought. Herbert Spencer developed an all-embracing conception of evolution as the progressive development of the physical world. August Comte developed the positive philosophy, calling for a new social doctrine based on the sciences. Lewis H. Morgan and Lester F. Ward in America developed sociology. In Germany, Max Weber published The Protestant Ethics and the Spirit of Capitalism (1905): Puritan ethics and ideas influenced the development of capitalism.
1. John Stuart Mill and the Decline of Classical Economics

John Stuart Mill (1806-73) published *Principles of Political Economy* (1848) that was one of the most important economic or political economy textbooks of the mid-nineteenth century. The book was revised until 1871 shortly before his death and republished in numerous other editions. Since his other works were discussed in the previous chapter, our discussions here are limited to his economic thought in the *Principles*. “Although his economics was essentially Ricardian, Mill’s objective was to apply theory to practical problems, which Ricardo had often quickly passed over. In doing so he modified Ricardian theory and at the same time infused his book with many of the ethical values he as philosopher supported. Mill was well aware of the logical distinction between theory and policy and was in fact one of the first economists in England to point out that economic analysis dealt with the means to wealth and not the end of behavior. Yet he justified value judgments in economics on the grounds that the application of scientific principles to practical problems required them; political economy was inseparably inter-wined with many other branches of social philosophy...Mill’s own values were eloquently expressed in *On Liberty*, *Utilitarianism*, and many other writings. Primarily, he sought to strengthen individual expression and promote the common good by education and institutional reform. He was no revolutionary, and he did not support state intervention except in a limited way. He accepted a society based on private property and individual competition: The object to be principally aimed at, he said, is not the subversion of the system of individual property, but the improvement of it, and the full participation of every member of the community in its benefits.”

Mill had criticized Ricardo’s Principles shortly after its publication in 1817. “Mill’s work represented a significant revision of classical economic theory as well as its culmination because saving Ricardian theory was contingent upon repairing its major flaws. Before examining Mill’s contributions, therefore, it is necessary to survey some of the many criticisms of Ricardian doctrine to which Mill was responding. These stemmed from three main sources. First, there was increasing evidence of a disparity between Ricardian doctrine and the empirical evidence gathered from the operation of the English economy. Contrary to the Malthusian population theory, which was an essential premise of Ricardo’s system, there was growing evidence that real per capital income was increasing, not decreasing, as population increased; and with rapidly developing technology, agriculture was experiencing increasing, not diminishing, returns. Second, the discipline of economics was becoming increasingly professionalized and consequently more critical of received doctrine. Academicians began to work through Ricardo’s theoretical structure, particularly his labor theory of value, and found his treatment of demand and of the role of profits in the determination of prices to be wanting. Third, a number of humanist and socialist writers, ignoring the technical content of economic thinking, delivered broadsides attacking the foundations of the emerging capitalistic economy that Ricardo’s theoretical structure represented. Moreover, a number of subsequent developments in economic thought emerged from these criticisms of Ricardian thought.”

Say’s Law, which states that the economy will automatically produce full employment, was rejected by Karl Marx. Moreover, some economists proposed a theory that the value of a product was to be explained with differences in utility (usefulness) to the consumer as discussed in the Utilitarianism of Jeremy Bentham. After J. S. Mill, the political economists continuously developed economic theories such as the Marginalism by assuming that consumers made decisions based on margins. Mill’s *Principles of Political Economy* consists of five books: Book I, Production; Book II, Distribution; Book III, Exchange; Book IV, Influence of the Progress of Society on Production and Distribution; and Book V, On the Influence of Government; which are discussed and summarized in this section below.
Chapter IV. Economic Thought and Other Intellectual Developments

Photo IV-1-1. A Wharf in Quebec, late 19th Century

Photo IV-1-2. Telling Tales: Stories and Legends in the 19th-Century American Art
Chapter IV. Economic Thought and Other Intellectual Developments

Book I. Production: “Book I deals with production and begins by identifying the basic requisites that enable production to exist: labor and natural objects. Labor may be defined as an agent of production, though not all labor leads to the production of a material object. Labor produces three types of utilities. The first is the creation of objects for human use, wherein labor invests external material things with properties that make these things usable. Second, some labor renders human beings serviceable to society and to themselves, such as the labor of teachers and doctors. The third utility is the labor of giving pleasure or entertainment, which does not make other people more productive or result in a tangible product. In addition to labor and natural objects, production requires capital, without which it would cease. In essence, capital is the accumulated stock of the products of labor. After discussing such aspects and manifestation of capital, such as fixed versus circulating capital, Mill examines the social forms of production, such as cooperation, combination of labor, production on a small and large scale, and the increase of labor, which results in the increase of capital as well as production. Last, Mill examines production from land and recognizes that such production is markedly different from the one achieved through labor and capital, since production from land is limited and not likely to greatly increase.”

In other words, “Production requires labor and appropriate natural objects. The labor devoted to a product is rewarded out of its sale proceeds, but before these sales are realized, advances to workers are required, which come from capital. Productive labor is what yields an increase in material wealth. Capital consists of wealth used for productive activity. Capital provides the tools and materials needed to carry on production, as well as subsistence for the laborers while the production process is going on. The quantity of a nation’s industry is limited by its stock of capital. Increased capital means increased ability to hire workers, and thus increased employment and output. The accumulation of capital results from saving. It is not from demand for commodities, but from capital, that demand for labor arises, although the demand for commodities determines in what productive activities workers can find employment. Differences in the productivity of nations may arise from geographic factors such as climate and the fertility of soil. There are also important differences in labor quality: in physical vigor; in ability to persevere in pursuit of distant objectives; in skill, knowledge, and trustworthiness. Productivity is enhanced by legal and social institutions favoring security of person and property, and by effective cooperation as manifested in division of labor. As a result of greater specialization of workers and equipment, large-scale productive establishments are often more efficient than small ones.”

Moreover, “The rate at which production grows depends on the rate of growth of labor, capital, and land, and on improvements in productive technique. Increases in population tend to raise the total quantity of production by increasing the labor supply but may, by increasing the number of consumers, keep down the living standards of the working class. Unless birth rates are limited, increases in population and labor supply must continually tend to force wages to low levels. The rate at which capital increases, reflects the flow of saving, which depends on the level of income and the desire to accumulate rather than to consume. Willingness to save is encouraged when the expected profits of investment are high and when uncertainty and insecurity are at a minimum. Whether a society is progressive or backward depends in large degree on the level of saving it achieves. The real limits to production growth arise from the limited quantity and limited productiveness of land. Cultivation of land is subject to diminishing returns - that is, increased application of labor and capital by any given proportion will increase total output only in some lesser proportion. Tendencies toward diminishing return can be counteracted by improvements in methods of production, but these are more likely to produce decreasing costs in industry than in agriculture. The pressure of population growth against diminishing returns is the principal cause of widespread poverty.” This is in line with the Malthusian position.
Book II. Distribution: Book II examines distribution as it is manifested in the allocation of property and produce. Mill discusses the effect on distribution of such factors as competition; customs; slavery; ownership by peasants; and the various types of laborers, wages, profits, and rents. Mill acknowledges the difference between workers and capitalists (he includes landowners in this category), both of whom share the products of labor. “Although the laws of production are essentially physical, the principles of distribution are social; once the goods are produced, they can be distributed as people wish. An important determinant of income distribution is the nature and distribution of private property. Some critics find much fault with the institution of private property and propose socialist systems involving democratic management of productive operations and equal division of the product. Such schemes cannot be dismissed as impracticable. Some people might shirk their responsibilities to work, but this is also a serious defect of other property and wage arrangements. A communitarian society would have to guard against an excessive birthrate and might encounter problems in determining who should perform which tasks. Practices relating to private property have not conformed to the ideal of assuring to each person the fruits of his or her labor or abstinence. The best system will be one that is consistent with the greatest amount of human liberty and spontaneity.”

“The objection ordinarily made to a system of community of property and equal distribution of the produce, that each person would be incessantly occupied in evading his fair share of the work, points, undoubtedly, to a real difficulty. But those who urge this objection forget to how great an extent the same difficulty exists under the system on which none-tenth of the business of society is not conducted. The objection supposes, that honest and efficient labor is only to be had from those who are themselves individually to reap the benefit of their own exertions. But how small a part of all the labor performed in England, from the lowest-paid to the highest, is done by persons working for their own benefit.” A factory operative has less personal interest in the work than a member of a Communist association, since he is not, like him, working for a partnership of which he is himself a member.” However, private property is supposed to mean the guarantee to individuals of the fruits of their own labor and abstinence of others. We must suppose everything rectified which causes the institution to work in a manner opposed to that equitable principle is assumed to be grounded in terms of proportion between remuneration and exertion. Mill truly was against the restraints of communism - individuals should not be chained to anything.9

“The produce of society is divided among the three classes who provide productive agents: labor, capital, and land. Wages are determined by the proportion between population (supply) and capital (demand); thus, high birthrates tend to inhibit increases in wage rates. Limitation of births by the working class would be promoted by the extension of education and by any sudden, rapid improvement in their condition. The profits of the capitalist are the reward for abstinence, for risk-taking, and for the effort of superintendence. Profits arise from the fact that labor produces more than is required for its subsistence; workers depend on the relationship between the productivity of labor and the wage rate. The rent of land is determined by the demand for it (and its produce), the supply of land being fixed. Differences in rent reflect differences in productivity on lands of different quality. Growth of population and capital tends to increase rents as demand for food increases. As economic systems expand through growth of labor and capital, the rate of profit tends to decline because higher food prices force up wage costs. The declining rate of profit may halt the increase of capital and produce a stationary state. This state of affairs would not necessarily be bad, provided no one were poor, and provided the unseemly struggle for wealth and power were replaced by more elevated pursuits. Social improvement would also result from improvement of the relationship between employer and worker, perhaps through profit sharing or through cooperatives of producers or consumers.”10
Book III. Exchange: In book III, Mill addresses the topics of exchange and value, defining the latter in terms of supply and demand. "The value of any article comes from the amounts of other things for which it can be exchanged in the market. To possess value, an article must possess utility (be desired) and be subject to some difficulty of attainment. Value tends to that level at which the quantity that buyers will take (demand) is equal to the quantity that sellers will offer (supply). Since cost of production is a chief determinant of supply, value tends to equal cost (plus a normal profit for capital), unless monopoly conditions prevail. Although labor is the chief element of cost, capital must also be rewarded, or it will not be forthcoming. The longer the waiting period between the application of labor and the emergence of the finished product, the greater the capital cost. Money provides a common measure of value and facilitates specialization and exchange. Variations in the general price level tend to be proportional to changes in the quantity of money, or in its rapidity of circulation, assuming the quantity of goods remains unchanged. Since credit may serve as a substitute for actual money, it can also influence the level of prices. Expansion or contraction of credit, in such forms as promissory notes or bank deposits, are principal elements accounting for periodic commercial crises. A paper currency not convertible into precious metal is liable to depreciate through excessive issue."

Summary of the Theory of Value:

(i) Value is a relative term. The value of a thing means the quantity of some other thing, or of things in general, which it exchanges for. The values of all things can never, therefore, rise or fall simultaneously. There is no such thing as a general rise or a general fall of values. Every rise of value supposes a fall, and every fall a rise. (ii) The temporary or Market Value of a thing depends on the demand and supply; rising as the demand rises and falling as the supply rises. The demand, however, varies with the value, being generally greater when the thing is cheap than when it is dear; and the value always adjusts itself in such a manner that the demand is equal to the supply. (iii) Besides their temporary value, things have also a permanent, or, as it may be called, a Natural Value, to which the market value, after every variation, always tends to return; and the oscillations compensate for one another, so that, on the average, commodities exchange at about their natural value. (iv) The natural value of some things is a scarcity value; but most things naturally exchange for one another in the ratio of their cost of production, or at what may be termed their Cost Value. (v) The things which are naturally and permanently at a scarcity value are those of which the supply cannot be increased at all, or not sufficiently to satisfy the whole of the demand which would exist for them at their cost value.

(vi) A monopoly value means a scarcity value. Monopoly cannot give a value to anything except through a limitation of supply. (vii) Every commodity of which the supply can be indefinitely increased by labor and capital, exchanges for other things proportionally to the cost necessary for producing and bringing to market the most costly portion of the supply required. The natural value is synonymous with the Cost Value; and the cost value of a thing means the cost value of the most costly portion of it. (viii) Cost of Production consists of several elements, some of which are constant and universal, others occasional. The universal elements of cost of production are, the wages of the labor, and the profits of the capital. The occasional elements are taxes, and any extra cost of occasioned by a scarcity value of some of the requisites. (ix) Rent is not an element in the cost of production of the commodity which yields it; except in the cases in which it results from, and represents, a scarcity value. But when land capable of yielding rent in agriculture is applied to some other purpose, the rent which it would have yielded is an element in the cost of commodity production which it is employed to produce. (x) Omitting the occasional elements; things which admit of indefinite increase, naturally and permanently exchange for each other according to the comparative amount of wages which must be paid for producing them, and the comparative amount of profits, obtained by the capitalists paying those wages.
(xi) The comparative amount of wages does not depend on what wages are in themselves. High wages do not make high values, not low wages low values. The comparative amount of wages depends partly on the comparative quantities of labor required, and partly on the comparative rates of its remuneration. (xii) So, the comparative rate of profits does not depend on what profits are in themselves; nor to high or low profit make high or low values. It depends partly on the comparative lengths of time during which the capital is employed, and partly on the comparative rate of profits in different employments. (xiii) If two thing are made by the same quantity of labor, and that labor paid at the same rate, and if the wages of the laborer have to be advanced for the same space of time, and the nature of the employment does not require that there be a permanent difference in their rate of profit; then, whether wages and profits be high or low, and whether the quantity of labor expended be much or little, these two things will, on the average, exchange for one another. (xiv) If one of two things commands, on the average, a greater value than the other, the cause must be that it requires for its production either a greater quantity of labor, or a kind of labor permanently paid at a higher rate; or that the capital, or part of the capital, which supports that labor, must be advanced for a longer period; or lastly, that the production is attended with some circumstance which requires to be compensated by a permanently higher rate of profits. (xv) Of these elements, the quantity of labor required for the production is the most important: the effect of the others is smaller, though none of them are insignificant. (xvi) The lower profits are, the less important become the minor elements of cost of production, and the less to commodities deviate from a value of proportioned to the quantity and quality of the labor required for their production. (xvii) But every fall of profits lower, in some degree, the cost value of things made with much or durable machinery and raises that of things made by hand.\(^\text{13}\)

The value of money is what money will exchange for; the purchasing power of money. The value of money is inversely as general prices: falling as they rise and rising as they fall. The rapidity of circulation is the number of purchases made by each piece of money in a given time; so, the number of transactions more, the demand for its quantity less. If other things being equal, an increase of the money in circulation raises prices, a diminution lowers them. The credit like bills of exchange or promissory notes is used as a substitute of money. “In international exchanges, value depends not on the absolute levels of labor and capital required to produce an item, but on the comparative costs. A country may be able to import cloth more cheaply than to produce it, by paying for it with exports of another product in which its labor and capital are highly efficient, even though it could produce cloth with less labor and capital than the country from which it imports. Both participants in such trade tend to benefit from it, and total world output may be increased by the more efficient use of resources through specialization. Should a country’s imports be excessive in relation to its exports, it will tend to export gold and silver to pay the difference. The outflow of money will tend to reduce the price level in that country, and raise it elsewhere, until the trade imbalance is rectified. The proper functions of government extend, at the very least, to defining and determining the rights of property and contract, the rules of partnerships and corporations, the regulation of insolvency, the monetary system, and weights and measures. In addition, government activity may be necessary where the consumer cannot judge or achieve his or her own interest (for example, the education of children), or in cases in which each person’s desire can be effectuated only if all conform (for example, limiting work hours). Government may undertake activities beneficial to the public, from which no private person could realize a profit. Charity will be offered by private persons in any case, so it may be better to have it provided by the government so as to minimize possible harmful effects. Government should avoid activities based on fallacious doctrines: policies of tariff protection, price-fixing, restricting entry into a business or occupation, or prohibiting trade union activity.”\(^\text{14}\)
Book IV. The Influence of the Progress of Society on Production and Distribution: “Book IV deals with the relationship between a society’s progress and its economic affairs. Mill defines social progress in terms of the increase of knowledge, the improved protection of citizens and property, the transformation of taxes so they are less oppressive, the avoidance of war, and the increase in the prosperity of the people brought about by improvements in business capacities, including the more effective employment of the citizens through education. Mill notes that social progress is not infinite, and that a given state of affairs may become stationary if production does not improve and if the overflow of capital from the affluent to the less affluent countries becomes suspended. This recognition of a state of stagnation leads Mill to speculate on the future of the laboring classes, which he foresees rising beyond the patriarchal values of society and becoming emancipated through education. The…working class will generate massive change in society.”

The characteristic features of industrial progress resolve mainly into three – increase of capital, increase of population, and improvements in production. First, if population increases but capital and arts of production remain stationary, how does it affect rents, profits, and wages? Wages will fall; the laboring class will reduce to an inferior condition, while the state of capitalist will be improved. With the same capital, he can purchase more labor, and obtain more produce. The rate of profit is increased, which causes rents to rise. Second, if capital advances but population is stationary, the real wages of labor will rise, and the rising cost reduces profits. The improved condition of the laborers may increase the demand for food, which require more labor and more land. Third, let’s suppose that capital and population are stationary, but the arts of production improve, by the invention of more efficient machines, or less costly processes, or by obtaining access to cheaper commodities through foreign trade. This may change the consumption patterns of labor classes, applicable to luxuries. The improvements in production, particularly in agriculture, diminish rent and cheapen any articles of the laborers’ consumption, tend to diminish the cost of labor and to raise profits. If agricultural improvement advances faster than population in a certain period, rent and money wages will tend downward and profits upward in the same period. If it advances slower, the opposite would appear.15

“There is at every time and place some particular rate of profit, which is the lowest that will include the people of that country and time to accumulate savings, and to employ those savings productively. This minimum rate of profits varies according to circumstances. It depends on two elements.” One is the strength of the effective desire of accumulation, and the other is the degree of security of capital engaged in industrial operations. There would be adequate motives for a certain amount of savings, even if capital yielded no profits. Since the social progress causes an increase of general security (or diminution of risk) and of providence, a profit or interest of three or four percent is as sufficient a motive to the increase of capital in England at the present day. To fulfill the conditions of the hypothesis, we must suppose an entire cessation of the exportation of capital for foreign investment. “As long as there are old countries where capital increases very rapidly, and new countries where profit is still high, profits in the old countries will not sink to the rate which would put a stop to accumulation; the fall is stopped at the point which send capital abroad. It is only, however, by improvements in production, and even in the production of things consumed by laborers, that the capital of a country like England is prevented from speedily reaching that degree of lowness of profit, which would cause all further savings to be sent to find employment in the colonies, or in foreign countries.”16 We may conclude “that improvements in production, and emigration of capital to the more fertile soils and unworked mines of the uninhabited or thinly peopled parts of the globe, do not diminish the gross produce and the demand for labor home; but, on the contrary, are what we have chiefly to depend on for increasing both, and are even the necessary conditions of any great or prolonged augmentation of either.”17
“Modern nations will have to learn the lesson that the well-being of a people must exist by means of the justice and self-government of the individual citizens. The theory of dependence attempts to dispense with the necessity of these qualities in the dependent classes. But now, when even in position they are becoming less and less dependent, and their minds less and less acquiescent in the degree of dependence which remains, the virtues of independence are those which they stand in need of. Whatever advice, exhortation, or guidance is held out to the laboring classes, must henceforth be tendered to them as equals, and accepted by them with their eyes open. The prospect of the future depends on the degree in which they can be made rational beings.” The great improvement both in the quality and quantity of school education will increase in intelligence of the laboring classes made them more intolerable to the theory of dependence and protection, and their conduct and condition shall be essentially self-governed. At the same time, it is quite possible that they may demand the intervention of the legislature in their affairs, and the regulation by law of various things which concern them. The increase of intelligence, of education, and of the love of independence among the working classes, must be attended with the corresponding growth of the good sense which manifests itself in provident habits of conduct, and that population will bear a gradually diminishing ratio to capital and employment. This may result in the opening of industrial occupations freely to both sexes (with later termed equal opportunities). The same reasons which make it no longer necessary that the poor should depend on the rich, make it equally necessary that women should depend on men; and the least which justice requires is that law and custom should not enforce dependence by ordaining that a woman, who does not happen to have a provision by inheritance, shall have scarcely any means open to her of gaining a livelihood, except as a wife and mother. Let women adopt it.18

The political consequences of the increasing power and importance of the operative classes, and of the growing ascendancy of numbers, which, even in England and under the present institutions, is rapidly giving to the will of the majority at least a negative voice in the acts of government, are too wide a subject to be discussed in this place. But confining ourselves to economic considerations, and notwithstanding the effect which improved intelligence in the working classes, together with just laws, may have in altering the distribution of the produce to their advantage, I cannot think that they will be permanently contented with the condition of laboring for wages as their ultimate state. They may be willing to pass through the class of servants in their way to that of employers; but not to remain in it all their lives. To begin as hired laborers, then after a few years to work on their own account, and finally employ others, is the normal condition of laborers in a new country, rapidly increasing in wealth and population, like America or Australia. Capitalists are almost as much interested as laborers in placing the operations of industry on such a footing. A people have once adopted the large system of production, either in manufactures or in agriculture, are not likely to recede from it. The form of association must be expected in the end to predominate. From the progressive advance of the cooperative movements, a great increase may be looked for even in the aggregate productiveness of industry. As association becomes universal, there appears competition among them. “The deepest root of the evils and iniquities which fill the industrial world, is not competition, but the subjection of labor to capital, and the enormous share which the possessors of the instruments of industry are able to take from the produce...If competition has great power for evil, it is no less fertile of good, especially in what regards the development of the individual faculties, and the success of innovations. It is the common error of socialists to overlook the natural indolence of mankind; their tendency to be passive, to be the slaves of habit, to persist indefinitely in a course once chosen...Competition may not be the best conceivable stimulus, but it is at present a necessary one, and no one can foresee the time when it will not be indispensable to progress.”19
Book V. The Influence of Government: “Book V analyzes the influence of government on society, arguing that the functions of government can be divided into the necessary and the optional. The necessary is that which is inseparable from the very idea of government, such as security, protection, and taxation. Everything else that government does is optional and subject to question. Mill concludes by considering the question of a government’s interference with individual liberty. Mill asserts that government should always restrict itself to doing only what is necessary. First, a government should prohibit and punish individual behavior that harms other people, such as force, fraud, or negligence. Second, a government should work to limit or even eliminate the great amount of energy being spent on the harming of one nation by another. Third, a government should turn such destructive behavior into bettering human faculties, namely, transforming the powers of nature so they serve the greatest physical and moral good. Finally, Mill proposes that governments should adopt a laissez-faire policy, in that they would abstain from interfering with individual choice and grant unconstrained freedom to people, who should be able to pursue their happiness without restrictions.”

Of the general principles of taxation, as a government out to make no distinction of persons or classes in the strength of their claims on it, whatever sacrifices it requires from them should be made to bear as nearly as possible with the same pressure upon all, which, it must be observed, is the mode by which least sacrifice is occasioned on the whole. If anyone bears less than his fair share of the burden, some other person must suffer more than his share, and the alleviation to the one is not, ceteris paribus, so great a good to him, as the increased pressure upon the other is an evil. Equality of taxation, therefore, as a maxim of politics, means equality of sacrifice. It means apportioning the contribution of each person towards the expenses of government so that he shall fell neither more nor less inconvenience from his share of the payment than every other person experience from his. This standard cannot be completely realized. Regarding national debt, “When a country, wisely or unwisely, has burdened itself with a debt, is it expedient to take steps for redeeming that debt? In principle, it is impossible not to maintain the affirmative. It is true that the payment of the interest, when the creditors are members of the same community, is no national loss, but a mere transfer. The transfer, however, being compulsory, is a serious evil, and the raising a great extra revenue by any system of taxation necessitates so much expense, vexation, disturbance of the channels of industry, and other mischiefs over and above the mere payment of the money wanted by the government, that to get rid of the necessity of such taxation is at all times worth a considerable effort. The same amount of sacrifice which would have been worth incurring to avoid contracting the debt it is worthwhile to incur, at any subsequent time, for the purpose of extinguishing it. Two modes have been contemplated of paying off a national debt: either at once by a general contribution, or gradually by a surplus revenue.”

Freedom of bequest is the general rule but limited by two things: first, that it there are descendants, who, being unable to provide for themselves, would become burdensome to the state, the equivalent of whatever the state would accord to them should be reserved from the property for their benefits; and secondly, that no one person should be permitted to acquire, by inheritance, more than the amount of a moderate independence. In case of intestacy, the whole property to escheat to the state. The Usury Laws originated in a religious prejudice against receiving interest on money, derived from the fruitful source of mischief in modern Europe, the attempted adaptation to Christianity of doctrines and precepts drawn from the Jewish law. Legislators may enact and maintain Usury Laws from one of two motives: ideas of public policy, or concern for the interest of the parties of the contract; in this case, of one party only, the borrower. As a matter of policy, the notion may possibly be, that it is for the general good that interest should be low. Monopolies are often allowed to domestic firms in order to exclude foreign competitors.
In the matter of education, the intervention of government is justifiable, because the case is not one in which the interest and judgment of the consumer are a sufficient security for the goodness of the commodity. (i) The individual who is presumed to be the best judge of his own interests may be incapable of judging or acting for himself; may be a lunatic, an idiot, and infant; or though not wholly incapable, may be of immature years and judgment. In this case, the foundation of the laisser-faire principle breaks down entirely. The person most interested is not the best judge of the master; nor a competent judge at all. (ii) Individuals are the best judges of their own interest, when an individual attempts to decide irrevocably now what will be best for his interest at some future and distant time. The presumption in favor of individual judgment is only legitimate, where the judgment is grounded on actual, and especially on present, personal experience; not where it is formed antecedently to experience, and not suffered to be reversed even after experience has condemned it. (iii) Government cannot manage the affairs of individuals as well as the individuals themselves, has reference to the great class of cases in which the individuals can only manage the concern by delegated agency, and in which the so-called private management is, in point of fact, hardly better entitled to be called management by the persons interested than administration by a public officer. (iv) It appears to me; the attention of political economists has not yet been sufficiently drawn. There are matters in which the interference of law is required, not to overrule the judgment of individuals respecting their own interest, but to give effect to that judgment: they are unable to give effect to it except by concert, which concert again cannot be effectual unless it receives validity and sanction from the law. (v) The argument against government interference, grounded on the maxim that individuals are the best judges of their own interest, cannot apply to the very large class of cases, in which those acts of individuals with which the government claims to interfere, are not done by those individuals for their own interest, but for the interest of other people. (vi) The acts of public charity are done by individuals, though intended solely for their own benefit, involve consequences extending indefinitely beyond them, to interests of the nation or of posterity, for which society in its collective capacity is alone able, and alone bound, to provide. One of these cases is that of Colonization.

Remarks: “Although no longer a blueprint for specific economic reforms, Mill’s *Principles* remains one of the most provocative, systematic statements of liberal political and economic thought in Western literature. Applying the principles of utilitarian philosophy to a study of the economic system in England, Mill explains why, in democratic societies, it is imperative for labor and management to share in decision making and participate as equals in determining the future of business. Mill is convinced that only such collective brainpower will guarantee that people receive fair treatment and that business will prosper. Mill’s stance is not pure socialism, however. He advocates a laissez-faire approach by government, so that the private sector bears chief responsibility for managing its own affairs. He insists, however, that individuals with superior education and insight - a cadre of intellectual elite - take responsibility for managing business affairs in such a way that the poor will benefit. As he does in all his writings, Mill emphasizes the necessity that corporations operate for the benefit of those employed by them as well as those who have invested in them or who manage business operations. Throughout the *Principles of Political Economy*, Mill insists on recognition of the rights of individuals and the importance of allowing individuals certain liberties that permit them to achieve dignity and happiness. His approach may have been radical to contemporaries, most of whom believed that the right to make decisions in any business rested solely with those who invested in it and who stood to gain or lose financially from its success or failure. Nevertheless, Mill’s farsighted analysis of the symbiotic relationship between workers and supervisors became the model for enlightened labor-management practices in modern Western-style businesses in the twentieth and twenty-first centuries.”
2. Karl Marx and his Critique of Classical Economics

Karl Marx’s writings, especially *Das Kapital*, initiated the worldwide growth of communism as a dynamic political force. “Economic imbalance prompted a revolutionary uprising of the proletariat, but its form was immensely influenced by this book. Certainly, Marx exposed the roots of the Russian Revolution, which occurred decades after his death. Many of his revolutionary ideas had already been expressed in his *Communist Manifesto* (1848), which he wrote with Friedrich Engels. *Das Kapital* was, however, more than another call to arms; it was an attempt to base communism on a theory of political economy that was scientifically and dialectically defensible. Whereas the *Communist Manifesto* is a passionate document, an outline of a political philosophy, and something of a prophecy, *Das Kapital* is a scholar’s treatise, the product of years of research and reflection, and a work of economic theory that continues to challenge professional economists. This contrast is illuminating, for the communist movement has always been characterized by contrast: the intellectual leads the laborers; the reasoned defense is supplemented by violence and murder; and the scholar’s program comes alive in revolution and the threat of war.”

“In the *Communist Manifesto*, Marx and Engels argue that the history of all societies is a history of class struggles and that the struggle became one between the bourgeois class and the proletariat. They state that because all the injustices of society result from the economic advantage the bourgeoisie have over the proletariat, the proletariat will finally rebel and take over the means of production, forming a classless society and a dictatorship of the proletariat. In *Das Kapital*, Marx uses a dialectic method that was inspired by Georg Wilhelm Friedrich Hegel, though it is put to a different use. Marx claimed that his dialectic method was the direct opposite of Hegel’s… it involves attending to the conflicting aspects of matters under consideration in order to be able to attain a better idea of the whole. Thus, Marx describes his rational dialectic as including in its comprehension and affirmative recognition of the existing state of things, at the same time, also, the recognition of the negation of that state, of its inevitable breaking up. He goes on to maintain that his account regarded every historically developed social form to be in fluid movement, and therefore takes into account its transient nature not less than its momentary existence. Marx’s dialectic method led to what became known as dialectical materialism, the theory that history is the record of class struggles and the conflict of economic opposites.”

“Much of *Das Kapital* spells out Marx’s concept of the surplus value of labor and its consequences for capitalism. According to Marx, it was not the pressure of population that drove wages to the subsistence level but rather the existence of a large army of unemployed, which he blamed on the capitalists. He maintained that within the capitalist system, labor was a mere commodity that could gain only subsistence wages. Capitalists, however, could force workers to spend more time on the job than was necessary to earn their subsistence and then appropriate the excess product, or surplus value, created by the workers. Because all profit results from an exploitation of labor, the rate of profit depends largely on the number of workers employed. Because machines cannot be exploited, they cannot contribute to total profits, though they help labor produce more useful products. Only payroll capital is productive of surplus value and consequently of profit. The introduction of machines is profitable for the individual entrepreneur, to whom they give an advantage over his competitors. However, as outlay for wages, profit declines in relation to total capital outlay. Thus, for each additional capital outlay, the capitalist will receive less and less return and can attempt to postpone his bankruptcy only by applying pressure on the workers. Ultimately, the capitalist class becomes unfit to rule, because it is incompetent to assure an existence to its slave within his slavery. Consequently, the capitalist system collapses, and the working class inherits… power.”
Chapter IV. Economic Thought and Other Intellectual Developments

Map IV-2-1. A Map of Countries that declared themselves to be Socialist States Under the Marxist-Leninist or Maoist definition during 1979-1983.
https://upload.wikimedia.org/wikipedia/commons/thumb/e/e5/Communist_countries.svg/860px-Communist_countries.svg.png, accessed 1 February 2017

Photo IV-2-1. Marx believed that industrial workers would rise up around the world. The inscription reads “Proletarians of all countries, unite!” on the Memorial to Karl Marx in Moscow.
https://upload.wikimedia.org/wikipedia/commons/1/1e/MandK_Industrial_Revolution_1900.jpg
Accessed 1 February 2017
Chapter IV. Economic Thought and Other Intellectual Developments

Das Kapital, Volume I, The Process of Production of Capital

Part I. Commodities and Money: [Chapter 1, The Commodity]: 1. Use-value and Exchange-value: The usefulness of a thing makes it a use-value. Use-value are realized in use or in consumption; they constitute the material content of wealth, whatever its social forms may be. Exchange-value appears first of all as the quantitative relation, the proportion, in which use-values of one kind exchange for use-values of another kind; this relation change constantly with time and place. “In general, the greater the productivity of labor, the less the labor-time required to produce an article, the less the mass of labor crystalized in that article, and the less its value. Inversely, the less the productivity of labor, the greater the labor-time necessary to produce an article, and the greater its value. The value of a commodity, therefore, varies directly as the quantity, and inversely as the productivity, of the labor which finds its realization within the commodity… Finally, nothing can be a value without being an object of utility. If the thing is useless, so is the labor contained in it; the labor does not count as labor, and therefore creates no value.”

2. The Dual Character of Labor embodied in commodities: The use-value of every commodity contains useful labor, i.e. productive activity of a definite kind, carried on with a definite aim. Labor, then, as the creator of use-values, as useful labor, is a condition of human existence which is independent of all forms of society; it is an eternal necessity which mediates the metabolism between man and nature, and therefore human life itself. In short, use-values are combinations of two elements, the material provided by nature, and labor. “On the one hand, all labor is an expenditure of human labor-power, in the physiological sense, and it is in this quality of being equal, or abstract, human labor that it forms the value of commodities. On the other hand, all labor is an expenditure of human labor-power in a particular form and with a definite aim, and it is in this quality of being concrete useful labor that it produces use-values.”

3. The Value-form, or Exchange-value: Commodities possess a double form: natural form and value form. The relations between the values of two commodities supplies us with the simplest expression of the value of a single commodity. Marx introduces four types of value-form of commodities: (a) The Simple, Isolated, or Accidental Form of Value; (b) The Total or Expanded Form of Value; (c) The General Form of Value; and (d) The Money Form.

4. The Fetishism of the Commodity and its Secret: The mystical character of the commodity does not arise from its use-value, but whatever may be its nature or its form, such function is the expenditure of human brain, nerves, muscles and sense organ. In all situations, the labor-time it costs to produce the means of subsistence must necessarily concern mankind, although not to the same degree at different stages of development. As soon as men start to work each other in any way, their labor also assumes a social form. The commodity reflects the social characteristics of men’s own labor as objective characteristics of the products of labor themselves, as the socio-natural properties of these things. Hence it also reflects the social relation of the producers to the sum total of labor as a social relation between object, a relation which exists apart from and outside the producer. Through this substitution, the products of labor become commodities, sensuous things which are at the same time supra-sensible or social.

[Chapter 2. The Process of Exchange]: Money necessarily crystallizes out of the process of exchange, in which different products of labor are in fact equated with each other, and thus converted into commodities. Hence, their use-value becomes distinguished from their exchange value. Nomadic peoples are the first to develop the money-form, because all their possessions are in a movable and therefore directly alienable form, and because their mode of life, by continually bringing them into contact with foreign communities, encourages the exchange of products. Gold and silver have the same uniform quality and are divisive for equal quantification, so they became...
money commodities. The money commodity acquires a dual-use-value: a special use value as a commodity, and a formal use-value arising from its specific social function. Money, like every other commodity, cannot express the magnitude of its value except relatively in other commodities. This value is determined by the labor-time required for its production and is expressed in the quantity of any other commodities in which the same amount of labor-time is congealed.\[31\]

[Chapter 3. Money, or the Circulation of Commodities]: 1. The Measure of Values: The first main function of gold is to supply commodities with the material for the expression of their values, or to represent their values as magnitudes of the same denomination, qualitatively equal and quantitatively comparable. It thus acts as a universal measure of value, and only through performing this function does gold, the specific equivalent commodity, become money. A general rise in the prices of commodities can result either from a rise in their values, which happens when the value of money remains constant, or from a fall in the value of money, which happens when the values of commodities remain constant. For various reasons, the money-names of the metal weights are gradually separated from their original weight-names, the historically decisive reasons being: (i) The introduction of foreign money among less developed peoples. This happened at Rome in its early days, where gold and silver coins circulated at first as foreign commodities. (ii) With the development of material wealth, the more precious metal extrudes the less precious from its function as measure of value. Silver drives out copper, gold derives out silver. (iii) Centuries of continuous debasement of the currency by kings and princes have in fact left nothing behind of the original weights of gold coins but their names. Like the relative form of value in general, price expresses the value of a commodity (for instance a ton of iron) by asserting that a given quantity of the equivalent (for instance an ounce of gold) is directly exchangeable with iron. The price-form therefore implies both the exchangeability of commodities for money and the necessity of exchanges. On the other hand, gold serves as an ideal measure of value only because it has already established itself as the money commodity in the process of exchange.\[32\]

2. The Means of Circulation: (a) The Metamorphosis of Commodities: The process of exchange is accomplished through the following changes of form: commodity-money-commodity. The conversion of a commodity into money is the conversion of money into a commodity. (b) The Circulation of Money: The circulation of money is the constant and monotonous repetition of the same process: money is a medium of circulation or exchange. We know that the values of commodities remain constant, their prices vary with the value of gold (the material of money), rising in proportion as it falls, and falling in proportion as it rises. Given that the sum of the prices of commodities falls or rises in this way, it follows that the quantity of money in circulation must fall or rise to the same extent. The velocity of the circulation of money is measured by the number of times the same piece of money turns over within a given period. The three factors – the movement of prices, the quantity of commodities in circulation, and the velocity of circulation of money – can all vary in various directions under different conditions. Given the sum of the values of commodities, and the average rapidity of their metamorphoses, the quantity of money or material of money in circulation depends on its own value. (c) Coin, the Symbol of Value: The only difference between coin and bullion lies in their physical configuration, and gold can at any time pass from one form to another. The metallic content of silver and copper tokens is arbitrarily determined by law. Inconvertible paper money is issued by the state, and credit-money takes root in the function of money as the means of payment. Paper money is a symbol of gold, a symbol of money. It is capable of being replaced in this way only if its function as coin or circulating medium can be singled out or rendered independent. A piece of money is a mere coin, or means of circulation, only as long as it is actually it is actually in circulation. The paper as a symbol of money must have its own objective social validity – the state compulsion.\[33\]
3. Money: (a) Hoarding: In the very beginnings of the circulation of commodities, it is only the excess amounts of use-value which are converted into money. Gold and silver thus become of themselves social expressions for superfluity or wealth. In order that gold may be held as money, and made to form a hoard, it must be prevented from circulating, or from dissolving into the means of purchasing enjoyment. The hoarder therefore sacrifices the lusts of his flesh to the fetish of gold. In order to keep money to hoard, it is necessary for the quantity of gold and silver available in a country to be greater than the quantity required to function as coin. (b) Means of Payment: Credit-money springs directly out of the function of money as a means of payment, in that certificates of debts owing for already purchased commodities themselves circulate for the purpose of transferring those debts to others. (c) World Money: World money serves as the universal means of payment, as the universal means of purchase, and as the absolute social materialization of wealth as such (universal wealth). Its predominant function is as means of payment in the setting of international balances. Gold and silver continuously flow backwards and forwards between the different national spheres of circulation.³⁴

Part II. The Transformation of Money into Capital: [Chapter 4. The General Formula for Capital] In the process of commodity exchange M-C-M, the cotton originally bought for £100 is for example re-sold at £100+£10, i.e. £110. The original sum advanced plus an increment +£10. This increment or excess over the original value, I call surplus-value. As the conscious bearer of this movement, the possessor of money becomes a capitalist, whose aim is rather the unceasing movement of profit-making. The circulation M-C-M’ presents itself in abridged form, in a concise style, so to speak, as M-M’ (where M’=£110), i.e. money which is worth more money, value which is greater than itself. M-C-M’ is in fact therefore the general formula for capital, in the form in which it appears directly in the sphere of circulation.³⁵

[Chapter 5. Contradictions in the General Formula] The form of circulation within which money is transformed into capital contradicts all the previously developed laws bearing on the nature of commodities, value, money and even circulation itself. The formation of surplus-value, and therefore the transformation of money into capital, can consequently be explained neither by assuming that commodities are sold above their value, nor by assuming that they are bought at less than their value. In the course of our investigation, we shall find that both merchants’ capital and interest-bearing capital are derivative forms, and at the same time it will become clear why, historically, these two forms appear before the modern primary form of capital. Outside circulation, the commodity-owner only stands in a relation to his own commodity. The commodity-owner can create value by his labor, but he cannot create values which can valorize themselves. He can increase the value of his commodity by adding fresh labor, and therefore more value, to the value in hand, by making fresh leather into boots, for instance. The same material now has more value, because it contains a greater quantity of labor. The money-owner must buy his commodities at their value, sell them at their value, and yet at the end of the process withdraw more value from circulation than he threw into it at the beginning.³⁶

[Chapter 6. The Sale and Purchase of Labor-Power] The value of labor-power is determined by the labor-time necessary for the production and consequently also the reproduction, of this specific article. For his maintenance, the laborer requires a certain quantity of means of subsistence. Therefore, the labor-time necessary for the production of labor-power is the same as that necessary for the production of those means of subsistence; in other words, the value of labor-power is the value of the means of subsistence necessary for the maintenance of its owner. The ultimate or minimum limit of the value of labor-power is formed by the value of the commodities which have to be supplied every day to the bearer of labor-power.³⁷
Part III. The Production of Absolute Surplus-Value: *Chapter 7. The Labor Process and the Valorization Process*]  

1. Labor Process: The simple elements of the labor process are the purposeful activity; the object on which that work is performed; and the instruments of that work. The labor process exhibits two characteristic phenomena. First, the worker works under the control of the capitalist to whom his labor belongs; the capitalist takes good care that the work is done in a proper manner, and the means of production are applied directly to the purpose, so that the raw material is not wasted, and the instruments of labor are spared, i.e. only worn to the extent necessitated by their use in the work. Second, the product is the property of the capitalist and not that of the worker, its immediate producer.  

2. The Valorization Process: The value of a day’s labor-power amounts to 3 shillings, because on our assumption half a day’s labor is objectified in that quantity of labor-power, i.e. because the means of subsistence required every day for the production of labor-power cost half a day’s labor. But the past labor embodied in the labor-power and the living labor it can perform, and the daily cost of maintaining labor-power and its daily expenditure in work, are two totally different things. The former determines the exchange-value of the labor-power, the latter is its use-value.  

[Chapter 8. Constant Capital and Variable Capital] In presenting the different parts played by the various factors of the labor process in the formation of the product’s value, we have in fact characterized the different functions allotted to the different elements of capital in its own valorization process. The excess of the total value of the product over the sum of the values of its constituent elements is the excess of the capital which has been valorized over the value of the capital originally advanced. The means of production on the one hand, labor-power on the other, are merely the different forms of existence which the value of the original capital assumed when it lost its monetary form and was transformed into the various factors of the labor process.  

That part of capital, therefore, which is turned into means of production, i.e. the raw material, the auxiliary material and the instruments of labor, does not undergo any quantitative alteration of value in the process of production. For this reason, I call it the constant part of capital, or more briefly, constant capital. On the other hand, that part of capital which is turned into labor-power does undergo an alteration of value in the process of production. It both reproduce the equivalent of its own value and produces an excess, a surplus-value, which may itself vary, and be more or less according to circumstances. This part of capital is continually being transformed from a constant into a variable magnitude. I therefore call it the variable part of capital, or more briefly, variable capital. The same elements of capital which, from the point of view of the labor process, can be distinguished respectively as the objective and subjective factors, as means of production and labor-power, can be distinguished, from the point of view of the valorization process, as constant and variable capital.  

As the value of the raw material may change, so too may that of the instruments of labor, the machinery, etc. employed in the process; and consequently, that portion of the value of the product transferred to it from them may also change. If, as a result of a new invention, machinery of a particular kind can be produced with a lessened expenditure of labor, the old machinery undergoes a certain amount of depreciation, and therefore transfer proportionately less value to the product. But here too the change in value originates outside the process in which the machine is acting as a means of production. Once engaged in this process, the machine cannot transfer more value than it possesses independently of the process. The technical conditions of the labor process may be revolutionized to such an extent that where formerly ten men using ten implements of small value worked up a relatively small quantity of raw material, one man may now, with the aid of one expensive machine, work up one hundred times as much raw material. This change however alters only the quantitative relation between the constant and the variable capital.  

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Book V. The Consolidation of Nation States and Industrialization, 1815-1914
[Chapter 9. The Rate of Surplus-Value] 1. The Degree of Exploitation of Labor Power: The surplus-value generated in the production process by C, the capital advanced, i.e. the valorization of the value of capital C, present itself to us first as the amount by which the value of the product exceeds the value of its constituent elements. The capital C is made up of two components, one the sum of money c laid out on means of production, and the other the sum of money v expended on labor-power; c represents the portion of value which has been turned into constant capital, v that turned into variable capital. At the beginning, then, C = c + v: for example, if £500 is the capital advanced, its component may be such that the £500 = £410 constant + £90 variable. [Constant capital c consists of values of raw material, of auxiliary material, and of the machinery worn away in the process (depreciation)]. When the process of production is finished, we get a commodity which value = (c + v) + s where s is surplus value; or taking our former figures, the value of this commodity is (£410 constant + £90 variable) + £90 surplus. The original capital has now changed from C to C', from £500 to £590. The difference s, or surplus-value of £90. Since the value of the constituent elements of the product is equal to the value of the capital advanced, it is a mere tautology to say that the excess of the value of the product over the value of its constituent elements is equal to the valorization of the value of the capital advanced, or to the surplus-value produced. Following Marx, surplus value, s, is defined on a flow basis as the excess of gross receipts over fixed and variable costs. “For the economy as a whole, this amounts to the excess of net national product over the wages bill. The gross national product = c + v + s but net national product = v + s. The rate of surplus value σ = s/v. The rate of profit, r, as Marx defined it, is equal to s/k; on a stock basis it is equal to s/K.“

[Chapter 10. The Working Day]: 1. The Limit of the Working Day: We see that, leaving aside certain extremely elastic restriction, the nature of commodity exchange itself imposes no limit to the working day, no limit to surplus labor. 2. The Voracious Appetite for Surplus Labor: Capital did not invent surplus labor. Wherever a part of society possesses the monopoly of the means of production, the worker, free or unfree, must add to the labor-time necessary for his own maintenance an extra quantity of labor-time in order to produce the means of subsistence of the owner of the means of production. The Factory Act of 1850 now in force allows 10 hours for the average working day. 3. Branches of English Industry without Legal Limits of Exploitation: In the last week of June of 1863, all the London daily papers published a paragraph with the sensational heading, ‘Death from simple over-work’. 4. Day-work and Night-work, the Shift-System: Marx describes so many cases of bad working conditions with child labor. 5. The Struggle for a Normal Working Day: The establishment of normal working day is the result of centuries of struggle between the capitalist and the worker. Capital’s drive towards a boundless and ruthless extension of the working day is satisfied first in those industries which were first to be revolutionized by water-power, steam and machinery, in those earliest creations of the modern mode of production, the spinning and weaving of cotton, wool, flax and silk. In certain branches of production, the struggle is still going on over regulations.

[Chapter 11. The Rate and Mass of Surplus-Value] Capital developed within the production process until it acquired command over labor, i.e. over self-activating labor-power, in other words, the worker himself. The capitalist now takes care that the worker does his work regularly and with proper degree of intensity. Capital also developed into a coercive relation, and this compels the working class to do more work than would be required by the narrow circle of its own needs. As an agent in producing the activity of others, as an extractor of surplus labor and an exploiter of labor-power, it surpasses all earlier systems of production, which were based on directly compulsory labor, in its energy and its quality of unbounded and ruthless activity. At first capital subordinates labor on the basis of the technical conditions.
Chapter IV. Economic Thought and Other Intellectual Developments

Part IV. The Production of Relative Surplus-Value: [Chapter 12. The Concept of Relative Surplus-Value] Absolute surplus-value is produced by the lengthening of the working day. Relative surplus-value is directly proportional to the productivity of labor. It is impossible to increase relative surplus value without an increase in the productivity of labor. There is a motive for each individual capitalist to cheapen his commodities by increasing the productivity of labor.43

[Chapter 13. Co-operation] The subjection of labor to capital was only a formal result of the fact that the worker, instead of working of himself, works for, and consequently under, the capitalist. Through the co-operation of numerous wage-laborers, the command of capital develops into a requirement for carrying on the labor process itself, into a real condition of production. Co-operation remains the fundamental form of the capitalist mode of production.44

[Chapter 14. The Division of Labor and Manufacture] On the one hand, manufacture either introduces division of labor into a process of production, or further develops that division; on the other hand, it combines together handicrafts that were formerly separate. But whatever may have been its particular starting-point, its final form is always the same – a productive mechanism whose organs are human beings. Manufacture creates a simple division of the workers into skilled and unskilled, at the same time as it inserts them into a hierarchical structure, the number of unskilled workers remains very limited owing to the preponderant influence of the skilled. Hence, on the one hand, the technical reason for the lifelong attachment of the worker to a partial function is swept away. On the other hand, the barriers placed in the way of the domination of capital by this same regulating principle now also fall.45

[Chapter 15. Machinery and Large-Scale Industry] 1. The Development of Machinery: As machinery, the instrument of labor assumes a material mode of existence which necessitates the replacement of human force by natural forces, and the replacement of the rule of thumb by the conscious application of natural science. In manufacture, the organization of the social labor process is purely subjective: it is a combination of specialized workers. Large-scale industry, on the other hand, possesses in the machine system an entirely objective organization of production, which confronts the worker as a pre-existing material condition of production. Hence the co-operative character of the labor process is in this case a technical necessity dictated by the very nature of the instrument of labor. 2. The Value Transferred by the Machinery to the Product: The use of machinery for the exclusive purpose of cheapening the product is limited by the requirement that less labor must be expended in producing the machinery than is displaced by the employment of that machinery. For the capitalist, however, there is a further limit on its use. Instead of paying for the labor, he pays only the value of the labor-power employed; the limit to his using a machine is therefore fixed by the difference between the value of the machine and the value of the labor-power replaced by it. 3. The Most Immediate Effects of Machine Production on the Worker: appropriation of supplementary labor-power by capital, the employment of women and children; the prolongation of the working day; and intensification of labor. 4. The Factory; 5. The Struggle between Worker and Machine; 6. The Compensation Theory, with regard to the Workers Displaced by Machine; 7. Repulsion and Attraction of Workers through the Development of Machine Production, Crises in the Cotton Industry: The Factory Act (1864) made the saving of time a necessity, and so forced into existence a dipping machine, whose vapor could not come into contact with the workers. 8. The Revolutionary Impact of large-Scale Industry on Manufacture, Handicrafts and Domestic Industry. 9. The Health and Education Clauses of the Factory Acts: Employment in mines of boys of 10 years and upwards is regulated; Education – school certificate is required before employing boys 10 to 12 years of age; employment of women is no longer employed underground. 10. Large-Scale Industry and Agriculture are regulated. The need for social transformation, and the antagonism of the classes, reaches the high level.46
Part V. The Production of Absolute and Relative Surplus-Value: Marx tries to distinguish between labor-time worked and labor power (productivity). "A worker who is sufficiently productive can produce an output value greater than what it costs to hire him. Although his wage seems to be based on hours worked, in an economic sense this wage does not reflect the full value of what the worker produces. Effectively it is not labor which the worker sells, but his capacity to work. Imagine a worker who is hired for an hour and paid $10. Once in the capitalist's employ, the capitalist can have him operate a boot-making machine with which the worker produces $10 worth of work every fifteen minutes. Every hour, the capitalist receives $40 worth of work and only pays the worker $10, capturing the remaining $30 as gross revenue. Once the capitalist has deducted fixed and variable operating costs of (say) $20 (leather, depreciation of the machine, etc.), he is left with $10. Thus, for an outlay of capital of $30, the capitalist obtains a surplus value of $10; his capital has not only been replaced by the operation, but also has increased by $10. The worker cannot capture this benefit directly because he has no claim to the means of production or to its products, and his capacity to bargain over wages is restricted by laws and the supply/demand for wage labor. Hence the rise of trade unions which aim to create a more favorable bargaining position through collective action by workers."47

[Chapter 16. Absolute and Relative Surplus-Value] From one standpoint, the distinction between absolute and relative surplus-value appears to be illusory. We may say that surplus-value rests on a natural basis. Even if we leave aside the question of the level of development attained by social production, the productivity of labor remains fettered by natural conditions. Marx quotes from J. S. Mill: profit arises not from the incident of exchange, but from the productive power of labor; and the general profit of the country is always what the productive power of labor makes it, whether any exchange takes place or not.48

[Chapter 17. Changes of Magnitude in the Price of Labor-Power and in Surplus-Value] The value of labor-power is determined by the value of the means of subsistence habitually required by the average worker. The quantity of the means of subsistence required is given at any particular epoch in any particular society and can therefore be treated as a constant magnitude. 1. The length of the working day and the intensity of labor constant; the productivity of labor variable. 2. The length of the working day and the productivity of labor constant; the intensity of labor variable. 3. The productivity and intensity of labor constant; the length of the working day variable. 4. Simultaneous variations in the duration, productivity and intensity of labor.49

[Chapter 18. Different Formulae for the Rate of Surplus-Value] The rate of surplus-value is represented by the following formulae:

<table>
<thead>
<tr>
<th>Formula</th>
<th>Description</th>
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<tbody>
<tr>
<td>I. The Rate of Surplus-Value</td>
<td>$\frac{\text{Surplus-value}}{\text{Variable capital}} = \frac{\text{Surplus-value}}{\text{Value of labor-power}} = \frac{\text{Surplus labor}}{\text{Necessary labor}}$</td>
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Political economy in fact provides us with derivative formulae, as follows:

<table>
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<tr>
<th>Formula</th>
<th>Description</th>
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<tbody>
<tr>
<td>II. The Rate of Surplus-Value</td>
<td>$\frac{\text{Surplus labor}}{\text{Working day}} = \frac{\text{Surplus-value}}{\text{Value of the product}} = \frac{\text{Surplus product}}{\text{Total product}}$</td>
</tr>
</tbody>
</table>

One and the same proportion is expressed here alternately in the form of labor-times, of the values in which those labor-times are embodied, and of the products in which those values exist. It is of course understood that by value of the product, newly created in working day.50
Part VI. Wages. [Chapter 19. The Transformation of Value of Labor-Power into Wages]
The wage appears as the price of labor, as a certain quantity of money that is paid for a certain quantity of labor. We may understand the decisive importance of the transformation of the value and price of labor-power into the form of wages, or into the value and price of labor itself. The exchange between capital and labor at first presents itself to our perceptions in exactly the same way as the sale and purchase of all other commodities. The buyer gives a certain sum of money, the seller an article which is something other than money.\textsuperscript{51}

[Chapter 20. Time-Wages] The sale of labor-power always takes place for definite periods of time. The converted form in which the daily value, weekly value, etc. of labor-power is directly presented is hence that of time-wages. The average price of labor is the average daily value of labor-power divided by the average number of hours in the working day.\textsuperscript{52}

[Chapter 21. Piece-Wages]: The piece-wage is nothing but a converted form of the time-wage, just as the time-wage is a converted form of the value or price of labor-power. Therefore, the piece-wage = daily value of labor-power / working day of a given number of hours.\textsuperscript{53}

[Chapter 22. National Differences in Wages]: In every country there is a certain average intensity of labor, below which the labor for the production of a commodity requires more than the time socially necessary, and therefore does not count as labor of normal quality. In a given country, only a degree of intensity which is above the national average alters the measurement of value by the mere duration of labor-time. It is otherwise on the world market; whose integral parts are the individual countries. The average intensity of labor changes from country to country; here is it greater, there less. These national averages form a scale whose unit of measurement is the average unit of universal labor. The more intense national labor, therefore, as compared with the less intense, produces in the same time more value, which expresses itself in more money. Hence, the different quantities of commodities of the same kind, produced in different countries in the same working time, have, therefore, unequal international values, which are expressed in different prices, i.e. in sums of money varying according to international values.\textsuperscript{54}

Part VII. The Process of Accumulation of Capital. [Chapter 23. Simple Reproduction]
The conditions of production are at the same time the conditions of reproduction. If production has a capitalist form, so too will reproduction. The purchase of labor-power for a fixed period is the prelude to the production process; and this prelude is constantly repeated when the period of time for which the labor-power has been sold comes to an end, when a definite period of production, such as a week or a month, has elapsed. The worker has produced not only surplus-value but also the variable capital, the fund out of which he himself is paid, before it flows back to him in the shape of wages; and his employment lasts only as long as he continues to reproduce this fund. Variable capital is therefore only a particular historical form of appearance of the fund for providing the means of subsistence, or the labor-fund, which the worker requires for his own maintenance and reproduction, and which, in all systems of social production, he must himself produce and reproduce. Therefore, entirely leaving aside all accumulation, the mere continuity of the production process, in other words, simple reproduction, sooner or later, and necessarily, converts all capital into accumulated capital, or capitalized surplus-value. Political economists consider that the individual consumption of the worker is unproductive even from his own point of view, for it simply reproduces the needy individual; but it is productive to the capitalist and to the state, since it is the production of a force which produce wealth for other people. In sum, the capitalist process of production, seen as a total, connected process, i.e. a process of reproduction, produces not only commodities, not only surplus-value, but it also produces and reproduces the capital relation itself; on the one hand the capitalist, on the other the wage-laborer.\textsuperscript{55}
Chapter IV. Economic Thought and Other Intellectual Developments

Chapter 24. The Transformation of Surplus-Value into Capital

1. Capitalist production on a progressively increasing scale, the inversion which converts the property laws of commodity production into laws of capitalist appropriation. In the case of simple reproduction, all capital, whatever its original source, is transformed into accumulated capital, or capitalized surplus-value. But in the flood of production, the total capital originally advanced becomes a vanishing quantity, in comparison with the directly accumulated capital, i.e. the surplus-value or surplus product that is reconverted into capital. This occurs whether the capital originally advanced is functioning in the hands of the man who accumulated it, or in the hands of other people. Hence the political economists describe capital in general as accumulated wealth (transformed surplus-value or revenue) that is employed over again in the production of surplus-value, and the capitalist himself as the owner of surplus-value. This same way of looking at things is merely expressed in another form in the statement that all existing capital is accumulated or capitalized interest, for interest is nothing but a fragment of surplus-value. 56

3. Division of surplus-value into capital and revenue – the abstinence theory. 54. The so-called Labor Fund: The circulation of capital of a country is its wage-fund. J. R. McCulloch says that “wages depend at any particular moment on the magnitude of the Fund or Capital appropriated to the payment of wages compared with the number of laborers. Laborers are everywhere the divisor, capital the dividend. In essence, wage-fund doctrine states that workers’ wages are determined by a ratio of capital to the population of available workers. Hence, the formula of wage-fund is: Wage = Capital / Population. 57

Chapter 25. The General Law of Capitalist Accumulation

1. A growing demand for labor-power accompanies accumulation if the composition of capital remains the same: Growth of capital implies growth of its variable constituent, in other words, the part invested in labor-power. A part of the surplus-value which has been transformed into additional capital must always be re-transformed into variable capital, or additional labor fund. If we assume that, while all other circumstances remain the same, the composition of capital also remains constant (i.e. a definite mass of the means of production continues to need the same mass of labor-power to set it in motion), then the demand for labor, and the fund for the subsistence of the workers, both clearly increase in the same proportion as the capital, and with the same rapidity. Since the capital produces a surplus-value every year, of which one part is added every year to the original capital; since this increment itself grows every year along with the augmentation of the capital already functioning; and since, lastly, under conditions especially liable to stimulate the drive for self-enrichment, such as the opening of new markets, or of new spheres for the outlay of capital resulting from newly developed social requirements, the scale of accumulation may suddenly be extended merely by a change in the proportion in which the surplus-value or the surplus product is divided into capital and revenue – for all these reasons the requirements of accumulating capital may exceed the growth in labor-power or in the number of workers; the demand for workers may outstrip the supply, and thus wages may rise. This must indeed ultimately be the case if the conditions assumed above continue to prevail. Since in each year more workers are employed than in the preceding year, sooner or later a point must be reached at which the requirements of accumulation begin to outgrow the customary supply of labor, and a rise of wages therefore take place. 2. A relative diminution of the variable part of capital occurs in the course of the further progress of accumulation and of the concentration accompanying it. With the increasing productivity of labor, the mass of the means of production consumed by labor increases, but their value in comparison with their mass diminishes. 3. The progressive production of a relative surplus population or industrial reserve army: If the surplus population of workers is a necessary product of accumulation or of the development of wealth on a capitalist basis, this surplus population also becomes the lever of capitalist accumulation. 58
Chapter IV. Economic Thought and Other Intellectual Developments

4. The General Law of Capitalist Accumulation: In the centers of modern industry – factories, workshops, iron-works, mines, etc. – the workers are sometime repelled, sometimes attracted again in greater masses, so that the numbers of those employed increases on the whole, although in a constantly decreasing proportion to the scale of production. Here the surplus population exists in the floating form. (i) Both in the factories proper and in the large workshops, where machinery enters as one factor, where a division of labor of a modern type has been put into operation, and large numbers of male workers are employed up to the age of maturity, but not beyond. Once they reach maturity, only a very small number continue to find employment in the same branches of industry, while the majority are regularly dismissed. This majority forms an element of the floating surplus population, which grows with the extension of those branches of industry. Some of these workers emigrated. A further consequence is that the female population grows more rapidly than the male – witness England. That the natural increase of the number of workers does not satisfy the requirements of the accumulation of capital, and yet, at the same time, exceeds those requirements, is a contradiction inherent in capital’s very movement. Capital demands more useful workers, fewer adults. Moreover, consumption of labor power by capital, and the shorter average age at death of the laboring class caused rapid replacement of one generation of workers by another.

(ii) As soon as capitalist production takes possession of agriculture, and in proportion to the extent to which it does so, the demand for a rural working population falls absolutely, while the accumulation of the capital employed in agricultural advances, without this repulsion being compensated for by a greater attraction of workers, as is the case in non-agricultural industries. Part of the agricultural population is therefore constantly on the point of passing over into an urban or manufacturing proletariat, and on the look-out for opportunities to complete this transformation. There is thus a constant flow from this source of the relative surplus population. But the constant movement towards the towns presupposes, in the countryside itself, a constant latent surplus population, the extent of which only becomes evident at those exceptional times when its distribution channels are wide open. The wages of the agricultural laborer are therefore reduced to minimum, and he always stands with one foot already in the swamp of pauperism.

(iii) The relative surplus population is the stagnant population. This forms a part of the active labor army, but with extremely irregular employment. Hence it offers capital as inexhaustible reservoir of disposable labor-power. Its conditions of life sink below the average normal level of the working class, and it is precisely this which makes it a broad foundation for special branches of capitalist exploitation. It is characterized by a maximum of working time and a minimum of wages. We have already become familiar with its chief form under the rubric of domestic industry. It is constantly recruited from workers in large-scale industry and agriculture who have become redundant, and especially from those decaying branches of industry where handicraft is giving way to manufacture, and manufacture to machinery.

(iv) The lowest sediment of the relative surplus population dwells in the sphere of pauperism. Apart from vagabonds, criminals, prostitutes, in short the actual lumpen-proletariat, this social stratum consists of three categories. First, those able to work. One need only glance superficially at the statistics of English pauperism to find that the quantity of paupers increases with every crisis of trade and diminishes with every revival. Second, orphans and pauper children. These are candidates for the industrial reserve army, and in times of great prosperity, such as the year 1860, for instance, they are enrolled in the army of active workers both speedily and in large numbers. Third, the demoralized, the ragged, and those unable to work, chiefly people who succumb to their incapacity for adaptation, an incapacity which results from the division of labor; people who have lived beyond the worker’s average life-span; and the victims of industry, whole number increases with the growth of dangerous machinery, of mines, chemical works, etc.
The greater the social wealth, the functioning capital, the extent and energy of its growth, and therefore also the greater the absolute mass of the proletariat and the productivity of its labor, the greater is the industrial reserve army. The same causes which develop the expansive power of capital, also develop the labor-power at its disposal. The relative mass of the industrial reserve army thus increases with the potential energy of wealth. But the greater this reserve army in proportion to the active labor-army, the greater is the mass of a consolidated surplus population, whose misery is in inverse ratio to the amount of torture it has to undergo in the form of labor. The more extensive, finally, the pauperized sections of the working class and the industrial reserve army, the greater is official pauperism. This is the absolute general law of capitalist accumulation. Like all other laws, it is modified in its working by many circumstances, the analysis of which does not concern us here.

We can now understand the foolishness of the economic wisdom which preaches to the workers that they should adapt their numbers to the valorization requirements of capital. The mechanism of capitalist production and accumulation itself constantly effect this adjustment. The first word of this adaptation is the creation of a relative surplus population, or industrial reserve army. Its last word is the misery of constantly expanding strata of the active army of labor, and the dead weight of pauperism. On the basis of capitalism, a system in which the worker does not employ the means of production, but the means of production employ the worker, the law by which a constantly increasing quantity of means of production may be set in motion by a progressively diminishing expenditure of human power, thanks to the advance in the productivity of social labor, undergoes a complete inversion, and is expressed thus: the higher the productivity of labor, the greater is the pressure of the workers on the means of employment, the more precarious therefore becomes the condition of their existence, namely the sale of their own labor-power for the increase of alien wealth, or in other words the self-valorization of capital. The fact that the means of production and the productivity of labor increase more rapidly than the productive population expresses itself, therefore, under capitalism, in the inverse form that the working population always increases more rapidly than the valorization requirements of capital.

Accumulation of wealth at one pole is at the same time accumulation of misery, the torment of labor, slavery, ignorance, brutalization and moral degradation at the opposite pole, i.e. on the side of the class that produces its own product as capital. This antagonistic character of capitalist accumulation is enunciated in various forms by political economists, although they lump it together with other phenomena which are admitted to some extent analogous, but nevertheless essentially distinct, since they appear only in pre-capitalist modes of production.

5. Illustrations of the general law of capitalist accumulation: Marx observes England from 1846 to 1855 under the issues: the badly paid strata of the British industrial working class; the nomadic population; effect of crises on the best paid section of the working class; and the British agricultural proletariat. Marx views that nowhere does the antagonistic character of capitalist production and accumulation assert itself more brutally than in the progress of English agriculture and the retrogression of the English agricultural laborer. The repeal of the Corn Laws (1846) gave a marvelous impulse to English agriculture. Drainage on the most extensive scale, new methods of stall-feeding and the artificial cultivation of green crops, the introduction of mechanical manuring apparatus, new treatment of clay soils, increased use of mineral manures, employment of the steam-engine and all kinds of new machinery, more intensive cultivation in general, are all characteristic of this epoch. The expenses of farming have been reduced nearly 50 percent, and the actual productive return of the soil rose rapidly. Marx quotes a report saying that to the insufficient quantity and miserable quality of the house accommodation generally had by our agricultural laborers, and the state of the laborer has been deteriorating.
Chapter IV. Economic Thought and Other Intellectual Developments

Part VIII. So-called Primitive Accumulation: [Chapter 26. The Secret of Primitive Accumulation] We have seen how money is transformed into capital; how surplus-value is made through capital, and how more capital is made from surplus-value. But the accumulation of capital presupposes surplus-value; surplus-value presupposes capitalist production; capitalist production presupposes the availability of considerable masses of capital and labor-power in the hands of commodity producers. The whole movement, therefore, seems to turn around in a never-ending circle, which we can only get out of by assuming a primitive accumulation, which proceeds capitalist accumulation; an accumulation which is not the result of the capitalist mode of production but its point of departure. The rise of the industrial capitalists appears as the fruit of a victorious struggle both against feudal power and its disgusting prerogatives, and against the guilds, and the fetter by which the latter restricted the free development of production and the free exploitation of man by man. The knights of industry, however, only succeeded in supplanting the knights of the sword by making use of events in which they had played no part whatsoever. They rose by means as base as those once used by the Roman freeman to make himself the master of his patronus. The starting-points of the development that gave rise both to the wage-laborer and to the capitalist was the enslavement of the worker. The advance made consisted in a change the form of this servitude, in the transformation of feudal exploitation into capitalist exploitation. In the history of primitive accumulation, all revolutions are epoch-making that act as levers for the capitalist class in the course of its formation; but this is true above all for those moments when great masses of men are suddenly and forcibly torn from their means of subsistence, and hurled onto the labor-market as free, unprotected and right-less proletarians. The expropriation of the agricultural producer, of the peasants, from the soil is the basis of the whole process. The history of this expropriation assumes different aspects in different countries and runs through its various phases in different orders of succession, and at different historical epochs.63

[Chapter 27. The Expropriation of the Agricultural Population from the Land] The spoliation of the Church’s property, the fraudulent alienation of the state domains, the theft of the common lands, the usurpation of feudal and clan property and its transformation into modern private property under circumstances of ruthless terrorism, all these things were just so many idyllic methods of primitive accumulation. They conquered the field for capitalist agriculture, incorporated the soil into capital, and created for the urban industries the necessary supplies of free and right-less proletarians.64

[Chapter 28. Bloody Legislation against the Expropriated since the End of the Fifteenth century: The Forcing down of Wages by Act of Parliament]

[Chapter 29. The Genesis of the Capitalist Farmer] At the end of the sixteenth century, England has a class of capitalist farmers who were rich men in relation to the circumstances.

[Chapter 30. Impact of the Agricultural Revolution on Industry: The Creation of a Home Market for Industrial Capital] A consistent foundation for capitalist agriculture could only be provided by large-scale industry, in the form of machinery; it is large-scale industry which radically expropriates the vast majority of the agricultural population and completes the divorce between agriculture and rural domestic industry, tearing up the latter’s roots.65

[Chapter 31. The Genesis of Industrial Capitalist]

[Chapter 32. The Historical Tendency of Capitalist Accumulation]

[Chapter 33. The Modern Theory of Colonization] The only thing that interests us is the secret discovered in the New World by the political economy of the Old World, and loudly proclaimed by it: that the capitalist mode of production and accumulation, and therefore capitalist private property as well, have for their fundamental condition the annihilation of that private property which rest on the labor of the industrial himself; the expropriation of the worker.66
Chapter IV. Economic Thought and Other Intellectual Developments

Das Kapital, Volume II. The Process of Circulation of Capital

Part I. The Metamorphoses of Capital and their Circuit: [Chapter 1. The Circuit of Money Capital] The circuit of capital comprises three stages as follows. First stage: The capitalist appears on the commodity and labor markets as a buyer; his money is transformed into commodities, it goes through the act of circulation M-C. Second stage: Productive consumption by the capitalist of the commodities purchased. He functions as capitalist producer of commodities; his capital passes through the production process. The result: commodities of greater value than their element of production. Third stage: The capitalist returns to the market as a seller; his commodities are transformed into money, they pass through the act of circulation C-M. Thus, the formula for the circuit of money capital is \( M \cdot C \ldots P \ldots C' \cdot M' \), where the dots indicate that the circulation process is interrupted, while \( C' \) and \( M' \) denote an increase in \( C \) and \( M \) as the result of surplus-value. Here we shall assume both that commodities are sold at their values, and that the circumstances in which this takes place do not change. We shall also ignore any changes of value that may occur in the course of the cyclical process. At first, \( M-C \) represents the conversion of a sum of money into a sum of commodities; the buyer transforms his money into commodities, the sellers their commodities into money. If we call labor-power \( L \), means of production \( m \), and the sum of commodities to purchased \( C \); then we have \( C = L + mp \), and \( M-C \) break up into \( M-L \) and \( M-mp \); hence \( M \) is transformed from \( M-C \) to \( M-C(L+mp) \). We know that the value or price of labor-power is paid to its proprietor, who offers it for sale as a commodity, in the form of wages, i.e. as the price of a sum of labor that contains surplus labor. Thus, if the value of a day’s labor-power is 3 shillings, the product of five hours labor, this sum may figure in the contract between buyer and seller as the price of wage for perhaps ten hours labor. If a contract of this kind is made with 50 workers, they have to provide the buyer with a total of 500 hours’ labor each day, half of this – 250 hours, or twenty-five ten-hour working-days – consisting simply of surplus labor. The means of production to be purchased must be sufficient in quantity and volume to employ this amount of labor. The transformed value \( P \) equals the value of \( L+mp \), so we get \( M=P=L+mp \). Hence, the formula for the circuit of money capital \( M-C \ldots P \ldots C' \cdot M' \) is self-evident form.

[Chapter 2. The Circuit of Productive Capital] The circuit of productive capital has the general formula: \( P \ldots C' \cdot M' \cdot C \ldots P \). It signifies the periodically repeated function of the productive capital, i.e. reproduction. Let’s consider first of all the process \( C' \cdot M' \cdot C \) that runs its course between the extremes \( P \ldots P \) in the sphere of circulation. The starting point of this circulation is the commodity capital: \( C' = C + c = P + c \). The function of the commodity capital \( C' \cdot M' \) (the realization of the capital value \( P \) contained in it, which now exists as a commodity component \( C \), as well as of the surplus-value it contains, which exists as a component of the same commodity mass with the value \( c \) ) was treated in the first form of the circuit. Hence we obtain:

\[
\begin{align*}
C' + C \quad M' + m \quad = C (L+mp) \\
\left[c \quad M \quad m\right] = c
\end{align*}
\]

\[
P \ldots C' + C \quad M' + m \quad = C (L+mp) \\
\left[c \quad M \quad m\right] = c
\]

where \( C' \cdot M' \cdot C \) is simple commodity circulation: \( C' = C + c \) is the movement of capital value and surplus-value; \( M' = M \cdot m \) is the sums of money for the same mass of commodities, in which \( M = L + mp \) is the money value of labor-power and means of production. The formula \( C' \cdot M' \cdot C \) above left is transformed into a modified form of \( P \ldots C' \cdot M' \cdot C \ldots P \) as shown in the above right. The act \( C' \cdot M' \) merely assumes that \( C' \) is transformed into money, is sold, so that the circuit of the capital value can continue, and the surplus-value can be consumed by the capitalist.
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[Chapter 3. The Circuit of Commodity Capital] Since in C’…C’ the total product (the total value) is the point of departure, it is evident here that, leaving aside foreign trade, reproduction on an expanded scale, with productivity otherwise remaining the same, can take place only if the material elements of the additional productive capital are already contained in the part of the surplus product to be capitalized. That is to say, in so far as the production of one year, surplus product is immediately produced in the form that enable it to function as additional capital. Increased productivity can increase only the material substance of capital and cannot raise its value; but it still forms additional material for valorization.

[Chapter 4. The Three Figures of the Circuit] Taking Tc to stand for the total circulation process, we can depict the three figures as follows: (i) M-C…P…C’-M'; (ii) P…T…P; and (iii) Tc…P (C'). If we take all three forms together, then all the premises of the process appear as its result, as premises produced by the process itself. Each moment appears as a point of departure, of transit, and of return. The total process presents itself as the unity of the process of production and the process of circulation; the production process is the mediator of the circulation process, and vice versa. Common to all three circuits is the valorization of value as the determining purpose, the driving motive. In figure (i), this is actually expressed in the form. Form (ii) begins with P, the valorization process itself. In form (iii), the circuit begins with the valorized value, and closes with the newly valorized value, even when the movement is repeated on the same scale.68

[Chapter 5. Circulation Time] The movement of capital through the production sphere and the two phases of the circulation sphere are accomplished successively in time. The duration of its stay in the production sphere forms its production time that in the circulation sphere its circulation time. The total amount of time it takes to describe its circuit is therefore equal to the sum of its production time and its circulation time.69

[Chapter 6. The Costs of Circulation] 1. Pure circulation costs: buying and selling time; book-keeping; and money. Since on the basis of capitalist production, the commodity is the general form of the product, the great mass of products are produced as commodities and must hence assume the money form; and since the mass of commodities, the part of the social wealth functioning as commodities, is constantly growing, so the quantity of the gold and silver that functions as a means of circulation, means of payment, reserve, etc. also increases. The wear and tear of money requires its steady replacement, or the transformation of more social labor into more gold and silver. 2. Cost of storage: Stock formation in general; and the commodity stock proper; 3. Transport costs: The general law is that all circulation costs that arise simply from a change in form of the commodity cannot add any value to it. The transport industry forms on the one hand an independent branch of production, and hence a particular sphere for the investment of productive capital. On the other hand, it is distinguished by its appearance as the continuation of a production process within the circulation process and for the circulation process.70

Part II. The Turnover of Capital: [Chapter 7. Turnover Time and Number of Turnovers] The overall time of circulation of a given capital is the sum of its circulation time proper and its production time. It is the period of time that elapses from the moment that the capital value is advanced in a particular form until the return of the capital value is process in the same form. The number of turnovers \( n = U/u \) where \( U \) is measurement unit of turnover time, and \( u \) is turnover time of a particular capital. For example, if the measurement duration is one year (12 month), and the turnover time for a particular capital, then the number of turnover time is \( n = 12/3 = 4 \). For the capitalist, the turnover time of his capital is the time for which he has to advance his capital in order for this to be valorized and for him to receive it back in its original shape. The influence of turnover on the production and valorization process to be discussed later.71
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[Chapter 9. The Overall Turnover of the Capital Advanced – Turnover Cycle] The fixed and the fluid components of productive capital turn over differently and in different periods, just as the various components of fixed capital in the same business also have different turnover periods according to their different lifespans and production time. The overall turnover of the capital advanced is the average turnover of its different component parts. 72

[Chapter 10. Theories of Fixed and Circulating Capital, the Physiocrats and Adam Smith] Among various explanations, although the part of capital spent on wages belongs to the fluid part of productive capital, and has this fluidity in common with a portion of the objective elements of product formation, the raw materials, etc., as opposed to the fixed component of productive capital, this has absolutely nothing to do with the role that this variable part of capital plays in the valorization process as opposed to the constant part. It is simply related to how this part of the capital value advanced has to be replaced, renewed, and thus reproduced out of the value of the product, by way of circulation. The purchase and re-purchase of labor-power pertains to the circulation process. But it is only within the production process that the value laid out on labor-power that Smith define as a fluid component of the productive capital, but rather the value laid out on the worker’s means of subsistence, it is impossible for him to understand the distinction between variable and constant capital, and thus the capitalist production process in general. 73

[Chapter 11. Theories of Fixed and Circulating Capital, Ricardo] Fixed capital includes means of labor, and circulation capital = capital laid out on labor. Capital that is to support labor is itself an absurd expression taken over from Adam Smith. Here circulation capital is on the one hand lumped together with variable capital, i.e. with the part of productive capital laid out on labor. On the other, however, because the opposition is not derived from the valorization process – constant and variable capital – but rather from the circulation process, two misconceptions arise. Firstly, the differences in the degree of durability of the fixed capital, and the variations in the composition of capital in terms of constant and variable, are taken as equivalent. Secondly, from the standpoint of the circulation process, we have on the one hand the means of labor: fixed capital, on the other hand material of labor and wages: fluid capital. In Ricardo, (i) The characteristic feature of variable capital is that a definite, given (i.e. in this sense constant) part of capital, a given sum of value (assumed to be equal to the value of the labor-power, although it is immaterial here whether the wage is the same as, or more or less than, the value of the labor-power), is exchanged for a force that valorizes itself and creates value – labor-power, which not only reproduces the value paid to it by the capitalist, but also produces a surplus-value, a value that did not previously exist and it not bought for an equivalent. (ii) The essential feature of the definition of variable capital – and hence of the transformation of any sum of values at all into capital – is that the capitalist exchanges a definite, given (and in this sense constant) value for value-creating power; a magnitude of value for the production of value, for self-valorization. 74

[Chapter 12. The Working Period] The differences in the duration of the act of production do not just occur between different branches of production, but also within the same branch, according to the size of the product to be supplied. The methods that shorten the working period differ greatly in the extent to which they can be applied in different branches of industry, and they do not cancel out the difference in length of the different working periods. To stick to our example, the application of new machine-tools may, in absolute terms, shorten the working period necessary for the production of a locomotive. But its improved processes in spinning increase the finished product turned out daily or weekly here to an even greater extent, then the length of the working period in machine-building will still have increased relatively, compared with that in spinning. 75
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[Chapter 13. Production Time] Working time is always production time, i.e. time during which capital is confined to the production sphere. But it is not true, conversely, that the entire time for which capital exists in the production process is necessarily therefore working time. What is at issue here are not interruption in the labor process conditioned by the natural limits of labor-power itself, even though we have seen the extent to which the mere fact that fixed capital—factory buildings, machinery, etc.—lies idle during the pauses in the labor process became one of the motive for the unnatural extension of the labor process, and for working day and night.  

[Chapter 14. Circulation Time] All the circumstances so far considered as differentiating the circulation periods of different capital invested in different branches of industry, and hence also the times for which capital has to be advanced, such as the distinction between fixed and fluid capital, the difference in working period, etc., arise within the production process itself.

[Chapter 15. Effect of Circulation Time on the Magnitude of the Capital Advanced] Working period and circulation period equal; working period longer than circulation period; working period shorter than circulation period. Assuming that prices and the scale of production stay the same, we can see there is a contraction or expansion in the circulation time.

[Chapter 16. The Turnover of Variable Capital] The annual rate of surplus-value is mass of surplus-value produced during the year /mass of variable capital advanced. In relation to the actual circulating capital applied (both variable and constant), the length of the turnover period, in so far as it derives from the length of the working period, leads to the distinction that, with a greater number of turnovers in the course of the year, an element of the variable or constant circulating capital can be supplied by way of its own product, as with the production of coal, of ready-made cloths, etc. In other situations, this is not the case, at least not within the year.

[Chapter 17. The Circulation of Surplus-Value] There is a necessary variation in the capitalization of surplus-value, in accumulation, and in this respect also in the mass of surplus-value produced during the year even with the rate of surplus-value remaining the same.

1. Simple Reproduction: In the case of simple reproduction, the surplus-value that is periodically produced and realized, either annually or by several turnovers within the year, is consumed individually, i.e. unproductively, by its owners, the capitalists. In bourgeois economics, the existence of surplus-value is taken off granted. Thus, not only is it presupposed, but it is also presupposed at the same time that a part of the mass of commodities cast into circulation consists of surplus product, and thus represents a value that the capitalist did not cast into circulation with his capital; that the capitalist therefore casts into circulation an excess over and above his capital and withdraws this excess form it again. In the turnover, with circumstances otherwise remaining the same, changes in the length of the turnover periods make different amounts of capital necessary in order to continue production on the same scale. The monetary circulation must thus be elastic enough to adapt to this alternate expansion and contraction.

2. Accumulation and Expanded Reproduction: The total price of the mass of commodities in circulation has increased, because the mass of commodities now in circulation is greater than that of the commodities circulating earlier. The additional money required for the circulation of this increased commodity mass of a greater value must be created whether by a more economic use of the quantity of money in circulation—whether by directly balancing payments, etc., or by means that accelerate the circulation of the same prices of money—or alternatively by the transformation of money from the hoard form into the circulating form. This does not just imply that idle money capital begins to function as means of purchase or payment, or that money capital already functioning as a reserve fund, while continuing to perform the function of a reserve fund for its owners, circulates actively for the society, and thus performs a double function. It also means that stagnant reserves of coin are used more economically.
Part III. The Reproduction and Circulation of the Total Social Capital: [Chapter 18. Introduction] The need for money capital arises from the length of the working period; this is conditioned by two factors. Firstly, that money is the general form in which each individual capital must enter the scene (leaving aside credit), in order to be transformed into productive capital; this arises from the natural capitalist production, and of commodity production in general. Secondly, the size of the money advance needed arises from the circumstance that labor-power and means of production are withdrawn from society for a long period without the return of a product that can be transformed back into money. The first fact, that the capital has to be advanced in the form of money, is not abolished by the form this money takes, whether it is metallic money, credit money, tokens of value, etc. The second factor is not affected in any way either by the monetary medium or by the form of production in which labor, means of subsistence and means of production are withdrawn, without an equivalent being cast back into circulation.80

[Chapter 19. Former Presentations of the Subject] 1. The Physiocrats. 2. Adam Smith: In short, the various factors of the labor process – objective and personal – appear from the start in the character masks of the era of capitalist production. The analysis of commodity value therefore directly coincides with the question as to how far this value is, on the one hand, simply the equivalent for the capital laid out, and how far, on the other hand, it constitutes free value that does not replace any capital value advanced, i.e. is surplus-value. The portions of commodity value compared from this standpoint are thereby transformed surreptitiously into its independent component parts, and ultimately into the sources of all value. A further conclusion is that commodity value is composed of revenues of various kinds, or alternatively is resolved into these revenues, so that it is not the revenues that consist of commodity value, but rather the commodity value that consists of revenues. But just as it scarcely affects the nature of a commodity value as commodity value, or of money as money, whether it functions as capital value or not, so equally a commodity value is scarcely altered by the fact that it goes on to function as revenue for this person or that. The commodities Smith is dealing with here are commodity capital from the start (and therefore include surplus-value as well as the capital value consumed in their production), i.e. they are commodities produced in the capitalist manner, the result of the capitalist production process. This last should therefore have been the object of prior analysis, together with the process of valorization and value formation that it involves. And since the very presupposition of this is in turn commodity circulation, its presentation also requires, therefore, an independent and prior analysis of the commodity. Even when Smith in his esoteric aspect occasionally comes up with something correct, he takes account of value formation only in connection with the analysis of commodities, i.e. the analysis of commodity capital.

3. Other Writers: Ricardo reproduces Adam Smith’s theory almost verbatim. It must be understood that all the productions of a country are consumed; but it makes the greatest difference imaginable whether they are consumed by those who reproduce, or by those who do not reproduce another value. When we say that revenue is saved, and added to capital, what we mean is, that the portion of revenue, so said to be added to capital, is consumed by productive instead of unproductive laborers. In point of fact, Ricardo completely accepted Smith’s theory of the resolution of commodity rice into wages and surplus-value (or variable capital and surplus-value). What he takes issue with Smith over are (i) the components of surplus-value; he eliminates ground-rent as a necessary element of it; (ii) Ricardo breaks down commodity price into these components. The magnitude of value thus comes first. He takes the sum of the components as a given magnitude, rather than deriving the magnitude of value of the commodity after the event by adding together its components, as Smith often does, even against his own better judgment. In addition, Marx introduces several other writers such as Ramsay, Say, etc.
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Chapter 20. Simple Reproduction

The total production process breaks down into two departments: means of production and means of consumption. In each department, capital has two components: variable capital and constant capital. Variable capital is equal to the value of social labor-power applied in this branch of production, i.e. the sum of the wages paid for it – self-acting labor-power itself. Constant capital is the value of all the means of production applied to production in this branch. It breaks down into fixed capital - machines, instruments of labor, buildings, draught animals, etc.; and circulating constant capital – materials of production, such as raw and ancillary materials, semi-finished goods, etc. Then, we can obtain the value of total annual product of each department becomes \( T = c + v + s \) where \( c \) is constant capital consumed in the course of production, \( v \) is variable capital, and \( s \) indicates surplus-value.\(^{81}\)

The so-called conditions of proportionality in a two-department system (where the total mass of commodities is classified into a department I of means of production and a department II of consumer goods) were formulated by Marx himself. In the case of simple reproduction, they are:

\[ I_v + I_s = II_c \]

Otto Bauer and Bukharin derived from this a similar formula for expanded reproduction, which, although present in Volume 2, was not explicitly formulated by Marx:

\[ I_v + I_{s\alpha} + I_{s\gamma} = II_c + II_s \]

In conformity with the dual nature of the reproduction schemas, these conditions of proportionality simultaneously have two meanings:

(a) The exchange-value of the goods sold by department I to department II must be equal to the value of the goods sold by department II to department I (otherwise, there would emerge an unsaleable surplus in at least one of the two department).

(b) The specific use-value of the commodities produced in both departments must correspond to their mutual needs. For instance, the purchasing power in the hands of the workers producing producer goods must encounter on the market not only commodities, but actual consumer goods equivalent to that sum of wages. (Under capitalism, workers are not supposed to spend their money on any commodities other than consumer goods.)

The commodity, non-barter nature of the reproduction schemas further implies a dual flow between the two departments. When department I sells raw materials and equipment to department II (to replace the value of \( II_c \) used up in the previous production cycle), commodities flow from department I to department II, while money flows from department II to department I. It has to be determined where that money initially came from. Conversely, when department II sells consumer goods to the workers of department I, to enable them to reproduce their labor-power, commodities flow from II to I, while money flows from I to II.

From a purely technical point of view, there is nothing extraordinary or magical in this two-department schema. It is just the most elementary conceptual tool – an extreme simplification intended to bring out the underlying assumptions of equilibrium (or equilibrated, proportionate growth) under conditions of commodity production. For exchange to occur, there must exist at least two private capitals independent of each other. With these conceptual tools, it would be easy to draw up a three-department model (e.g. with gold as department III), or a four-department one...Step by step, we would approach an inter-branch model reflecting the actual structure of a modern capitalist industrialized economy. A certain number of conditions of physical inter-dependence would have to be established among all these branches (like input-output tables). These would then have to be supplemented by a table of value equivalence, since the only condition for equilibrium is overall realization of value. At this point, there appears an important difference between a two-department schema and a multi-department one. The former necessitates equivalence of exchange-values between the two departments.\(^{82}\)
Reverting to the two-department schema presented in this Chapter, we can now outline the dual flow of commodities and money between the two departments, both in the case of simple reproduction and in that of expanded reproduction as below:

**Simple reproduction:** “The workers buy commodities from department II to the equivalent of their wages, and the capitalists to the equivalent of their profits. Both these flows are continuous (workers and capitalists alike have to eat every day) regardless of whether department I commodities have already been sold. Therefore, even simple reproduction requires the prior existence of money capital and money reserves (for revenue expenditure) in the hands of the capitalist class over and above the value of productive capital. With the money received from the sale of their commodities, the capitalists of department II buy from department I the means of production needed to reconstitute their own constant capital used up during the production process. This money returned to department I, after mediating the purchase and sale of means of production within that department, reconstitutes the initial money capital and money-revenue reserve with which the whole turnover process can recommence. Similarly, within department II the capitalists sell consumer goods to their own workers and thereby immediately reconstitute their own variable capital. They sell consumer and luxury goods to all industrialists active within that department, thus realizing the surplus-value contained in the sum total of consumer goods produced.”

**Expanded reproduction:** “Workers and capitalists of department I buy consumer goods from department II to a total value of $I_v + I_{sv}$. With this money, capitalists of department II by means of production from department I in order to reconstitute their own constant capital used up during the production process. Now, capitalists of department I have the necessary means to mediate the circulation of $c$ within their own department and to hire additional workers, who will buy additional consumer goods (to the equivalent of $I_{sv}$) from department II. The capitalists of department II thereby acquire the purchasing power to buy from department I the additional means of production necessary for their own expanded reproduction ($II_{cp} = A II_c$), while the sale of consumer goods to workers and capitalists within department II operates as described above. Finally, with the further means obtained by the sale of $A II_c$ to department II, the capitalists of department I can complete their own expanded reproduction, mediating the sale of $AI_v$ to department II, if this has not been fully covered in the first stage of circulation.”

**The reproduction of the money material:** The fluxes and refluxes of money which take place on the basis of capitalist production, the reconversion of the annual product, and which have grown up spontaneously; the advances of fixed capital at a single stroke, to its entire value, and the progressive withdrawal of this value from circulation by a process that extends over a period of many years, i.e. its gradual reconstitution in the money form by annual hoard formation, a hoard formation that is completely different in nature from the hoard formation based on the new gold production of each year that accompanies it; the different lengths of time for which money has to be advanced, which vary according to the length of the production periods of the commodities, and for which there has to be in each case a prior formation of a hoard before the money can be withdrawn from circulation by the sale of the commodity involved; the varying times of advance that arise simply from differences in the distance of the point of production from the market outlet; as well as the variation in the size and period of the reflux according to the condition or the relative size of the production stocks in different businesses and for the different individual capitalists in the same line of business, i.e. the date of purchase of the elements of constant capital, and all this during the year’s reproduction – all these different aspects of the spontaneous movement had only to be noted and brought to light by experience, in order to give rise both to the methodical use of the mechanical aids of the credit system and to the actual fishing out of available loan capital.”
[Chapter 21. Accumulation and Reproduction on an Expanded Scale] 1. Accumulation in Department I: Hoard formation; the annual constant capital; the additional variable capital. 2. Accumulation in Department II: Our assumption is that these capitalists combine the whole business of trading with that of producing. They must therefore also have at their disposal the additional money capital which exists in the hands of the merchants once the individual functions of the reproduction process are made the independent functions of different sorts of capitalist. (i) The objection could be made that this stock formation and the need for it holds for all capitalists, in both departments. Considered simply as sellers of commodities, these are distinguished only by the different kinds of commodities they sell. A stock of commodities in department II implies a previous stock of commodities in department I. (ii) Just as the current year concludes on the side of department II with a commodity for the next, so it began with a commodity stock on the same side left over from the previous year. In analyzing the annual reproduction – reduced to its most abstract expression – we must thus cancel out the stock on both sides. If we leave the year in question with the whole of its production, and thus also that which it transfers as a commodity stock to the next year, we must deduct from this on the other side the commodity stock that it receives from the year before, and we thus have the total product of an average year as the object of our analysis. (iii) The simple fact that we did not come up against the difficulty that has now to be overcome in considering simple reproduction shows that we are dealing here with a specific phenomenon that is due merely to the different arrangement of the elements of department I, an arrangement without which there could be no reproduction on an expanded scale at all.86

Marx considers four distinct causes of rising commodity prices as follows: (i) A fall in the average productivity of labor in a given branch of output: prices would then rise as the result of an increase in value of particular commodities. (ii) A sudden increase of labor productivity in the gold-mining industry, and thus decline in the value of gold. (iii) An upward trend of market price-fluctuations around an unchanged axis of values. This may occur, even when the gold currency remains stable and when there is no paper money inflation. (iv) An inflationary movement of money signs with a greater sum of paper money signs (or of bank money, credit money).87

In volume 2, we follow the commodities, containing the surplus-value produced by the workers, on their travels outside the factory. “A spiraling movement of growth is unleashed – a veritable avalanche. The sale of commodities at their value enables profit to be realized and additional capital to be accumulated. More capital begets more surplus-value, which in turn begets more capital. Obstacles on the road of self-expansion – such as the enforced lingering of commodities in the sphere of circulation, or the protracted character of the production process itself – are swept away by the avalanche, thanks to social division of labor within the capitalist class; the appearance of commercial and banking capital; and the constant striving to accelerate the transport of commodities, build up a world-wide system of communications and reduce the length of the circulation process to a minimum. An immense mountain of commodities is distributed with lightning speed around the globe, so that a steadily growing stream of value (money capital) may be concentrated in the hands of an ever-smaller percentage (if not necessarily a shrinking absolute number) of the world’s active population. The frenetic search for additional wealth in order to create even more wealth becomes increasingly divorced from basic human needs and interests, increasingly opposed to the production of a rich individuality and the rich development of social relations encompassing all human beings. But the process cannot continue smoothly and uninterruptedly; capital is powerless to overcome the basic contradiction of commodity and private property. From both sides, the contradictions of production for its own sake (i.e. production in order to augment the profits of those who own the major means of production) must lead to periodic discharge in huge social economic convulsions.88
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Das Kapital, Volume III. The Process of Capitalist Production as a Whole

Part I. The Transformation of Surplus-Value into Profit, and of the Rate of Surplus-Value into the Rate of Profit: [Chapter 1. Cost Price and Profit] In Volume 1, we investigated the phenomena exhibited by the process of capitalist production, and it is supplemented by Volume 2, the process of circulation of capital. Now our concern in Volume 3 lies in the process of capital’s movement considered as a whole. In Chapter 20 of Volume 3, we defined the following formula: \( C = c + v + s \), where \( C \) indicates commodity value, \( c \) is constant capital that is the value of all means of production, \( v \) is variable capital that is the value of social labor-power, and \( s \) is surplus-value. Constant capital \( c \) breaks down into fixed capital such as machines, instruments of labor, buildings, draught animals, etc., and circulating constant capital such as materials of production. If the surplus-value takes on the transformed form of profit \( p \), the formula becomes:

\[ C = c + v + s = k + s = k + p \]

where the cost price \( k = c + v \)

Commodity value = cost price + profit.

If the commodity value is £600, the cost price £500. If the commodity is sold at £510, £520, £530, £560 or £590, it is sold respectively at £90, £80, £70, £40 or £10 below its value, and yet a profit of £10, £20, £30, £60 or £90 is made for all that. An indefinite series of sale prices is evidently possible between the value of a commodity and its cost price. If it is sold at the commodity value of £600, the profit or surplus-value becomes the highest at £100. The minimum limit to the sale price of a commodity is imposed by its cost price at £500.89

[Chapter 2. The Rate of Profit] The surplus-value or profit consists precisely in the excess of commodity value over its cost price. This excess then stands in a certain ratio to the total capital advanced. So, the rate of profit \( = \frac{s}{C} = \frac{s}{(c+v)} \) where the constant capital \( c \) and variable capital \( v \) are defined above in Chapter 1. Even if the rate of profit \( s/(c+v) \) is numerically different from the rate of surplus-value \( (s/v) \), while surplus-value and profit are in fact the same and even numerically identical, profit is still for all that a transformed form of surplus-value, a form in which its origin and the secret of its existence are veiled and obliterated.

[Chapter 3. The Relationship between Rate of Profit and Rate of Surplus-Value] Marx introduces five cases that a rising profit rate can correspond to a falling or a rising rate of surplus-value. The rate of profit is determined by two major factors: the rate of surplus-value and the value composition of the capital. The effect of these two factors can be briefly summarized as follows, and we are able now to express the composition in percentages, since it is immaterial here in which of the two portions of capital the change originates. The rates of profit of two different capitals, or of one and the same capital in two successive and different states, are equal: (i) given the same percentage composition and the same rate of surplus-value; (ii) given unequal percentage compositions and unequal rates of surplus-value, if the mathematical product of the rate of surplus-value and the percentage of the variable part of capital \( (s' \text{ and } v) \) is the same in each case, i.e. the mass of surplus-value reckoned as a percentage of the total capital \( (s = s'v) \); in other words, when the factor \( s' \text{ and } v \) stand in inverse proportion to one another in the two cases. They are unequal: (i) given the same percentage composition, if the rates of surplus-value are unequal, in which case they stand in the same ratio as these rates of surplus-value; (ii) given the same rate of surplus-value and different percentage compositions, in which case they stand in the same ratio as the variable portions of the capital; (iii) given different rates of surplus-value and different percentage compositions, in which case they stand in the same proportion as the products \( s'v \), i.e. as the masses of surplus-value reckoned as a percentage of the total capital.90

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[Chapter 4. The Effect of the Turnover on the Rate of Profit] The time required for the turnover has the effect that the whole capital cannot be simultaneously employed in production. One part of this capital always lies fallow, whether in the form of money capital, stocks of raw materials, finished but still unsold commodity capital, or outstanding debts that are not yet due for payment. The capital that is active in the production and appropriation of surplus-value, is always reduced by this amount, and the surplus-value that is produced and appropriated is reduced in the same proportion. The shorter the turnover time, the smaller is this idle portion of capital compared with the whole; the greater is the surplus-value appropriated, other conditions being equal.91

[Chapter 5. Economy in the Use of Constant Capital] An increase in absolute surplus-value or an extension of surplus labor and hence the working day, with variable capital remaining the same and thus the same number of workers being employed at the same nominal wage, causes a relative fall in the value of constant capital compared with the total capital and the variable capital, and thus raises the rate of profit, quite apart from the growth in the mass of surplus-value and a possibly rising rate of surplus-value. The volume of fixed capital remains the same, whether work continues for 16 hours or for 12. The extension of the working day requires no new expenditure on this, the most expensive portion of the constant capital. The value of the fixed capital, moreover, is now reproduced in a shorter series of turnover periods, and the time for which it has to be advanced in order to make a certain profit is reduced. The lengthening of the working day thus raises profits even if overtime is paid, and up to a certain point this is true even if overtime is paid at a higher rate than normal working hours. The ever-growing need to increase fixed capital in the modern industrial system was a major stimulus for capitalists to prolong the working day.92

When the working day remains constant, a growth in surplus-value is therefore accompanied by a growth in constant capital, and the growing exploitation of labor by an increase in the price paid for the conditions of production by means of which labor is exploited, i.e. by greater outlay of capital. The rate of profit is thereby reduced on the one hand, even if increased on the other. Local and state taxes, fire insurance, eh wages of various permanent staff, the depreciation of machinery and various other factory expenses continue unchanged whether working hours are long or short. They rise relative to profit, in so far as production declines.93

We must firstly dwell on the economies that arise from the continuous improvement of machinery, namely (i) in its material, e.g. iron instead of wood; (ii) in the cheapening of machinery through the improvement of machine-building in general so that even if the value of the fixed part of constant capital constantly grows with the development of labor on a large scale, it in no way grows to the same degree; (iii) the special improvements that enable machinery that is already installed to operate more cheaply and efficiently, e.g. improvements to steam boilers, etc.; and (iv) the reduction of wastage by better machinery. Moreover, everything that reduces the depreciation of machinery, and of the fixed capital in general, for a given period of production, not only cheapens the individual commodity, since each individual commodity reproduces its aliquot share of the depreciation in its price, but also reduces the aliquot capital expenditure for this period. Repair work and the like, to the extent that it is needed, counts as part of the original costs of the machinery. Its reduction reduces the price of the machinery. On the other hand, the development of productive power of labor is partially connected with advance in intellectual production, i.e. the natural sciences and their application, which raises the productivity of labor. Marx also writes on the social character of the work, its combination with the work of others for a common goal; and concerns about the transformation of surplus-value into profit. From the present economics and management’s point of view, his points seem to be in continuous increase in capital investment, improvement of productive labor, improvement of science and technology, and harmonized managerial skill without waste of labor and capital in the production process.94
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[Chapter 6. The Effect of Changes in Price] 1. Fluctuations in the price of raw material – their direct effects on the rate of profit: The rate of profit is $s/C = s/(c+v)$ in which raw material forms a major component of constant capital. If the price of raw material falls by a sum we shall call d, then $s/C = s/(c+v)$ is changed to $s/(C-d) = s/[(c-d) + v]$ and the rate of profit falls. As long as other circumstances are equal, the rate of profit falls or rises in the opposite direction to the price of the raw materials. This shows among other things how important low raw material prices are for industrial countries, even if variations in raw material prices were not accompanied by fluctuations in the product’s orbit of sale, i.e. quite apart from the relationship between demand and supply. It also explains how foreign trade influences the rate of profit, irrespective of any effect that it has on wages by cheapening the necessary means of substance. Foreign trade particularly affects the prices of the raw or ancillary materials used in industry and agriculture. We can understand how important for industry is the abolition or reduction of import duties on raw materials. However, machine is concerned only in the depreciation that has to be replaced and at first only in the form of a reserved fund. The costs resulting from waste vary in direct proportion to the fluctuations in the price of the raw material, rising when this rises and falling when it falls, though the loss from waste is very limited, like 15 percent.95

2. Revaluation and devaluation of capital; release and tying-up of capital: Assuming that any rise or fall in prices is an expression of real fluctuation, we evaluate the effect of these price fluctuations on the profit rate. Since the rate of profit is equal to the proportionate excess in the value of the product over the value of the total capital advanced, an increase in the rate of profit that arose from a devaluation of the capital advanced would involve a loss in capital value, while a decline in the profit rate that arose from a rise in value of the capital advanced could well involve a gain. As far as the other portion of constant capital is concerned, machinery and fixed capital in general, the revaluation that takes place here and particularly affects buildings, land, etc. cannot be explained without the theory of ground-rent and thus does not belong here. Once machines, factory buildings or any other kind of fixed capital have reached a certain degree of maturity, so that they remain unchanged for a long while at least in their basic construction, a further devaluation takes place as a result of improvements in the methods of reproduction of this fixed capital. The value of machines, etc. now falls not because they are quickly supplanted or partially devalued by newer, more productive machines, etc. but because they can now be reproduced more cheaply. This is one of the reasons why large enterprises often flourish only under their second owners, after the first have gone bankrupt. The second owner, by buying them cheaply, starts production with a smaller outlay of capital.96

The more capitalist production is developed, bringing with it greater means for a sudden and uninterrupted increase in the portion of the constant capital that consists of machinery, etc., and the more rapid the accumulation, the greater is the relative overproduction of machinery and other fixed capital, the more frequent the relative overproduction of plant and animal raw materials, and the more marked the previously described rise in their price and the corresponding reaction. The more frequent are those revulsions which have their basis in this violent price fluctuation and are a major element in the reproduction process. On the other hand, the sudden collapse in the price of raw materials places shackles on their reproduction, and in this way the monopoly of the original supplying countries, which produce in favorable conditions, is re-established.97

[Chapter 7. Supplementary Remarks] An increase in the rate of profit always stems from a relative or absolute increase in the surplus-value in relation to its costs of production, i.e. to the total capital advanced, or from a reduction in the difference between the rate of profit and the rate of surplus-value. Fluctuations in the rate of profit are possible only if the value of the capital advanced rises of falls as a result of an increase or decrease in the labor-time.98
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Part II. The Transformation of Profit into Average Profit:  
[Chapter 8. Different Composition of Capital in Different Branches of Production, and the Resulting Variation in Rates of Profit]  
The differing proportions of circulating and fixed capital, of which constant capital is composed, in the different branches of industry, do not have any bearing in themselves on the rate of profit; what is decisive is the ratio between the variable capital and the constant, while the value of the constant capital, and this its relative magnitude in relation to the variable, is quite independent of the fixed or circulating character of its components. We do find, however - and this can lead to incorrect conclusions – that where fixed capital is strongly developed, this is simply an expression of the fact that production is pursued on a large scale and that constant capital is very much predominant over variable, i.e. that the living labor-power applied is small in comparison with the volume of means of production that it sets in motion. We have shown, therefore, that in different branches of industry unequal profit rates prevail, corresponding to the different organic composition of capitals, and, within the indicated limits, corresponding also their different turnover times; so that at the give rate of surplus-value it is only for capitals of the same organic composition – assuming equal turnover times – that the law holds good, as a general tendency, that profit stand in direct proportion to the amount of capital, and that capitals of equal size yield equal profits in the same period of time. The above argument is true on the same basis as our whole investigation so far: that commodities are sold at their values. In actual fact, ignoring inessential, accidental circumstances that cancel each other out, no such variation in the average rate of profit exists between different branches of industry, and it could not exist without abolishing the entire system of capitalist production. The theory of value thus appears incompatible with the actual movement, incompatible with the actual phenomena of production, and it might seem that we must abandon all hope of understanding these phenomena.

[Chapter 9. Formation of the Average Rate of Profit, and Transformation of Commodity Values into Prices of Production]  
At any one given time, the organic composition of capital depends on two factors: firstly, on the technical proportion between the labor-power and the means of production applied, and secondly, on the price of those means of production. As we have seen, this must be considered in percentage terms. For example, the organic composition consists of 4/5 constant and 1/5 variable capital by suing formula $c + 20v$. If the rate of surplus-value is 100%, then the surplus value becomes 20, the value of product is 120 and then the rate of profit becomes 20%. The general rate of profit is determined by two factors: (i) the organic composition of the capitals in the various spheres of production, i.e. the different rates of profit in the particular spheres; (ii) the distribution of the total social capital between these different spheres, i.e. the relative magnitudes of the capitals invested in each particular sphere, and hence at a particular rate of profit, i.e. the relative share of the total social capital swallowed up by each particular sphere of production. The theoretical opinion regarding the first transformation of surplus-value into profit, i.e. that each portion of capital yields profit in a uniform way, expresses a practical state of affairs. However, an industrial capital may be composed, whether a quarter is dead labor and three-quarters living labor, or whether three-quarter is dead labor and only a quarter sets living labor in motion, so that in the case three times as much surplus labor is sucked out, or surplus-value produced, as in the other – with the same level of exploitation of labor and ignoring individual differences, which disappear anyway, since in both cases we are concerned only with the average composition of the sphere of production as a whole – in both cases it yields the same profit. The individual capital, whose vision is a restricted one, is right in believing that his profit does not derive just from the labor employed by him or employed in his own branch. This is quite correct as far as his average profit goes. How much this profit is mediated by the overall exploitation of labor by capital as a whole, the political economists have not yet revealed.
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[Chapter 10. The Equalization of the General Rate of Profit through Competition. Market Price and Market Values, Surplus Profit] The price of production includes the average profit. And what we call price of production is in fact the same thing that Adam Smith calls natural price, Ricardo price of production or cost of production, and the Physiocrats *prix necessaire*, though none of these people explained the difference between rice of production and value. We call it the price of production because in the long term it is the condition of supply, and condition for the reproduction of commodities, in each particular sphere of production. We can also understand why those very economists who oppose the determination of commodity value by labor-time, by the quantity of labor contained in the commodity, always speak of the prices of production as the centers around which market prices fluctuate. They can allow themselves this because the price of production is already a completely externalized and *prima facie* irrational form of commodity value, a form that appears in competition and is therefore present in the consciousness of the vulgar capitalist and consequently also in that of the vulgar economist.\(^{102}\)

We saw in the course of our argument how market value involves a surplus profit for those producing under the best conditions in any particular sphere of production. Excluding all cases of crisis and over-production, this holds good for all market prices, no matter how they might diverge from market values or market prices of production. The concept of market price means that the same price is paid for all commodities of the same kind, even if these are produced under very different individual conditions and may therefore have very different cost prices. But a surplus profit can also arise if certain spheres of production are in a position to opt out of the transformation of their commodity values into prices of production, and the consequent reduction of their profits to the average profit. In the part on ground-rent, we shall have to consider the further configuration of these two forms of surplus profit.\(^{103}\)

[Chapter 11. The Effect of General Fluctuations in Wages on the Prices of Production] A general fall in wages leads to a general rise in surplus-value, in the rate of surplus-value, and with other things remaining equal, also in the profit rate, even if in a different proportion; it leads to a fall in production prices for the commodity products of capitals of lower than average composition and a rise in production prices for the commodity products of capitals of higher than average composition. Exactly the opposite result as that which arose from a general rise in wages. In both cases, that of a rise in wages and that of a fall, the working day is assumed to remain the same, and so are the prices of all necessary means of subsistence. A fall in wages is thus only possible here either if wages previously stood above the normal price of labor, or if they are now to be pushed below it.\(^{104}\) [Chapter 12. Supplementary Remarks] 1. The price of production of a commodity can vary for only two reasons: A change in the general rate of profit, only if the average rate of surplus-value itself alters; and if general rate of profit remains unaltered, the production price can change only because its value has altered. 2. If an increase or decrease in wages did affect the price of commodities, the profit rate in these spheres of average composition would come to stand below or above its level in the other sphere. 3. Competition exhibits following phenomena: (i) average profits that are independent of the organic composition of capital in the various spheres of production, i.e. independent of the mass of living labor appropriated in a given sphere of exploitation; (ii) rises and falls in the prices of production as a result of changes in the wage level – a phenomenon which at first sight seems completely to contradict the value relationship of commodities; (iii) fluctuations in market prices that reduce the average market price of a commodity over a given period of time, not to its market value but rather to a market price of production that diverges from this market value and is something very different. All these phenomena seem to contradict both the determination of value by labor-time and the nature of surplus-value as consisting of unpaid surplus labor.\(^{105}\)
Part III. The Law of the Tendential Fall in the Rate of Profit: [Chapter 13. The Law Itself]  

The law that the fall in the rate of profit occasioned by the development of productivity is accompanied by an increase in the mass of profit is also expressed in this way: the fall in the price of commodities produced by capital is accompanied by a relative rise in the amount of profit contained in them and realized by their sale. The fall in commodity prices and the rise in the mass of profit on the increased mass of cheapened commodities is simply another expression of the law of the falling profit rate in the context of a simultaneously rising mass of profit.\textsuperscript{106}

[Chapter 14. Counteracting Factors] 1. More intense exploitation of labor: The level of exploitation of labor, the appropriation of surplus labor and surplus-value, can be increased by prolonging the working day and making work more intense. Once the size of capital value given, the rate of profit can never rise or fall without a similar rise or fall in the mass of surplus-value. 2. Reduction of wages below their value: completion would rise. 3. Cheapening of the elements of constant capital: viewing the total capital as a whole, the value of constant capital does not increase in the same proportion as its material volume. The same development that raises the mass of constant capital in comparison with variable reduces the value of its elements, as a result of the higher productivity of labor, and hence prevents the value of the constant capital, even though this grows steadily, from growing in the same degree as its material volume. 4. The relative surplus population: The creation of such a surplus population is inseparable from the development of labor productivity and is accelerated by it, the same development as is expressed in the decline in the profit rate. The more the capitalist mode of production is developed in a country, the more strikingly does the relative surplus population outburst there. 5. Foreign trade: Capital invested in foreign trade can yield a higher rate of profit, firstly, because it competes with commodities produced by other countries with less developed production facilities, so that the more advanced country sells its goods above their value, even though still more cheaply than its competitors. 6. The increase in share capital: As capitalist production advances, and with it accelerated accumulation, one portion of capital is considered simply to be interest-bearing capital and is invested as such. This is not in the sense in which any capitalist who loans out capital is content to take the interest, while the industrial capitalist pockets the entrepreneurial profit.\textsuperscript{107}

[Chapter 15. Development of the Law’s Internal Contradictions] Accumulation accelerates the fall in the profit rate, and the fall in the profit rate again accelerates the concentration of capital, and its centralization, by dispossessing the smaller capitalists and expropriating the final residue of direct producers who still have something left to expropriate. In this way, there is an acceleration of accumulation as far as its mass is concerned, even though the rate of this accumulation falls together with the rate of profit. Here we can see the law’s internal contradiction. Three cardinal facts about capitalist production: (i) The concentration of the means of production in a few hands, which means that they cease to appear as the property of the immediate workers and are transformed on the contrary into social powers of population. Even if this is at first as the private property of capitalists. The latter are trustees of bourgeois society, though they pocket all the fruits of this trusteeship. (ii) The organization of labor itself as social labor: through cooperation, division of labor and the association of labor with natural science. On both these counts the capitalist mode of production abolishes private property and private labor, even if in antithetical forms. (iii) Establishment of the world market: The tremendous productive power, in proportion to the population, which is developed within the capitalist mode of production, and – even if not to the same degree – the growth in capital values, these growing far more quickly than the population, contradicts the basis on behalf of which this immense productive power operates, since this basis becomes ever narrower in relation to the growth of wealth; and it also contradicts the conditions of valorization of this swelling capital. Hence crises.\textsuperscript{108}
Part IV. The Transformation of Commodity Capital and Money Capital into Commercial Capital and Money-Dealing Capital: [Chapter 16. Commercial Capital] Trading capital is divided into two forms: commercial capital and money-dealing capital. Taking the social capital as a whole, one part of this is always on the market as a commodity, waiting to pass over into money, even though this part is always composed of different elements, as well as changing in magnitude; another part is one the market as money, waiting to pass over into commodities. Capital is always involved in this movement of transition, this metamorphosis of form. In as much as this function acquires independent life as a special function of a special capital and is fixed by the division of labor as a function that falls to a particular species of capitalists, commodity capital becomes commodity-dealing capital or commercial capital. The turnover of industrial capital is restricted not just by the circulation time, but also by the production time. The circulation process is one phase in the reproduction process as a whole. But in the process of circulation, no value is produced, and thus also no surplus-value.109

[Chapter 17. Commercial Profit] All the industrial capitalists realize a surplus-value or profit that has already been produced, but the merchant does not merely realize his profit in and through circulation, he also makes it there. Commercial capital contributes to the formation of the general rate of profit according to the proportion it forms in the total capital. The bigger commercial capital is in comparison with industrial capital, the smaller the rate of industrial profit, and vice versa. The rate of profit is always expressed in a lower future than the rate of actual surplus-value, i.e. it always underestimates the exploitation of labor.110

[Chapter 18. The Turnover of Commercial Capital, Prices] The turnover of industrial capital is the unity of its production and circulation times and consequently embraces the entire production process. The turnover of commercial capital, on the other hand, since it is nothing but the movement of commodity capital that had become autonomous, represents only the first phase in the commodity metamorphosis, C-M, as the reflux movement of a special capital; M-C, C-M, from the merchant’s point of view, is the turnover of commercial capital. The merchant buys, transforming his money into commodities, then sells, transforming the same commodities again into money, and so on in constant repetition.111

[Chapter 19. Money-Dealing Capital] It is clear enough that the mass of money capital which the money dealers operate with is the circulating money capital of the merchants and industrialists, and that the operations the money dealers perform are simply the operations of the merchants and industrialists, mediated by the former. It is equally clear that their profit is simply a deduction from surplus-value, since they are dealing only with values already realized (even if realized only in the form of claims for payment). Just as with commodity trade, here too we find a duplication of function. For on section of the technical operations connected with money circulation must be performed by the commodity dealers and producers themselves.112

[Chapter 20. Historical Material on Merchant’s Capital] The transition can take three forms. First, the merchant becomes an industrialist directly; this is the case with crafts that are founded on trade, such as those in the luxury industries, where the merchants import both raw materials and worker from abroad, as they were imported into Italy from Constantinople in the fifteenth century. Second, the merchant makes the small master into his middlemen, or even buys directly from the independent producer; he leaves him nominally independent and leaves his mode of production unchanged. Third, the industrialist becomes a merchant and produces directly on a large scale of the market. The industrial capitalist is constantly faced with the world market; he compares and must compare his own cost prices not only with domestic market prices, but with those of the whole world. Previously, this comparison was almost exclusively the task of merchants and ensured commercial capital its mastery over industrial.113
Part V. The Division of Profit into Interest and Profit of Enterprise: [Chapter 21. Interest-Bearing Capital] In the case of interest-bearing capital, everything appears in a superficial manner: the advance of capital as a mere transfer from lender to borrower; the reflux of the realized capital as a mere transfer back, a repayment with interest from the borrower to the lender. So, too, does the property inherent to the capitalist mode of production, that the rate of profit is determined not simply by the ratio of the profit made in one individual turnover to the capital value advanced, but also by the length of this turnover time itself, i.e. as the profit that industrial capital yields in particular case of interest-bearing capital, i.e. it appears that a certain interest is paid to the lender for a certain interval of time. In determining the price of things, time is unimportant; in determining interest, time is the principal thing involved.114

[Chapter 22. Division of profit, Rate of Interest, Natural Rate of Interest] The relation between the sum paid for the use of capital and the capital expresses the rate of interest as measure in money. The rate of interest depends on the rate of profit and on the proportion in which the entire profit is divided between the lender and borrower. If that which men pay as interest for the use of what they borrow, be a part of the profits it is capable of producing, this interest must always be governed by those profits. We know that when money functions as means of payment instead of means of purchase, the commodity is alienated first, and its value realized only later. If payment takes place only after the commodity has been re-sold, this sale does not appear as a consequence of the purchase, but rather it is by the sale that the purchase is realized. Sale, in other words, becomes a means of purchase. Secondly, certificates of debt, bills, etc. become means of payment for the creditor. Thirdly, money is replaced by the settlement of outstanding debt certificates.115

[Chapter 23. Interest and Profit of Enterprise] First, the majority of industrial capitalists operate both with their own and with borrowed capital, even if in different ratios, and the ratio between their own and the borrowed capital changes from one period to another. Secondly, the transformation of a part of the gross profit into the form of interest transforms its other part into profit of enterprise. This latter is in point of fact only the antithetical form that the excess of gross profit over interest assumes as soon as the latter exists as a category of its own. Thirdly, whether the industrial capitalist operates with his own capital or with borrowed capital in no way alters the fact that the class of money capitalists confronts him as a special kind of capitalist, money capital as an autonomous kind of capital, and interest as the separate form of surplus-value that corresponds to this specific capital. Fourthly, the part of the profit which the functioning capitalist has to pay to the mere owner of the capital borrowed is transformed into the separate form for a part of the profit that all capital yields, whether borrowed or not, under the name of interest.116

The wages of management, both commercial and industrial appear as completely separate from profit of enterprise both in the workers’ cooperative factories and in capitalist joint-stock companies. The confusion between profit of enterprise and the wages of supervision or management originally arose from the antithetical form that the surplus of profit over interest assumes in opposition to this interest. It was subsequently developed with the apologetic intention of presenting profit not as surplus-value, i.e. as unpaid labor, but rather as the wage that the capitalist himself receives for the work he performs. The socialist then raised the demand that profit should be reduced in practice to what it claimed to be in theory, i.e. simply to the wages of supervision. With the development of cooperatives on the workers’ part, and joint-stock companies on the part of the bourgeoisie, the last pretext for confusing profit of enterprise with the wages of management was removed, and profit came to appear in practice as what it undeniably was in theory, mere surplus-value, value for which no equivalent was paid, realized unpaid labor; so that the functioning capitalist exploits labor, and the fruits of his exploitation, if he operates with borrowed capital, are divided into interest and profit of enterprise, the surplus of the profit over the interest.117
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Chapter 24. Interest-Bearing Capital as the Superficial Form of the Capital Relation] The accumulation process of capital may be conceived as an accumulation of compound interest, in so far as the part of profit (surplus-value) that is transformed back into capital, i.e. which serves to absorb new labor, may be called interest. However, apart from all the accidental circumstances, a large part of the existing capital is always being more or less devalued in the course of the reproductive process, since the value of commodities is determined not by the labor-time originally taken by their production, but rather by the labor-time that their reproduction takes, and this steadily decreases as the social productivity of labor develops. As a high level of development of social productivity, therefore, all existing capital, instead of appearing as the result of a long process of capital accumulation, appears as the result of a relatively short reproduction period. The profit rate decreases in proportion to the growing accumulation of capital and the accompanying rise in the productivity of social labor, this being expressed precisely in the relative decrease of variable capital vis-à-vis constant. In order to produce the same rate of profit, therefore, if the constant capital set in motion by the worker increase ten-fold, the surplus labor-time would have to increase then-fold as well.118

Chapter 25. Credit and Fictitious Capital] The credit that the banker give can be provided in various forms, e.g. in bills and cheques on other banks, credit facilities of a similar kind, and finally, if the bank is authorized to issue notes, in its own banknotes.

Chapter 26. Accumulation of Money Capital, and its Influence on the Rate of Interest] In England there takes place a steady accumulation of additional wealth, which has a tendency ultimately to assume the form of money. Now, next in urgency, perhaps, to the desire to acquire money, is the wish to part with it again for some species of investment that shall yield either interest or profit; for money itself, as money, yields neither. Unless, therefore, concurrently with this ceaseless influx of surplus capital, there is a gradual and sufficient extension of the field for its employment, we must be subject to periodical accumulations of money seeking investment, of more or less volume, according to the movement of events. For a long series of years, the grand absorbent of the surplus wealth of England was our public debt. As soon as in 1816, the debt reached its maximum, and operated no longer as an absorbent, a sum of at least seven-and twenty million per annum was necessarily driven to seek other channels of investment.119

Chapter 27. The Role of Credit in Capitalist Production] Marx observes the credit system as follows: (a) Its necessary formation to bring about the equalization of the profit rate or the movement of this equalization, on which the whole of capitalist production depends. (b) The reduction of circulation costs: (i) A major cost of circulation is money itself, in so far as it is itself value. And this is economized on in three ways by credit: in that money is completely dispensed with in a large portion of transactions; in that the circulation of the circulating medium is accelerated; the replacement of gold money by paper. (ii) Acceleration, through credit, of the individual phases of circulation or commodity metamorphosis, then an acceleration of the metamorphosis of capital and hence an acceleration of the reproduction process in general. (c) Formation of joint-stock companies: this involved (i) tremendous expansion in the scale of production, and enterprises which would be impossible for individual capitals. (ii) Capital, which is inherently based on a social mode of production and presupposes a social concentration of means of production and labor-power, now receives the form of social capital in contrast to private capital, and its enterprises appear as social enterprises as opposed to private ones. (iii) Transformation of the actual functioning capitalist into a mere manager, in charge of other people’s capital, and of the capital owner into a mere owner, a mere money capitalist. (d) Apart from the joint-stock system, credit offers the individual capitalist, or the person who can pass as a capitalist, an absolute command over the capital and property of others within a certain limit.120
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[Chapter 28. Means of Circulation and Capital] The means of circulation circulates on the one hand as coin (money), in so far as it mediates the expenditure of revenue, i.e., commerce between individual consumers and retail traders; and in this category we count all merchants who sell to the consumer direct – to individual consumers as distinct from productive consumer or producers. Here money circulates in the function of coin, even though it constantly replaces capital. On the other hand, however, in so far as money mediates the transfer of capital, whether as means of purchase (means of circulation) or means of payment, it is capital. Thus it is neither the function of means of purchase nor that of means of payment that distinguishes it from coin; for money can function as means of purchase between one dealer and another, if the one buyer from the other with cash, and it can even function between dealer and consumer as means of payment if credit is given, the revenue being consumed first and paid for only afterwards.\(^{121}\)

[Chapter 29. Banking Capital's Component Parts] Banking capital consists of cash, in terms of gold or notes; and securities. These latter are divided into two parts: commercial paper, current bills of exchange that fall due on specified dates, their discounting being the specific business of banker; and public securities such as government bonds, treasury bills and stocks of all kinds, in short, interest-bearing paper, which is essentially different from bills of exchange.\(^{122}\)

[Chapter 30. Money Capital and Real Capital I] Commodity capital largely loses its capacity to represent potential money capital in time of crisis, and generally when business stagnates. The same is true of fictitious capital, interest-bearing paper, in as much as this itself circulates as money capital on the stock exchange. As the interest rate rises, its price falls. It fails further, owing to the general lack of credit, which compels the owners of this paper to unload it onto the market on a massive scale in order to obtain money. In the case of shares, finally, their price falls partly as a result of a decline in the revenues on which they are claims and partly as a result of the fraudulent character of the enterprises which they very often represent. This fictitious money capital is enormously reduced during crises, and with it the power of its owners to use it to borrow money in the market. The reduction in the money value of these securities on the stock-exchange list, however, has nothing to do with the real capital that they represent. As against this, it has a lot to do with the solvency of their owners.\(^{123}\)

[Chapter 31. Money Capital and Real Capital II] The transformation of money into loan capital is a far simpler matter than the transformation of money into productive capital.

[Chapter 32. Money Capital and Real Capital III, Conclusion] Firstly, if the interest rate remains high for a long period of time, this is prima facie evidence that the rate of profit during this period is also high, but it does not necessarily prove that the rate of profit of enterprise is high. This latter distinction more or less disappears for capitalists working predominantly with their own capital; they realize the high rate of profit, since they pay their interest to themselves. The possibility of a high rate of interest of longer duration – we are not referring here to the specific phase of pressure on the money market – is given by the high rate of profit. It is possible, however, that this high rate of profit, after deducting the high rate of interest, leaves only a low rate of profit of enterprise. Secondly, the demand for loan capital, and hence the interest rate rises because the profit rate is high is not the same as saying that the demand for industry capital rises and that this is why the interest rate is high. In times of crisis, the demand for loan capital, and with it the interest rate, reaches its maximum; the rate of profit as good as disappears, and with it the demand for industrial capital. In times such as these everyone borrows simply to pay, to settle commitments already entered into. In the period when business revives after the crisis, on the other hand, loan capital is demanded in order to buy, and to transform the money capital into productive or commercial capital. And then it is demanded either by the industrial capitalist or by the merchant. The industrial capitalist invests it in means of production and labor-power.\(^{124}\)
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[Chapter 33. The Means of Circulation under the Credit System] The great regulator of the velocity of the currency is credit. This explains why a severe pressure upon the money-market is generally coincident with a full circulation. In August each year a few £ million, mostly in gold, pass from the Bank of England into domestic circulation, to pay for the costs of the harvest; since what this involves is principally the payment of wages, banknotes are used but little in England. This money then flows back to the Bank again, up to the end of the year. The Bank of England’s note circulation also undergoes a temporary fluctuation each quarter as a result of the quarterly payment of dividends, i.e. interest on the national debt, banknotes firstly being withdrawn from circulation and then distributed amongst the public; but these flow back very quickly. The banks thus create credit and capital, (i) by issuing their own banknotes; (ii) by writing drafts on London running for up to twenty-one days, which will however be paid to them in cash immediately they are written; (iii) by reissuing bills of exchange, whose creditworthiness is created first and foremost by the endorsement of bank, at least for the district in question. The power of the Bank of England is shown by its regulation of the market rate of interest.125

[Chapter 34. The Currency Principle and the English Bank Legislation of 1844] If the quantity of money rises above the right proportion, its value falls and commodity prices rise; if it falls below the right proportion, its value raises, and commodity prices fall, as long as other factors remain the same. The Bank Charter Act of 1844 restricted the powers of British banks and gave exclusive note-issuing powers to the central Bank of England.

[Chapter 35. Precious Metal and Rate of Exchange] The ebb and flow of metal within a region that does not produce gold or silver should be distinguish from the flow of gold and silver from their sources of production to the various other countries. Precious metal is constantly moving back and forth between the countries that do not produce gold and silver. The preponderance of imports over exports, or vice versa, can be broadly measured by the increase or decrease in the metal reserves of the central banks. An export of metal takes the form of a drain, causing the national bank’s metal reserve declines below its average level. With the possible exception, the real crisis has always broken out only after the exchange rates have moved. As soon as the general crisis has burned itself out, and we again have a state of equilibrium, the gold and silver are again distributed in the proportions as previously existed in various countries. The foreign exchange rate can alter as a result of the temporary balance of payments; as the result of a devaluation of money in one country; and when the rate of exchange is between countries, one of which uses silver as money, the other gold, it is dependent on the relative fluctuations in value of these two metals, since such fluctuations obviously alter the parity between two metals.126

[Chapter 36. Pre-Capitalist Relations] We have seen how merchant’s capital and interest-bearing capital are the oldest forms of capital. But it lies in the very nature of the matter that interest-bearing capital should appear to the popular mind as the form of capital par excellence. In merchant’s capital we have a mediating activity, whether this is considered as fraud, labor or whatever. In interest-bearing capital, on the other hand, the self-reproducing character of capital, self-valuizing value, the production of surplus-value, appears as a purely occult quality. Hence, it also happens that even a section of political economists, particularly in countries where industrial capital is not yet fully developed, as in France, cling to interest-bearing capital as the basic form and see ground-rent, for example, simply as another form of this, in so far as here too it is the form of a loan that prevails. In this way, the internal articulation of the capitalist overlooked the both land and capital are only hired out to loaned in hind, in the shaper of machines, business premises, etc. As a matter of fact, this is a secondary exploitation, which proceeds alongside the original exploitation that takes place directly within the production process itself. The distinction between selling and lending here is completely immaterial and formal.127
Part VI. The Transformation of Surplus Profit into Ground-Rent [Chapter 37. Introduction] There are three major errors in the analysis of ground-rent. (i) The confusion between the various forms of rent that correspond to different levels of development of the social production process. (ii) All ground-rent is surplus-value, the product of surplus labor. In its more undeveloped form, rent in kind, it is still a direct surplus product. Hence the error that the rent corresponding to the capitalist mode of production, which is always an excess over and above profit. (iii) A particular peculiarity that arises with the economic valorization of landed property, that is the development of ground-rent, is that its amount is in no way determined by the action of its recipient, but rather by a development of social labor that is independent of him and in which he plays no part. The level of ground-rent rises in the course of social development.128

[Chapter 38. Differential Rent in General] Firstly, it is clear that this rent is always a differential rent, for it does not contribute to determining the general production price of the commodity but takes this as given. Secondly, this ground-rent does not derive from any absolute rise in productivity of the capital applied or of the labor it appropriates, which can only ever reduce the value of commodities; it arises from the greater relative returns from certain particular capitals invested in a sphere of production, as compared with those capital investment that are excluded from these exceptional, favorable conditions of productivity which have been created by nature. Thirdly, the natural force is not the source of the surplus profit, but simply a natural basis for it, because it is the natural basis of the exceptionally increased productivity of labor. Fourthly, landed property in the waterfall has in and of itself nothing to do with the creation of the portion of surplus-value (profit) and hence of the price of the commodity that is produced with the aid of the waterfall. Fifthly, it is evident that the price of the waterfall, i.e. the price that the landowner would receive if the sold it to a third party or to the manufacturer himself, does not at first go directly into the production price of the commodities concerned, even though it does go into the individual price for the manufacturer; for rent arises in this case from the production price of those commodities of the same kind that are produced by steam-engines.129

[Chapter 39. Differential Rent I] Rent is always the difference between the produce obtained by the employment of two equal quantities of capital and labor. Two general cause of unequal products, which are independent of capital, are fertility and the location of land.

[Chapter 40. Differential Rent II] Firstly, its basis and point of departure, not only historically but as far as concerns it movement at any given point in time, is differential rent I, i.e. the simultaneously cultivation alongside one another of lands of different fertility and location, the simultaneous application alongside one another of different components of the total agricultural capital to tracts of land of differing quality. In a historical perspective, this needs no explanation. In colonies, the colonists need only invest a little capital; the main agencies of production are labor and the soil itself. Each individual family head seeks an independent field of employment for himself and his people to work on, separate from those of his fellow colonists. Secondly, the variation in fertility is supplemented by differences in the distribution of capital (and creditworthiness) among the farmers. In manufacture proper, a specific minimal scale of business is soon formed in each branch of industry, and accordingly a minimum capital without which a particular business cannot be successfully conducted. Also formed in each branch of industry is a normal average amount of capital above this minimum, which the great bulk of producer must and do dispose of. Anything over and above this can form extra profit; anything below it does not receive even the average profit. The capitalist mode of production takes hold of agriculture only in a slow and uneven manner, the classical land of the capitalist mode of production in this sector. In so far as there is no free import of corn, or the volume and consequent effect of this is restricted, the market price is determined by those producers who work on inferior soil.130
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[Chapter 41. Differential Rent II – Constant Price of Production] Generally, we take surplus product to mean the portion of the product in which the total surplus-value is expressed, or in particular cases the portion that represents the average profit.

[Chapter 42. Differential Rent II – Falling Price of Production] The production price may fall while productivity on the additional investment of capital remains constant, falls or rises. With the productivity of the extra capital investment remaining constant; a falling rate of productivity for the extra capital; a rising rate of productivity for the extra capital.

[Chapter 43. Differential Rent II –Rising Price of Production] First, as long as the additional capitals are invested on the same land with surplus productivity, even if this is decreasing, the absolute corn and money rent per acre rises, even if it declines relatively, in proportion to the capital advanced. Second, the investment of additional capital which produces only the average profit, i.e. whose surplus productivity – 0, does not alter the amount of surplus profit and hence rent that is formed. Third, additional capital investments for which the individual production price of their products stands above the governing price, so that their surplus productivity is not just nothing but less than nothing, a negative quantity, being the individual average price of the total product of the better land ever closer to the general production price, and thus more and more reduce the difference between the two, forming the surplus profit or rent.131

[Chapter 44. Differential Rent even on the Poorest Land] It is a most curious phenomenon that all those opponents of Ricardo who struggled against the determination of value exclusively in terms of labor, when faced with the fact that differential rent arose from differences in land, maintained that in this case nature determined value instead of labor, though at the same time they allowed this determination in the case of the land’s position, or even, and still more, for interest on capital put into the soil for the purpose of cultivation. The same labor produces the same value for the product created in a given time; but the size or amount of this product, and thus the portion of value which falls to a particular aliquot part, depends for a given quantity of labor solely on the productivity of the given amount of labor, not on its absolute amount. Whether this productivity is due to nature or society is quite immaterial. But in the case where it itself costs labor, i.e. capital, it increases the costs of production by a new component, which is note the case when nature alone is involved.132

[Chapter 45. Absolute Ground-Rent] This absolute rent plays a still more important role in extractive industry proper, where one element of constant capital, raw material, completely disappears, and where, with the exception of branches for which the portion consisting of machinery and other fixed capital is very significant, the lowest composition of capital invariably prevails. Precisely here, where rent seems due to a monopoly price alone, extraordinarily favorable market conditions are required for the commodities to be sold at their values or for rent to equal the entire excess of surplus-value in a commodity over and above its price of production. This is the case for example with rent for fishing grounds, quarries, natural forests, etc.133

[Chapter 46. Rent of Buildings, Price of Land] The price of land may rise without an increase in rent, and it may rise because of the rent increases. The various conditions for a rise in rent, and hence either in the price of land in general or in that of particular types of land, may partly compete with one another, partly exclude one another, and may only take effect in alteration.134

[Chapter 47. The Genesis of Capitalist Ground-Rent] The form of labor rent is that the direct producer devotes one part of the week, with tools that belong to him either legally or in practice. Ground-rent is the only dominant and normal form of surplus-value or surplus labor. Money rent means that the immediate producer has to pay his landowner the price of rent by money. In share-cropping, the tenant divides the product between share-cropper and landowner in definite proportions according to a contract between them when the land is leased.135
Part VII. The Revenues and their Sources [Chapter 48. The Trinity Formula] In the social production process, revenues take the trinity form: profit from capital (interest and profit of enterprise), ground-rent form land, and wages form labor. In earlier forms of society, the economic mystification comes in principally in connection with money and interest-bearing capital. It is excluded by the very nature of the case, firstly, where production is predominantly for use-value, for the producers’ own needs; secondly, where, as in Antiquity and the Middle Ages, slavery or serfdom forms the broad basis of social production. In the latter case, the dominance of the conditions of production over the producers is concealed by the visible relations of domination and servitude, which appear as direct mainsprings of the production process. In the primitive communities where an indigenous communism prevails, and even in the urban communities of Antiquity, it is the actual community and its conditions that presents itself as the basis of production, the reproduction of this community being production’s final purpose. Even in the guild system of the Middle Ages, neither capital nor labor appear unrestrained; their connections are determined by the system of corporations and the relationships this involves, as well as by the corresponding ideas of professional obligation, craftsmanship, etc. Only in the capitalist more of production… (Here the manuscript breaks off).156

[Chapter 49. On the Analysis of the Production Process] Always lurking in the background is the idea that profit, and surplus-value in general, is an excess over and above the value of the commodity, which is made only by a surcharge, by mutual cheating, by profit on alienation. But since the production price of the commodity is paid, or even its value, so too are those value components of the commodity that appear to their seller in the form of revenue. Monopoly prices, of course, are not at issue here. Moreover, it is quite correct that the commodity components which constant capital consists of are reducible like all other commodity value to value components that could be resolved for their producer and the owners of the means of production into wages, profit and rent. This is simply the capitalist way of expressing the fact that commodity value is always just the measure of the socially necessary labor contained in a commodity. But this in no way prevents the commodity product of a capital from breaking down into separate components, of which one exclusively represents the constant capital component, another the variable capital component and a third simply the surplus-value.157

[Chapter 50. The Illusion Created by Competition] The illusion that capitalist relationships are the natural condition of any mode of production is further reinforced as below. If wages are reduced to their general basis, i.e. that portion of the product of his labor which goes into the worker’s own individual consumption; if this share is freed from its capitalist limit and expanded to the scale of consumption that is both permitted by the existing social productivity (i.e. the social productivity of his own labor as genuinely social labor) and required for the full development of individuality; if surplus labor and surplus product are also reduced, to the degree needed under the given conditions of production, on the one hand to form an insurance and reserve fund, on the other hand for the constant expansion of reproduction in the degree determined by social need; if, finally, both the necessary labor and the surplus labor are taken to include the amount of labor that those capable of work must always perform for those members of society not yet capable, or no longer capable of working – i.e. if both wages and surplus-value are stripped of their specifically capitalist character – then nothing of these forms remains, but simply those foundations of the forms that are common to all social modes of production. This kind of subsumption, incidentally, is also characteristic of modes of production previously dominant, e.g. the feudal. Relations of production that in no way corresponded to it, standing completely outside it, were subsumed under feudal relationships; e.g. tenures in common socage in England (as opposed to tenures on knight’s service), which simply involved monetary obligations and were feudal only in name.158
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[Chapter 51. Relations of Distribution and Relations of Production] In the customary view, these relations of distribution appear to be natural relations, relations arising from the nature of all social production, from the laws of human production pure and simple. The only bit of truth in this conception is this: once any kind of social production is assumed, it is always possible to distinguish between the portion of labor whose product is directly consumed individually by the producers and their dependents, and a further portion of labor that is always surplus labor, whose product serves to satisfy general social needs, no matter how this surplus product is distributed and who functions as the representative of these social needs. The identity of the different modes of distribution thus comes down to the fact that they are identical if we abstract from their distinctions and specific forms and cling on just to their unity in contrast to what distinguishes them. Two characteristic traits mark the capitalist mode of production right from the start. Firstly, it produces its product as commodities. This means that the worker himself appears only as a seller of commodities, and hence as a free wage-laborer – i.e. labor generally appears as wage-labor. Secondly, the capitalist mode of production is the production of surplus-value as the direct object and decisive motive of production. Capital essentially produces capital, and it does this only as long as it produces surplus-value.\[^{139}\]

[Chapter 52. Classes] The owners of mere labor-power, the owners of capital and the landowners, whose respective sources of income are wages, profit and ground-rent – in other words, wage-laborers, capitalists and landowners – from the three great classes of modern society based on the capitalist mode of production. It is undeniably in England that this modern society and its economic articulation is most widely and most classically developed. Even here, though, this class articulation does not emerge in pure form. Here, too, middle and transitional levels always conceal the boundaries (although incomparably less so in the countryside than in the towns). We have seen how it is the constant tendency and law of development of the capitalist mode of production to divorce the means of production ever more from labor and to concentrate the fragmented means of production more and more into large groups, i.e. to transform labor into wage-labor and the means of production into capital. And this tendency also corresponds to the independent divorce of all landed property from capital and labor, or the transformation of all landed property into the form of landed property corresponding to the capitalist mode of production. The question to be answered next is: What makes a class and this arises automatically from answering another question: What makes wage-laborers, capitalists and landowners the formative elements of the three great social classes?

At first sight, the identity of revenues and revenue sources. For these are three great social groups whose components, the individuals forming them, live respectively from wages, profit and ground-rent, from the valorization of their labor-power, capital and landed property. From this point of view, however, doctors and government officials would also form two classes, as they belong to two distinct social groups, the revenue of each group’s members flowing from its own source. The same would hold true for the infinite fragmentation of interests and positions into which the division of social labor splits not only workers but also capitalists and landed owners – the latter, for instance, into vineyard-owners, field-owners, forest-owners, fishery-owners, etc. (at this point, the manuscript breaks off).\[^{140}\]

Frederick Engels: Supplement and Addendum to Volume III of Capital: This includes two parts: law of value and rate of profit, and the stock exchanges. It was the last piece Engels wrote, apart from a few final letters. It dates from May 1895, only two months before his death. The addendum is compiled from two articles which Engels planned to write for Neue Zeit, though only the first of these. For the second article, there is simply a brief outline.\[^{141}\]
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Neoclassical Economists, Accessed all 18 February 2017
Photo IV-3-1. Stanley Jevons (1835-82) (Top Left)
https://media1.britannica.com/eb-media/55/10655-004-71335B7F.jpg
Photo IV-3-2. Carl Menger (1840-1921) (Top Right)
https://upload.wikimedia.org/wikipedia/commons/thumb/9/9f/CarlMenger.png/220px-CarlMenger.png
Photo IV-3-3. Alfred Marshall (1841-1924) (Bottom Left)
Photo IV-3-4. Leon Walras (1834-1910) (Bottom Right)
https://upload.wikimedia.org/wikipedia/commons/thumb/5/5d/Walras.jpg
3. The Foundations of Marginal Analysis

Classical economics asserts that markets function best with minimal government interference. It was developed in the late 18th and early 19th century by Adam Smith, Jean-Baptiste Say, David Ricardo, Thomas Robert Malthus, and John Stuart Mill as discussed previously in Chapter IV of Book IV. Many writers found Adam Smith’s idea of free markets more convincing than the idea, widely accepted at the time, of protectionism. Adam Smith’s *The Wealth of Nations* in 1776 is usually considered to mark the beginning of classical economics. The fundamental message in Smith’s influential book was that the wealth of nations was based not on gold but on trade: that when two parties freely agree to exchange things of value, because both see a profit in the exchange, total wealth increases. Classical economics originally differed from modern libertarian economics in seeing a role for the state in providing for the common good. Smith acknowledged that there were areas where the market is not the best way to serve the common good, and he took it as a given that the greater proportion of the costs supporting the common good should be borne by those best able to afford them. Classical economists observe that markets generally regulate themselves, when free of coercion. Adam Smith referred to this as a metaphorical *invisible hand*, which refers to the notion that private incentives are aligned with society welfare maximization under certain competitive conditions. Smith warned repeatedly of the dangers of monopoly and stressed the importance of competition. There is some debate about what is covered by the term classical economics, particularly when dealing with the period from 1830-75, and how classical economics relates to neoclassical economics.”

Thus, Classical economics included a value theory and distribution theory. “The value of a product was thought to depend on the costs involved in producing that product. The explanation of costs in Classical economics was simultaneously an explanation of distribution. A landlord received rent, workers received wages, and a capitalist tenant farmer received profits on their investment. This classic approach included the work of Adam Smith and David Ricardo. However, some economists gradually began emphasizing the perceived value of a good to the consumer. They proposed a theory that the value of a product was to be explained with differences in utility (usefulness) to the consumer. (In England, economists tended to conceptualize utility in keeping with the Utilitarianism of Jeremy Bentham and later of John Stuart Mill.) The third step from political economy to economics was the introduction of marginalism and the proposition that economic actors made decisions based on margins. For example, a person decides to buy a second sandwich based on how full he or she is after the first one, a firm hires a new employee based on the expected increase in profits the employee will bring. This differs from the aggregate decision making of classical political economy in that it explains how vital goods such as water can be cheap, while luxuries can be expensive. The change in economic theory from classical to neoclassical economics has been called the marginal revolution, although it has been argued that the process was slower than the term suggests.”

“Neoclassical economics is an approach to economics focusing on the determination of goods, outputs, and income distributions in markets through supply and demand. This determination is often mediated through a hypothesized maximization of utility by income-constrained individuals and of profits by firms facing production costs and employing available information and factors of production, in accordance with rational choice theory. Neoclassical economics dominates microeconomics, and together with Keynesian economics forms the neoclassical synthesis which dominates mainstream economics today. Although neoclassical economics has gained widespread acceptance by contemporary economists, there have been many critiques of neoclassical economics, often incorporated into newer versions of neoclassical theory.”
“Marginalism as a formal theory can be attributed to the work of three economists, Jevons in England, Menger in Austria, and Walras in Switzerland. William Stanley Jevons first proposed the theory in articles in 1863 and 1871. Similarly, Carl Menger presented the theory in 1871. Menger explained why individuals use marginal utility to decide amongst trade-offs, but while his illustrative examples present utility as quantified, his essential assumptions do not. Léon Walras introduced the theory in Éléments d'économie politique pure, the first part of which was published in 1874. (American John Bates Clark is also associated with the origins of Marginalism, but did little to advance the theory.) Although the Marginal Revolution flowed from the work of Jevons, Menger, and Walras, their work might have failed to enter the mainstream were it not for a second generation of economists. In England, the second generation were exemplified by Philip Wicksteed, by William Smart, and by Alfred Marshall; in Austria by Eugen Böhm von Bawerk and by Friedrich von Wieser; in Switzerland by Vilfredo Pareto; and in America by Herbert Joseph Davenport and by Frank A. Fetter.”

“There were significant, distinguishing features amongst the approaches of Jevons, Menger, and Walras, but the second generation did not maintain distinctions along national or linguistic lines. The work of von Wieser was heavily influenced by that of Walras. Wicksteed was heavily influenced by Menger. Fetter referred to himself and Davenport as part of the American Psychological School, named in imitation of the Austrian Psychological School. (And Clark's work from this period onward similarly shows heavy influence by Menger.) William Smart began as a conveyor of Austrian School theory to English-language readers, though he fell increasingly under the influence of Marshall. Böhm-Bawerk was perhaps the most able expositor of Menger’s conception. He was further noted for producing a theory of interest and of profit in equilibrium based upon the interaction of diminishing marginal utility with diminishing marginal productivity of time and with time preference. (This theory was adopted in full and then further developed by Knut Wicksell and, with modifications including formal disregard for time-preference, by Wicksell’s American rival Irving Fisher.) Marshall was the second-generation marginalist whose work on marginal utility came most to inform the mainstream of neoclassical economics, especially by way of his Principles of Economics, the first volume of which was published in 1890. Marshall constructed the demand curve with the aid of assumptions that utility was quantified, and that the marginal utility of money was constant (or nearly so). Like Jevons, Marshall did not see an explanation for supply in the theory of marginal utility, so he paired a marginal explanation of demand with a more classical explanation of supply, wherein costs were taken to be objectively determined. (Marshall later actively mischaracterized the criticism that these costs were themselves ultimately determined by marginal utilities.)

In his Mathematical Psychics of 1881, Francis Ysidro Edgeworth presented the indifference curve, deriving its properties from marginalist theory which assumed utility to be a differentiable function of quantified goods and services. But it came to be seen that indifference curves could be considered as somehow given, without bothering with notions of utility. In 1915, Eugen Slutsky derived a theory of consumer choice solely from properties of indifference curves. Because of the World War, the Bolshevik Revolution, and his own subsequent loss of interest, Slutsky’s work drew almost no notice, but similar work in 1934 by John Hicks and R. G. D. Allen derived much the same results and found a significant audience. Although some of the third generation of Austrian School economists had by 1911 rejected the quantification of utility while continuing to think in terms of marginal utility, most economists presumed that utility must be a sort of quantity. Indifference curve analysis seemed to represent a way of dispensing with presumptions of quantification, albeit that a seemingly arbitrary assumption about decreasing marginal rates of substitution would then have to be introduced to have convexity of indifference curves.”
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William Stanley Jevons (1835-82)

Jevons was born in Liverpool, Lancashire, England, and his father, Thomas Jevons, was an iron merchant. "At the age of fifteen he was sent to London to attend the University College School. He appears at this time to have already formed the belief that important achievements as a thinker were possible to him, and at more than one critical period in his career this belief was the decisive factor in determining his conduct. Towards the end of 1853, after having spent two years at University College, where his favorite subjects were chemistry and botany, he unexpectedly received the offer of the assayership to the new mint in Australia. The idea of leaving the UK was distasteful, but pecuniary considerations had, in consequence of the failure of his father's firm in 1847, become of vital importance, and he accepted the post. Jevons left the UK for Sydney in June 1854 to take up a role as an Assayer at the Mint. Jevons lived with his colleague and his wife first at Church Hill, then in Annangrove at Petersham and at Double Bay before returning to England. In letters to his family he described his life, took photographs and produced a social map of Sydney. Jevons returned to England via America five years later."148

"At the end of that period he resigned his appointment, and in the autumn of 1859 entered again as a student at the University College London, proceeding in due course to the B.A. and M.A. degrees of the University of London. He now gave his principal attention to the moral sciences, but his interest in natural science was by no means exhausted: throughout his life he continued to write occasional papers on scientific subjects... Not long after taking his M.A. degree Jevons obtained a post as tutor at Owens College, Manchester. In 1866 he was elected professor of logic and mental and moral philosophy and Cobden professor of political economy in Owens College. Next year he married Harriet Ann Taylor, whose father, John Edward Taylor, had been the founder and proprietor of the Manchester Guardian. Jevons suffered a good deal from ill health and sleeplessness, and found the delivery of lectures covering so wide a range of subjects very burdensome. In 1876 he was glad to exchange the Owens professorship for the professorship of political economy in University College, London. Travelling and music were the principal recreations of his life; but his health continued to be bad, and he suffered from depression. He found his professorial duties increasingly irksome, and feeling that the pressure of literary work left him no spare energy, he decided in 1880 to resign the post. On 13 August 1882 he drowned whilst bathing near Hastings. Jevons was a prolific writer, and at the time of his death was a leader in the UK both as a logician and as an economist."149

Jevons in 1859, he completed two of his most original and seminal papers. The first, ‘General Mathematical Theory of Political Economy’ (1862), outlined what came to be known as the marginal utility theory of value. This theory suggests that the utility or value to a consumer of an additional unit of a product is (at least beyond some critical quantity) inversely related to the number of units of that product he already owns. The second, ‘A Serious Fall in the Value of Gold’ (1863), attempted to measure the rise in prices in the period following the gold discoveries in California and Australia. In The Coal Question (1865), Jevons called attention to the gradual exhaustion of Britain’s coal supplies.150 His major works include Theory of Political Economy (1871), Money and the Mechanism of Exchange (1875), a Primer on Political Economy (1878), The State in Relation to Labour (1882), and two works published after his death, namely, Methods of Social Reform and Investigations in Currency and Finance, containing papers that had appeared separately during his lifetime. “He was engaged at the time of his death upon the preparation of a large treatise on economics and had drawn up a table of contents and completed some chapters and parts of chapters. This fragment was published in 1905 under the title of The Principles of Economics: a fragment of a treatise on the industrial mechanism of society, and other papers.”
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The Theory of Political Economy (1871) consists of eight chapters: introduction, theory of pleasure and pain, of utility, of exchange, of labor, of rent, of capital, remarks, and conclusion. [Chapter I. Introduction] Mathematical character of the science; confusion between mathematical and exact science; capability of exact measurement; measurement of feeling and motives; logical method of economics; relation of economics and ethics. Irving Fisher views that this book is “the start of the mathematical method in economics.”

[Chapter II. Theory of Pleasure and Pain] (i) Pleasure and pain as question: In almost every case, the intensity of feeling will change from moment to moment. Incessant variation characterizes our states of mind, and this is the source of the main difficulties of the subject. Nevertheless, if these variations can be traced out at all, or any approach to method and law can be detected, it will be possible to form a conception of the resulting quantity of feeling. We may imagine that the intensity changes at the end of every minute, but remains constant in the intervals. The height of each point of the curve pp., above the horizontal line ox, indicates the intensity of feeling in a moment of time; and the whole quantity of feeling generated in the time MN is measured by the area bounded by the lines pm, qi, MN, and pp. The feeling belonging to any other time, ma, will be measured by the space map cut off by the perpendicular line ab. (ii) Pain the negative of pleasure; (iii) Anticipated feeling; (iv) Uncertainty of future events.

[Chapter III. Theory of Utility] (i) The laws of human want; (ii) Utility is not an intrinsic quality; (iii) Law of the variation of utility: The law of the variation of the degree of utility of food may thus be represented by a continuous curve pub (Fig. IV.), and the perpendicular height of each point of the curve above the line ox, represents the degree of utility of the commodity when a certain amount has been consumed. Thus, when the quantity oak has been consumed, the degree of utility corresponds to the length of the line ab; for if we take a very little more food, as, its utility will be the product of as and ab very nearly, and more nearly the less is the magnitude of as. The degree of utility is thus properly measured by the height of a very narrow rectangle corresponding to a very small quantity of food, which theoretically ought to be infinitely small. (iv) Total utility and degree of utility; (v) Variation of the final degree of utility. (vi) Disutility and discommodity. (vii) Distribution of commodity in different uses:

The principles of utility may be illustrated by considering the mode in which we distribute a commodity when it is capable of several uses. There are articles which may be employed for many distinct purposes: thus, barley may be used either to make beer, spirits, bread, or to feed cattle; sugar may be used to eat, or for producing alcohol; timber may be used in construction, or as fuel; iron and other metals may be applied to many different purposes. Imagine, then, a community in the possession of a certain stock of barley; what principles will regulate their mode of consuming it? Or, as we have not yet reached the subject of exchange, imagine an isolated family, or even an individual, possessing an adequate stock, and using some in one way and some in another. The theory of utility gives, theoretically speaking, a complete solution of the question.

Let s be the whole stock of some commodity, and let it be capable of two distinct uses. Then we may represent the two quantities appropriated to these uses by x1 and y1, it being a condition that x1 + y1 = s. The person may be conceived as successively expending small quantities of the
commodity; now it is the inevitable tendency of human nature to choose that course which appears to offer the greatest advantage at the moment. Hence, when the person remains satisfied with the distribution he has made, it follows that no alteration would yield him more pleasure; which amounts to saying that an increment of commodity would yield exactly as much utility in one use as in another. Let Du1, Du2, be the increments of utility, which might arise respectively from consuming an increment of commodity in the two different ways. When the distribution is completed, we ought to have Du1 = Du2; or at the limit we have the equation: \( \frac{du_1}{dx} = \frac{du_2}{dy} \), which is true when x, y are respectively equal to x1, y1. We must, in other words, have the final degrees of utility in the two uses equal.

The same reasoning which applies to uses of the same commodity will evidently apply to any two uses, and hence to all uses simultaneously, so that we obtain a series of equations less numerous by a unit than the number of ways of using the commodity. The general result is that commodity, if consumed by a perfectly wise being, must be consumed with a maximum production of utility. We should often find these equations to fail. Even when x is equal to 99/100 of the stock, its degree of utility might still exceed the utility attaching to the remaining 1/100 part in either of the other uses. This would mean that it was preferable to give the whole commodity to the first use. Such a case might perhaps be said to be the exception but the rule; for, whenever a commodity is capable of only one use, the circumstance is theoretically represented by saying, that the final degree of utility in this employment always exceeds that in any other employment. Under peculiar circumstances great changes may take place in the consumption of a commodity. In a time of scarcity the utility of barley as food might rise so high as to exceed altogether its utility, even as regards the smallest quantity, in producing alcoholic liquors; its consumption in the latter way would then cease. In a besieged town the employment of articles becomes revolutionized. Things of great utility in other respects are ruthlessly applied to strange purposes. In Paris a vast stock of horses were eaten, not so much because they were useless in other ways, as because they were needed more strongly as food. A certain stock of horses had, indeed, to be retained as a necessary aid to locomotion, so that the equation of the degrees of utility never failed.

(viii) Theory of dimensions of economic quantities: In the recent progress of physical science, it has been found requisite to use notation for the purpose of displaying clearly the natures and relations of the various kinds of quantities concerned. (ix) Actual, prospective, and potential utility. His difficulties of Economics are mainly the difficulties of conceiving clearly and fully the conditions of utility. Even at the risk of being tiresome, I will therefore point out more minutely how various are the senses in which a thing may be said to have utility. (x) Distribution of a commodity in time: If a commodity has to be distributed over n days' use, and v1, v2, etc., be the final degree of utility on each day's consumption; and assuming that we can estimate more or less exactly the probability of its remaining good, let p1, p2, p3... p10, be these probabilities; let q1, q2, q3, etc., be the undetermined fractions which express the ratios of the present pleasures or pains to those future ones from whose anticipation they arise. Then, we obtain,

\[ v_1 p_1 q_1 = v_2 p_2 q_2 = v_3 p_3 q_3 = \ldots = v_n p_n q_n \]

It will be an obvious consequence of these equations that less commodity will be assigned to future days in some proportion to the intervening time.

[Chapter IV. Theory of Exchange] (i) Importance of exchange in economics; (ii) Ambiguity of the term value; (iii) Value expresses ratio of exchange; (iv) Popular use of the term value; (v) Dimension of value; (vi) Definition of market; (vii) The law of indifference; (viii) The theory of exchange; (ix) Symbolic statement of the theory; (x) Analogy to the theory of the lever; (xi) Impediments to exchange; (xii) Illustrations of the theory of exchange; (xiii) Problems in the theory of exchange; (xiv) Complex cases of the theory…More.
Chapter IV. Economic Thought and Other Intellectual Developments

Chapter V. Theory of Labor

(i) Quantitative notions of labor: There can be no question of the general truth of the above statement, although we may not have the data for assigning the exact law of the variation. We may imagine the painfulness of labor in proportion to produce to be represented by some such curve as abcd in Fig. VIII. In this diagram the height of points above the line ox denotes pleasure, and depth below it pain. At the moment of commencing labor it is usually more irksome than when the mind and body are well bent to the work. Thus, at first, the pain is measured by oa. At b there is neither pain nor pleasure. Between b and c an excess of pleasure is represented as due to the exertion itself. But after c the energy begins to be rapidly exhausted, and the resulting pain is shown by the downward tendency of the line cd. We may at the same time represent the degree of utility of the produce by some such curve as pq, the amount of produce being measured along the line ox. Agreeably to the theory of utility, already given, the curve shows that, the larger the wages earned, the less is the pleasure derived from a further increment. There will, of necessity, be some point m such that qm = dm, that is to say, such that the pleasure gained is exactly equal to the labor endured. Now, if we pass the least beyond this point, a balance of pain will result: there will be an ever-decreasing motive in favor of labor, and an ever-increasing motive against it. The laborer will evidently cease, then, at the point m. It would be inconsistent with human nature for a man to work when the pain of work exceeds the desire of possession, including all the motives for exertion.

(ii) Symbolic statement of the theory: In attempting to represent these conditions of labor with accuracy, we shall find that there are no less than four quantities concerned; let us denote them as follows: t = time, or duration of labor; l = amount of labor, as meaning the aggregate balance of pain accompanying it, irrespective of the produce; x = amount of commodity produced; v = total utility of that commodity. The amount of labor can be expressed:

\[(dx/dt) \times (du/dx); \frac{dl}{dt} = (dx/dt) \times (du/dx); \text{ so we get } \frac{du}{dx} = \frac{dl}{dx}\]

When the labor is finally distributed, we must have the increments of utility from the several employments equal, and at the limit we have: \(\frac{du}{dx} = \frac{dx}{dl_1} x \frac{du}{dy} x \frac{dy}{dl_2}\) where \(l = l_1 + l_2\).

Jevons developed more equations about the theory of labor.

Chapter VI. Theory of Rent

It is very easy to illustrate the Theory of Rent by diagrams. For, let distances along the line ox denote quantities of labor, and let the curve apc represent the variation of the rate of production, so that the area of the curve will be the measure of the produce. Thus when labor has been applied to the amount om, the produce will correspond to the area apmo. Let a small new increment of labor, mm', be applied, and suppose the rate of production equal over the whole of the increment. Then the small parallelogram, pp'm'm, will be the produce. This will be proportional in quantity to pm, so that the height of any point of the curve perpendicularly above a point of the line ox represents the rate of production at that point in the application of labor. If we further suppose that the laborer considers his labor, mm', repaid by the produce pm', any other part of his labor should be repaid.
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If we regard the investment as taking place continuously, the whole absorption of capital is represented by the area of a right-angled triangle (Fig. XII.), in which ob1, b1, b2, b2, b3, etc., are the successive units of time. The heights of the lines a1 b1, a2 b2 represent the amounts invested at the ends of the times. The daily investment being a, the total amount of investment will be a (n/2), increasing as the square of the time. Cases of this kind continually occur, as in sinking a deep mine, of which the requisite depth cannot be previously known with accuracy. Any large work, such as a breakwater, an embankment, the foundations of a great bridge, a dock, a long tunnel, the dredging of a channel, involves a problem of a similar nature; for it is seldom known what amount of labor and capital will be required; and if the work lasts much longer than was expected, the result is usually a financial disaster.

We may obtain a general expression for the rate of interest yielded by capital in any employment provided that we may suppose the produce for the same amount of labor to vary as some continuous function of the time elapsing between the expenditure of the labor and the enjoyment of the result. Let the time in question be t and the produce for the same amount of labor the function of t denoted by Ft, which may be supposed always to increase with t. If we now extend the time to t + Dt, the produce will be F (t + Dt), and the increment of produce F (t + Dt) - Ft. The ratio which this increment bears to the increment of investment of capital will determine the rate of interest. Now, at the end of the time t, we might receive the product Ft, and this is the amount of capital which remains invested when we extend the time by Dt. Hence the amount of increased investment of capital is Dt · Ft; and, dividing the increment of produce by this last expression, we have: 

\[
\frac{dFt}{dt} / Ft \text{ or } \frac{F\prime}{Ft}
\]

The interest of capital is, in other words, the rate of increase of the produce divided by the whole produce; but this is a quantity which must rapidly approach to zero, unless means can be found of continually maintaining the rate of increase. Unless a body moves with a rapidly increasing speed, the space it moves over in any unit of time must ultimately become inconsiderable compared with the whole space passed over from the commencement. There is no reason to suppose that industry, generally speaking, is capable of returning any such vastly increasing produce from the greater application of capital. Every new machine or other great invention will usually require a fixation of capital for a certain average time, and may be capable of paying interest upon it; but when this average time is reached, it fails to afford a return to more prolonged investments.

Chapter VIII. Concluding Remarks

It is that the wages of a working man are ultimately coincident with what he produces, after the deduction of rent, taxes, and the interest of capital. I think that in the equation Produce = profit + wages, the quantity of produce is essentially variable, and that profit is the part to be first determined. If we resolve profit into wages of superintendence, insurance against risk, and interest, the first part is really wages itself; the second equalizes the result in different employments; and the interest is determined. The reader will observe the important qualification that wages are only ultimately thus determined - that is, in the long run, and on the average of any one branch of employment. Competition will proceed until the point is reached at which only the market rate of interest is obtained for the capital invested. At the same time wages will have been so raised that the workmen reap the whole excess of produce, unless indeed the price of the produce has fallen, and the public, as consumers, have the benefit. Whether this latter result will follow or not depends upon the number of laborers who are fitted for the work.
Political Economy (Science Primers, 1880): [Chapter II. Utility] Here Jevons explains the basic concept of utility easily without using and mathematical equation as follows:\footnote{152}

(i) Our wants are various: After a little reflection, we shall see that we generally want but little of any one kind of commodity, and prefer to have a portion of one kind and apportion of another kind. Nobody likes to make his dinner off potatoes only, or bread only, or even beef only; he prefers to have some beef, some bread, some potatoes, besides, perhaps, beer, pudding, and etc. Similarly, a man would not care to have many suits of clothes all alike; he may wish to have several suits, no doubt, but then some should be warmer, others thinner; some for evening dress, others for travelling, and so on. A library all made of copies of the same book would be absurd; to keep several exact suplications of any work would be generally useless. A collector of engravings would not care to have many identical copies of the same engraving. In all these...we learn that human wants tend towards variety; each separate want is soon satisfied, or made full, and then some other want begins to be felt. This was called by Senior the law of variety, and it is the most important law in the whole of political economy.

It is easy to see, too, that there is a natural order in which our wants follow each other as regards importance; we must have food to eat, and if we cannot get anything else we are glad to get bread; next we want meat, vegetables, fruit, and other delicacies. Clothing is not on the whole as necessary as food; but, when a man has plenty to eat, he begins to think of dressing himself well. Next comes the question of a house to live in; a mere cabin is better than nothing, but the richer a man is the larger the house he likes to have. When he has got a good house he wants to fill it with furniture, books, pictures, musical instruments, articles of virtue, and so forth. Thus we can lay down very roughly a law of succession of wants, somewhat in this order: air, food, clothing, lodging, literature, articles of adornment and amusement.

Thus there is no fear that, by machinery or other improvements, things will be made so plentifully that workmen would be thrown out of employment, and not wanted any more. If men were not required at one trade, they would need to learn a new trade.

(ii) When things are useful: The chief question to consider, then, is when things are useful and when they are not. This entirely depends upon whether we want them or not. Most things about us, the air, rain water, stones, soil, and etc., are not wealth, because we do not want them, or want so little that we can readily get what we need. Let us consider carefully whether we can say that water is useful, or in what sense we may say so. It is common to hear people say that water is the most useful substance in the world, and so it is – in the right place, and at the right time. But if water is too plentiful and flows into your cellars, it is not useful there; if it soaks through the walls and produces rheumatism, it is hurtful, not useful. If a man wanting pure good water, digs a well and the water comes, it is useful. But if, in digging a coal pit, water rushes in and prevents the miners reaching the coal seam, it is clear that the water is the opposite of useful. In some countries, rain comes very irregularly and uncertainly. In Australia the droughts last for one or two or even three years, and in the interior of the continent the rivers sometimes dry up altogether. The dirtiest pools then become very valuable for keeping the flocks of sheep alive. In New South Wales, water has been sold for three shillings a bucketful. When a drought breaks up, sudden floods come down the rivers, destroying the dams and bridges, sweeping away houses, and often drowning men and animals. It is quite plain that we cannot say water is always useful; it is often so hurtful as to ruin and drown people. All that we can really say is that water is useful when and where we want it, and in such quantity as we want, and not otherwise. We must not say that all water is useful, but only that such water is useful as we can actually use.

It is now easy to see why things, in order to be wealth, must be limited in supply; for we never want an unlimited quantity of anything. A man cannot drink more than two or three quarts of
water in the day, not eat more than a few pounds of food. Thus we can understand why in South America, where there are great herds of cattle, the best beef is not wealth, namely, because there is so much that there are not people enough to eat it. The beef which is eaten there is just as useful in nourishing people as beef eaten in England, but it is not so valuable because there is plenty of beef to spare, that is, plenty of beef not wanted by the people.

(iii) **What we must aim at:** Now we can see precisely what it is that we have to learn in political economy. It is how to supply our various wants as fully as possible. To do this we must, first of all, ascertain what things are wanted. There is no sue making things unless, when, made, they are useful, and the quantities of things must be proportioned to what are wanted. The cabinetmaker must not make a great many tables, and new chairs; he must make some tables and more chairs. Similarly, every kind of commodity must be supplied when it is most wanted; and nothing must be supplied when it is most wanted; and nothing must be over-supplied, that is manufactured in such large quantities that it would have been better to spend the labor in manufacturing other things. Secondly, we must always try to produce things with the least possible labor; for labor is painful exertion, and we wish to undergo as little pain and trouble as we can. Thus, as Professor Hearn, of the University of Melbourne, well described it, political economy is the science of effort to satisfy wants; it teaches us how to find the shortest way to what we wish for. The object which we aim at is to obtain the most riches at the cost of the least labor.

(iv) **When to consume wealth:** To consume a commodity is to destroy its utility, as when coal is burnt, or bread eaten, or a jug broken, or a piano worn out. Things lose their utility in various ways, as when they go bad, like meat and fish; when the fashion changes, as with ladies’ attire; or when they merely grow old, as in the case of an almanac, or a directory. Again, houses fall into bad repair; ricks of corn may burnt down; ships may founder. In all these cases utility is destroyed, slowly or quickly, and the commodities may be said to be consumed. It is obvious that we must use things while they are fit to be used, if we are to sue them at all. It is evident, too, that we ought to try to get the utmost possible use out of things which we are happy enough to possess. If an object is not injured nor destroyed by use, as in the case of reading a book, or looking at a picture, then the more often we use it the greater is the utility. Such things become more useful if they are passed on from one person to another, like books in a circulating library. In this case there arises what we may call the multiplication of utility. Public libraries, museums, pictures galleries and like institutions all multiply utility, and the cost of such institutions is little or nothing compared with their usefulness. When a commodity is destroyed at once by use, as in the case of food, it is obvious that one person can use the same portion of commodity. Our object must then be to consume it when it is most useful. If a man lost in the bush find himself with a short supply of food, it would be foolish of him to eat it all up at once, when he might starve for several days afterwards. He should spread out his supply, so as to eat each bit of food when it will support his strength the most. So we ought to do with the earnings of a life time. The working man should not spend all his wages when trade is brisk, because he will want some of it much more when trade becomes slack, and he is out of employment. Similarly, that which is spent in early life upon mere luxuries and frivolities, might be much more useful in old age, when even necessaries and ordinary comforts may be difficult to obtain. All wealth is produced in order that it may be consumed, but then it must be consumed when it best fulfils its purpose; that it, when it is most useful.

(v) **The fallacy of consumption:** It is not uncommon to hear people say that they ought to spend money freely in order to encourage trade. If every person were to save his money instead of spending it, trade, they think, would languish and workmen would be out of employment. Tradespeople favor these notions, because it is obvious that, the more a milliner or draper can persuade this customer to buy, the more profit he makes thereby. The customers, too, are quite
inclined to think the argument a good one, because they enjoy buying new dresses, and other pleasant things. Nevertheless, the argument is a bad fallacy. The fact is, that a person who has riches cannot help employing labor of some kind of other. If he saves up his money he probably puts it into a bank; but the banker does not keep it idle. The banker lends it out again to merchants, manufacturers and builders, who use it to increase their business and employ more hands. If he buy railway shares or government funds, those who receive the money put it to some other profitable use. If the rich man actually hoards up his money in the form of gold or silver, he gets no advantage from it, but he creates so much more demand for gold or silver. If many rich people were to take to hoarding up gold, the result would be to make gold mining more profitable, and there would be so many more gold miners, instead of railway navies, or other workmen.

We see then that, when a rich person decides how to spend his money he is deciding not how many more workpeople shall be set to work, but what kind of work they shall do. A single ball indeed will have no great effect; but, if many people were to the same, there would soon be more tradespeople attracted to these trades. If, on the other hand, rich people invest their money in engineers, foremen, navies, iron puddlers, iron rollers, engine mechanics, carriage builders, and etc. The question really comes from to this, whether people are made happier by more fancy balls, or by more railways. A fancy ball creates amusement at the time, but it cost a great deal of money, especially to the guests who buy expensive costumes. When it is over there is no permanent result, and no one is much the better for it. The railway, on the other hand, is no immediate cause of pleasure, but it cheapens goods by enabling them to be carried more easily: it allows people to live in the country, instead of the crowded town, or it carries them on pleasant and wholesome excursions. We see, then, that it is simple folly to approve of consumption of its own sake, or because it benefits trade. In spending our wealth we ought to think solely of the advantage which people get out of that spending.

(vi) The fallacy of non-consumption: Some people fall into the opposite fallacy of thinking that all spending is an evil. The best thing to do with wealth is to keep it and let it grow by interest, or even to neglect the interest and keep the gold itself. Thus they become what we call misers, and there are always a certain number of people, who deprive themselves of the ordinary pleasures of life, in order that they may have the pleasure of feeling rich. Now this kind of people do no positive harm to their fellow-men; on the contrary they increase the wealth of the country, and some one or other will sooner or later benefit by it. Moreover, if they put their wealth into banks and other good investments, they great service in increasing the capital of the nation, and thus enabling so many more factories, docks, railways, and other important works to be constructed. Most people are so fond of spending their money on passing amusements, entertainments, eating and drinking, and fine dressing, that it is a distinct advantage to have other people who will put their wealth into a more permanently useful form.

Nevertheless, there could be no use in abstaining from all enjoyment in order that we might lay up a store of wealth. Things are not wealth unless they are useful and pleasant to us. If everybody invested his savings in railway shares, we should have so many railways that they could be made rather than a nuisance than a benefit. Similarly, there could be no good in building docks unless there were ships to load in them, not ships unless there were goods or passengers to convey. It would be equally absurd to make cotton mills if there were already enough to manufacture as much cotton goods as people could consume. Thus we come to see that wealth must be fitted for use and consumption in some way or other. What we have to do is to endeavor to spend out means so as to get the greatest, real happiness for ourselves, our relatives, friends, and all other people whom we ought to consider.
Carl Menger (1840-1921)

Carl Menger was an Austrian economist and the founder of the Austrian School of economics. He contributed to the development of the theory of marginalism which rejected the cost-of-production theories of value, such as were developed by the classical economists such as Adam Smith and David Ricardo. Menger used his Subjective Theory of Value to arrive at what he considered one of the most powerful insights in economics: both sides gain from exchange. “Menger was born in a city in Austrian Galicia (now in Poland). He was a son of a wealthy family of minor nobility; his father was a lawyer and his mother was the daughter of a wealthy Bohemian merchant. He had two brothers, both prominent as lawyers; and his son, Karl Menger, was a mathematician who taught for many years at Illinois Institute of Technology. After attending Gymnasium he studied law at the Universities of Prague and Vienna and later received a doctorate in jurisprudence from the Jagiellonian University in Kraków. In the 1860s Menger left school and enjoyed a stint as a journalist reporting and analyzing market news, first at the Lemberger Zeitung in Lwów, Ukraine and later at the Wiener Zeitung in Vienna. During the course of his newspaper work he noticed a discrepancy between what the classical economics he was taught in school said about price determination and what real world market participants believed. In 1867 Menger began a study of political economy which culminated in 1871 with the publication of his Principles of Economics (Grundsätze der Volkswirtschaftslehre), thus becoming the father of the Austrian School of economic thought. It was in this work that he challenged classical cost-based theories of value with his theory of marginality – that price is determined at the margin.”

“In 1872 Menger was enrolled into the law faculty at the University of Vienna and spent the next several years teaching finance and political economy both in seminars and lectures to a growing number of students. In 1873 he received the university's chair of economic theory at the very young age of 33. In 1876 Menger began tutoring Archduke Rudolf von Habsburg, the Crown Prince of Austria in political economy and statistics. For two years Menger accompanied the prince in his travels, first through continental Europe and then later through the British Isles. He is also thought to have assisted the crown prince in the composition of a pamphlet, published anonymously in 1878, which was highly critical of the higher Austrian aristocracy. His association with the prince would last until Rudolf's suicide in 1889. In 1878 Rudolf's father, Emperor Franz Josef, appointed Menger to the chair of political economy at Vienna. The title of Hofrat was conferred on him, and he was appointed to the Austrian Herrenhaus in 1900.”

“Ensoined in his professorship he set about refining and defending the positions he took and methods he utilized in Principles, the result of which was the 1883 publication of Investigations into the Method of the Social Sciences with Special Reference to Economics. The book caused a firestorm of debate, during which members of the Historical school of economics began to derisively call Menger and his students the Austrian School to emphasize their departure from mainstream economic thought in Germany – the term was specifically used in an unfavorable review by Gustav von Schmoller. In 1884 Menger responded with the pamphlet The Errors of Historicism in German Economics and launched the infamous Methodenstreit, or methodological debate, between the Historical School and the Austrian School. During this time Menger began to attract like-minded disciples who would go on to make their own mark on the field of economics, most notably Eugen von Böhm-Bawerk, and Friedrich von Wieser. In the late 1880s Menger was appointed to head a commission to reform the Austrian monetary system. Over the course of the next decade he authored numerous articles which would revolutionize monetary theory, including The Theory of Capital (1888) and Money (1892). Largely due to his pessimism about the state of German scholarship, Menger resigned his professorship in 1903 to concentrate on study.”
The Austrian School: “The Austrian School owes its name to members of the German historical school of economics, who argued against the Austrians during the late-19th century Methodenstreit (methodology struggle), in which the Austrians defended the role of theory in economics as distinct from the study or compilation of historical circumstance. In 1883, Menger published Investigations into the Method of the Social Sciences with Special Reference to Economics, which attacked the methods of the Historical school. Gustav von Schmoller, a leader of the Historical school, responded with an unfavorable review, coining the term Austrian School in an attempt to characterize the school as outcast and provincial. The label endured and was adopted by the adherents themselves. The school originated in Vienna, in the Austrian Empire. Carl Menger’s 1871 book, Principles of Economics, is generally considered the founding of the Austrian School. The book was one of the first modern treatises to advance the theory of marginal utility. The Austrian School was one of three founding currents of the marginalist revolution of the 1870s, with its major contribution being the introduction of the subjectivist approach in economics. While marginalism was generally influential, there was also a more specific school that began to coalesce around Menger's work, which came to be known as the Psychological School, Vienna School, or Austrian School. Menger's contributions to economic theory were closely followed by those of Böhm-Bawerk and Friedrich von Wieser. These three economists became what is known as the first wave of the Austrian School. Böhm-Bawerk wrote extensive critiques of Karl Marx in the 1880s and 1890s, as was part of the Austrians' participation in the late 19th-century Methodenstreit, during which they attacked the Hegelian doctrines of the Historical School. Several important Austrian economists trained at the University of Vienna in the 1920s and later participated in private seminars held by Ludwig von Mises. These included Gottfried Haberler, Friedrich Hayek, Fritz Machlup, Karl Menger (son of Carl Menger), Oskar Morgenstern, Paul Rosenstein-Rodan Abraham Wald, among others.”

“By the mid-1930s, most economists had embraced what they considered the important contributions of the early Austrians. Fritz Machlup quoted Hayek's statement, ‘the greatest success of a school is that it stops existing because its fundamental teachings have become parts of the general body of commonly accepted thought.’ Sometime during the middle of the twentieth century, Austrian economics became disregarded or derided by mainstream economists because it rejected model building, and mathematical and statistical methods in the study of economics. Mises' student, Israel Kirzner recalled that in 1954, when Kirzner was pursuing his PhD, there was no separate Austrian School as such. When Kirzner was deciding which graduate school to attend, Mises had advised him to accept an offer of admission at Johns Hopkins because it was a prestigious university and Fritz Machlup taught there. After the 1940s, Austrian economics can be divided into two schools of economic thought, and the school split to some degree in the late 20th century. One camp of Austrians, exemplified by Ludwig von Mises, regards neoclassical methodology to be irredeemably flawed; the other camp, exemplified by Friedrich Hayek, accepts a large part of neoclassical methodology and is more accepting of government intervention in the economy. Henry Hazlitt wrote economics columns and editorials for a number of publications and wrote many books on the topic of Austrian economics from the 1930s to the 1980s. Hazlitt's thinking was influenced by Mises. His book Economics in One Lesson (1946) sold over a million copies, and he is also known for The Failure of the New Economics (1959), a line-by-line critique of John Maynard Keynes's General Theory. The reputation of the Austrian School rose in the late-20th century due in part to the work of Israel Kirzner and Ludwig Lachmann at New York University, and to renewed public awareness of the work of Hayek after he won the 1974 Nobel Memorial Prize in Economic Sciences. Hayek's work was influential in the revival of laissez-faire thought in the 20th century.” By the late twentieth century, a split had developed.
Chapter IV. Economic Thought and Other Intellectual Developments

In Methodology, “The Austrian School theorizes that the subjective choices of individuals including individual knowledge, time, expectation, and other subjective factors, cause all economic phenomena. Austrians seek to understand the economy by examining the social ramifications of individual choice, an approach called methodological individualism. It differs from other schools of economic thought, which have focused on aggregate variables, equilibrium analysis, and societal groups rather than individuals. In the twentieth and twenty-first centuries, economists with a methodological lineage to the early Austrian School developed many diverse approaches and theoretical orientations. For example, in 1949, Ludwig von Mises organized his version of the subjectivist approach, which he called praxeology, in a book published in English as Human Action. In it, Mises stated that praxeology could be used to deduce a priori theoretical economic truths and that deductive economic thought experiments could yield conclusions which follow irrefutably from the underlying assumptions. He wrote that conclusions could not be inferred from empirical observation or statistical analysis and argued against the use of probabilities in economic models. Since Mises' time, some Austrian thinkers have accepted his praxeological approach, while others have adopted alternative methodologies. For example, Fritz Machlup, Friedrich Hayek, and others, did not take Mises' strong a priori approach to economics. Ludwig Lachmann, a radical subjectivist, also largely rejected Mises' formulation of Praxeology in favor of the verstehende Methode (interpretive method) articulated by Max Weber. In the 20th century, various Austrians incorporated models and mathematics into their analysis… Austrian methodology is consistent with macroeconomics and that Austrian macroeconomics can be expressed in terms of microeconomic foundations. Austrian economist Roger Garrison writes that Austrian macroeconomic theory can be correctly expressed in terms of diagrammatic models.”

Contributions to economic thought: (i) Opportunity cost: The opportunity cost doctrine was first explicitly formulated by the Austrian economist Friedrich von Wieser in the late 19th century. Opportunity cost is the sacrifice related to the second best choice available to someone or group, who has picked among several mutually exclusive choices. (ii) Capital and interest: Eugen Bohm von Bawerk stated that interest rates and profits are determined by two factors, namely, supply and demand in the market for final goods and time preference. His theory was a response to Marx’s labor theory of value and capital. His theory attacked the viability of the labor theory of value in the light of the transformation problem. His conception of interest countered Marx’s exploitation theory. (iii) Inflation: In Mises’s definition, inflation is an increase in the supply of money. Hayek pointed out that inflationary stimulation exploits the lag between an increase in money supply and the consequent increase in the prices of goods and services. (iv) The economic circulation problem refers to a criticism of socialism which was first stated by Max Weber in 1920. Mises subsequently discussed Weber's idea with his student Friedrich Hayek, who developed it in various works including The Road to Serfdom. The problem concerns the means by which resources are allocated and distributed in an economy. (v) Business cycles: The Austrian theory of the business cycle focuses on banks' issuance of credit as the cause of economic fluctuations. Although later elaborated by Hayek and others, the theory was first set forth by Mises, who believed that banks extend credit at artificially low interest rates, causing businesses to invest in relatively roundabout production processes. Mises stated that this led to a misallocation of resources which he called mal-investment. According to the theory, mal-investment is induced by banks' excessive and unsustainable expansion of credit to businesses. (vi) Influence and critics: Many theories developed by first wave Austrian economists have long been absorbed into mainstream economics. These include Carl Menger's theories on marginal utility, Friedrich von Wieser's theories on opportunity cost, and Eugen Böhm von Bawerk's theories on time preference, as well as Menger and Böhm-Bawerk's criticisms of Marxian economics.
Chapter IV. Economic Thought and Other Intellectual Developments

Principles of Economics (1871) consists of eight chapters including the general theory of the good, economy and economic goods, the theory of value, the theory of exchange, the theory of price, use value and exchange value, the theory of the commodity, and the theory of money.\[159\]

Chapter I. The General Theory of the Good

The General Theory of the Good: All things are subject to the law of cause and effect. If a thing is to become a good, or in other words, if it is to acquire goods-character, all four of the following prerequisites must be simultaneously present: (i) A human need. (ii) Such properties as render the thing capable of being brought into a causal connection with the satisfaction of this need. (iii) Human knowledge of this causal connection. (iv) Command of the thing sufficient to direct it to the satisfaction of the need. Only when all four of these prerequisites are present simultaneously can a thing become a good. When even one of them is absent, a thing cannot acquire goods-character, and a thing already possessing goods-character would lose it at once if but one of the four prerequisites ceased to be present.

2. The Causal Connections between Goods: A causal relationship between a thing and the satisfaction of human needs is one of the prerequisites of its goods-character. It has been shown that goods having an indirect causal relationship with the satisfaction of human needs differ in the closeness of this relationship. But it has also been shown that this difference does not affect the essence of goods-character in any way. In this connection, a distinction was made between goods of first, second, third, fourth, and higher orders.

3. The Laws governing Goods-Character: (i) The goods-character of goods of higher order is dependent on command of corresponding complementary goods. (ii) The goods-character of goods of higher order is derived from that of the corresponding goods of lower order. “According to Menger, consumption goods are first-order goods while goods that help to produce these are second-order goods. Those that help to produce these are third-order goods and so on. Consequently, higher order goods, such as raw materials, tools, and machinery, are not homogeneous but, according to their order, occupy different stages in the production process. In short, Menger de-homogenized the production process.” Like the division of labor of Adam Smith, Menger views that one very important cause of economic growth lies in the extension of human plans to the goods of higher orders. “Therefore, in his discussion of the value of goods, he not only covered consumption goods, but also the value-formation of the goods of higher orders.”\[161\]

4. Time and error: The process by which goods of higher order are progressively transformed into goods of lower order and by which these are directed finally to the satisfaction of human needs is, not irregular but subject, like all other processes of change, to the law of causality. The idea of causality, however, is inseparable from the idea of time. A process of change involves a beginning and a becoming, and these are only conceivable as processes in time. Hence it is certain that we can never fully understand the causal interconnections of the various occurrences in a process, or the process itself, unless we view it in time and apply the measure of time to it. Thus, in the process of change by which goods of higher order are gradually transformed into goods of first order, until the latter finally bring about the state called the satisfaction of human needs, time is an essential feature of our observations.

5. Property: Combinations of goods of different kinds serve the purposes of economizing men. These combinations of goods are at the command of individuals either directly or indirectly, as is the case in our developed exchange economy. Only in their entirety do these goods bring about the effect that we call the satisfaction of our requirements, and in consequence, the assurance of our lives and welfare. The entire sum of goods at an economizing individual’s command for the satisfaction of his needs, we call his property. His property is not, however, an arbitrarily combined quantity of goods, but a direct reflection of his needs, an integrated whole, no essential part of which can be diminished or increased without affecting realization of the end it serves.
Chapter II. Economy and Economic Goods

1. Human Requirements: (i) Requirements for goods of first order (consumption goods): Human beings experience directly and immediately only needs for good of first order – that is, for goods that can be used directly for the satisfaction of their needs. Requirements of goods of higher order are thus dependent upon requirements for goods of first order. The quantity of a good of first order necessary to satisfy a concrete human deed is determined directly by the need itself and bears a direct quantitative relationship to it. (ii) Requirements for goods of higher order (means of production): We can bring quantities of goods of higher order to the production of given quantities of goods of lower order, and thus finally to the meeting of our requirements, only if we are in the position of having the complementary quantities of the other goods of higher order simultaneously at our disposal. (iii) The time limits within which human needs are felt: It is important to see the time limits in our requirements for goods of first order, because the lapse of time is inevitable in any production process.

2. The available quantities: As soon as a society reaches a certain level of civilization, the growing division of labor causes the development of a special professional class which operates as an intermediary in exchanges and performs for the other members of society not only the mechanical part of trading operations (shipping, distribution, the storing of goods, etc.), but also the task of keeping records of the available quantities. Under the circumstances, the business world has in as exact a knowledge as possible of the quantities of goods available in certain trading areas, it is not satisfied with the incomplete results of this activity of governments, performed, as it is for the most part, with little commercial understanding and always covering only particular countries or parts of countries rather than entire trading areas. The business world itself attempts to provide independently, and not infrequently at considerable financial sacrifice, as inclusive and as exact information as is possible of the quantities in question. This need has produced many organs serving the special interests of the business world, whose task consists of informing the members of each branch of production about the current state of stocks in the various trading areas.

3. The Origin of Human Economy and Economic Goods: (i) Economic goods: Without establishing an equilibrium between requirements and available amounts, a new social order could indeed ensure that the available quantities of economic goods would be used for the satisfaction of the needs of different persons than at present. But by such a redistribution it could never surmount the fact that there would be persons whose requirements for economic goods would either not be met at all, or met only incompletely, and against whose potential acts of force, the possessors of economic goods would have to be protected. Property is therefore inseparable from human economy in its social form, and all plans of social reform can reasonably be directed only toward an appropriate distribution of economic goods but never to the abolition of the institution of property itself. (ii) Non-economic goods (like water). (iii) The relationship between economic and non-economic goods: Non-economic goods becomes because an increase in human requirements or a diminution of the available quantity.

4. Wealth: Wealth can be defined as the entire sum of goods at an economizing individual’s command, the quantities of which are smaller than the requirements for them. Here deals with the term national wealth. In all questions where the issue is merely the quantitative determination of the so-called national wealth, the sum of the wealths of the individuals of the nation may be designated as national wealth. But when inferences running from the magnitude of the national wealth to the welfare of a people, or when phenomena resulting from contacts between the various economizing individuals, are involved, the concept of national wealth in the literal sense of the term must necessarily lead to frequent errors. In all these cases, the national wealth must be regarded rather as a complex composite of the wealths of the members of society, and we must direct our attention to the different sizes of these individual wealths.
Chapter III. The Theory of Value 163

1. The Nature and Origin of Value: The value of goods is a phenomenon that springs from the same source as the economic character of goods - that is, from the relationship between requirements for and available quantities of goods. Arising from their relationship to our needs, the value of goods is nothing inherent in goods, no property of them, but merely the importance that we first attribute to the satisfaction of our needs to our lives and well-being, and in consequence carry over to economic goods as the exclusive causes of the satisfaction of our needs. Utility is the capacity of a thing to serve for the satisfaction of human needs, and hence it is general prerequisite of goods-character. Non-economic goods have utility as well as economic goods, since they are just as capable of satisfying out needs.

2. The Original Measure of Value: (i) Difference in the magnitude of importance of different satisfactions (subjective factor): Menger applies a table (a minimum model) to explain different satisfactions. The varying importance that satisfaction of separate concrete needs has for men is not foreign to the consciousness of any economizing man, however, little attention has hitherto been paid by scholars to the phenomena here treated. Wherever men live, and whatever level of civilization they occupy, we can observe how economizing individuals weigh the relative importance of satisfaction of their various needs in general, how they weigh especially the relative importance of the separate acts leading to the more or less complete satisfaction of each need, and how they are finally guided by the results of this comparison into activities directed to the fullest possible satisfaction of their needs (economizing). Indeed, this weighing of the relative importance of needs - this choosing between needs that are to remain unsatisfied and needs that are, in accordance with the available means, to attain satisfaction, and determining the degree to which the latter are to be satisfied – is the very part of the economic activity of men that fills their minds more than any other, that has the most far-reaching influence on their economic efforts, and that is exercised almost continually by every economizing individual. But human knowledge of the different degrees of importance of satisfaction of different needs and of separate acts of satisfaction is also the first cause of differences in the value of goods.

(ii) The dependence of separate satisfactions on particular goods (objective factor): In every concrete case, of all the satisfactions secured by means of the whole quantity of a good at the disposal of an economizing individual, only those that have the least importance to him are dependent on the availability of a given portion of the whole quantity. (1) The importance that goods have for us and which we call value is merely imputed. Basically, only satisfactions have importance for us, because the maintenance of our lives and well-being depend on them. But we logically impute this importance to the goods on whose availability we are conscious of being dependent for these satisfactions. (2) The magnitudes of importance that different satisfactions of concrete needs (the separate acts of satisfaction that can be realized by means of individual goods) have for us are unequal, and their measure lies in the degree of their importance for the maintenance of our lives and welfare. (3) The magnitudes of the importance of our satisfactions that are imputed to goods - that is, the magnitudes of their values – are therefore also unequal, and their measure lies in the degree of importance that the satisfactions dependent on the goods in question have for us. (4) In each particular case, of all the satisfactions assured by the whole available quantity of a good, only those that have the least importance to an economizing individual are dependent on command of a given portion of the whole quantity. (5) The value of a particular good or of a given portion of the whole quantity of a good at the disposal of an economizing individual is thus for him equal to the importance of the least important of the satisfactions assured by the whole available quantity and achieved with any equal portion. For it is with respect to these least important satisfactions that the economizing individual concerned is dependent on the availability of the particular good, or given quantity of a good.
3. The Laws Governing the Value of Goods of Higher Order: (i) The principle that the value of goods of higher order is governed, not by the value of corresponding goods of lower order of the present, but rather by the prospective value of the product, is the universally valid principle of the determination of the value of goods of higher order. (ii) The productivity of capital: The more or less complete satisfaction of our needs is therefore no less dependent on command of quantities of economic goods for certain periods of time (on capital services) than it is on command of other economic goods. For this reason, capital services are objects to which men attribute value, and as we shall see later, they are also objects of commerce. Against this doctrine, I must point out that the abstinence of a person cannot, by itself, attain goods-character and thus value. Moreover, capital by no means always originates from abstinence, but in many cases as a result of mere seizure (whenever formerly non-economic goods of higher order attain economic character). Thus the payment of interest must not be regarded as a compensation of the owner of capital for his abstinence, but as the exchange of one economic good for another.

(iii) The value of complementary quantities of goods of higher order: The aggregate present value of all the complementary quantities of goods of higher order (that is, all the raw materials, labor services, services of land, machines, tools, etc.) necessary for the production of a good of lower or first order is equal to the prospective value of the product. But it is necessary to include in the sum not only the goods of higher order technically required for its production but also the services of capital and the activity of the entrepreneur. For these are as unavoidably necessary in every economic production of goods as the technical requisites already mentioned. Hence the present value of the technical factors of production by themselves is not equal to the full prospective value of the product, but always behaves in such a way that a margin for the value of the services of capital and entrepreneurial activity remains.

(iv) The value of individual goods of higher order: Assuming in each instance that all available goods of higher order are employed in the most economic fashion, the value of a concrete quantity of a good of higher order is equal to the difference in importance between the satisfactions that can be attained when we have command of the given quantity of the good of higher order whose value we wish to determine and the satisfactions that would be attained if we did not have this quantity at our command. This law corresponds exactly to the general law of value determination, since the difference referred to in the law of the preceding paragraph represents the importance of the satisfactions that depend on our command of a given good of higher order. This is the basic concept of marginal utility (in order to gain a number of commodity A, the consumer must give up a number of commodity B giving equal satisfaction in consumption).

(v) The value of the services of land, capital, and labor, in particular: It may well appear deplorable to a lover of mankind that possession of capital or a piece of land often provides the owner a higher income for a given period of time than the income received by a laborer for the most strenuous activity during the same period. Yet the cause of this is not immoral, but simply that the satisfaction of more important human needs depends upon the services of the given amount of capital or piece of land than upon the services of the laborer. The agitation of those who would like to see society allot a larger share of the available consumption goods to laborers than at present really constitutes, therefore, a demand for nothing else than paying labor above its value. For if the demand for higher wages is not coupled with a program for the more thorough training of workers, or if it is not confined to advocacy of freer competition, it requires that workers be paid not in accordance with the value of their services to society, but rather with a view to providing them with a more comfortable standard of living, and achieving a more equal distribution of consumption goods and of the burdens of life. A solution of the problem on this basis, however, would undoubtedly require a complete transformation of our social order.
Chapter IV. Economic Thought and Other Intellectual Developments

**Chapter IV. The Theory of Exchange**

1. The Foundations of Economic Exchange: In free exchange between A and B, if command of a certain amount of A’s goods were transferred to B and if command of a certain amount of B’s goods were transferred to A, the 178 Principles of Economics needs of both economizing individuals could be better satisfied than would be the case in the absence of this reciprocal transfer. The principle that leads men to exchange is the same principle that guides the in their economic activity as a whole; it is the endeavor to ensure the fullest possible satisfaction of their needs. The enjoyment men derive from an economic exchange of goods is the general feeling of pleasure they experience when some event permits them to make a better provision for the satisfaction of their needs than would otherwise have been possible. But the benefits of a mutual transfer of goods depend, as we have seen, on three conditions: (a) one economizing individual must have command of quantities of goods which have a smaller value to him than other quantities of goods at the disposal of another economizing individual who evaluates the goods in reverse fashion, (b) the two economizing individuals must have recognized this relationship, and (c) they must have the power actually to perform the exchange of goods. The absence of but one of these conditions means that an essential prerequisite for an economic exchange is missing, and that an exchange of goods between two economizing individuals is economically impossible.

2. The Limits of Economic Exchange: we would everywhere observe a limit at which the total economic gains to be derived from an exchange relationship are exhausted, and beyond which these gains would be diminished by further exchange operations, making the exchange of any further portions uneconomic. This limit is reached when one of the two bargainers has no further quantity of goods which is of less value to him than a quantity of another good at the disposal of the second bargainer who, at the same time, evaluates the two quantities of goods inversely. Thus we see that in the reality of practical life men do not trade indefinitely and without limit. We see instead that particular persons, at any given time, with respect to any given kinds of goods, and in any given economic situation, reach a certain limit at which they cease to make further exchanges. A social economy is made up of individual economies, and what has been said above is therefore just as valid for the trade of entire peoples as it is for single economizing individuals. Two nations, one chiefly engaged in agriculture and the other primarily in industry, will be in a position to satisfy their needs much more completely if each exchanges a portion of its produce for the produce of the other (the first nation a portion of its agricultural produce and the second a portion of its manufactures). But they will not undertake the exchange indefinitely and without limit. At any given point in time they will reach a limit beyond which any further exchange of agricultural produce for manufactures will be uneconomic for both nations.

Cases are indeed conceivable in which the economic sacrifices of an exchange operation fall to a minimum neglected in practical life. But it is not easy to find an actual case in which an exchange operation can be performed without any economic sacrifices at all, even if they are confined only to the loss of time. Freight costs, loading charges, tolls, excise taxes, premiums for marine and other insurance, costs of correspondence, commissions and other sales costs, brokerage charges, weighages, packaging costs, storage charges, the entire cost of the commercial banking system, even the expenses of traders and all their employees, etc., are nothing but the various economic sacrifices which are required for the conduct of exchange operations and which absorb a portion of the economic gains resulting from the exploitation of existing exchange opportunities. Indeed, these economic sacrifices often render exchange impossible when it would be possible if only these expenses, in the general economic sense of the term, did not exist. Economic development tends to reduce these economic sacrifices, with the result that even between the most distant lands more and more economic exchanges become possible.
Chapter IV. Economic Thought and Other Intellectual Developments

Chapter V. The Theory of Price

1. Price Formation in an Isolated Exchange: Wherever the foundations for an economic exchange of two goods between two economizing individuals exist, the nature of the relationship itself sets definite limits within which price formation must take place if the exchange is to have economic character at all. These limits are given by the different quantities of the goods that are equivalents for each bargainer (equivalents in a subjective sense). Within these limits, the price tends to be determined at the average of the two equivalents. The quantities of goods that are given for each other in an economic exchange are therefore precisely determined by the economic situation obtaining in each case. It is true that human caprice has some degree of influence on the result since varying quantities of goods may be exchanged, within definite limits, without a resultant loss of the economic character of the exchange operation. But it is equally certain that the opposing efforts of the bargainers to derive the greatest possible gain from the transaction will balance out in most cases, and that prices will therefore have a tendency to settle at the average of the extreme possible limits. If other factors, founded on the personalities of the two economizing individuals or on other external conditions affecting the transaction, enter the picture, prices can deviate from this natural middle position between the limits explained earlier without causing the exchange operations to lose economic character. But these deviations are not economic in nature, being founded on personal characteristics or on special external causes that are not of an economic character.

2. Price Formation under Monopoly: (i) Price formation and the distribution of goods when there is competition between several persons for a single indivisible monopolized good. (ii) Price formation and the distribution of goods when there is competition for several units of a monopolized good. (1) The quantity of a monopolized good offered for sale by a monopolist is acquired by those competitors for it to whom the largest quantities of the good offered in exchange for it are the equivalents of the units of the monopolized good. The monopolized good is distributed in such a way that the quantity of the good given in exchange that is the equivalent of one unit of the monopolized good is equal for each of the purchasers of portions of the monopolized good (50 bushels of grain equal to one horse, for example). (2) Price formation takes place between limits that are set by the equivalent of one unit of the monopolized good to the individual least eager and least able to compete who still participates in the exchange and the equivalent of one unit of the monopolized good to the individual most eager and best able to compete of the competitors who are economically excluded from the exchange. (3) The larger the quantity of the monopolized good offered for sale by the monopolist, the fewer will be the competitors for it who will be economically excluded from acquiring portions of it, and the more completely will those economizing individuals be provided with it who would have been in a position to acquire portions even if smaller quantities of it had been offered for sale. (4) The larger the quantity of a monopolized good offered for sale by the monopolists the lower in terms of purchasing power and eagerness to trade will he have to descend among the classes of competitors for the monopolized good in order to sell the whole quantity, and hence the lower also will be the price of one unit of the monopolized good. (iii) The influence of the price fixed by a monopolist on the quantity of a monopolized good that can be sold and on the distribution of the good among the competitors for it. (iv) The principles of monopoly trading (the policy of a monopolist): Although the monopolist has the power to set higher or lower prices, there is only one particular price and only one particular quantity of the monopolized good brought to market that corresponds most exactly to his economic interest. If the monopolist is an economizing individual, he will not proceed in an arbitrary fashion in determining his price or the quantity of the monopolized good he will sell, but in accordance with definite principles. Each given economic situation sets definite limits within which price formation and the distribution of goods must take place.
3. Price Formation and the Distribution of Goods under Bilateral Competition: (i) The origin of competition: The economic situation is usually such that the need for competition itself calls forth competition, provided there are no social or other barriers in the way.

(ii) The effect of the quantities of a commodity supplied by competitors on price formation; the effect of given prices set by them on sales; and in both cases the effect on the distribution of the commodity among the competing buyers. Whether a given quantity of a commodity is sold by a monopolist or by several competitors in supply, and independent of the way in which the commodity was originally distributed among the competing sellers, the effect on price formation and on the resultant distribution of the commodity among the competing buyers is exactly the same. Although the larger or smaller quantity of a good sold has a very decisive influence on its price and distribution under monopoly as well as competitive trade, the fact that a particular quantity of a commodity is supplied by a monopolist alone or by several competitors in supply has no influence on the phenomena of economic life just mentioned.

(iii) The effect of competition in the supply of a good on the quantity sold and on the price at which it is offered (the policies of competitors): The monopolist generally does not bring certain fixed quantities of his commodity to market and await the determination of the price as at an auction, but instead sets a definite price for his commodity and awaits its effect on sales. A similar thing occurs when there are several competitors selling a commodity. In this case too, each of them offers his commodity at a set price, which he computes so as to yield him the largest possible proceeds. What distinguishes his behavior from that of a monopolist is that the latter will often, as we have seen, find it to his interest to fix his price so high that only a part of the quantity available to him reaches the consumers, while competition forces every competitor to fix his price with regard to the entire quantity in his own and in his competitors’ hands. Barring error and ignorance on the part of the economizing individuals involved, prices are therefore formed under the impact of the entire quantity at the disposal of all the competing suppliers. To this must be added the fact that competition generally considerably increases the available quantity of commodities. These are the factors that are responsible for the reductions in prices as a consequence of competition.

Chapter VI. Use Value and Exchange Value

1. The Nature of Use Value and Exchange Value: Use value is the importance that goods acquire for us because they directly assure us the satisfaction of needs that would not be provided for if we did not have the goods at our command. Exchange value is the importance that goods acquire for us because their possession assures the same result indirectly. 2. The Relationship between the Use Value and the Exchange Value of Goods: A good has both use value and ex-change value to its possessor, the economic value is the one that is the greater. But it is evident that it is the exchange value of the good, and when this is not the case that it is the use value, that is the economic value. 3. Changes in the Economic Center of Gravity of the Value of Goods: The chief causes of changes in the economic form of value are as follow: (i) Changes in the importance of the particular satisfaction that a good renders to the economizing individual who has it at his command, if its use value to him is increased or decreased by the change. (ii) Mere changes in the properties of a good can shift the center of gravity of its economic importance if its use value to the possessor is altered by the change while its exchange value either remains unchanged or does not rise or fall to the same extent as its use value. (iii) We come now to the third, and most important, cause of changes in the economic center of gravity of the value of goods. I refer to increases in the quantities of goods at the disposal of economizing individuals. An increase in the quantity of a good a person has almost always, other things remaining the same, causes the use value of each unit of the good to him to diminish and its exchange value to become the more important.
Chapter IV. Economic Thought and Other Intellectual Developments

Chapter VII. The Theory of Commodity

1. The Concept of the Commodity in its Popular and Scientific Meanings: Commodity-character is not only no property of goods but usually only a transitory relationship between goods and economizing individuals. Certain goods are intended by their owners to be exchanged for the goods of other economizing individuals. During their passage, sometimes through several hands, from the possession of the first into the possession of the last owner, we call them commodities, but as soon as they have reached their economic destination (that is, as soon as they are in the hands of the ultimate consumer) they obviously cease to be commodities and become consumption goods in the narrow sense in which this term is opposed to the concept of commodity. But where this does not happen, as is the case very frequently, with gold, silver, etc., especially in the form of coins, they naturally continue to be commodities as long as they continue in the relationship responsible for their commodity-character. Two things are evident from this: (1) the frequently-stated proposition that money is a “commodity” contributes nothing at all toward explaining the unique position of money among commodities; (2) the view of those who deny the commodity character of money because “money as such, especially in the form of coin, does not serve any consumption purpose” is untenable simply because the same argument can be advanced against the commodity-character of all other goods - even if we were to ignore the fact that there is a misconception of the important function of money in the assumption that it is not consumed. For no “commodities” as such serve a consumption purpose, and least of all in the forms in which they are traded (i.e., in the form of ingots and bales, and in cases, packages, etc.). To be consumed a good must cease to be a “commodity” and relinquish the form in which it has been traded (i.e., it must be melted down, divided, unpacked, etc.). The coin and the ingot are the most common forms in which the precious metals are traded, and the fact that these forms must be abandoned before the precious metals can be brought into consumption is therefore nothing that justifies doubting their commodity-character.

2. The Marketability of Commodities: (i) The outer limits of the marketability of commodities: (1) Their marketability is limited with respect to the persons to whom they can be sold. (2) The marketability of commodities is limited with respect to the area within which they can be sold. (3) Commodities are limited quantitatively in their marketability. (4) Finally, commodities are also limited in their marketability with respect to the time periods in which they can be sold. (ii) The different degrees of marketability of commodities: obtain them. (1) The first cause of differences in the marketability of commodities we have thus seen to be the fact that the number of persons to whom they can be sold is sometimes larger and sometimes smaller, and that the points of concentration of the persons interested in their pricing are sometimes better and sometimes less well organized. (2) Secondly, there are commodities that can be sold almost anywhere within the spatial limits of their marketability. Domestic animals, grains, metals, and similar goods in common use, have markets almost everywhere that trade exists. Every small town and even the smallest village becomes a market for these goods at certain times. (3) The third cause of differences in the marketability of commodities, then, is the fact that the quantitative limits of the amounts of them that can be sold are sometimes wider and sometimes narrower, and that within these limits the quantities of some commodities brought to market can easily be sold at economic prices, while this is not true of other commodities, or at least not in the same degree. (4) The fourth cause of differences in the marketability of commodities is thus the fact that the time limits within which commodities can be sold are sometimes wider and sometimes narrower, and that within these limits some commodities can be sold at economic prices at any time, while others can be sold only at more or less distant points in time. (iii) The facility with which commodities circulate: it must be saleable in the widest sense of the term to every economizing individual through whose hands it may pass, and to each of these persons it must be saleable.
Chapter VIII. The Theory of Money

1. The Nature and Origin of Money: As each economizing individual becomes increasingly more aware of his economic interest, he is led by this interest, without any agreement, without legislative compulsion, and even without regard to the public interest, to give his commodities in exchange for other, more saleable, commodities, even if he does not need them for any immediate consumption purpose. The great importance of custom in the origin of money can be seen immediately by considering the process, described above, by which certain goods became money. Thus the sanction of the state gives a particular good the attribute of being a universal substitute in exchange, and although the state is not responsible for the existence of the money-character of the good, it is responsible for a significant improvement of its money-character.

2. The Kinds of Money Appropriate to Particular Peoples and to particular Historical Periods: Money presents itself to us, in its special locally and temporally different forms, not as the result of an agreement, legislative compulsion, or mere chance, but as the natural product of differences in the economic situation of different peoples at the same time, or of the same people in different periods of their history.

3. Money as a Measure of Price and as the Most Economic Form for Storing Exchangeable Wealth: Price formation, we have seen, always takes place between two extremes, the lower of which may also be called the demand price (the price at which the commodity is asked for on the market) and the higher of which may also be called the supply price (the price at which the commodity is offered for sale on the market). Although the theory of exchange value in general, and as a necessary consequence, the theory of money as a measure of exchange value in particular, must be designated as untenable after what has been said, observation of the nature and function of money teaches us nevertheless that the various estimates just discussed (as distinguished from measurement of the exchange value of goods) are usually most suitably made in terms of money. In sum, the commodity that has become money is also the commodity in which valuations answering the practical purposes of economizing men and in which accumulations of funds for exchange purposes can most appropriately be made provided that no impediments founded upon its properties stand in the way. Metallic money (which writers in our science always have primarily in mind when they speak of money in general) actually answers these purposes to a high degree. But it appears to me to be just as certain that the functions of being a “measure of value” and a “store of value” must not be attributed to money as such, since these functions are of a merely accidental nature and are not an essential part of the concept of money.

4. Coinage: The precious metals naturally became the economic form of money in the ordinary trading relations of civilized peoples. But the use of the precious metals for monetary purposes is accompanied by some defects whose removal had to be attempted by economizing men. The chief defects involved in the use of the precious metals for monetary purposes are: (1) the difficulty of determining their genuineness and degree of fineness, and (2) the necessity of dividing the hard material into pieces appropriate to each particular transaction. These difficulties cannot be removed easily without loss of time and other economic sacrifices. The testing of the genuineness of precious metals and their degree of fineness requires the use of chemicals and specific labor services, since it can be undertaken only by experts. The division of the hard metals into pieces of the weights needed for particular transactions is an operation.
Leon Walras (1834-1910)

Leon Walras was a French mathematical economist, who formulated the marginal theory of value (independently of William Stanley Jevons and Carl Menger) and pioneered the development of general equilibrium theory. (Walras is discussed separately in the section of general equilibrium)

Marginal Analysis of Jevons, Mengers, and Walras

Utility Functions: “Although Jevons, Menger, and Walras did not explicitly examine the exact form and nature of utility functions, Jevons and Walras did write out equations relating total utility to the quantities of goods consumed, and Menger’s verbal and arithmetical examples indicate that this conception of the total utility function was the same as that of Jevons and Walras. The utility an individual receives from consuming a good depends, according to these writers, exclusively on the quantity of that good consumed. It does not depend on the quantities of other goods consumed. For example, the marginal utility received from consuming another glass of beer depends only on the quantity of beer consumed and does not depend on the quantity of wine consumed (a substitute good) or on the quantity of pretzels consumed (a complementary good). The total utility function, the utility received from consuming all goods, is therefore an additive function, which Jevons and Walras represented in the following form:

\[ \text{Total Utility} = f^1(Q_a) + f^2(Q_b) + f^3(Q_c) + \cdots \]

This indicates that total utility is a function of, or depends upon, the quantity of good A consumed plus the quantity of good B consumed, and so on, which denies the existence of any complementary and substitute relationships between goods. In modern microeconomic theory these complementary and substitute relationships are not denied and the total utility function is written in a more general form, such as:

\[ \text{Total Utility} = f(Q_a, Q_b, Q_c, \cdots) \]

Utility, Demand, and Exchange: “What set Jevons, Menger, and Walras apart from their predecessors, with the exception of Gossen, is that they not only postulated the principle of diminishing marginal utility but also attempted to determine the conditions that would hold when a consumer is maximizing utility, and to develop a theory of exchange. Jevons and Walras went so far as to investigate the relationship between utility and demand. Because of Walras’s greater mathematical ability, he was the most successful of the three in these endeavors. Although he was less concerned about the concept of diminishing marginal utility, he had a much more sophisticated understanding of the interrelatedness of the various sectors of an economy. Gossen’s Second Law states that a consumer maximizes utility by spending a limited income in such a way that the last unit of money spent for any particular good yields the same marginal utility as the last unit spent for any other good. \[ \frac{MU_a}{P_a} = \frac{MU_b}{P_b} = \frac{MU_c}{P_c} \] Although both Menger and Jevons established the essence of this proposition, it remained for Walras, in his justly famous Lesson 8, to derive mathematically the equations that hold when a consumer is maximizing utility.

“If individual consumer utility is the underlying force explaining individual and market demand, it is necessary to show the relationship between utility functions and demand curves. Menger did not attempt this process and did not deal directly with demand curves either verbally, graphically, or arithmetically. Jevons used demand functions in his analysis but failed to establish
a relationship between utility and demand. Walras was able to establish the relationship between utility and demand, and to show that the fundamental force lying behind demand is marginal utility. All three pioneers attempted to show the relationships between marginal utility, maximization of consumer satisfaction, and the exchange of goods in a market. Menger was the least successful. Jevons was able to show these relationships in a simple market of two goods and two individuals. If individual G owns corn and individual H owns beef, and they barter, the final position of equilibrium can be concisely stated: The ratio of exchange of any two commodities will be the reciprocal of the ratio of the final degrees of utility of the quantities of commodity available for consumption after the exchange is completed. Jevons’s statement can be translated into the following equation:

\[
\frac{\text{MU of corn to G}}{\text{MU of beef to G}} = \frac{\text{MU of corn to H}}{\text{MU of beef to H}} = \frac{\text{quantity of beef traded}}{\text{quantity of corn traded}} = \frac{\text{price of corn}}{\text{price of beef}}
\]

Walras was able to demonstrate the relationship between marginal utility, maximization of consumer satisfaction, and exchange in a much more thorough and generalized manner than either Jevons or Menger.\textsuperscript{171}

The Value of Factors of Production: “The early writers who emphasized the role of utility criticized the classical theory of value, which held that relative prices depend upon cost of production. This implied, they said, that value comes from the past; they argued instead that value comes from the future, from the expected utilities to be enjoyed when consuming final goods. How did these marginal utility writers explain the prices of the factors of production? On this issue there are important differences between Jevons and Menger, on the one hand, and Walras, on the other. Jevons and Menger both discussed this question, and although Menger’s treatment was much more complete than Jevons’s, both came to essentially the same conclusion. Arguing that value causation runs not from cost of production to final prices but in the opposite direction, they maintained that factors of production are not price-determining but price-determined. The price of final good depends upon its marginal utility, ant the price of factors of production (otherwise known as intermediate goods, or goods of higher order) depends upon the utility of the produced final good. Thus, Jevons and Menger treated the causal relationship between a final good and its factor of production in a partial equilibrium framework. Because Walras formulated his consideration of value in his general equilibrium analysis, he understood the issue much more fully than did Jevons or Menger and saw the causal relationships as more complex.”\textsuperscript{172}

“One of the enduring questions of economics is Where do profits come from? One of the ways in which economic philosophers have tried to answer it is by first answering the question of value. At the center of most economic paradigms is a Theory of Value. The classical political economists found value to be determined in production; since most of the cost of production could be reduced to labor, this approach was refined into the Labor Theory of Value. Neoclassical economists looked for value in the market act of exchange and developed the Marginal Theory of Value. Both of these theories are currently under challenge by the post-Keynesians with their Sraffian Theory of Value, which, like the labor theory of value, is based on production rather than exchange. Any theory of value in economics is an extremely abstract formulation: in fact, value theory is the major intersection between economics and philosophy.”\textsuperscript{173} Theories of value are at the heart of two of the major themes: the distribution of wealth and income, and the maintenance of micro-economic order, particularly in the transition from classical to neoclassical economics, which will be investigated in the remaining sections in this chapter.
Second Generation Austrians: Jevons and Walras had no immediate followers who tried to clean up their first approximations. Menger was fortunate enough to have two students, who immediately took up the cause of utility and marginalism. “Friedrich von Wieser (1851-1926) was twenty years old when Menger published his Principles of Economics in 1871. He was a student of Menger, along with Eugen von Bohn-Bawerk (1851-1914), and later took Menger’s chair at the University of Vienna in 1903. Bohn-Bawerk also taught at the university. Not only did they continue to expand on and improve some of Menger’s original ideas, they had students Ludwig von Mises (1181-1973) and Joseph Schumpeter (1883-1950). Mises spawned another generation of economists.” Menger influence the University of Vienna to lead historians of thought to refer to an Austrian School, which we will examine in the following section.

Influence of Jevons, Menger, and Walras on Subsequent Writers: Jevons has no follower with his early death at the age of 46 by swimming accident, so his ideas were smothered by Marshall’s domination of British economic thinking. “Walras contribution to marginal analysis were totally overshadowed by his own general equilibrium formulation. Menger’s influence on writers and the subsequent development of economics is still being worked out. A meaningful number of economists influenced by Menger have taught and researched in Germany, England, and the United States: the older group includes Mises and Schumpeter, and a younger group includes Friedrich von Hayek (1899-1992), Cottfried Haberler (1900-1995), and Oskar Morgenstern (1902-1977). Some of these economists have gone their own way and have not followed an Austrian tradition in any important manner, but others do fit a pattern, and one can trace the lineage of Austrian economics from Menger through Wieser, Bohm-Bawer, Mises, and Hayek into the present century. The methodology advocated by Menger was not accepted by mainstream economic thinkers who embraced the greater use of mathematics and statistics. However, the Austrian tradition is of enough interest that we will discuss in two sections later.

Summary: “Through their contributions to marginal analysis, Jevons, Menger, and Walras began neoclassical economics. Jevons and Menger believed they were revolutionizing economic theory by replacing a supply-oriented cost of production theory of value with a demand-oriented marginal utility theory of value. Their hopes were not realized, however, because their exclusive emphasis on the demand side was as deficient as the classical stress on the supply side. Jevons’s and Menger’s conception of the value problem was, in fact, fundamentally unsound, as they looked for a simple cause-and-effect relationship between marginal utility and price. Whereas the classical economists had in essence assumed that demand was given and concluded that supply determined price, Jevons and Menger assumed that supply was given and concluded that demand determined price. Walras had a much clearer understanding of the value in that he recognized the mutual interdependence of the parts of an economy. The three writers made five lasting contributions to economic theory. (1) Their emphasis on marginal utility had the role of demand caused subsequent economists to pay greater attention to this part of value theory. (2) Their use of marginal analysis led to a recognition of the more general applicability of this technique, a recognition that was to have important consequences for the development of economic theory. By 1890 marginal analysis had been extended to cover not only the household demand side and the supply side of the firm but also the demand side of the firm for factors of production. (3) Jevons’s and Walras’s use of mathematics in economic theorizing made economists more aware of the power of this type of analysis and ultimate led to the present dominance of mathematical models in economic thinking. (4) Walras’s general equilibrium model was seminal in providing insight into the interrelatedness of the sectors of a market economy and furnishing a basis for subsequent theoretical work. (5) Jevon’s use and endorsement of statistics was another important step toward the emergence of the testing of theory with econometric techniques.”
3-1. The Transition to Neoclassical Economics: Marginal Analysis Extended

The first generation of marginal theorists, Jevons, Menger, and Walras, transformed economic methodology by introducing marginal analysis. Breaking with the classical economics of J. S. Mill, they had discovered a tool, marginal analysis. They all stressed the difference between the content of their theories and those of the classical school rather than their departure from classical methods. “Ricardo was a mast builder of highly abstract models based on a few rigid assumptions. J. S. Mill represented a return to a methodology much closer to that of Adam Smith in his attempt to weave description and history into a theoretical analysis of the English economy. Because the early marginalists so strongly emphasized their differences with the conclusions of Ricardo’s labor theory of value, they failed to recognize their affinity with his abstract model building. Ricardo had also used marginal analysis in his explanation of the forces determining the rent of land. Thus, marginal analysis and abstract model building were not new in the early 1870s. What was new was the slowly developing recognition of the importance of marginal analysis and the detailed application of marginalism to all parts of microeconomic theory as the period progressed. These developments were advanced tremendously by the use of mathematical tools, particularly differential calculus. Jevons and Walras both had training in mathematics, although Menger did not. The second generation of marginal theorists, with the exception of the Austrian disciples of Menger, all used calculus to push forward the frontiers of economic theory.”

“The trends set into motion by the first generation of marginal theorists have persisted to the present. Highly abstract models, developed with an impressive array of mathematical techniques, are now the order of the day. The development have been resisted by some, notably Alfred Marshall, the German and English historical schools, the American institutionalists, neo-Austrian economists, radical economists, and a number of economists who would otherwise be classified as mainstream.”

Table IV-3-1. Major Authors after the First Generation of Marginal Theorists

<table>
<thead>
<tr>
<th>Authors</th>
<th>Year</th>
<th>Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Francis Y. Edgeworth</td>
<td>1881</td>
<td>Mathematical Physics</td>
</tr>
<tr>
<td>Friedrich von Wieser</td>
<td>1884</td>
<td>On the Origin and the Principal Laws of Economic Value</td>
</tr>
<tr>
<td>Eugen von Bohm-Bawerk</td>
<td>1884</td>
<td>Capital and Interest</td>
</tr>
<tr>
<td>Philip Henry Wicksteed</td>
<td>1894</td>
<td>An Essay on the Co-Ordination of the Laws of Distribution</td>
</tr>
<tr>
<td>Knut Wicksell</td>
<td>1898</td>
<td>Interest and Prices</td>
</tr>
<tr>
<td>John Bates Clark</td>
<td>1899</td>
<td>The Distribution of Wealth</td>
</tr>
<tr>
<td>Irving Fisher</td>
<td>1907</td>
<td>The Rate of Interest</td>
</tr>
<tr>
<td>Joseph A. Schumpeter</td>
<td>1912</td>
<td>Theory of Economic Development</td>
</tr>
<tr>
<td>Frank H. Knight</td>
<td>1921</td>
<td>Risk, Uncertainty, and Profit</td>
</tr>
</tbody>
</table>

Marginal Productivity Theory: “The principle of diminishing returns plays a fundamental role in modern economic theory. In microeconomic theory, it explains the shapes of the short-run supply curves of firms and the shapes of firms’ demand curves for factors of production. This concept was recognized early by economic theorists and applied by Ricardo to his analysis of land rent. Ricardo studies what today would be called production functions for agriculture; that is, the relationship between physical input and physical output for land. He assumed that the ratio of capital to labor in a production process was fixed by the available technology and that does of capital and labor in these technologically fixed proportions were added to a fixed quantity of land. On the basis of these assumptions, he concluded that the resulting output would display the characteristic of diminishing marginal product for the successive doses of capital and labor.”

“Ricardo and his followers did not grasp all the implications of this analysis, such as the difference between diminishing average product and marginal product, nor did they recognize the broader applicability of the concept of diminishing returns. One of the anomalies of the history of economic analysis is that nearly seventy-five years elapsed between Ricardo’s application of marginal productivity analysis to the determination of land rent and its general application to all factors of production. A parallel anomaly is that the marginal analysis Ricardo developed for use of the supply side was its first significant extension in the 1870s, when it came to be used to analyze not marginal productivity but marginal utility. A second generation of marginalists finally worked out the elements of what has become known as the marginal productivity theory of distribution. The most important these writers were the Austrians, Friedrich von Wieser (1851-1926) and Eugen von Bohm-Bawerk (1851-1914); an American, J. B. Clark (1847-1938); a Swede, Knut Wicksell (1851-1926); and the English writers, P. H. Wicksteed (1844-1938) and F. Y. Edgeworth (1845-1926). These writers, along with Jevons, Menger, Walras, and Marshall, were the intellectual giants of this period of orthodox economic theory. Their first major works appeared between 1871 and 1893.”

(a) Principles of Diminishing Returns: The law of diminishing returns is that in all productive processes, adding more of one factor of production, while holding all others constant (ceteris paribus), will at some point yield lower incremental per-unit returns. As labor usage increases from L1 to L2, total output (measured vertically in the top graph) increases by the amount shown. But if labor usage is increased by the same amount again, output goes up by less, implying diminishing marginal returns to the use of labor as an input. The marginal (physical) product of labor is defined as:

$$MPP_L = \frac{\Delta TP}{\Delta L} = \frac{dTP}{dL}$$

Figure IV-3-1. Diminishing Marginal Returns, accessed 22 February 2017,
https://upload.wikimedia.org/wikipedia/en/d/df/Total%2C_Average%2C_and_Marginal_Product.gif

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(b) **Product Exhaustion:** “The product exhaustion theorem states that since factors of production are rewarded equal to their marginal product, they will exhaust the total product. The way this proposition is solved has been called the adding-up problem Wick-steed in the Coordination of the Laws of Distribution demonstrated with the help of Euler’s Theorem (developed by Leonhard Euler, a Swiss mathematician of the eighteenth century) that payment in accordance with marginal productivity to each factor exactly exhausts the total product. The adding-up problem states that in a competitive factor market when every factor employed in the production process is paid a price equal to the value of its marginal product, then payments to the factors exhaust the total value of the product. It can be shown numerically as under:

\[
Q = (MP_L) L + (MP_C) C
\]

where Q is total output, MP is marginal product, L is labor and K is capital. To find out the value of output, multiply through P (price). Thus

\[
P x Q = (MP_L x P) L + (MP_C x P) C
\]

\[
(MP_L x P) = VMP_L, \hspace{1cm} (MP_C x P) = VMP_C
\]

\[
P x Q = VMP_L + VMP_C
\]

where VMP_L is the value of marginal product of labor and VMP_C is the value of marginal product of capital. Euler’s theorem plays an important role in the theory of distribution. The total product is produced by combining different factors of production. The question that arises is how the total output should be distributed among the factors of production? If the production function is homogeneous of degree one, then Euler’s theorem can solve this question. It provides the solution to the producer’s long-run problem of allocation of total product to each factor and the distribution of the total outlay among the different inputs. The theorem also suggests how a firm should employ the various inputs. It tells us that the firm should employ its inputs to that extent at which the reward to the factor equals its marginal revenue product.”

(c) **Wicksell on Product Exhaustion:** “Euler’s theorem (or the adding up problem) is based on the following assumptions: First, it assumes a linear homogeneous production function of first degree which implies constant returns to scale Second, it assumes that the factors are complementary, i.e., if a variable factor increases, it increases the marginal productivity of the fixed factor. Third, it assumes that factors of production are perfectly divisible. Fourth, the relative shares of the factors are constant and independent of the level of the product. Fifth, there is a stationary, riskless economy where there are no profits. Sixth, there is perfect competition. Last, it is applicable only in the long-run. Given these assumptions, Wick-steed proved with the help of Euler’s theorem that when each factor was paid according to its marginal product, the total product would be exactly exhausted. This is based on the assumption of a linear homogeneous function. Wick-steed did not differentiate between the laws of increasing, constant and diminishing returns. He held that under perfect competition and constant returns to scale, the product exhaustation theorem was universally valid. Wick-steed’s solution was treated by Edge worth with mockery and Pareto objected to the assumption of constant returns to scale. Wicksell, Walras and Barone also criticized him. They pointed out that the production function does not yield a horizontal long-run average cost curve (LRAC) but a U-shaped LRAC curve. The U-shaped LRAC curve first shows decreasing returns to scale, then constant and in the end increasing returns to scale, where Wick-steed went wrong, writes Hicks, was his assumption that he could argue from the shape of the curve at one particular point to the general shape of the curve.”
Chapter IV. Economic Thought and Other Intellectual Developments


"Wick-sell proved that the product exhaustion problem held under perfectly competitive conditions in the long-run when profits were zero. He regarded it as a condition of equilibrium at the minimum point of firm's long-run average cost curve (LRAC) where the linear homogeneous production function was satisfied. Suppose an entrepreneur is left with more than the marginal product of the resource he owns after paying all other resources their marginal products. Then all owners of resources are induced to become hiring agents and in the process the difference between the total product and the rewards to factors is eliminated. Conversely, if the residual left with the entrepreneur is less than his marginal product, after paying the other resources their marginal products, he will cease to be a producer and lend his services for its marginal product. Thus a firm under competitive conditions will produce at a level where the total product is exactly distributed according to the marginal product of the factor. This solution of the product exhaustion theorem is based on a profitless long-run, perfectly competitive equilibrium position of a firm which operates at the minimum point, E of its LRAC curve, as shown in panel (A) of Figure 2. At this point the firm is in full equilibrium, the marginal revenue productivity (MRP) of the factors being equal to the combined marginal cost of the factors (MFC). This is shown in panel (B) of Figure 2 where \( \text{MRP} = \text{MFC} \) at point A. It is at point A that the total product \( OQ \) is exactly distributed to OM factors and nothing is left over. As studied above, the product exhaustion problem is solved with a linear homogeneous production function: \( P = (\partial P/\partial C) + C(\partial P/\partial L)L \). If, however, there are diminishing returns to scale, less than the total product will be distributed, because doubling the factors wills more than double the total product. But increasing returns are incompatible with perfect competition, since the economies of production lead to the lowering of the cost of production and in the long-run there is a tendency towards the establishment of a monopoly. The whole analysis is based on the assumption that factors are fully divisible. Since the entrepreneur cannot be varied, we have not taken him as a separate factor. In fact, entrepreneurship disappears in the stationary economy."

179 Criticism: “In reality, constant returns to scale are incompatible with competitive equilibrium. For if long-run cost curve of the firm is horizontal and coincides with the price line the size of the firm is indeterminate; if it is below the price line the firm will become a monopoly concern; and if it is above the price line, the firm will cease to exist. While in the case of increasing returns to scale more than the total product will be distributed, because doubling the factors wills more than double the total product. But increasing returns are incompatible with perfect competition, since the economies of production lead to the lowering of the cost of production and in the long-run there is a tendency towards the establishment of a monopoly. The whole analysis is based on the assumption that factors are fully divisible. Since the entrepreneur cannot be varied, we have not taken him as a separate factor. In fact, entrepreneurship disappears in the stationary economy.” Wicksell’s solution to the problem of product exhaustion raised new theoretical issues.180

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(d) **Marginal Productivity Theory**: (i) Ethical Implications - John Bates Clark (1847-1938): Clark developed marginal productivity theory in his *Distribution of Wealth* (1899). "The relevant point here is his conclusion that under perfectly competitive markets, each factor of production would receive a return equal to the value of its marginal product. This return measures the contribution of a factor both to the particular product being produced and to society. The return to capital is justified by the fact that capital is productive: the return is not robbery but honest, fair, and just. The return to land is, likewise, not an unearned income but a return to the productivity of land. The same applies to the return to labor. Clark’s conclusion is that the distribution of income that results from perfectly competitive markets is an ethically correct distribution in that it rewards the factor of production according to their economic contributions to the social product. Theories of exploitation and unearned incomes are naïve, he contended, because they fail to understand the working of market forces in an economy. J. B. Clark’s contributions to marginal analysis, and particularly to marginal productivity theory, gained him worldwide recognition. It is fair to say that he was the first American economist to make important contributions to the economic theory. Yet the ethical conclusions he drew from marginal productivity theory have attracted more critical attention than his contributions to positive theory."

(ii) **Marginal Productivity as Theory of Wages**: *The Theory of Wages* is a book by the British economist John R. Hicks published in 1932. It has been described as a classic microeconomic statement of wage determination in competitive markets. It anticipates a number of developments in distribution and growth theory and remains a standard work in labor economics. "The book presents: labor demand as derived from the demand for output, such that for example a fall in the wage rate would lead to substitution away from other inputs and more labor use from increased production that the lower wage would facilitate; the first statement of the economic concept of elasticity of substitution, a measure of the substitution effect posited above as to how much one factor of production (say labor) would change to keep output constant in response to a change in relative factor prices; the relation of this concept and its determinants to the distribution of factor-income shares technical change as biased or neutral (later termed Hicks-neutral technical change), depending on how it affects the marginal product of one productive factor (say labor) relative to that of another (say capital); a macroeconomic hypothesis about induced innovation that "[a] change in the relative prices of the factors of production is itself a spur to invention, and to invention of a particular kind—directed to economizing the use of a factor which has become relatively expensive," including from one factor (say capital) growing at a faster rate than another (say labor); elements of employee-employer attachments in distinguishing regular and casual labor with an emphasis on expectations, imperfect information and uncertainty in the labor market; and the first-ever attempt to model a labor dispute that might end in a strike."

Almost from the time of its first formulation, marginal productivity theory was criticized, and some of this criticism has continued to the present. The early criticism included broad attack on the general theory of marginal productivity. "The final output of a firm, industry, or the economy is the result of a joint effort of labor, land, and capital, and it is impossible, said the critics, to separate the marginal products of the contributing factors. F. W. Taussig (1859-1940) asserts, in his *Principles of Economics* that in a process using capital and labor there is no separate product of the tool on the one hand and of the labor using the tool on the other…Marshall’s solution to this problem would be to measure the net product of labor by deducting the cost of the capital from the value of the marginal product of the additional labor and capital. J. B. Clark offered another solution: he suggested that the amount of capital be held constant but that its form be allowed to vary. However, because the form of capital could vary only over time, Clark’s solution suggests a longer-term view of the problem of computing marginal products."
Profits and Interest: (a) Bohm Bawerk (1851-1914), in his Capital and Interest, offered three reasons for the higher value of present goods. “The first great cause of difference in value between present and future goods consists in the different circumstances of want and provision in the present and future. The second reason for placing a higher value on present goods is that we systematically underestimate future wants, and the goods which are to satisfy them. Mohm-Bawerk’s third explanation for the existence of interest, however, addresses the market for producer loans. It states that interest exists because of the technical superiority of present goods over future goods. Bohm-Bawerk maintained that the third reason for the existence of interest was independent of two reasons. But Irving Fisher argued correctly that the greater productivity of roundabout methods would not result in a positive rate of interest in the absence of Bohm-Bawerk’s first two reasons. The first two reasons stated in essence that, for psychological reasons, individuals prefer present over future goods. Let’s suppose that individuals do not prefer present over future goods and examine the third reason by itself. Given the assumption that capital is productive and that lengthening the productive process will increase the flow of final goods, in the absence of a time preference, a society would want to maximize the quantity of final goods emerging from the productive process regardless of the date of their emergence. If society were indifferent to the time at which it consumed final goods, the technical superiority of present goods would not result in individuals’ being willing to pay interest to consume goods today rather than in the future. Bohm-Warerk formulated all the necessary elements for a consistent theory of interest by incorrectly concluded that eh productivity of capital, separate and apart from time preference, would result in a positive rate of interest. Irving Fisher took Bohm-Bawerk’s seminal but confused notions, discarded some of the nonessential elements, and articulated the essential points of the currently accepted theory of interest.”

(b) Irving Fisher (1867-1947): “Fisher is probably best remembered today in neoclassical economics for his theory of capital, investment, and interest rates, first exposited in his The Nature of Capital and Income (1906) and elaborated on in The Rate of Interest (1907). His 1930 treatise, The Theory of Interest, summed up a lifetime’s research into capital, capital budgeting, credit markets, and the factors (including inflation) that determine interest rates. Fisher saw that subjective economic value is not only a function of the amount of goods and services owned or exchanged, but also of the moment in time when they are purchased with money. A good available now has a different value than the same good available at a later date; value has a time as well as a quantity dimension. The relative price of goods available at a future date, in terms of goods sacrificed now, is measured by the interest rate. Fisher made free use of the standard diagrams used to teach undergraduate economics, but labeled the axes consumption now and consumption next period (instead of the usual schematic alternatives of apples and oranges).” The resulting theory, one of considerable power and insight, was presented in detail in The Theory of Interest. Fisher formulated in terms of the quantity theory of money: MV = PT where let M be the total stock of money, P the price level, T the amount of transactions carried out using money, and V the velocity of circulation. He emphasized the distinction between real (r) and nominal (i) interest rates: \[ r = (1+i) / (1+\pi) - 1 = i - \pi \] where \( \pi \) is the inflation rate. “Fisher believed that investors and savers – people in general – were afflicted in varying degrees by money illusion; they could not see past the money to the goods the money could buy. In an ideal world, changes in the price level would have no effect on production or employment. In the actual world with money illusion, inflation (and deflation) did serious harm. For more than forty years, Fisher elaborated his vision of the damaging “dance of the dollar” and devised various schemes to stabilize money, i.e. to stabilize the price level. He was one of the first to subject macroeconomic data, including the money stock, interest rates, and the price level, to statistical analyses and tests.”
Chapter IV. Economic Thought and Other Intellectual Developments


Photo IV-4-2. Pierre-Auguste Renoir: Luncheon of the Boating Party, 1880-81
http://lh6.ggpht.com/bJjspd-ZXmqvYDLNinGPoyCkmBdGWGCs33 tyzqEggjLKNWLGcM2K=s1200
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4. Alfred Marshal and Neoclassical Economics

Alfred Marshall (1842-1924) was one of the most influential economists of his time. “His book, Principles of Economics (1890), was the dominant economic textbook in England for many years. It brings the ideas of supply and demand, marginal utility, and costs of production into a coherent whole. He is known as one of the founders of neoclassical economics. Although Marshall took economics to a more mathematically rigorous level, he did not want mathematics to overshadow economics and thus make economics irrelevant to the layman.”

“Marshall was born in London. His father was a bank cashier and a devout Evangelical. Marshall grew up in Clapham and was educated at the Merchant Taylors' School and St John's College, Cambridge, where he demonstrated an aptitude in mathematics, achieving the rank of Second Wrangler in the 1865 Cambridge Mathematical Tripos. Marshall experienced a mental crisis that led him to abandon physics and switch to philosophy. He began with metaphysics, specifically the philosophical foundation of knowledge, especially in relation to theology. Metaphysics led Marshall to ethics, specifically a Sidgwickian version of utilitarianism; ethics, in turn, led him to economics, because economics played an essential role in providing the preconditions for the improvement of the working class. He saw that the duty of economics was to improve material conditions, but such improvement would occur, Marshall believed, only in connection with social and political forces. His interest in Georgism, liberalism, socialism, trade unions, women's education, poverty and progress reflect the influence of his early social philosophy on his later activities and writings. Marshall was elected in 1865 to a fellowship at St John's College at Cambridge, and became lecturer in the moral sciences in 1868. In 1885 he became professor of political economy at Cambridge, where he remained until his retirement in 1908. Over the years he interacted with many British thinkers including Henry Sidgwick, W.K. Clifford, Benjamin Jowett, William Stanley Jevons, Francis Ysidro Edgeworth, John Neville Keynes and John Maynard Keynes. Marshall founded the "Cambridge School" which paid special attention to increasing returns, the theory of the firm, and welfare economics; after his retirement leaderships passed to Arthur Cecil Pigou and John Maynard Keynes.”

In the 1870s Marshall wrote a small number of tracts on international trade and the problems of protectionism. “In 1879, many of these works were compiled into a work entitled The Theory of Foreign Trade. In the same year (1879) he published The Economics of Industry with his wife Mary Paley. “Although Marshall took economics to a more mathematically rigorous level, he did not want mathematics to overshadow economics and thus make economics irrelevant to the layman. Accordingly, Marshall tailored the text of his books to laymen and put the mathematical content in the footnotes and appendices for the professionals… Marshall had been Mary Paley's professor of political economy at Cambridge and the two were married in 1877, forcing Marshall to leave his position as a Fellow of St John's College, Cambridge to comply with celibacy rules at the university. He became the first principal at University College, Bristol, which was the institution that later became the University of Bristol, again lecturing on political economy and economics. He perfected his Economics of Industry while at Bristol, and published it more widely in England as an economic curriculum; its simple form stood upon sophisticated theoretical foundations. Marshall achieved a measure of fame from this work, and upon the death of William Jevons in 1882, Marshall became the leading British economist of the scientific school of his time. Marshall returned to Cambridge, via a brief period at Balliol College, Oxford during 1883-4, to take the seat as Professor of Political Economy in 1884.” At Cambridge he endeavored to create a new tripos for economics, but he could achieve the goal by 1903, since until then, economics was taught under the Historical and Moral Sciences.”
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“Marshall began his economic work, the *Principles of Economics*, in 1881, and spent much of the next decade at work on the treatise. His plan for the work gradually extended to a two-volume compilation on the whole of economic thought. The first volume was published in 1890 to worldwide acclaim, establishing him as one of the leading economists of his time. The second volume, which was to address foreign trade, money, trade fluctuations, taxation, and collectivism, was never published. *Principles of Economics* established his worldwide reputation. It appeared in 8 editions, starting at 750 pages and growing to 870 pages. It decisively shaped the teaching of economics in English-speaking countries. Its main technical contribution was a masterful analysis of the issues of elasticity, consumer surplus, increasing and diminishing returns, short and long terms, and marginal utility. Many of the ideas were original with Marshall; others were improved versions of the ideas by W. S. Jevons and others.”

“In a broader sense Marshall hoped to reconcile the classical and modern theories of value. John Stuart Mill had examined the relationship between the value of commodities and their production costs, on the theory that value depends on the effort expended in manufacture. Jevons and the Marginal Utility theorists had elaborated a theory of value based on the idea of maximizing utility, holding that value depends on demand. Marshall's work used both these approaches, but he focused more on costs. He noted that, in the short run, supply cannot be changed and market value depends mainly on demand. In an intermediate time period, production can be expanded by existing facilities, such as buildings and machinery, but, since these do not require renewal within this intermediate period, their costs (called fixed, overhead, or supplementary costs) have little influence on the sale price of the product. Marshall pointed out that it is the prime or variable costs, which constantly recur, that influence the sale price most in this period. In a still longer period, machines and buildings wear out and have to be replaced, so that the sale price of the product must be high enough to cover such replacement costs. This classification of costs into fixed and variable and the emphasis given to the element of time probably represent one of Marshall's chief contributions to economic theory. He was committed to partial equilibrium models over general equilibrium on the grounds that the inherently dynamical nature of economics made the former more practically useful. Much of the success of Marshall's teaching and *Principles* book derived from his effective use of diagrams, which were soon emulated by other teachers worldwide.”

“Alfred Marshall was the first to develop the standard supply and demand graph demonstrating a number of fundamentals regarding supply and demand including the supply and demand curves, market equilibrium, the relationship between quantity and price in regards to supply and demand, the law of marginal utility, the law of diminishing returns, and the ideas of consumer and producer surpluses. This model is now used by economists in various forms using different variables to demonstrate several other economic principles. Marshall's model allowed a visual representation of complex economic fundamentals where before all the ideas and theories were only capable of being explained through words. These models are now critical throughout the study of economics because they allow a clear and concise representation of the fundamentals or theories being explained.”

“Marshall is considered to be one of the most influential economists of his time, largely shaping mainstream economic thought for the next fifty years, and being one of the founders of the school of neoclassical economics. Although his economics was advertised as extensions and refinements of the work of Adam Smith, David Ricardo, Thomas Robert Malthus and John Stuart Mill, he extended economics away from its classical focus on the market economy and instead popularized it as a study of human behavior. He downplayed the contributions of certain other economists to his work, such as Léon Walras, Vilfredo Pareto and Jules Dupuit, and only grudgingly acknowledged the influence of Stanley Jevons himself.” From 1890 to 1924, Marshall was respected as the father of the economic profession.
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Principles of Economics (1890) by Alfred Marshall


Book I. Preliminary Survey: [Chapter I. Introduction] Economics is a study of wealth and a part of the study of man. The poverty is the degradation of a large part of mankind. The hope that poverty and ignorance may gradually be extinguished, derives indeed much support from the steady progress of the working classes during the nineteenth century. The modern form of industrial life are distinguished from the earlier by being more competitive. However, the modern business and industry are characterized by more self-reliance habits, more forethought, more deliberate and free choice than competition. Economic Freedom points in the right direction, when cooperation or combination seems to offer the best route to the desired end.192

[Chapter II. The Substance of Economics] The chief motives of business life can be measured by the sum of money that is able to secure a desired satisfaction. The common pleasures and pains can be compared only through the strength of the incentives to action for persons under similar conditions, and this direct comparison can be applied to all classes of desire. The economist must concern himself with the ultimate aims of man, and take account of differences in real value between gratifications that are equally powerful incentives to action and have therefore equal economic measures. A study of these measures is only the starting points of economics. The variations arise in the amount of pleasure, or other satisfaction, represented by the same sum of money to different persons and under different circumstances. When we consider the average of large numbers of people, these differences may generally be neglected. Increase in material means sometimes a fair measure of real progress of the human race. Human action is largely ruled by habit and custom, especially as regards business conduct. Money is a means towards ends, if the ends are noble, the desire for the means is not ignoble. It is the mistaken belief that economic science had no concern with any motive except the selfish desire for wealth. The desire for money does not exclude other influence; such as the pleasure afforded by the work itself and the instinct of power. Economists have always reckoned for advantages of an occupation other than material gain; and they have allowed for class sympathies, and family affections. The motives to collective action are of great and growing importance. Economists study the individual as a member of an industrial group; and measure the play of motives in demand and supply.193

[Chapter III. Economic Generalizations or Laws] Economics uses inductive and deductive methods, but in different proportions for different purposes. Analytical and historical schools are both needed and supplement each other. The laws of economics are to be compared with the laws of the tides, rather than with the simple and exact law of gravitation. A Social Law is a statement of social tendencies; and similarly, Economic Laws, or statements of economic tendencies, are those social laws which relate to branches of conduct in which the strength of the motives chiefly concerned can be measured by a money price. We may say that the course of action which may be expected under certain conditions form the members of an industrial group is their normal action relatively to those conditions. Normal actions are in accordance with those statements of tendency, those Laws or Norms, which are appropriate to the context. The normal conditions may imply high wages or low wages, they may imply the presence or the absence of eager competition. However, normal action is not always right action. All scientific doctrines tacitly or implicitly assume certain conditions and are in this sense hypothetical. In economics, the implied conditions must be emphasized. Though economic analysis and general reasoning are of wide application, yet every age and every country has its own problems; and every change in social conditions is likely to require a new development of economic doctrine.194
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[Chapter IV. The Order and Aims of Economic Studies] The dominant aim of economics in the present generation is to contribute to a solution of social problems. The economist needs the three great intellectual faculties: perception, imagination, and reason.  

Book II. Some Fundamental Notions: [Chapter I. Introductory] Economics is, on the one side, a Science of Wealth; and, on the other, that part of the Social Science of man’s action in society, which deals with his Efforts to satisfy his Wants, in so far as the efforts and wants are capable of being measured in terms of wealth, or its general representative, i.e., money. We must analyze carefully the real characteristics of the various things with which we have to deal; and we shall thus generally find that there is some use of each term which has distinctly greater claims than any other to be called its leading use, on the ground that it represents a distinction that is in harmony with ordinary usage.  

[Chapter II. Wealth] Wealth consists of desirable things or Goods. Material goods consist of useful material things, and of all rights to hold, or use, or derive benefits from material things, or rights to hold, or use, or derive benefits from material things, or to receive them at the future time. A man’s non-material goods fall into two classes: external and internal goods. Internal goods consist of his own qualities and faculties for action and for enjoyment; such for instance as business ability, professional skill, or the faculty of deriving recreation from reading or music. External goods consist of relations beneficial to him with other people. Such, for instance, were the labor dues and personal services of various kinds which the ruling classes used to require form their serfs and other dependents. Goods may be transferable or non-transferable. Wealth simply means external wealth only; national wealth include the individual as well as the collective property of its members; and the notion of cosmopolitan wealth is nothing more than that of national wealth extended over the whole area of the globe. Individual and national rights to wealth rest on the basis of civil and international law, or at least of custom that has the force of law. The word of value has two different meanings: utility value and exchange value. Civilized countries generally adopt gold or silver or both as money; and we call the value of each thing expressed its price. The price of anything will be taken as representative of its exchange value relatively to things in general, or in other words, as representative of its general purchasing power.  

[Chapter III. Production, Consumption, Labor, Necessaries] Man cannot create material things, but only produce utilities. His efforts and sacrifices result in changing the form or arrangement of matter to adapt it better for the satisfaction of wants. The trade also produces utilities. Man can consume, as he can produce, only utilities. Consumers’ goods, such as food, clothes, etc., satisfy wants directly on the one hand; producers’ goods, such as instrumental or intermediate, satisfy wants indirectly by contributing towards the production of the first class of goods. Really all labor is in some sense productive, which provides for the wants of the future rather than the present. The work of domestic servants is not necessarily unproductive, when some of their energies might be transferred to other uses advantageous to the community. The word Productive means productive of the means of production, and of durable sources of enjoyment. Productive consumption is commonly defined as the use of wealth in the production of further wealth; and it should properly include not all the consumption of productive workers, but only that which is necessary for their efficiency. It is common to distinguish necessaries, comforts, and luxuries: the first necessaries include all things required to meet wants which must be satisfied, but the latter consist of things that meet wants of a less urgent character, though the border is ambiguous. The wages of any industrial class might have sufficed to maintain a high efficiency, if they had been spent with perfect wisdom. Some consumption (of alcohol or tobacco) are conventionally necessary. Their wages are therefore less than are practically necessary for efficiency.
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[Chapter IV. Income, Capital] Income is the form of money. The language of the marketplace commonly regards a man’s capital as that part of his wealth which he devoted to acquiring an income in the form of money; or, more generally, to acquisition by means of trade, which is called as trade capital. One’s net income is found by deducting outgoings (that belong to its production) from his gross income. Profits are total net gains from which it exceed interest on the capital (loans) at the current rate. The command over goods to a given money value, which can be applied to any purpose, is often described as free or floating capital. Earnings of management are the remains of profits after deducting interest on one’s capital at the current rate. The rate of profits is the proportion of profits for the year to capital invested. When any particular thing, as a house, a piano, or a sewing machine is lent out, the payment for it is often called Rent. The term Quasi-rent is the income derived from machines and other appliances for production made by man. Consumption capital consists of goods in a form to satisfy wants directly; that is, goods which afford a direct sustenance to the workers, such as good, clothes, house-room, etc. Auxiliary or instrumental capital consists of all the goods that aid labor in production. Mill distinguished circulating capital from fixed capital; which was followed by Marshall.

How do the three agents of production – land, labor, and capital – contribute to producing income; and how does that income distribute among the three agents? The account of national income includes all the incomes generated from labor, capital, and land. Social income may be estimated by adding together the incomes of the individuals in the society, but should not be counted the same twice. The work of domestic servants is always classed as labor in technical sense. National income is a better measure of general economic prosperity than national wealth, the great part of which consists of the means of production that requires depreciation. The term Capital and Wealth are used almost synonymous, but we must use Capital as agents of production, and Wealth a results of production. Hence, the demand for capital arises from its productiveness; while the supply of capital is controlled by the fact that men must act prospectively.

Book III. On Wants and their Satisfaction: [Chapter I. Introductory] Until recently the subject of demand or consumption has been somewhat neglected because of some reasons.

[Chapter II. Wants in Relation to Activities] The wants of the savage are few, but civilization brings with it a desire for variety for its own sake. Man’s capacity for food is limited. The need of dress which is the result of natural causes varies with the climate and the seasons of year, and a little with the nature of a person’s occupation. House room satisfies the imperative need for shelter from the weather; but that need plays very little part in the effective demand for house room. In a healthy state, new activities pioneer the way for new wants. The Theory of Wants or Consumption is the scientific basis of economics.

[Chapter III. Gradations of Consumers’ Demand] Consumer demand governs traders’ demand: utility and want are used as correlative terms, having no ethical or prudential connotations. There is an endless variety of wants, but there is a limit to each separate want. The fundamental tendency of human nature may be stated in the law of satiable wants or of diminishing utility; that means that the additional benefit which a person derives from a given increase of his stock of a thing, diminishes with every increase in the stock that he already has. The utility of his marginal purchase may be called his marginal utility of the thing. Therefore, the marginal utility of a thing to anyone diminishes with every increase in the amount of it he already has; the consumer’s character of which remains unchanged, so that we call it the law of diminishing marginal utility. The marginal utility of money is greater for the poor than the rich. Aggregate demand of many persons shows that the amount demanded increases with a fall in prices, diminishes with a rise in price; which is the general law of demand in economics.
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[Chapter IV. The Elasticity of Wants] The elasticity (or responsiveness) of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in prices. The price elasticity of demand varies widely according to commodities. Generally speaking, those things have the most elastic demand, which are capable of being applied to many different uses. Those things are very inelastic, firstly, for absolute necessaries; and secondly, for some of those luxuries of the rich.202

[Chapter V. Choice between Different Uses of the Same Thing: Immediate and Deferred Uses] The different uses between which a commodity is distributed need not all be present sues; some may be present and some future. A prudent person will endeavor to distribute his means between all their several uses, present and future, in such a way that they will have in each the same marginal utility. But in estimating the present marginal utility of a distant source of pleasure, a twofold allowance must be made: firstly, for its uncertainty; and secondly, for the difference in the value to them of a distant as compared with a present pleasure. Future benefits are discounted at different rates. We cannot really compare the qualitative of two benefits, which are enjoyed at different times even by the same person. However, we can get an artificial measure of the rate at which he discounts future benefits by making two assumptions. These are, firstly, that he expects to be about as rich at the future date as he is now; and secondly, that his capacity for deriving benefit from the things which money will buy will on the whole remain unchanged.203

[Chapter VI. Value and Utility] Consumer’s surplus is part of benefit a man derives from his environment or conjuncture. The consumer’s surpluses derived from some commodities are much greater than from others. There are many comforts and luxuries of which the prices are very much below those which many people would pay rather than go entirely without them; and which therefore afford a very great consumer’s surplus. Good instances are matches, salt, a penny newspaper, or a postage-stamp. This benefit, which he gets from purchasing at a low price things for which he would rather pay a high price than go without them, may be called the benefit which he derives from his opportunities, or from his environment; or, to recur to a word that was in common use a few generations ago, from his conjuncture.

“Consumer surplus or consumers' surplus is the monetary gain obtained by consumers because they are able to purchase a product for a price that is less than the highest price that they would be willing to pay. Producer surplus or producers' surplus is the amount that producers benefit by selling at a market price that is higher than the least that they would be willing to sell for; this is roughly equal to profit (since producers are not normally willing to sell at a loss, and are normally indifferent to selling at a breakeven price). In Marxian economics, the term surplus may also refer to surplus value, surplus product and surplus labor.” The graph at the left shows consumer (red) and producer (blue) surpluses on a supply and demand chart.204

![Diagram of Supply and Demand with Consumer Surplus and Producer Surplus](https://upload.wikimedia.org/wikipedia/commons/thumb/d/d7/Economic-surpluses.svg/275px-Economic-surpluses.svg.png), accessed 24 February 2017
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**Book IV. The Agents of Production - Land, Labor, Capital, and Organization**

**[Chapter I. Introductory]** The agents of production are commonly classed as Land, Labor, and Capital. By Land is meant the material and the forces which Nature gives freely for man’s aid, in land and water, in air and light and heat. By Labor is meant the economic work of man, whether with the hand or the head. By Capital is meant all stored-up provision for the production of material goods, and for the attainment of those benefits which are commonly reckoned as part of income. It is the main stock of wealth regarded as an agent of production rather than as a direct source of gratification. While demand is based on the desire to obtain commodities, supply depends mainly on the overcoming of the unwillingness to undergo discommodities. The discommodity of labor may arise from bodily or mental fatigue, or from its being carried on in unhealthy surroundings, or with unwelcome associates, or from the occupying time that is wanted for recreation, or for social or intellectual pursuits. As the price acquired to attract purchasers for any given amount of a commodity, was called the demand price for that amount during a year or any other given time; so the price required to call forth the exertion necessary for producing any given amount of a commodity, may be called the supply price for that amount during the same time.\(^2\)

**[Chapter II. The Fertility of Land]** The notion that land is a free gift of nature, while the produce of land due to man’s work is a loose one. Chemical conditions of fertility of the soil can be brought under man’s control.

**[Chapter III. The Fertility of Land: The Tendency to Diminishing Return]** The Law of Diminishing Return: An increase in the capital and labor applied in the cultivation of land causes in general a less than proportionate increase in the amount of produce raised, unless it happens to coincide with an improvement in the arts of agriculture. Land may be under-cultivated, and then extra capital and labor will give an increasing return until a maximum rate has been reached, after which it will diminish again. Improved methods may enable more capital and labor to be profitably applied. The dose which only just remunerates the cultivator may be said to be the marginal dose, and the return to it the marginal return. If there happens to be in the neighborhood land that is cultivated but only just pays its expenses, and so gives no surplus for rent, dose applied to it is applied to land on the margin of cultivation, and this way of speaking has the advantage of simplicity. The marginal dose is not necessarily the last in time.\(^3\)

**[Chapter IV. The Growth of Population]** Malthus’ reasoning on population consists of three parts. First, in supply of labor, every people has been so prolific that the growth of its numbers would have been rapid and continuous if it had not been checked either by a scarcity of the necessaries of life, or some other cause, that is, by disease, by war, by infanticide, or lastly by voluntary restraint. Secondly, in the demand for labor, he shows that up to the time at which he wrote no country had been able to obtain an abundant supply of the necessaries of life after its territory had become very thickly peopled. The produce which nature returns to the work of man is her effective demand for population; and he shows that up to this time a rapid increase in population when already thick had not led to a proportionate increase in this demand. Thirdly, he draws the conclusion that what had been in the past, was likely to be in the future; and that the growth of population would be checked by poverty or some other causes of suffering unless it were checked by voluntary restraint. But he did not see the great developments of steam transport by land and by sea, which enabled the British to obtain the products of the richest lands of the earth with comparatively small cost. Migration was an outlet of the surplus population.\(^4\)

**[Chapter V. The Health and Strength of the Population]** The health and strength of the people are the basis of industrial efficiency, on which the population of material wealth depends; while conversely the chief importance of material wealth lies in the fact that, when wisely used, it increases the health and strength, physical, mental and moral of the human race.\(^5\)
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[Chapter VI. Industrial Training] In conclusion, other things being equal, an increase in the earnings that are to be got by labor increases its rate of growth; or, in other words, a rise in its demand price increase the supply of it. If the state of knowledge, and of ethical, social and domestic habits be given; then the vigor of the people as a whole if not their numbers, and both the numbers and vigor of any trade in particular, may be said to have a supply price in this sense, that there is a certain level of the demand price which will keep them stationary; that a higher price would cause them to increase, and that a lower price would cause them to decrease. Thus economic causes play a part in governing the growth of population as a whole as well as the supply of labor in any particular grade. But their influence on the number of the population as a whole is largely indirect; and is exerted by way of the ethical, social and domestic habits of life. For these habits are themselves influenced by economic causes deeply, though slowly, and in ways some of which are difficult to trace, and impossible to predict.209

[Chapter VII. The Growth of Wealth] The causes controlling the accumulation of wealth differ widely in different countries and different ages. The growth of a money-economy and modern habits of business hinder the accumulation of wealth by putting new temptations in the way of those who are inclined to live extravagantly, but also a new certainty that savings will really provide what is wanted in the future. Modern methods of business have brought with them opportunities for the safe investment of capital in such ways as to yield a revenue to persons who have no good opportunity of engaging in any business. A few people save for their own sake, but the chief motive of saving is family affection. The sources of accumulation is surplus income, and most of the larger incomes are chiefly derived from capital or rent, the earnings of professional men, and of hired workers. Early in the present century, the commercial classes in England had much more saving habits than either the country gentlemen or the workings classes. A people, among whom wealth is well distributed, are likely to accumulate a great deal of public property; and the savings made in this form alone by some well-to-do democracies form considerable part of the best possessions. A person may save, though he prefers present gratifications to future, and he does not increase his means by waiting. Some savings might therefore conceivably be made even if interest were negative; but it is equally true that some work would be done even if there were a penalty for it. We may consider interest as the reward of waiting for the enjoyment of material resources, not as abstinence that is the sacrifice of present pleasure for the sake of future. So the greater the rate of gain from present sacrifice the greater will often be the saving, but not always. So the higher the rate of interest, the greater the saving as a rule with exceptions. In spite of exceptions, a fall in the rate of interest tends to make saving less than it otherwise would be.

Provisional conclusion: The accumulation of wealth is governed by a great variety of causes: by custom, by habits of self-control and realizing the future, and above all by the power of family affection. Security is a necessary condition for it, and the progress of knowledge and intelligence furthers it in many ways. A rise in the rate of interest offered for capital, i.e. in the demand price of saving, tends to increase the volume of saving. For in spite of the fact that a few people who have determined to secure an income of a certain fixed amount for themselves or their family will save less with a high rate of interest than with a low rate, it is a nearly universal rule that a rise in the rate increases the desire to save; and it often increases the power to save, or rather it is often an indication of an increased efficiency of our productive resources; but the older economists went too far in suggesting that a rise of interest (or of profits) at the expense of wages always increased the power of saving: they forgot that from the national point of view, the investment of wealth in the child of the working man is as productive as its investment in horses or machinery. However, the animal investment of wealth is a small part of the already existing stock, so the stock would note increased perceptively in any one year by even an increase in the annual rate of saving.210
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Chapter VIII. Industrial Organization] The business organizations tries to survive in the struggle for existence, by adjusting to the environment under the law of survival of the fittest. Changes in industrial structure must wait on the development of man; and therefore must be either gradual or unstable.\(^{211}\)

Chapter IX. Industrial Organization: Division of Labor, the Influence of Machinery] How far advantageous is the division of labor? Practice makes perfect: it enables operations efficient in terms of physiological ability as well as intellectual ability. In the higher grades of work, extreme specialization does not always increase efficiency. But it is easy to acquire a high manual skill in a narrow range of work. The uniformity of many processes in the wood and metal trades can bring with the least possible loss of time and of force in the movements of his own body in the provinces of manual labor and machinery. The two movements of the improvement of machinery and the growing subdivision of labor have gone together and are in generally supposed. Machinery displaces purely manual skill and thus diminishes some of the advantages of division of labor but increases the scope for it. The powers of machinery to do work that requires too much accuracy to be done by hand are perhaps best seen in some branches of the metal industries in which the system of Interchangeable Parts is being rapidly developed. Complex machinery increases the demand for judgment and general intelligence; and it some cases weakens the barriers that divide different trades. Machinery takes over sooner or later all monotonous work in manufacture. The economic use of specialized skill and machinery requires that they should be fully occupied, but the most economic use of man as an agent of production is wasteful if he is not himself developed by it. We may divide the economies arising from an increase in the scale of production of any kind of goods, into two classes: those dependent on the general development of the industry; and those dependent on the resources of the individual houses of business engaged in it, on their organization and the efficiency of their management.\(^{212}\)

Chapter X. Industrial Organization: The Concentration of Special Industries in Particular Localities] Even in early stages of civilization, the production of some light and valuable wares has been localized. Many various causes have led to the localization of industries; but the chief causes have been physical conditions, such as the character of the climate and the soil, the existence of mines and quarries in the neighborhood, or within easy access by land or water. Another chief cause has been the patronage of courts: the rulers often deliberately invited artisans from a distance and settled them in a group together. The immigrants taught the English how to weave woolen and worsted stuffs, though for a long time they sent the cloths to the Netherlands to be fulled and dyed, for example. The industrial development of nations waits upon opportunities and upon character. A localized industry has some advantages: hereditary skill; the growth of subsidiary trades; the use of highly specialized machinery; a local market for specialized skill. The advantages of variety of employment are combined with those of localized industries in some of manufacturing towns; which is a chief cause of their continued development. Different industries in the same neighborhood mitigate each other’s depressions. Every cheapening of the means of communication, every new facility for the free interchange of ideas between distance places alters the action of the forces which tend to localize industries. So a lowering of tariffs, or of freights for the transport of goods, tends to make each locality buy more largely from a distance what it requires; and thus tends to concentrate particular industries in special localities; but on the other hand, everything that increases people’s readiness to migrate from one place to another tends to bring skilled artisan to ply their crafts near to the consumers who will purchase their wares. In recent years, the power of machinery caused urbanization, forcing the agricultural population to move to the industrial regions. The service sector was expanded such as in the service in governments, education, medicine, entertainment, etc.\(^{213}\)
Chapter XI. Industrial Organization: Production on a Large Scale

The small producer cannot often afford to experiment for improvement, but in some trades, a factory of moderate size can have the best machinery. A large business is able to afford highly specialized skill and machinery and with other advantages. Where marketing is easy, the economies of production on a large scale are mostly open to firms of moderate size. But specialties marketing is difficult. Causes, which enable firms to rise quickly, often hasten their fall. In retail trade, they are on the increase owing to the growth of cash payments and the increasing variety of the goods in common demand. Railways and tramways and vessels are constantly increasing in size, and the capital required to work them is increasing at an even greater rate. The contest between large and small mines and quarries has not so clearly marked a tendency. In agriculture, there is not much division of labor, and there is not production in a very large scale. 214

Chapter XII. Industrial Organization: Business Management

In modern businesses, the services of a special class of undertakers intervene. For instance, the extreme type of these is the dealer on the stock exchange or the produce markets, whose daily purchases and sales are of vast dimensions, and who yet has neither factory nor warehouse, but at most an office with a few clerks in it. Several distinct functions are combined in one hand by the ideal manufacture. The supply of business ability may be discussed in connection with the forms of business management. The son of a business man has a good start. But business men do not form a caste, because their abilities and tastes are not always inherited; and after a time new blood must be brought in by some method. The method of joint-stock companies has been developed: the share-holders undertook the risks, while the directors control the managers, who superintend the details. Those who undertake the risks cannot always judge whether the business is well managed. Joint-stock companies have great elasticity and can expand themselves without limit when the work to which they have set themselves offers a wide scope; and they are gaining ground in nearly all directions.

The Problems of large joint-stock company administration involve many complex issues into which we cannot enter here. Their monopolistic power formed Trusts and Cartels. The system of cooperation aims at avoiding the evils of these two methods of business management. We may regard the supply price of business ability in command of capital as composed of three elements: the supply price of capital (interest), of business ability and energy (net earnings of management); and of that organization (gross earnings of management) by which the appropriate business ability and the requisite capital are brought together. 215

Chapter XIII. Conclusion: Correlation of the Tendencies to Increasing and to Decreasing Return

The law of increasing return may be worded thus: An increase of labor and capital leads generally to improve organization, which increases the efficiency of the work of labor and capital. Increasing return is a relation of quantities owing to economies of scale. A rapid growth of population has often been accompanied by unhealthy and enervating habits of life in overcrowded towns. And sometimes it has started badly, out-running the material resources of the people, causing them with imperfect appliances to make excessive demands on the soil; and so to call forth the stern action of the law of diminishing return as regards law produce, without having the power of minimizing its effects. Having thus begun with poverty, and increase in numbers may go on to its too frequent consequences in that weakness of character which unfits a people for developing a highly organized industry. These are serious perils, but yet it remains true that the collective efficiency of a people with a give average of individual strength and energy may increase more than in proportion to their numbers. The accumulated wealth of civilized countries is at present growing faster than the population; and though it may be true that the wealth per head would increase somewhat faster if the population did not increase quite so fast; yet the effect of a growth of numbers must be carefully distinguished from those of the growth of wealth. 216
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**Book V. General Relations of Demand, Supply, and Value: [Chapter 1. Introductory on Markets]** The organization of market is intimately connected both as cause and effect with money, credit, and foreign trade. Economists understand by the term Market, not any particular market place, but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly.

**[Chapter II. Temporary Equilibrium of Demand and Supply]** The latent assumption, that the dealers’ willingness to spend money is nearly constant throughout, is generally valid as to a corn market, but in the labor market the exceptions are often important. The theory of buying and selling becomes therefore much more complex when we take account of the dependence of marginal utility on amount in the case of money as well as of the commodity itself.

**[Chapter III. Equilibrium of Normal Demand and Supply]** There is great variety in the relative importance of different elements of cost of production. Assuming free play for demand and supply in the market, there is a demand price for each amount of the commodity – the demand price for each bushel or yard diminishes with every increase in the amount offered. The conditions of supply will vary with the length of time to which reference is made. But we may provisionally regard normal supply price as the expenses of production, including gross earnings of management, of a representative firm. When the demand price is equal to the supply price, the amount produced has no tendency either to be increased or to be diminished; it is equilibrium. It is the average value which economic forces would bring about if the general conditions of life were stationary for a run of time long enough to enable them all to work out their full effect. The business man is concerned with money costs; but the evolution of normal value with real costs.

**[Chapter IV. The Investment and Distribution of Resources]** The business man ceaselessly applies the principle of substitution, with the purpose of increasing his profits; and in doing so, he seldom fail to increase the total efficiency of work, the total power over nature which man derives from organization and knowledge. Every locality has incidents of its won which affect in various ways the methods of arrangement of every class of business that is carried on in it. The tendency to variation is a chief cause of progress; and a able are the undertakers in any trade the greater will this tendency be. Each man’s actions are influenced by his special opportunities; but each, taking account of his own means, will push the investment of capital in his business in each several direction until what appears in his judgment to be the outer limit, or margin, of profitableness is reached; that is, until there seems to him no good reason for thinking that the gains resulting from any further investment in that particular direction would compensate him for his outlay. The margin of profitableness, even in regard as a mere point on any one fixed line of possible investment; but as a boundary line of irregular shape cutting one after another every possible line of investment. This principle of substitution is closely connected with, and is indeed partly based on, that tendency to a diminishing rate of return from any excessive application of resources or of energies is any given direction, which is in accordance with general experience. It is thus linked up with the broad tendency of a diminishing return to increased application of capital and labor to land in old countries which plays a prominent part in classical economics. And it is so closely akin to the principle of the diminution of marginal utility that result in general from increased expenditure, that some applications of the two principles are almost identical – that is affinities between the principles of substitution, of diminishing utility and diminishing return; which is the correlation of consumption and production. The distribution of resources in business economy, the alert businessman pushes the investment of capital in his business in each several direction until what appears in his judgment to be the outer limit, or margin, of profitableness is reached; this is, until there seems to him not good reason for thinking that the gains resulting from any further investment in that particular direction would compensate him for his outlay.  

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Chapter V. Equilibrium of Normal Demand and Supply, Continued

The element of time is a chief cause of those difficulties in economic studies, demand and supply. In a stationary state, the doctrine of value would be simple, since each element of cost would be governed by natural laws. There would be no distinction between long-period and short-period normal value; for the representative firm being always of the same size, and always doing the same class of business to the same extent and in the same way, with no slack times, and no specially busy times, its normal expenses by which the normal supply price is governed would be always the same. The demand lists of prices would always be the same, and so would the supply lists; and normal price would never vary. But in the real world, a simple doctrine of value is worse than none. Modifications of a stationary state bring us nearer to real life and help to break up a complex problem.

In the short period, the supply of specialized skill and ability, of suitable machinery and other material capital, and of the appropriate industrial organization has not time to be fully adapted to demand; but the producers have to adjust their supply to the demand as best they can with the appliances already at their disposal. On the one hand, there is not time materially to increase those appliances if the supply of them is deficient; and on the other, if the supply is excessive, some of them must remain imperfectly employed, since there is not time for the supply to be much reduced by gradual decay, and by conversion to other uses. Variations in the particular income derived from them do not for the time affect perceptibly the supply; and do not directly affect the price of the commodities produced by them. The income is a surplus of total receipts over prime cost. But unless it is sufficient to cover in the long run a fair share of the general costs of the business, production will gradually fall off. In this way a controlling influence over the relatively quick movements of supply price during short periods is exercised by causes in the background which range over a long period: and the fear of spoiling the market often makes those causes act more promptly than they otherwise would. In the long period, on the other hand, all investment of capital and effort in providing the material plant and the organization of a business, and in acquiring trade knowledge and specialized ability, have time to be adjusted to the incomes which are expected to be earned by them; and the estimates of those incomes therefore directly govern supply, and are the true long-period normal supply price of the commodities produced.

Chapter VI. Joint and Composite Demand, Joint and Composite Supply

The aggregate demand for any commodity is compounded of the demands of the different groups of people who may need it. This notion of composite demand to requisites of production are needed by several groups of production. Similarly, things produced in a common origin may be said to have a joint supply, such as beef and hides, or wheat and straw.

Chapter VII. Prime and Total Cost in Relation to Joint Products, Cost of Marketing, Insurance against Risk, Cost of Reproduction

Difficulties as to the joint products of the same business are often overcome through the power of varying the details of the plan of production. A first approximation is sometimes got by treating supplementary as proportional to prime cost. The difficulty of assigning to each branch of a business its share of the expenses of marketing becomes very great when the law of increasing return acts strongly; especially when the production falls into the hands of a few large firms. Economies in production are often balanced by local facilities for marketing. An insurance cannot be effected at moderate rates against all business risks. There appears caution against overlooking certain insurance expenses and against counting others twice over. But uncertainty is an evil in itself, and an average gain generally counts for less, the more uncertain the elements of which it is made up. To substitute cost of reproduction for cost of production in the theory of normal value is to make no real change; and through the market value of a thing is sometimes nearer cost of reproduction than cost of production, it is not governed by cost of reproduction.
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[Chapter VIII. Marginal Costs in Relation to Value, General Principles] Under the normal conditions and long period results, the diminishing return from disproportionate use of any agent of production, is akin to, but distinct from, diminishing return of land in general to more intensive cultivation, however appropriate. Marginal uses and costs do not govern value, but are governed together with value by the general relations of demand and supply. The term Interest and Profits are directly applicable but only indirectly, and on certain definite assumptions to particular embodiments of capital.\textsuperscript{221}

[Chapter IX. Marginal Costs in Relation to Value, General Principles, Continued] The income drives from rent and interest. The distinction between differential rents and scarcity rents is not fundamental.\textsuperscript{222}

[Chapter X. Marginal Cost in Relation to Agricultural Values] Relations between marginal costs and value of agricultural produce in general in an old country: (1) The amount of produce raised, and therefore the position of the margin of cultivation (i.e. the margin of the profitable application of capital and labor to good and bad land alike) are both governed by the general conditions of demand and supply. They are governed on the one hand by demand; that is, by the numbers of the population who consume the produce, the intensity of their need for it, and their means of paying for it; and on the other hand by supply; that is, by the extent and fertility of the available land, and the numbers and resources of those ready to cultivate it. Thus cost of production, eagerness of demand, margin of production, and price of the produce mutually govern one another: and no circular reasoning is involved in speaking of any one as in part governed by the others. (2) That part of the produce which goes as rent is of course thrown on the market, and acts on prices, in just the same way as any other part. But the general conditions of demand and supply, or their relations to one another, are not affected by the division of the produce into the share of rent and the share needed to render the farmer's expenditure profitable. The amount of that rent is not a governing cause; but is itself governed by the fertility of land, the price of the produce, and the position of the margin: it is the excess of the value of the total returns which capital and labor applied to land do obtain, over those which they would have obtained under circumstances as unfavorable as those on the margin of cultivation. (3) If the cost of production were estimated for parts of the produce which do not come from the margin, a charge on account of rent would of course need to be entered in this estimate; and if this estimate were used in an account of the causes which govern the price of the produce; then the reasoning would be circular. For that, which is wholly an effect, would be reckoned up as part of the cause of those things of which it is an effect. (4) The cost of production of the marginal produce can be ascertained without reasoning in a circle. The cost of production of other parts of the produce cannot. The cost of production on the margin of the profitable application of capital and labor is that to which the price of the whole produce tends, under the control of the general conditions of demand and supply: it does not govern price, but it focusses the causes which do govern price.

Scarcity without inequalities of fertility gives rise to rent. When a new country is first settled and land is free, immigration proceeds up to the margin at which the pioneer’s endurance is just rewarded. Rent emerges as a surplus as demand for produce and the supply of labor increase. Land is but one form of capital to the individual producer. A tax on the public value of land does not greatly diminish the inducements to cultivate the land highly, nor to erect farm buildings on it. Such a tax therefore does not greatly diminish the supply of agricultural produce offered on the market, nor raise the price of produce; and it is not therefore shifted away from the owners of land. The marginal costs and value of hops are governed by substitution in combination with diminishing return to cultivation in general. There is competition of different crops for the same land, with contrast between a general and a local tax on different crops.\textsuperscript{223}
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[Chapter XI. Marginal Costs in Relation to Urban Values] The last three chapters examined the relation in which cost of production stands to the income derived from the ownership of the original powers of land and other free gifts of nature, and also to that which is directly due to the investment of private capital. There is a third class, holding an intermediate position between these two, which consists of those incomes, or rather those parts of incomes which are the indirect result of the general progress of society, rather than the direct result of the investment of capital and labor by individuals for the sake of gain. This class has to be studied now, with special reference to the value of urban sites. The relations of marginal costs to the value of the product and to the rent of the land used are similar in manufacture and agriculture. The demand for exceptionally valuable urban land comes from traders of various kinds, wholesale and retail, more than from manufacturers. A rise of ground value may be an indication of a scarcity of space that will tend to raise traders’ prices. The component elements of composite rent can be distinguished in some but not in all cases.

[Chapter XII. Equilibrium of Normal Demand and Supply, Continued] We must distinguish the economies of wholesale and retail, more than from manufacturers. A rise of ground value may be an indication of a scarcity of space that will tend to raise traders’ prices. The component elements of composite rent can be distinguished in some

[Chapter XIII. Theory of Changes of Normal Demand and Supply, in relation to the doctrine of maximum satisfaction] We may consider the effects which a change in the conditions of supply may exert on consumers’ surplus or rent. For brevity of language a tax may be taken as representative of those changes which may cause a general increase, and a bounty as representative of those which may cause a general diminution in the normal supply price for each several amount of the commodity. Firstly, if the commodity is one, the production of which obeys the law of constant return, so that the supply price is the same for all amounts of the commodity, consumers’ surplus will be diminished by more than the increased payments to the producer; and therefore, in the special case of a tax, by more than the gross receipts of the State. For on that part of the consumption of the commodity, which is maintained, the consumer loses what the State receives; and on that part of the consumption which is destroyed by the rise in price, the consumers’ surplus is destroyed; and of course there is no payment for it to the producer or to the State. Conversely, the gain of consumers’ surplus caused by a bounty on a commodity that obeys the law of constant return, is less than the bounty itself. For on that part of the consumption which existed before the bounty, consumers’ surplus is increased by just the amount of the bounty; while on the new consumption that is caused by the bounty, the gain of the consumers’ surplus is less than the bounty. On the other hand, a bounty on a commodity which obeys the law of diminishing return will lead to increased production, and will extend the margin of cultivation to places and conditions in which the expenses of production, exclusive of the bounty, are greater than before. Thus it will
lower the price to the consumer and increase consumers’ surplus less than if it were given for the production of a commodity which obeyed the law of constant return. In that case the increase of consumers’ surplus was seen to be less than the direct cost of the bounty to the State; and therefore in this case it is much less.\footnote{224}

Figure IV-4-2. Changes that raise or lower the supply schedule (\textit{Constant Return}) (Left) \hspace{1cm} Figure IV-4-3. Changes that raise or lower the supply schedule (\textit{Diminishing Return}) (Right)

Notes: X-axis is the quantity of chosen commodity, Y-axis the nominal price, DD’ the demand curve, SS’ the supply curve, ss’ the shift of supply curve SS’, point A is the original equilibrium, and point a the secondary equilibrium shifted by rising prices or levying taxes.

\[\textbf{Chapter XIV. The Theory of Monopolies}\] We are now to compare the monopolist’s gains from a high price with the benefits to the public of a low price. The \textit{primâ facie} interest of the owner of a monopoly is clearly to adjust the supply to the demand, not in such a way that the price at which he can sell his commodity shall just cover its expenses of production, but in such a way as to afford him the greatest possible total net revenue. The net income divided among the shareholders includes interest on the capital invested and insurance against risk of failure, but little or no earnings of management; so that the amount by which the dividends are in excess of what may fairly be allowed as interest and insurance, is the Monopoly Revenue which we are seeking. The monopolist would lose all his monopoly revenue if he produced for sale an amount so great that its supply price, as here defined, was equal to its demand price: the amount which gives the maximum monopoly revenue is always considerably less than that. It may therefore appear as though the amount produced under a monopoly is always less and its price to the consumer always higher than if there were no monopoly. But this is not the case. The monopolist may lower his price with a view to the future development of his business, or from a direct interest in the welfare of consumers. The total benefit of a monopoly is the sum of the monopoly revenue and consumers’ surplus. The amount which the monopolist will offer for sale will be greater, the greater be the desire of the monopolist to promote the interests of consumers.\footnote{225}
Chapter IV. Economic Thought and Other Intellectual Developments

**Book VI: The Distribution of the National Income** [Chapter I-II. Preliminary Survey of Distribution] Every agent of production, land, machinery, skilled labor, unskilled labor, etc., tends to be applied in production as far as it profitably can be. If employers, and other business men, think that they can get a better result by using a little more of any one agent they will do so. They estimate the net product (that is the net increase of the money value of their total output after allowing for incidental expenses) that will be got by a little more outlay in this direction, or a little more outlay in that; and if they can gain by shifting a little of their outlay from one direction to another, they will do so. Thus then the uses of each agent of production are governed by the general conditions of demand in relation to supply; that is, on the one hand, by the urgency of all the uses to which the agent can be put, taken together with the means at the command of those who need it; and, on the other hand, by the available stocks of it. And equality is maintained between its values for each use by the constant tendency to shift it from uses, in which its services are of less value to others in which they are of greater value, in accordance with the principle of substitution. But the increased competition of capital in general for employment is of a different character from the competition of machinery for employment in any single trade. The labor and capital of the country, acting on its natural resources, produce annually a certain net aggregate of commodities, material and immaterial, including services of all kinds. The limiting word net is needed to provide for the using up of raw and half-finished commodities, and for the wearing out and depreciation of plant which is involved in production: all such waste must of course be deducted from the gross produce before the true or net income can be found. And net income due on account of foreign investments must be added in. This is the true net annual income, or revenue, of the country; or, the national dividend: we may, of course, estimate it for a year or for any other period. The terms National Income and National Dividend are convertible; only the latter is the more significant when we are looking at the national income in the character of the sum of the new sources of enjoyments that are available for distribution.²²⁶

Capital in general and labor in general co-operate in the production of the national dividend, and draw from it their earnings in the measure of their respective (marginal) efficiencies. Their mutual dependence is of the closest; capital without labor is dead; the laborer without the aid of his own or someone else's capital would not long be alive. Where labor is energetic, capital reaps a high reward and grows apace; and, thanks to capital and knowledge, the ordinary laborer in the western world is in many respects better fed, clothed and even housed than were princes in earlier times. The co-operation of capital and labor is as essential as that of the spinner of yarn and the weaver of cloth: there is a little priority on the part of the spinner; but that gives him no pre-eminence. The prosperity of each is bound up with the strength and activity of the other; though each may gain temporarily, if not permanently, a somewhat larger share of the national dividend at the expense of the other. In the modern world, private employers and officials of joint-stock companies, many of whom have but little capital of their own, act as the center of the great industrial wheel. The interests of owners of capital and of workers radiate towards them and from them: and they hold the whole together in a firm grip. They will therefore take a predominant place in those discussions of fluctuations of employment and of wages, which are deferred to the second volume of this treatise; and a prominent, though not predominant, place in those discussions of the secondary features in the mode of action of demand and supply peculiar to labor, capital and land respectively. As discussed previously, the efficiencies of the several factors of production, their contributions direct and indirect to the aggregate net product, or national dividend; and the shares of that dividend which accrue to them severally are correlated by a number of mutual interactions so complicated, that it is impossible to comprehend the whole in a single statement. But it is possible to lead up to a fairly unified general view.²²⁷

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[Chapter III-V. Earnings of Labor] Competition tends to make weekly wages in similar employments not equal, but proportionate to the efficiency of the workers. The tendency towards equality of efficiency-earnings will be stronger, the greater is the mobility of labor, the less strictly specialized it is, the more keenly parents are on the look-out for the most advantageous occupations for their children, the more rapidly they are able to adapt themselves to changes in economic conditions, and lastly the slower and the less violent these changes are. Allowance must be made for variations in the purchasing power of money, with special reference to the consumption of the grade of labor concerned. We must take account of the opportunities which a man’s surroundings may afford of supplementing the earnings which he gets in his chief occupation, by doing work of other kinds. The attractiveness of a trade depends not on its money-earnings, but its net advantages, subject to differences between individuals, between races, and between industrial grades.228

[Chapter IV] Many peculiarities in the action of demand and supply with regard to labor are cumulative; thus resembling the influence of custom. (i) The worker sells his work, but retains property in himself. Consequently, the investment of capital in him is limited by the means, the forethought and the unselfishness of his parents. This evil is comparatively small in the higher ranks of society (professional classes), but very great in the lower ranks, and the evil is cumulative. The son of the artisan has a better start in life than the son of the unskilled laborer: he is brought up in a more refined home and with more of a mother’s care. The technical training of the workshop depends in a great measure on the unselfishness of the employer. Its benefits are cumulative, but accrue only in part to him or his heirs. (ii) The seller of labor must deliver it himself. The effects of this are not generally cumulative, and their real importance is seldom very great. (iii) Labor is perishable, and the seller of it are often at a disadvantage in bargaining. But many material commodities are perishable. Disadvantages in bargaining are greatest generally among the lowest grades of labor. They do not attach to domestic servants, nor to professional men. (iv) Those sellers of commodities who are poor and numerous relatively to the purchaser are at a disadvantage in bargaining, in the same way as are the sellers of labor. The disadvantage is cumulative in two ways. It lowers his wages; and this lowers his efficiency as a worker, and thereby lowers the normal value of his labor. In addition, it diminishes his efficiency as a bargainer, and thus increases the chance that he will sell his labor for less than its normal value.229

[Chapter V] (v) The fifth peculiarity of labor consists in the great length of time required for providing additional supplies of specialized ability. Adam Smith’s comparison of the incomes earned by machinery and by a skilled worker must be modified on account of the shortness of the lives of most machines; though there are important expectation. Parents in choosing trades for their children must look forward a whole generation, and their forecasts are very liable to error. In the connection we must often take as our unit not a particular trade, but a whole grade of labor. Allowance must however be made for the movements of adult labor, which are growing importance in consequence of the increasing demand for general ability. We pass to difference between causes that are most powerful in long and short periods. A long period with regard to the supply of labor must generally be very long. Wages fluctuate under the modern system of industry. In estimating the return for the skilled labor, account must be taken not only of his wear and tear, but also of his fatigue, and other inconvenience of his work. Thus, the market price of everything, i.e. its price for short periods, is determined mainly by the relations in which the demand for it stands to the available stocks of it; and in the case of any agent of production, whether it be a human or a material agent, this demand is derived from the demand for those things which it is used in making. In these relatively short periods fluctuations in wages follow, and do not precede, fluctuations in the selling prices of the goods produced.230
Chapter VI. Interest of Capital

The economic doctrine of capital has progressed continuously and without abrupt change. In early stages of civilization the abuses of loans at interest often exceed their uses; and this fact related the growth of clear notions as to the nature of the services rendered by capital. Interest is the earnings of capital; gross interest includes some insurance against risk, and also earnings of management, and therefore varies with the circumstances of each loans. Gross interest does not tend to equality, but net interest does. The rate of interest applies strictly to new investments only: the value of old investments is governed by their earnings. Estimates of true, as contrasted with nominal, interest rest on assumptions as to the future purchasing power of money. For short periods, this may be best measured in commodities. A rise in the value of money makes the true rate of interest higher than the nominal. We shall find that fluctuations in prices are caused only to a very slight extent by fluctuations in the supply of the precious metals; and that they would not be much diminished by the adaptation of gold and silver instead of gold as the basis of our currency.

Chapter VII-VIII. Profits of Capital and Business Power

The success of any form of business management depends on its immediate rather than its ultimate efficiency. Adjustment of demand for the services of foremen is compared with those of ordinary workmen: adjustment of demand for organizing ability; changes in the character of his work as the scale of his business increases; the adjustment between earnings of businessmen on a large and on a small scale. A businessman working with borrowed capital is at a disadvantage in some trades, but in others he plays a leading part, for he will work hard for a small reward. In joint-stock companies, most of the work of management is divided between salaried directors and salaried managers and other subordinate officials, most of whom have little or no capital of any kind; and their earnings, being almost the pure earnings of labor, are governed in the long run by those general causes which rule the earnings of labor of equal difficulty and disagreeableness in ordinary occupations. Modern methods of business exercise in the aggregate, a powerful tendency to adjust earnings of management to the difficulty of the work done. The supply of business ability is drawn from a wide area, and is non-specialized. The adjustment of supply to demand is somewhat hindered by the difficulty of ascertaining exactly what is the price that is being paid for it in any trade.231

In a large business, some earnings of management are classed as salaries, and in a small business much wages of labor is classed as profits. Small businesses in trades which offer great technical advantages to large capitals make very low profits. Profits per annum are generally high in trades in which the work of management is difficult and risky; where capital is relatively small and the wages-bill is relatively large. In ordinary trades, profits often vary nearly with the wages-bill. The normal rate of profits in an industry may be lowered by a great gradual increase in production. The rate of profits on the turnover varies much more widely than the annual rate of profits on capital. But each branch of trade has its customary or fair rate of profit on the turnover. Prices are a constituent element of normal supply-price. The causes which govern the normal levels of wages and the various elements of profits, resemble one another more nearly than those which govern fluctuations in their values. The first difference: Profits fluctuate with prices and in even greater ratio, but the wages of employees lag behind and their fluctuations are less. The second difference: The profits of individuals after more widely than ordinary earnings do, and their average value is over-estimated, because those who lose all their capital disappear from sight. The third difference: The true earnings of effort are nearly always a considerable part of the income of the artisan and professional man, but net of the businessman. The fourth difference: A large share of the income of successful business men is a surplus due to rare natural faculties. Changes in the industrial environment affect the profits of individual businesses more than they do ordinary earnings. A part of business is derived from its connections and organization.232
Chapter IX. Rent of Land

The cultivators of land must be supposed to be of normal ability and enterprise. A rise in the real value of produce generally raises the produce value of the surplus, and its real value even more. It is necessary to distinguish changes in the labor value of produce and its general purchasing power. The division between the landlord’s and the farmer’s share in the English system is the most important for science.

Chapter X. Land Tenure

Early forms of land tenure have generally been based on partnerships, controlled by tradition rather than by conscious contract. The so-called landlord is generally the sleeping partner, and his share of the produce is not a true rent. But custom is much more plastic than at first appears, as is shown even by recent English history. Even now the adjustment of rents to the changes in the letting value of the land is partly tacit and almost unconscious. The peasant proprietor has many virtues and many sources of happiness; but he is wastefully penurious, and is an industrious but inefficient worker. There are some well-to-do French and German peasants, but against them must be set the many rich men in the Old World and the New who are descended from English laborers. Improvements in agriculture come slowly. Man’s part in agriculture conforms to the law of increasing return. Agriculture cannot be a localized nor a highly specialized industry; but there are forces tending to move it towards the methods of manufacture. It requires constantly increasing knowledge. The gross rent of small holdings must be high relatively to their acreage. The English system of tenure is competitive, but competition does not act easily in agriculture. Difficulty of deciding what are normal prices and harvests arises from local variations in the standard of normal farming skill and enterprise. Ethical and economic elements are here closely intermingled.

Chapter XI. General View of Distribution

(i) Wages and other earnings of effort have much in common with interest on capital. For there is a general correspondence between the causes that govern the supply prices of material and of personal capital: the motives which induce a man to accumulate personal capital in his son’s education, are similar to those which control his accumulation of material capital for his son. (ii) The efficiency of human agents of production on the one hand, and that of material agents on the other, are weighed against one another and compared with their money costs; and each tends to be applied as far as it is more efficient than the other in proportion to its money cost. A chief function of business enterprise is to facilitate the free action of this great principle of substitution. Generally to the public benefit, but sometimes in opposition to it, business men are constantly comparing the services of machinery, and of labor, and again of unskilled and skilled labor, and of extra foremen and managers; they are constantly devising and experimenting with new arrangements which involve the use of different factors of production, and selecting those most profitable for themselves. (iii) There is no breach of continuity as we ascend from the unskilled laborer to the skilled, thence to the foreman, to the head of a department, to the general manager of a large business paid partly by a share of the profits, to the junior partner, and lastly to the head partner of a large private business; and in a joint-stock company there is even somewhat of an anti-climax when we pass from the directors to the ordinary shareholders, who undertake the chief ultimate risks of the business. Nevertheless business undertakers are to a certain extent a class apart. (iv) It remains true, however, that the chief benefit which an increase of capital confers upon labor is not by opening out to it new employments, but by increasing the joint product of land, labor and capital (or of land, labor and waiting), and by reducing the share of that product which any given amount of capital (or of waiting) can claim as its reward. (v) This dependence of the wages of each group of workers on the numbers and efficiency of others is a special case of the general rule that the environment (or Conjuncture) plays a part at least coordinate with a man’s energy and ability in governing that net product to which his wages ever approximate under the influence of competition.
[Chapter XII. General Influences of Economic Progress] The field of employment which any place offers for labor and capital depends, firstly, on its natural resources; secondly, on the power of turning them to good account, derived from its progress of knowledge and of social and industrial organization; and thirdly, on the access that it has to markets in which it can sell those things of which it has a superfluity. The importance of this last condition is often underrated; but it stands out prominently when we look at the history of new countries. It is commonly said that wherever there is abundance of good land to be had free of rent, and the climate is not unhealthy, the real earnings of labor and the interest on capital must both be high. But this is only partially true. The early colonists of America lived very hardly. Nature gave them wood and meat almost free: but they had very few of the comforts and luxuries of life. And even now there are, especially in South America and Africa, many places to which nature has been abundantly generous, which are nevertheless shunned by labor and capital, because they have no ready communications with the rest of the world. On the other hand high rewards may be offered to capital and labor by a mining district in the midst of an alkaline desert, when once communications have been opened up with the outer world, or again by a trading center on a barren sea-coast; though, if limited to their own resources, they could support but a scanty population, and that in abject poverty. And the splendid markets which the old world has offered to the products of the new, since the growth of steam communication, have rendered North America, Australia and parts of Africa and South America, the richest large fields for the employment of capital and labor that there have ever been. Progress is fast improving the condition of the great body of the working classes.236

[Chapter XIII. Progress in relation to Standards of Life] We saw reasons for thinking that the true key-note of economic progress is the development of new activities rather than of new wants; and we may now make some study of a question that is of special urgency in our own generation; viz. - what is the connection between changes in the manner of living and the rate of earnings; how far is either to be regarded as the cause of the other, and how far as the effect? The relations between industrial efficiency and the hours of labor are complex. If the strain is very great, a man is apt to be so tired by long work that he is seldom at his best, and is often much below it or even idling. As a general, though not universal rule, his work is more intense when paid by piece, than when paid by time; and, in so far as this is the case, short hours are especially suitable to industries in which piece-work prevails. Wages could be raised generally by merely making labor scarce – by checking the supply of labor. This cause is an underestimate of the effects of such a change on the supply of capital. If men have been overworked, the shortening of the hours of labor will not at once make them strong: the physical and moral improvement of the condition of the workers, with its consequent increase of efficiency and therefore of wages, cannot show itself at once. We have reached very few practical conclusions; because it is generally necessary to look at the whole of the economic, to say nothing of the moral and other aspects of a practical problem before attempting to deal with it at all: and in real life nearly every economic issue depends, more or less directly, on some complex actions and reactions of credit, of foreign trade, and of modern developments of combination and monopoly. But the ground is most difficult of the whole province of economics; and it commands, and gives access to, the remainder.237

Appendixes: A. The growth of free industry and enterprise; B. The growth of economic science; C. The scope and method of economics; D. Uses of abstract reasoning in economics; E. Definitions of capital; F. Barter; G. The incidence of local rates, with some suggestions as to policy; H. Limitations of the use of statistical assumptions in regard to increasing return; I. Ricardo’s theory of value; J. The doctrine of the wages-fund; K. Certain kinds of surplus; L. Ricardo’s doctrine as to taxes and improvements in agriculture; and Mathematical Appendix.238
Leon Walras (1834-1910) was a French mathematical economist and Georgist. He formulated the marginal theory of value (independently of Stanley Jevons and Carl Menger) and pioneered the development of general equilibrium theory. "Walras was the son of French economist Auguste Walras. His father was a school administrator and not a professional economist, yet his economic thinking had a profound effect on his son. He found the value of goods by setting their scarcity relative to human wants. Walras enrolled in the École des Mines de Paris, but grew tired of engineering. He worked as a bank manager, journalist, romantic novelist and railway clerk before turning to economics. Walras received an appointment as the professor of political economy at the University of Lausanne. Walras also inherited his father's interest in social reform. Much like the Fabians, Walras called for the nationalization of land, believing that land's value would always increase and that rents from that land would be sufficient to support the nation without taxes. Another of Walras' influences was Augustin Cournot, a former schoolmate of his father. Through Cournot, Walras came under the influence of French Rationalism and was introduced to the use of mathematics in economics. As Professor of Political Economy at the University of Lausanne, Walras is credited with founding, under the direction of economist and sociologist Vilfredo Pareto, the Lausanne school of economics. Because most of Walras' publications were only available in French, many economists were unfamiliar with his work. This changed in 1965 with the publication of William Jaffé's English translation of Walras' Éléments d'économie politique pure. Walras' work was also too mathematically complex for many contemporary readers of his time. On the other hand, it has a great insight into the market process under idealized conditions so it has been far more read in the modern era."

"In 1874 and 1877 Walras published Éléments d'économie politique pure (1899, 4th ed.; 1926, éd. définitive), in English, Elements of Pure Economics (1954), trans. William Jaffé. That work that led him to be considered the father of the general equilibrium theory. The problem that Walras set out to solve was one presented by A. A. Cournot, that even though it could be demonstrated that prices would equate supply and demand to clear individual markets, it was unclear that an equilibrium existed for all markets simultaneously. Walras constructed his basic theory of general equilibrium by beginning with simple equations and then increasing the complexity in the next equations. He began with a two-person bartering system, then moved on to the derivation of downward-sloping consumer demands. Next he moved on to exchanges involving multiple parties, and finally ended with credit and money. Walras created a system of simultaneous equations in an attempt to solve Cournot's problem which supposedly Walras at first thought was complete merely because the number of equations equaled the number of unknowns. The crucial step in the argument was Walras' Law which states that any particular market must be in equilibrium, if all other markets in an economy are also in equilibrium. Walras' Law hinges on the mathematical notion that excess market demands (or, inversely, excess market supplies) must sum to zero. This means that, in an economy with n markets, it is sufficient to solve n-1 simultaneous equations for market clearing. Taking one good as the numéraire in terms of which prices are specified, the economy has n-1 prices that can be determined by the equation, so an equilibrium should exist. Although Walras set out the framework for thinking about the existence of equilibrium clearly and precisely his attempt to demonstrate existence by counting the number of equations and variables was severely flawed: it is easy to see that not all pairs of equations in two variables have solutions. A more rigorous version of the argument was developed independently by Lionel McKenzie and the pair Kenneth Arrow and Gérard Debreu in the 1950s." The basic concept of the general equilibrium model in recent micro-economics are discussed in followings.
Chapter IV. Economic Thought and Other Intellectual Developments

**General Equilibrium of Consumption:** (a) **The Marginal Rate of Substitution:** The marginal rate of substitution (MRS) is the rate at which a consumer is ready to give up good X in exchange for good Y, while maintaining the same level of utility as shown on the Indifference Curve ABBCD (IC) in Figure IV-5-1. The marginal rate of substitution of good x for good y means the amount of good y that an individual is willing to give up for gaining an additional unit of good x. It is the opportunity cost: A consumer is willing to give up ΔY to gain additional unit of good X (ΔX).

The marginal rate of substitution of good X for good Y is expressed by $MRS_{xy} = \frac{\Delta Y}{\Delta X} = -\frac{dy}{dx}$ that is the slope at point A, B, C, or D on the indifference curve IC.

Utility: $U = f(x, y)$ where x and y are goods.

$$dU = \left(\frac{\partial f}{\partial x}\right) dx + \left(\frac{\partial f}{\partial y}\right) dy = 0 \text{ where } U = U_0$$

$$MRS_{xy} = -\frac{dy}{dx} = \frac{\partial f}{\partial x} \Big/ \frac{\partial f}{\partial y} = f_x / f_y$$

The diminishing marginal rate of substitution: The slope between point A and B is much steeper than the slope between point C and D: the slope $\Delta y/\Delta x$ (between AB) is steeper than the slope $\Delta y/\Delta x$ (between CD). Thus, as the number of consumed good X rises, the number of consumed good Y falls to give up.

![Figure IV-5-1. Diminishing Marginal Rate of Substitution](http://economicsconcepts.com/figure_3.3.JPG)

(b) **Utility Maximization** means that people tend to strive to obtain the greatest amount of profit and value possible when individuals invest on something. Assumptions are as follows:

1. Consumers are assumed to be rational, trying to get the most value for their money.
2. Consumers' incomes are limited because their individual resources are limited. They face a budget constraint.
3. Consumers have preferences for various goods and services, thus they know their MU for each successive units of the product.
4. Every item has a price tag. Consumers must choose among alternative goods with their limited money incomes."

$U(x, y)$: Utility curve for good x and y

Point C: Utility-Maximized Point

Budget Constraint: $B = xP_x + yP_y$ (line BC)

(Px - price of good x; Py - price of good y)

![Figure IV-5-2. Utility Maximization subject to Budget Constraint](https://www.subjectmoney.com/Maximizing%20Utility%20with%20Budget%20Constraint.jpg)
Chapter IV. Economic Thought and Other Intellectual Developments

Maximize: \( U(x, y) \)

Subject to: \( B = xP_x + yP_y \)

In order to maximize \( U(x, y) \) subject to \( B = xP_x + yP_y \) where \( U(x, y) \) is a Utility Function, and \( B = xP_x + yP_y \) is a budget constraint in which \( x \) and \( y \) are Good x and Good y, and \( P_x \) and \( P_y \) are Prices of Good x and Good y; we can formulate a Lagrangian Function as follows:

\[
Z = U(x, y) + \lambda (B - xP_x - yP_y)
\]

Then we can the first order condition of the Lagrangian Function as follows:

\[
\frac{\partial Z}{\partial \lambda} = Z_{\lambda} = B - xP_x - yP_y = 0
\]

\[
\frac{\partial Z}{\partial x} = Z_x = U_x - \lambda P_x = 0
\]

\[
\frac{\partial Z}{\partial y} = Z_y = U_y - \lambda P_y = 0
\]

Hence, we get the marginal utility of budget money \( (\lambda) \) as follows:

\[
\frac{U_x}{P_x} = \frac{U_y}{P_y} = \lambda
\]

\[
\frac{U_x}{U_y} = \frac{P_y}{P_x}
\]

for which the second order condition is assumed to meet.

Since \( dU = U_x \, dx + U_y \, dy = 0 \) for utility maximization, we get the following condition:

\[
- \frac{dx}{dy} = \frac{U_x}{U_y} = \frac{P_y}{P_x}
\]

At which the budget line is tangent to \( U \)-curve for utility maximization at point C of Utility Curve \( U_2 \) on the Figure IV-5-2. Therefore, Utility Curve \( U_1 \) is below the budget line, and Utility Curve \( U_3 \) is above the budget line, so that both \( U_1 \) and \( U_3 \) do not meet for utility maximization.

(c) General Equilibrium of Consumption: This is a 2-2 Model: There is two consumers – Consumer A starting from OA and Consumer B starting from OB. The indifference curves of Consumer A such as \( IA_1, IA_2, \) and \( IA_3 \) meet those of Consumer B such as \( IB_1, IB_2, \) and \( IB_3 \) at points \( S_1, S_2, \) and \( S_3 \) (representing at point S) on the Contract Curve (line BA-OB), that is the efficiency locus for consumption to both Consumers. Those points (numerous points of \( S \) series) meet with the same slopes, where the marginal rate of substitution of x for y for Consumer A is equal to that for Consumer B:

\[
MRS_{xy}^A \equiv MRS_{xy}^B
\]

Hence, the Locus of OA-S-OB is efficient and forms the Contract Curve for two consumers, where the economy remains in the general equilibrium of consumption, which maximizes their utility functions subject to budget constraints.

However, Point Q, where Indifference Curves of Consumer A and Consumer B intersect, is not efficient, since \( MRS_{xy}^A \neq MRS_{xy}^B \) (Less economic region of consumption). In other words, the vertical line of \( X_1X_2 \) is tangent to Indifference Curve \( IA_1 \) and the horizontal line of \( Y_1Y_2 \) is tangent to Indifference Curve \( IB_2 \); therefore, outside Point Q, the slopes of \( IA_1 \) and \( IB_2 \) become positive. This means that the rising consumption of Good X demands more consumption of Good Y; or the rising consumption of Good Y demands more consumption of Good X. Therefore, the shadow area of QS with slash lines must be the efficient or fruitful trade area.

Notes: The Contract Curve (OA-OB): An Efficiency Locus for Consumption;
Consumer A has the Indifference Curves of IA1, IA2, and IA3;
Consumer B has the Indifference Curves of IB1, IB2, and IB3 and
The Shadow Ares of QS with Lines: A Fruitful Trade Area.

(d) **The Utility Possibility Frontier (The Substitution Curve):**

“The graph shows the maximum amount of one person’s utility given each level of utility attained by all others in society. Points on the curve are, by definition, Pareto efficient, while points off the curve are not. However, based on the extent of society’s preferences for an equal distribution of real income, a point off the curve may be preferred. All points on or below the utility–possibility frontier are attainable by society; all points above it are not attainable. The utility–possibility frontier is derived from the contract curve. The utility–possibility frontier (UPF) is the upper frontier of the utility possibilities set, which is the set of utility levels of agents possible for a given amount of output, and thus the utility levels possible in a given consumer Edgeworth box. The UPF is the contract curve of the Edgeworth box.”

---

Figure IV-5-4. The Utility Possibility Frontier (UPF)
Chapter IV. Economic Thought and Other Intellectual Developments

General Equilibrium of Production: (a) The Marginal Rate of Technical Substitution (MRTS): Taking two-good and two-factor model in production, the marginal rate of technical substitution of factor labor for factor Capital is the number of units of factor capital (K) which can be substituted by one unit of factor labor (L) keeping the same level of output. In Figure IV-5-5, all the five combinations of labor and capital which are A, B, C, D, and E are plotted on a graph. The points A, B, C, D and E are joined to form an isoquant. The iso-product curve (IP) shows the whole range of factor combinations producing 150 units of commodity X. All the five factor combination of labor and capital on an iso-product curve are technically efficient combinations. The producer is indifferent towards these, combinations as these produce the same level of output.

![Figure IV-5-5. Diminishing Marginal Rate of Technical Substitution](http://economicsconcepts.com/figure_12.8.JPG)

The decline in MRTS along an Isoquant Curve (IP) for producing the same level of output is named as diminishing marginal rates of technical substitution. When a firm moves down from point (a) to point (b) and it hires one more labor, the firm gives up 4 units of capital (K) and yet remains on the same isoquant at point (b). So the MRTS is 4. If the firm hires another labor and moves from point (b) to (c), the firm can reduce its capital (K) to 3 units and yet remain on the same isoquant. So the MRTS is 3. If the firm moves from point (c) to (d), the MRTS is 2 and from point d to e, the MRTS is 1. The decline in MRTS along an isoquant as the firm increases labor for capital is called Diminishing Marginal Rate of Technical Substitution.

Maximize Output: \( Q = f(K, L) \)

Subject to Cost: \( C = rK + wL \)

In 2-Input production model, Output Q is a function of Capital (K) and Labor (L). The Marginal Rate of Technical Substitution of labor (L) for capital (K) is expressed by \( \text{MRTS}_{LK} = -\frac{dK}{dL} \) that is the slope of the Isoquant at point L, M, or N, tangent points to Isoquant on Figure IV-5-6. Applying a Lagrangian function, we get the first order condition to maximize output as follows:

\[
\begin{align*}
\frac{L}{f(K, L)} + \mu (1 - rK - wL) &= 0 \\
\frac{\partial L}{\partial K} &= \frac{\partial f}{\partial K} - \mu r = f_K - \mu r = 0 \\
\frac{\partial L}{\partial L} &= \frac{\partial f}{\partial L} - \mu w = f_L - \mu w = 0
\end{align*}
\]

\[
\therefore \mu = \frac{f_K}{r} = \frac{f_L}{w} \tag{1}
\]

(for which the second order condition is assumed to meet.)

Since \( r \cdot dK + w \cdot dL = 0 \) from the cost equation, we can obtain:

\[
- \frac{dK}{dL} = \frac{w}{r} \tag{2}
\]

From above equations (1) and (2), we get:

\[
\text{MRTS}_{LK} = - \frac{dK}{dL} = \frac{f_L}{f_K} = \frac{w}{r}
\]
Chapter IV. Economic Thought and Other Intellectual Developments

The Marginal Rate of Technical Substitution of Labor for Capital is the slope of Isoquants at points L, M, N those which are tangent point to those Isoquants appeared on the Left of Figure IV-5-6. The slope must be the cost line of each Isoquant in the general equilibrium condition.

Figure IV-5-6. The Principle of Marginal Rate of Technical Substitution

(b) The Economic Region of Production: There are certain combinations of inputs that the firm should not use in the long run no matter how cheap they are (unless the firm is being paid to use them). These input combinations are represented by the portion of an isoquant curve that has a positive slope. The Ridge Lines are line connecting the points where the marginal product of an input is equal to zero in the isoquant map and forming the boundary for the economic region of production. The Economic Region of Production is the range in an isoquant diagram where both inputs have a positive marginal product. It lies inside the ridge lines.

Inside the Ridge Lines (within OR-RO):
MRTS_{LK} = dK/dL < 0 (Negative Slope)
So production is efficient.

Outside the Ridge Lines (Outside OL-RO):
MRTS_{LK} = dK/dL > 0 (Positive Slope)
So production is inefficient.
Since both inputs increases for the same level of output along Isoquant.

Figure IV-5-7. The Economic Region of Production, accessed 5 March 2017, http://cdn.economicsdiscussion.net/wp-content/uploads/2016/01/clip_image007_thumb-1.jpg
Chapter IV. Economic Thought and Other Intellectual Developments

(c) Edgeworth Box of Production: In two-good X and Y and two-factor L and K model of production, we assume followings:

1. All units of labor are homogeneous so that they receive equal remunerations for their contribution to the production of goods. So is the case with all units of capital.
2. The available quantities of the two factors labor and capital are fixed in the economy and both of them are fully employed and utilized.
3. There is smooth production function for each good so that production factors labor and capital, can be freely transferred from one good to the other.
4. Technology is given which together with the factor endowments limits the production possibilities.

Figure IV-5-8. Edgeworth Box of Production

With the above assumptions we shall analyze the general equilibrium of production under conditions of perfect competition in all the markets. It may be emphasized again that the various markets are inter-related. For example, if more labor is employed in the production of good X, then, given its fixed supply, some labor will have to be withdrawn from the production of good Y. Changes in labor allocation between the productions of the two goods, would also have repercussions on the use of capital in the production of two goods. It is indeed the task of general equilibrium analysis to determine the pattern of relative prices and quantities of goods and factors at which all markets clear together, that is, prices and quantities at which demand and supply in each of the four markets are brought into equilibrium simultaneously.

From Origin of product X, horizontal is Labor-axis and vertical is Capital-axis; Isoquants for Good X is X₁, X₂, and X₃; and Isoquants for Good Y is Y₁, Y₂, and Y₃. “It is important to note that any point in the Edgeworth Box represents a particular allocation of labor and capital between the two industries, one producing good X and the other producing good Y. Various points in the box represent different alternative allocations of factors between the two commodities.”

The Locus of tangencies of Isoquants O of Good X to O of Good Y is the Contract Curve which holds General Equilibrium of Production, which is efficient, since

\[ \text{MRTS}_{LK}^X \equiv \text{MRTS}_{LK}^Y \]
(Economic Region of Production)

At point Z, where Isoquant X₃ and Y₂ intersect, so outside that point, production Good X and Good Y both are not efficient, since outside the Ridge Lines (Outside OL-RO):

\[ \text{MRTS}_{LK} = \frac{dK}{dL} > 0 \] (Positive Slope)

Since both input increases together, production is inefficient.

\[ \text{MRTS}_{LK}^X \neq \text{MRTS}_{LK}^Y \]
(Less Economic Region of Production)
(d) The Production Possibility Frontier or Curve (PPF or PPC) is such a Transformation Curve as “a graphical representation of possible combinations of two goods that can be produced with constant resources and technology, such that more of one good could be produced only by diverting resources from the other good, resulting in less production of it. It is a graph representing production tradeoffs of an economy given fixed resources. In its microeconomic applications, the graph shows the various combinations of amounts of two commodities that an economy can produce per unit of time (such as number of guns vs. kilograms of butter) using a fixed amount of each of the factors of production, given the production technologies available. At the macroeconomic level, it can be used to depict other rivalrous trade-offs like production of fixed capital versus production of consumer goods. Graphically bounding the production set for fixed input quantities, the PPF curve shows the maximum possible production level of one commodity for any given production level of the other, given the existing state of technology. By doing so, it defines productive efficiency in the context of that production set: a point on the frontier indicates efficient use of the available inputs, and a point beneath the curve indicates inefficiency. The commodities compared can be goods or services. The combination represented by the point on the PPF where an efficient economy operates shows the priorities or choices of the economy, such as the choice of producing more capital goods and fewer consumer goods, or vice versa.\textsuperscript{243}

“PPFs are normally drawn as bulging upwards or outwards from the origin (“concave” when viewed from the origin), but they can be represented as bulging downward (inwards) or linear (straight), depending on a number of factors. A PPF illustrates a number of economic concepts, such as scarcity of resources (the fundamental economic problem that all societies face), opportunity cost (or marginal rate of transformation), productive efficiency, allocative efficiency, and economies of scale. An outward shift of the PPF results from growth of the availability of inputs, such as physical capital or labor, or from technological progress in knowledge of how to transform inputs into outputs. Such a shift reflects economic growth of an economy already operating at its full productivity (on the PPF), which means that more of both outputs can be produced during the specified period of time without sacrificing the output of either good. Conversely, the PPF will shift inward if the labor force shrinks, the supply of raw materials is depleted, or a natural disaster decreases the stock of physical capital. However, most economic contractions reflect not that less can be produced but that the economy has started operating below the frontier, as typically, both labor and physical capital are underemployed.\textsuperscript{244}

The Production Possibility Frontier can be derived from the Edgeworth Box of Production (2-goods 2-factor model). The slope at points F, G, and H on Figure IV-5-9 must be the optimal (efficient) combinations of two goods, following the Contract Curve of the Edgeworth Box, so that we can obtain the condition of the frontier line:

\[
\text{MRTS}_{XY} = - \frac{dy}{dx}
\]
General Equilibrium of Exchange: (a) Simultaneous General Equilibrium of Production and Consumption (within the Domestic Market): “The goal of an economic system is to satisfy human wants. Being efficient in production may not be at all desirable if the wrong combination of goods is produced. The definition of efficiency in a production and exchange economy we shall adopt is the Pareto definition, which we used in the case of exchange: An allocation of goods and resources among both firms and individuals is efficient if no one can be made better off without making someone else worse off.” Taking the first step, along the production possibility frontier, production is efficient in terms of combination of produce Good X and Good Y. The condition necessary to ensure that both goods are produced efficiently is that the marginal rate of technical substitution for any two goods must be equal to the rate of product transformation of these two goods, as illustrated in the analysis of the Edgeworth Box of Production. The second step for economic efficiency lies in that consumption should be matched by the production; which means that the indifference curve should meet the production possibility frontier efficiently (not less or not more utility) such as taking the point F on Figure IV-5-10. This means that all produced goods are consumed without short or long. In other words, a Simultaneous General Equilibrium of Production and Consumption is obtained at Point F, where the slope of the production possibility frontier is equal to the slope of the indifference curve of consumption – people consumed as much as they produced. So we can get:

\[
\text{MRTS}_{XY}^A \equiv \text{MRS}_{XY}^A \equiv \text{MRS}_{XY}^B \equiv \text{MRTS}_{XY}^B
\]

\[
x P_x + y P_y = B = C = r K + w L \text{ where Budget = Cost}
\]

Therefore, consumption and production are satisfied in the Robinson Crusoe Economy; which is efficient as a Pareto Optimal. If this condition is violated, continuous adjustment is necessary for economic efficiency. We can see that the production with factor inputs (L and K appeared on Contract Curve) is expressed by combination of 2 Goods (X and Y) on the production possibility frontier of the graph below. Consumer Indifference Curve (CIC) meets PPF at point F.

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**Figure IV-5-10. The Paretian System – General Equilibrium**

(b) **General Equilibrium of Exchange with International Trade**: This is 2-Good (X and Y) and 2-Country (Country A and B) model for international trade. The Production Possibility Frontier AA is for Nation-state A and that of BB is for Nation-state B. Without foreign trade, Country A made domestic trade at point C, and Country at point C', both which were efficient. Since the slope $\text{slope} = \frac{P_x}{P_y}$ is lower at point C than at point C', Nation A has a Comparative Advantage in Good X; while Nation B has it in Good Y. With foreign trade between Nation A and B, Nation A produces at point F, and Nation B produces at point D. Nevertheless, both Nations consume at point E, where the slope DEF forms tangent to the combined Indifference Curve of Nations A and B that is $U (A, B)$ as appeared on Figure IV-5-12 below. Therefore, Nations A and B both enjoy higher utility (satisfaction) at point E, since the Indifference Curves met at point C and C' obviously lie far below the combined utility curve meeting at E.

Figure IV-5-11. Production Possibility Frontier (Nation A), accessed 6 March 2017, http://3.bp.blogspot.com/-j7CObtnqMc/UcNiSaJFUxI/AAAAAAAABk/c_Qe6N0drr/s1600/27082011-economics116.gif

Figure IV-5-12. General Equilibrium of International Trade

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*Book V. The Consolidation of Nation States and Industrialization, 1815-1914*
General Equilibrium of Social Welfare: Assumption (1) In general equilibrium of 2-2-2 model (2 inputs K and L, 2 goods X and Y, 2 consumers A and B), Good A and Good B are produced as much as those are demanded by consumers A and B. Assumption (2) The Utility Possibility Frontier mm’ is generated while Consumer A and B use Good X and Y according to the Contract Curve of the Edgeworth Box of Consumption. This implies that the combination of Good X and Y in consumption (as well as production) is efficient (Pareto optimal).

(a) Social Welfare Functions: We can postulate the existence of a social welfare function having the social indifference curves $W_1$, $W_2$, and $W_3$ as appeared on Figure IV-5-13.

Social Welfare = $W(U_A, U_B)$

It is possible to conceptualize the problem of social choice. The concave line of the utility possibility frontier (mm’) is efficient in combination of goods in consumption and production. The graph shows three levels of the indifference curves of welfare. We can get the highest level of social welfare at point “c”; points “a” “b” “d” are attainable, but the levels of social welfare are lower than that achieved at point “c”. As long as the points are attainable, the choice of social welfare is decided by a state government; that creates conflicts of economic efficiency with income equality; by choosing either growth policy or distribution policy. This is similar to the corporate policy on its profit: going to either dividend or reinvestment.

Sometimes, society’s interests choose seemingly inefficient allocations of resources if the truly optimal allocation is unattainable. In order to satisfy social concept of equality, it may make sense to accept some inefficiency by sacrificing economic growth (or corporate expansion).

Figure IV-5-13. Using a Social Welfare Function to Find the Social Optimum

(b) Social Policy Criteria: (i) Pareto Criterion: A change of social welfare is acceptable if it benefits some members of society without harming anyone. (ii) Kaldor-Hicks Criterion: A change of social welfare is acceptable, if those who gain from change can fully compensate the losers and still retain some of the gain. (iii) Sitovsky Criterion: A change of social welfare is an improvement, if it satisfies Kaldor-Hicks Criterion and after change, a movement back to the original position does not satisfy the Kaldor-Hicks Criterion. (iv) Arrow’s Impossibility Theorem: “The theorem states that no rank-order voting system can be designed that always satisfies these three fairness criteria: If every voter prefers alternative X over alternative Y, then the group prefers X over Y; If every voter's preference between X and Y remains unchanged, then the group's preference between X and Y will also remain unchanged (even if voters' preferences between other pairs like X and Z, Y and Z, or Z and W change). There is no dictator: no single voter possesses the power to always determine the group's preference...Arrow has said Most systems are not going to work badly all of the time. All I proved is that all can work badly at times.”245
(c) **Externalities and Market Failures:** Market failure occurs when adequate competition does not exist; buyers and sellers are not well informed; and resources are not free to move from one industry to another, known as resource immobility. Externality is an economic side effect that affect an uninvolved their party. These are also examples of market failures. There are two types of externalities. Negative externality is harmful side effect that affects an uninvolved third party, which, in most events, constitutes external cost. Positive externality is beneficial side effect that affects an uninvolved third party. “Public goods are those goods and services provided by the government because a market failure has occurred and the market has not provided them. Sometimes it is in our benefit to not allow for a market provision. In the case of police, national defense and public education it can be argued that private provision of these services would be less desirable for a variety of reasons. Public goods are economic products that are consumed collectively, like highways, sanitation, schools, national defense, police and fire protection.”

Figure IV-5.14, Economic Efficiency and Pareto Optimality Marginal Condition

On the graph, without externality, an efficient general equilibrium reaches at point R, where the Indifference Curve (IC₂ - Utility Curve) hits the Production Possibility Frontier (AB), with the slope pp’. Therefore, we obtain:

\[ \text{MRTS}_{XY} \equiv \text{MRS}_{XY} \]  
(Production \equiv Consumption)

On the other hand, with externalities, a new general equilibrium is formed at point S on the Production Possibility Frontier, where the slope (tangent to Concave AB) is smaller than the slope formed at point R. In other words,

\[ \frac{dy}{dx}_S > \frac{dy}{dx}_R \]

\[ \frac{P_x}{P_y}_S > \frac{P_x}{P_y}_R \]

Point S has less X more Y than Point R
Point S has less marginal cost of X and More marginal cost of Y than that of Point R

“There are several general types of solutions to the problem of externalities: Pigovian taxes or subsidies intended to redress economic injustices or imbalances; Regulation to limit activity that might cause negative externalities; Government provision of services with positive externalities; Lawsuits to compensate affected parties for negative externalities; Mediation or negotiation between those affected by externalities and those causing them; Ecological economics, if more widely known and applied, would shift the economic paradigm from the current reductionist, strictly financial view to something more cognizant of externalities, and thus more extensible and sustainable over time…the most common type of solution is a tacit agreement through the public process…Government intervention might not always be needed. Traditional ways of life may have evolved as ways to deal with external costs and benefits. Alternatively, democratically run communities can agree to deal with these costs and benefits in an amicable way. Externalities can sometimes be resolved by agreement between the parties involved. This resolution may even come about because of the threat of government action.”
Partial or General Equilibrium: “A partial equilibrium is one which is based on only a restricted range of data, a standard example is price of a single product, the prices of all other products being held fixed during the analysis. The supply and demand model is a partial equilibrium model where the clearance on the market of some specific goods is obtained independently from prices and quantities in other markets. In other words, the prices of all substitutes and complements, as well as income levels of consumers, are taken as given. This makes analysis much simpler than in a general equilibrium model which includes an entire economy. Here the dynamic process is that prices adjust until supply equals demand. It is a powerfully simple technique that allows one to study equilibrium, efficiency and comparative statics. The stringency of the simplifying assumptions inherent in this approach makes the model considerably more tractable, but may produce results which, while seemingly precise, do not effectively model real-world economic phenomena. Partial equilibrium analysis examines the effects of policy action in creating equilibrium only in that particular sector or market which is directly affected, ignoring its effect in any other market or industry assuming that they being small will have little impact if any. Hence this analysis is considered to be useful in constricted markets. Léon Walras first formalized the idea of a one-period economic equilibrium of the general economic system, but it was French economist Antoine Augustin Cournot and English political economist Alfred Marshall who developed tractable models to analyze an economic system.”

General equilibrium theory, or Walrasian general equilibrium, attempts to explain the functioning of economic markets as a whole, rather than as individual phenomena. The theory was developed by the French economist Leon Walras. It stands in contrast with partial equilibrium theory, or Marshallian partial equilibrium, which only analyzes specific markets. Walras developed general equilibrium theory to solve a much-debated problem in economics. Up to that point, most economic analyses only demonstrated partial equilibrium - the price at which supply equals demand and markets clear - in individual markets. It was not yet shown that equilibrium could exist for all markets at the same time. General equilibrium theory tried to show how and why all free markets tended toward equilibrium in the long run.”

Walras believed that any individual market was necessarily in equilibrium if all other markets were also in equilibrium.

Table IV-5.1. Partial Equilibrium versus General Equilibrium

<table>
<thead>
<tr>
<th>Partial Equilibrium</th>
<th>General Equilibrium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed by Alfred Marshall</td>
<td>First Developed by Leon Walras</td>
</tr>
<tr>
<td>Related to Single Variable</td>
<td>More than one variable or economy as a whole is taken into consideration</td>
</tr>
<tr>
<td>Based on two assumptions: 1. Ceteris Paribus 2. Other sectors are not affected due to change in one sector</td>
<td>It is based on the assumption that various sectors are mutually interdependent. There is an effect on other sectors due to change in one.</td>
</tr>
<tr>
<td>Other things remain constant, while price of a good is determined</td>
<td>Prices of goods are determined simultaneously and mutually. Hence, products and factor markets are simultaneously in equilibrium</td>
</tr>
</tbody>
</table>
Chapter IV. Economic Thought and Other Intellectual Developments

The Walrasian System: “Walrus’s comprehensive analysis of general equilibrium is built up step-by-step in a process of ever-decreasing abstractions, starting from the case of two-person, two-commodity barter, then moving to multi-person, multi-commodity exchange of given stocks of consumer goods, and only then taking account of the production of new consumer goods and the markets for factor services that are devoted to the manufacture of these goods, and finally considering saving, investing and the use of money and credit to facilitate trade. In his analysis of two-commodity isolated exchange, he employed the same consumer equilibrium formula found in Gossen and Jevons – in equilibrium the ratio of the marginal utilities of each of the two commodities must be equal to the ratio of their prices for each of the two traders – but, unlike Gossen and Jevons, he then employ the formula rigorously (but incorrectly) to deduce universally declining demand functions for commodities. His procedure in all cases of multi-commodity exchange was to write down the abstract demand and supply equations on the assumption of perfect competition, perfect price flexibility and perfect factor mobility and then to prove the existence of a general equilibrium solution for this set of simultaneous equations by counting the number of equations and unknowns; if they were equal, he concluded that a general equilibrium solution was at least possible. This strictly static picture of the determination of equilibrium was then followed up by a quasi-realistic explanation of how the competitive mechanism might actually establish such an equilibrium. He called the automatic adjustments of price…”

“The unknown variables in the Walrasian system are the prices and quantities of the consumer goods and factor services, as well as the quantities of factor services utilized in the production of each product, the technical coefficients of fabrication as Walras called them. If there are \( m \) quantities of consumer goods, \( n \) quantities of productive services, \( m \) prices of consumer goods, \( n \) prices of factor services and \( mn \) technical coefficients, the total number of unknowns to be determined adds up to \( 2m + 2n + mn \). If one of the consumer goods is arbitrarily selected to serve as numeraire, that is, the yardstick in which all other prices are expressed, its price is equal to unity by definition and so the total number of unknown add up to \( 2m + 2n + mn – 1 \) independent equations because one of the equations in any simultaneous-equation system is dependent on all the others; in the language of economics, the equality of demand and supply in \( n-1 \) markets necessarily implies the equality of demand and supply in the \( n \)th market” - Walras’ Law.

“Everyone before him had dealt with utility and demand functions for single commodities but Walras presented a systemic model for the maximization of utility by individuals, given all the goods s/he consumes and a budget constraint of a give level of income. The demand functions of individuals were deduced from their utility functions and they were then aggregated across individuals for all \( m \) goods. In Walrus’s \( m \) cost-supply equations, the prices of consumer goods are equated to the quantities of the factor services employed in producing them each multiplied by their respective hire prices. This is, prices under perfect competitive equilibrium are equated to average costs and the firm neither suffers losses nor incurs profits. Likewise, there are \( n \) supply equations for factor services as a function of the prices of all products, given the fact that the owners of factor services have an own-demand for these services. Because the markets for factor services are cleared under the pressure of competition, the quantities of factor services demanded are equated in equilibrium to the quantities supplied. The \( mn \) technical coefficient equations indicate the quantities of each of the \( m \) factor services that will be combined in the production of \( n \) consumer goods. In the first two editions of the Elements, Walras took these technical coefficients to be fixed by technology but in the third edition published in 1896 he adopted a marginal productivity theory, deriving the entrepreneurs’ demand functions for factor services from the same equi-marginal rule for equilibrium that he had earlier applied to households; equilibrium implies that the marginal productivities of different factor services.”
Chapter IV. Economic Thought and Other Intellectual Developments

Characterization of General Equilibrium: “Basic questions in general equilibrium analysis are concerned with the conditions under which an equilibrium will be efficient, which efficient equilibria can be achieved, when an equilibrium is guaranteed to exist and when the equilibrium will be unique and stable.” (a) First Fundamental Theorem of Welfare Economics: “The First Fundamental Welfare Theorem asserts that market equilibria are Pareto efficient. In a pure exchange economy, a sufficient condition for the first welfare theorem to hold is that preferences be locally non-satiated. The first welfare theorem also holds for economies with production regardless of the properties of the production function. Implicitly, the theorem assumes complete markets and perfect information. In an economy with externalities, for example, it is possible for equilibria to arise that are not efficient. The first welfare theorem is informative in the sense that it points to the sources of inefficiency in markets. Under the assumptions above, any market equilibrium is tautologically efficient. Therefore, when equilibria arise that are not efficient, the market system itself is not to blame, but rather some sort of market failure.” (b) Second Fundamental Theorem of Welfare Economics: “Even if every equilibrium is efficient, it may not be that every efficient allocation of resources can be part of an equilibrium. However, the second theorem states that every Pareto efficient allocation can be supported as an equilibrium by some set of prices. In other words, all that is required to reach a particular Pareto efficient outcome is a redistribution of initial endowments of the agents after which the market can be left alone to do its work. This suggests that the issues of efficiency and equity can be separated and need not involve a trade-off. The conditions for the second theorem are stronger than those for the first, as consumers' preferences and production sets now need to be convex (convexity roughly corresponds to the idea of diminishing marginal rates of substitution i.e. the average of two equally good bundles is better than either of the two bundles).” (c) Existence: “Even though every equilibrium is efficient, neither of the above two theorems say anything about the equilibrium existing in the first place. To guarantee that an equilibrium exists, it suffices that consumer preferences be strictly convex. With enough consumers, the convexity assumption can be relaxed both for existence and the second welfare theorem. Similarly, but less plausibly, convex feasible production sets suffice for existence; convexity excludes economies of scale. Proofs of the existence of equilibrium traditionally rely on fixed-point theorems such as Brouwer fixed-point theorem for functions.” (d) Determinacy: “Given that equilibria may not be unique, it is of some interest to ask whether any particular equilibrium is at least locally unique. If so, then comparative statics can be applied as long as the shocks to the system are not too large. As stated above, in a regular economy equilibria will be finite, hence locally unique. One reassuring result, due to Debreu, is that most economies are regular.” (e) Stability: “In a typical general equilibrium model the prices that prevail "when the dust settles" are simply those that coordinate the demands of various consumers for various goods. But this raises the question of how these prices and allocations have been arrived at, and whether any (temporary) shock to the economy will cause it to converge back to the same outcome that prevailed before the shock. This is the question of stability of the equilibrium, and it can be readily seen that it is related to the question of uniqueness. If there are multiple equilibria, then some of them will be unstable. Then, if an equilibrium is unstable and there is a shock, the economy will wind up at a different set of allocations and prices once the convergence process terminates. However stability depends not only on the number of equilibria but also on the type of the process that guides price changes. Consequently, some researchers have focused on plausible adjustment processes that guarantee system stability, i.e., that guarantee convergence of prices and allocations to some equilibrium. When more than one stable equilibrium exists, where one ends up will depend on where one begins.” The Keynesian School rejects general equilibrium theory.
### Part I. Object and Division of Political and Social Economy
1. Definitions of political economy; 2. Science, art and ethics distinguished; 3. Social wealth, three consequences of scarcity, value in exchange and the pure theory of economics; 4. Industry and applied economics, property and social economics;

### Part II. Theory of Exchange of Two Commodities for Each Other
5. The market and competition, problem of exchange of two commodities for each other; 6. Curves of effective offer and effective demand, the establishment of equality between offer-demand; 7. Discussion of the solution of the problem of exchange of two commodities for each other; 8. Utility curves or want curves, the theorem of maximum utility of commodities; 9. Discussion of demand curves, general formula for the mathematical solution of the problem exchange; 10. The cause of value in exchange

### Part III. Theory of Exchange of Several Commodities for One Another

### Part IV. Theory of Production
17. Capital and income, the three services; 18. The elements and mechanism of production; 19. The entrepreneur, business accounting and inventory; 20. Production equations; 21. Solution of the equations of production, the law of the establishment of the prices; 22. The principle of free competition, the law of the variation of prices of product and services

### Part V. Theory of Capital Formation and Credit
23. Gross and net income, the rate of net income, the excess of income over consumption; 24. Equations of capital formation and credit; 25. Solution of the equations of capital formation and credit. The law of the rate of net income; 26. Theorem of maximum utility of new capital goods yielding consumers’ services; 27. Theorem of maximum utility of new capital goods yielding productive services; 28. The law of the variation of the rate of net income. Purchase and sales curve of new capital goods

### Part VI. Theory of Circulation and Money
29. The mechanism and equations of circulation and money; 30. Solution of the equations of circulation and money. The law of the variation of the price of money; 31. The establishment of the value of a bimetallic standard; 32. Relative stability of the value of the bimetallic standard; 33. Fiduciary money and payments by offsets; 34. Foreign exchange

### Part VII. Conditions and Consequences of Economic Progress. Critique of Systems of Pure Economics
35. The continuous market; 36. The marginal productivity theorem; 37. Critique of the Physiocratic doctrine; 38. Exposition and Reputation of the English theory of the price of products; 39. Exposition and refutation of the English theory of rent; 40. Exposition and reputation of the English theories of wages and interest

### Part VIII. Price Fixing, Monopoly, Taxation
41. Price fixing and monopoly; 42. Taxation

### Appendix I. Geometrical theory of the determination of prices
Appendix II. Observations on the Auspitz and Lieben principle of the theory of prices
Appendix III. Note on Mr. Wicksteed’s Refutation of the English theory of rent

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*Book V. The Consolidation of Nation States and Industrialization, 1815-1914*
Vilfredo Pareto (1848-1923) was "an Italian engineer, sociologist, economist, political scientist, and philosopher, now also known for the 80/20 rule, named after him as the Pareto principle. He made several important contributions to economics, particularly in the study of income distribution and in the analysis of individuals’ choices. He was also responsible for popularizing the use of the term elite in social analysis. He introduced the concept of Pareto efficiency and helped develop the field of microeconomics. He was also the first to discover that income follows a Pareto distribution, which is a power law probability distribution. The Pareto principle was named after him, and it was built on observations of his such as that 80% of the land in Italy was owned by about 20% of the population. He also contributed to the fields of sociology and mathematics, according to the mathematician Benoit Mandelbrot and Richard L. Hudson: His legacy as an economist was profound. Partly because of him, the field evolved from a branch of moral philosophy as practiced by Adam Smith into a data intensive field of scientific research and mathematical equations. His books look more like modern economics than most other texts of that day: tables of statistics from across the world and ages, rows of integral signs and equations, intricate charts and graphs. Pareto was born of an exiled noble Genoese family in 1848 in Paris, the center of the popular revolutions of that year. His father, Raffaele Pareto, was an Italian civil engineer and Ligurian marquis who had left Italy much like Giuseppe Mazzini and other Italian nationalists. His mother, Marie Metenier, was a French woman. Enthusiastic about the 1848 German revolution, his parents named him Fritz Wilfried, which became Vilfredo Federico upon his family's move back to Italy in 1858. In his childhood, Pareto lived in a middle-class environment, receiving a high standard of education, attending the new created Istituto Tecnico Leardi where Fernando Pio Rosellini was his mathematics professor. In 1869, he earned a doctor's degree in engineering from what is now the Polytechnic University of Turin. His dissertation was entitled The Fundamental Principles of Equilibrium in Solid Bodies. His later interest in equilibrium analysis in economics and sociology can be traced back to this paper.254

"For some years after graduation, he worked as a civil engineer, first for the state-owned Italian Railway Company and later in private industry. He was manager of the Iron Works of San Giovanni Valdarno and later general manager of Italian Iron Works. He did not begin serious work in economics until his mid-forties. He started his career a fiery liberal, besting the most ardent British liberals with his attacks on any form of government intervention in the free market. In 1886 he became a lecturer on economics and management at the University of Florence. His stay in Florence was marked by political activity, much of it fueled by his own frustrations with government regulators. In 1889, after the death of his parents, Pareto changed his lifestyle, quitting his job and marrying a Russian, Alessandrina Bakunina. She left him in 1902 for a young servant. In 1893, he succeeded Léon Walras to the chair of Political Economy at the University of Lausanne in Switzerland where he remained for the rest of his life. In 1906, he made the famous observation that twenty percent of the population owned eighty percent of the property in Italy, later generalized by Joseph M. Juran into the Pareto principle. In one of his books published in 1909 he showed the Pareto distribution of how wealth is distributed, he believed through any human society, in any age, or country. He maintained cordial personal relationships with individual socialists, but always thought their economic ideas were severely flawed. He later became suspicious of their humanitarian motives and denounced socialist leaders as an 'aristocracy of brigands' who threatened to despoil the country and criticized the government of Giovanni Giolitti for not taking a tougher stance against worker strikes. Growing unrest among labor in Italy led him to the anti-socialist and anti-democratic camp."255


**Pareto Theory of Maximum Economics:** “Pareto turned his interest to economic matters and he became an advocate of free trade, finding himself in difficulty with the Italian government. His writings reflected the ideas of Léon Walras that economics is essentially a mathematical science. Pareto was a leader of the Lausanne School and represents the second generation of the Neoclassical Revolution. His tastes-and-obstacles approach to general equilibrium theory were resurrected during the great Paretian Revival of the 1930s and have influenced theoretical economics since. In his *Manual of Political Economy* (1906) the focus is on equilibrium in terms of solutions to individual problems of objectives and constraints. He used the indifference curve of Edgeworth (1881) extensively, for the theory of the consumer and, another great novelty, in his theory of the producer. He gave the first presentation of the trade-off box now known as the Edgeworth-Bowley box. Pareto was the first to realize that cardinal utility could be dispensed with and economic equilibrium thought of in terms of ordinal utility – that is, it was not necessary to know how much a person valued this or that, only that he preferred X of this to Y of that. Utility was a preference-ordering. With this, Pareto not only inaugurated modern microeconomics, but he also demolished the alliance of economics and utilitarian philosophy (which calls for the greatest good for the greatest number; Pareto said good cannot be measured). He replaced it with the notion of Pareto-optimality, the idea that a system is enjoying maximum economic satisfaction when no one can be made better off without making someone else worse off. Pareto optimality is widely used in welfare economics and game theory. A standard theorem is that a perfectly competitive market creates distributions of wealth that are Pareto optimal.”

“Some economic concepts in current use are based on his work: The Pareto index is a measure of the inequality of income distribution. He argued that in all countries and times, the distribution of income and wealth is highly skewed, with a few holding most of the wealth. He argued that all observed societies follow a regular logarithmic pattern: \[ \log N = \log A + m \log x \] where \( N \) is the number of people with wealth higher than \( x \), and \( A \) and \( m \) are constants. Over the years, Pareto's Law has proved remarkably close to observed data. (i) The Pareto chart is a special type of histogram, used to view causes of a problem in order of severity from largest to smallest. It is a statistical tool that graphically demonstrates the Pareto principle or the 80–20 rule. (ii) Pareto's law concerns the distribution of income. (iii) The Pareto distribution is a probability distribution used, among other things, as a mathematical realization of Pareto's law. (iv) Ophelimity is a measure of purely economic satisfaction. (So he could use the already well-established term utility as a measure of a more broadly based satisfaction).”

The Pareto principle is only tangentially related to Pareto efficiency. Pareto developed both concepts in the context of the distribution of income and wealth among the population. In Equality measures, the Gini coefficient is most widely applied. The graph shows that the Gini coefficient is equal to the area marked A divided by the sum of the areas marked A and B, that is,

\[
\text{Gini} = \frac{A}{A + B}.
\]

It is also equal to 2A and to 1 – 2B due to the fact that \( A + B = 0.5 \) (since the axes scale from 0 to 1).

The most equal society will be one in which every person receives the same income (\( G = 0 \)); the most unequal society will be one in which a single person receives 100% of the total income and the remaining people receive none.

The Optimum Exchange Conditions and Pareto Optimum: \textit{“}Pareto optimality is a state of allocation of resources from which it is impossible to reallocate so as to make any one individual or preference criterion better off without making at least one individual or preference criterion worse off. The concept is named after Vilfredo Pareto, who used the concept in his studies of economic efficiency and income distribution. The concept has applications in academic fields such as economics, engineering, and the life sciences. A Pareto improvement is a change to a different allocation that makes at least one individual or preference criterion better off without making any other individual or preference criterion worse off, given a certain initial allocation of goods among a set of individuals. An allocation is defined as \textit{Pareto efficient} or \textit{Pareto optimal} when no further Pareto improvements can be made. Pareto efficiency is a minimal notion of efficiency and does not necessarily result in a socially desirable distribution of resources: it makes no statement about equality, or the overall well-being of a society. The notion of Pareto efficiency can also be applied to the selection of alternatives in engineering and similar fields. Each option is first assessed under multiple criteria and then a subset of options are identified with the property that no other option can categorically outperform any of its members.\textsuperscript{258}

\textit{“}Under certain idealized conditions, it can be shown that a system of free markets, also called a competitive equilibrium, will lead to a Pareto efficient outcome. This is called the first welfare theorem. It was first demonstrated mathematically by economists Kenneth Arrow and Gérard Debreu. However, the result only holds under the restrictive assumptions necessary for the proof (markets exist for all possible goods so there are no externalities, all markets are in full equilibrium, markets are perfectly competitive, transaction costs are negligible, and market participants have perfect information). In the absence of perfect information or complete markets, outcomes will generally be Pareto inefficient, per the Greenwald-Stiglitz theorem. In addition to the first welfare theorem linking the concepts of Pareto optimal allocations and free markets, the second welfare theorem is essentially the reverse of the first welfare theorem. It states that under similar ideal assumptions, any Pareto optimum can be obtained by some competitive equilibrium, or free market system, although it may also require a lump-sum transfer of wealth.\textsuperscript{259}

Figure IV-5-16. Edgeworth Box of Production: Pareto Optimality on the Contract Curve

Welfare Economics History: Classical Economics: Classical utilitarianism started with the slogan that the greatest happiness for the greatest number. Welfare economics is supposed to increase national welfare. Traditional approximations for welfare are income for the welfare of the individual, and GDP (calculated by the income approach) for the welfare of society. It has been observed that within a given country, people with higher incomes are more likely to report being happy. However, in international comparisons, the average reported level of happiness does not vary much with national income (GNI) per person, at least for countries with income sufficient to meet basic needs. In this regard, the history of welfare economics seems to confirm the following suspicion: “The mathematical maximization of welfare is extremely useful as a form of employment for economists. Whereas many branches and techniques of economics are indispensable, the mathematical maximization of welfare cannot live up to its promise. Newer strategies have given up the idea to derive happiness exclusively from economic welfare. The Capability Approach emphasizes that – once a decent level of economic welfare is reached – human rights become a major determinant of happiness. Happiness Economics builds on empirical data about individual happiness instead of mathematical functions and bureaucratic indicators like the GDP and GNI. With regard to economic welfare the hope rests on simulation models, which forecast the outcome of competing economic policies. Unfortunately, however, these models did not foresee the worst economic crises since the Great Depression.”

“The origins of utilitarianism are often traced as far back as the Greek philosopher Epicurus, but, as a specific school of thought, it is generally credited to Jeremy Bentham (1748-1832). Utilitarianism retains the Epicurean view that humans naturally seek pleasure and avoid pain, but while Epicureans laud pleasure seeking and pain avoidance for their effects on the psychological state of the actor, utilitarians use it to express the consequentialist view that a good action maximizes pleasure and minimizes pain in the society…Utilitarianism was originally developed as a challenge to the status quo. The demand that everyone count for one, and one only, was anathema to the elitist society of Victorian Britain.”

“The development into maturity of classical liberalism took place before and after the French Revolution in Britain, and was based on the following core concepts: classical economics, free trade, laissez-faire government with minimal intervention and taxation and a balanced budget. Classical liberals were committed to individualism, liberty and equal rights. The primary intellectual influences on 19th century liberal trends were those of Adam Smith and the classical economists, Jeremy Bentham and John Stuart Mill…There is…a profound difference between liberalism and utilitarianism: Utilitarianism attempts to increase the total utility of the community. The individual is subordinated to this goal. Liberalism claims that individual actions are only restricted by the condition not to harm others. How could Mill claim that liberalism is compatible with utilitarianism? For an answer to this question see Negative Utilitarianism and Justice.”

On the other hand, Karl Marx criticized capitalism. “Communism emerged in response to the miserable living and working conditions of the working class in the new industrial era. The economic and political theory published in The Communist Manifesto (1848) and Das Kapital (1867) combined with the dialectic theory of history inspired by Friedrich Hegel (1770–1831) provide a revolutionary critique of nineteenth-century capitalism. Marx developed a theory of business cycles based on exploitation, alienation, capital accumulation and economic growth. With every boom and bust, with every capitalist crisis, thought Marx, tension and conflict between the increasingly polarized classes of capitalists and workers would heighten. Ultimately, led by the Communist party, Marx envisaged a revolution and the creation of a classless society. In 1917 Russia crumbled into revolution led by Vladimir Lenin. Lenin promoted Marxist theory and collectivized the means of production.” In the 1920s, market socialism began to appear.
Neoclassical economics is a set of solutions to economics focusing on the determination of goods, outputs, and income distributions in markets through supply and demand. Neoclassical economics is conventionally dated from William Stanley Jevons’s Theory of Political Economy (1871); Carl Menger’s Principles of Economics (1871); and Leon Walrus’s Elements of Pure Economics (1874 – 77). These three economists have been said to have promulgated the marginal utility revolution or Neoclassical Revolution: (i) Walras was more interested in the interaction of markets than in explaining the individual psyche through a hedonistic psychology. (ii) Jevons saw his economics as an application and development of Jeremy Bentham’s utilitarianism and never had a fully developed general equilibrium theory. (iii) Menger emphasized disequilibrium and the discrete. Menger had a philosophical objection to the use of mathematics in economics, while the other two modeled their theories after 19th century mechanics.”

We can compare Neoclassical with Classical economics in terms of rational behavior and marginal utility. Rational Behavior: “Classical economists accounted for economic phenomena like output, consumption, value of commodities, distribution of income. Neoclassical economists defined economics as a science which additionally could be capable of studying all human rational actions. All humans can be modeled as agents who search for getting the maximal satisfaction from their actions. The marginalist neoclassicals tried to develop general economic laws, imitating the rigorous methods used in physics. Marginal utility is a consequence of rational behavior. Instead of the price of a good or service reflecting the labor that has produced it, the price reflects the marginal usefulness (utility) of the last purchase. This meant that in equilibrium, people’s preferences determined prices, including, indirectly the price of labor. Consumers act rationally by seeking to maximize satisfaction of all their preferences. People allocate their spending so that the last unit of a commodity bought creates no more satisfaction than a last unit bought of something else.”

(a) Old Welfare Economics: “Jevons, Menger and Walras promulgated the concept of marginal utility, but did not invent it: Daniel Bernoulli (1700-82) published a formalization of marginal utility in 1738. Hermann Heinrich Gossen (1810-1858) was a Prussian economist who is often regarded as the first to elaborate a general theory of marginal utility. As long as utility functions are assumed to be linear it does not matter, if the welfare of the most or the least wealthy is increased. But if we assume a diminishing marginal utility of welfare, then it makes sense to increase the welfare of the least wealthy. Under the influence of Gossen’s laws, a part of the welfare economists turned towards egalitarianism without being particularly compassionate. The normative force of fraternity is not required to justify redistribution, as long as Gossen’s laws are seen as a kind of natural laws. Under the given premises, redistribution is simply a consequence of the common goal to maximize the welfare of the community. One of the major representatatives of the Gossen-type of economics was the English economist Arthur Cecil Pigou (1877-1959). According to his theory the welfare of a society can be measured by the Gross Domestic Product (GDP) and the distribution of GDP. Since the marginal value of income decreases, the total of utility can be increased by transferring income from the rich to the poor. Pigous ideas are still effective in the actual discussions on Egalitarian utilitarianism (Pigouvian redistribution), and Protection of the environment (Pigovian tax for pollution etc.). The weakness of his theory lies in the assumptions that the utility functions of all individuals are equal and that the society’s total income isn’t affected by the redistribution.”

(b) New Welfare Economics: “Old welfare economics used the following assumptions: Utility can be measured in terms of money and is a measure for social welfare; and Utility is interpersonally comparable and summable. These two assumptions were given up in new welfare economics. Pareto proved that utility is immeasurable from observations of behavior. Economists who accepted this proof (like Hicks) attempted to revise the theory of consumer behavior by...
excluding immeasurable concepts of utility. The analytical framework remained individualistic. All social phenomena (in particular market prices and the law of demand) had to be explained in terms of individual behavior.

Ordinal utility instead of cardinal utility is the major difference between old and new welfare economics…When cardinal utility is used, the magnitude of utility differences is treated as an ethically or behaviorally significant quantity. On the other hand, ordinal utility captures only ranking and not strength of preferences. It would e.g. be possible to say that juice is preferred to tea to water, but no more. Neoclassical economics has largely retreated from using cardinal utility functions as the basic objects of economic analysis, in favor of considering agent preferences over choice sets. The first usage of ordinal utility is attributed to Vilfredo Pareto: Giving up cardinality means giving up the cardinal hedonistic scale; Utility is now defined by a set of individual preferences and cannot be interpersonally compared; and without a common hedonistic scale utilities cannot be added. As a consequence there is no variable like welfare which could be maximized and distributed. Distributive justice was cancelled from the economist’s agenda.

Allocative efficiency: “From now on economics concentrated on the search for allocative efficiency under the conditions of a given initial allocation and limited resources. These are the characteristics of an optimization problem. Given a set of alternative allocations of goods or outcomes for a set of individuals, a change from one allocation to another that can make at least one individual better off without making any other individual worse off is called a Pareto improvement. An allocation is defined as Pareto efficient or Pareto optimal when no further Pareto improvements can be made. Two fundamental theorems of welfare economics are the following: (i) A perfectly competitive general equilibrium is Pareto optimal: the theorem captures the logic of Adam Smith’s invisible hand; and a corollary is that free trade is Pareto optimal among countries. (ii) Any Pareto optimal allocation can be attained by a competitive general equilibrium.”

“Pareto efficiency was criticized for two reasons: (1) It does not require a just or equitable distribution of wealth. A simple example is dividing a pie into pieces to distribute among three people. The most equitable distribution is each person getting one third. However, the solution of two people getting half a pie and the third person getting none is also Pareto optimal despite not being equitable, because the only way for the person with no piece to get a piece is for one or both of the other two to get less, which is not a Pareto improvement. (2) Varying initial allocations lead to varying optima, and there is no criterion to compare these optima. It is not even possible to compare the optimal solution for a specific initial allocation with the non-optimal solution of a different initial allocation. The only normative goal is to realize perfect competition in a perfect market in order to reach a Pareto optimum. Obviously the Pareto optimization cannot be applied to practical politics because political decisions normally produce winners and losers. As a consequence, economics developed new optimization criteria which could be applied to cases with winners and losers. Using Kaldor-Hicks efficiency, an outcome is more efficient if those that are made better off could in theory compensate those that are made worse off, so that a Pareto improving outcome results. For example, a voluntary exchange that creates pollution would be a Kaldor-Hicks improvement if the buyers and sellers are still willing to carry out the transaction even if they have to fully compensate the victims of the pollution. Using the new efficiency criteria it was possible to compare a new situation with the status quo, but it was not possible to compare several alternatives and find the best one. The need to compare and rank a larger number of alternatives led to the development of new social welfare functions. There was, however, a competing movement in economics, which radically questioned the value of economic planning.”

The economic calculation problem is a criticism of using economic planning as a substitute for market-based allocation of the factor production, proposed by Mises and Hayek.265

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New Social Welfare Functions: “Bentham and Pigou already defined social welfare functions, but these functions were cardinal and restricted to the consumption of goods. Pareto’s social welfare function, on the other hand, was ordinal, but focused on efficiency. Furthermore it turned out that it is not possible to evaluate a change which makes some persons better-off and some worse-off without making some implicit value judgment about the deservingness of an individual or a group. Recognizing the inevitability of value judgment, Bergson suggested that the only way to solve this problem is to formulate a set of explicit value judgments about the distribution of income. In a 1938 article Abram Bergson introduced a new type of social welfare function. The object was to state in precise form the value judgments required for the derivation of the conditions of maximum economic welfare set out by earlier writers, including Pigou, Pareto and others. It is important to note, however, that Bergson defined value judgments in the form of parameters or variables and not in the form of fixed values. According to Bergson a social welfare function should include all arguments which influence the members of the society in a positive or negative way. Pareto efficiency could characterize one dimension of a particular social welfare function, distribution of commodities among individuals another dimension. Samuelson stressed the flexibility of the social welfare function to characterize any one ethical belief, Pareto-bound or not, consistent with a complete and transitive ranking (an ethically better, worse, or indifferent ranking) of all social alternatives. Neither Bergson nor Samuelson precisely defined their social welfare functions. It remained unclear how the arguments of these functions should be measured, respectively (if there is no cardinal measure); and how ordinal utilities should be aggregated.

(c) Social Choice Theory: “Neoclassical economics is closely tied to decision theory and social choice theory: Neoclassical microeconomics is nothing but the theory of individual economic decisions, under the side constraint of limited resources; and Kenneth Arrow realized that the aggregation of individual preferences has to be treated as a collective decision process (social choice). Social choice theory depends upon the ability to aggregate, or sum up, individual preferences into a combined social welfare function. Individual preference can be modeled in terms of an economic utility function. The ability to sum utility functions of different individuals depends on the utility functions being comparable to each other; informally, individuals’ preferences must be measured with the same yardstick. Then the ability to create a social welfare function depends crucially on the ability to compare utility functions. This is called interpersonal utility comparison. In his dissertation Social Choice and Individual Values Arrow proved that there is no democratic decision process which aggregates individual preferences into an unambiguous result. Because of welfare economics’ close ties to social choice theory, Arrow’s impossibility theorem is sometimes listed as a third fundamental theorem of welfare economics. The difficulties in the aggregation are caused by the assumption that individual preferences are not comparable and therefore not cardinally measurable.” Following the major attempts to find a way out of this trap: (i) Harsanyi’s utilitarianism: “Individual preferences are made comparable by normative act. They are subjected to the judgment of an impartial observer, who makes a distinction between comparable preferences and individual extravagances.” (ii) Broome’s utilitarianism: “Individual preferences are given up as a criterion for the valuation of social welfare. Interpersonal comparisons are achieved by means of a different, non-preferencist theory of the good.” (iii) The capability approach: Individual preferences are replaced by capabilities. Capabilities are defined in constitutions and laws. Social situations are valued according to potentials (resources) which are offered to individuals. The usage of these potentials is then a concern of the individuals and not of society. Similar to Harsanyi’s attempt to find morally relevant preferences, an attempt was made to find morally relevant potentials by subjecting them to the judgment of an impartial and empathic observer” - John Rawls and Amartya Sen.
(d) **Micro- and Macroeconomics:** “With the neoclassical researchers economics started to split up into microeconomics and macroeconomics. Whereas Jevons concentrated on microeconomics, Walras and Menger worked on equilibrium theory which became the cornerstone of macroeconomics. (i) **Microeconomics:** Neoclassical economists were above all involved in the development of microeconomics, a science they have founded, even if the idea that all human pursued their self-interest was already mentioned in Smith, Ricardo and Mill’s works. Microeconomics is a branch of economics that studies the behavior of individuals and firms in making decisions regarding the allocation of limited resources. One goal of microeconomics is to analyze the market mechanisms that establish relative prices among goods and services and allocate limited resources among alternative uses. Microeconomics also analyzes market failure, where markets fail to produce efficient results, and describes the theoretical conditions needed for perfect competition. (ii) **Macroeconomics:** Macroeconomics deals with the performance, structure, behavior, and decision-making of an economy as a whole. Léon Walras first formalized the idea of a one-period economic equilibrium, but it was French economist Antoine Augustin Cournot and English political economist Alfred Marshall who developed tractable models to analyze an economic system. Early macroeconomic researchers explained broad aggregates and their interactions top down, that is, using a simplified form of general-equilibrium theory. Macro-economists study aggregated indicators such as GDP, unemployment rates, and price indices. They develop models that explain the relationship between such factors as national income, output, consumption, unemployment, inflation, savings, investment, international trade and international finance. (iii) **Relation to welfare economics:** Welfare economics used microeconomic knowledge to develop social welfare functions…Whereas social choice theory developed various ideas how to circumvent the problem, the predecessors of mainstream economics pursued a radically different approach. Consumer theory, which is a branch of microeconomics, solves the measuring problem by means of the market. New Welfare economists struggled in vain for several decades to show how ordinal ranks relate to cardinal numbers and were useful for welfare analysis. Had they not been wedded to their mathematical formulations, perhaps they could have accepted the solution given by Mises. From his development of the concept of ordinal marginal utility in 1912 Mises went on to explain how ordinal utility can be the basis for socially-meaningful cardinal comparisons of value. Money is a common denominator in which ordinal preferences can be expressed. Exchanges of private property for and against money result in cardinal numbers, namely money prices, for all goods and factors traded on the market. Macroeconomics circumvents the aggregation problem by working with macro parameters. (iv) **The Great Depression** (1930s): Until the Great Depression economists implicitly assumed that either markets were in equilibrium—such that prices would adjust to equalize supply and demand—or that in the event of a transient shock, such as a financial crisis or a famine, markets would quickly return to equilibrium. In other words, economists believed that the study of individual markets would adequately explain the behavior of what we now call aggregate variables, such as unemployment and output. The severe and prolonged global collapse in economic activity that occurred during the Great Depression changed that. It was not that economists were unaware that aggregate variables could be unstable. They studied business cycles - as economies regularly changed from a condition of rising output and employment to reduced or falling growth and rising unemployment, frequently punctuated by severe changes or economic crises. Economists also studied money and its role in the economy. But the economics of the time could not explain the Great Depression. (v) **John M. Keynes** introduced the simultaneous consideration of equilibrium in three interrelated sets - markets for goods, labor, and finance. Mainstream economics is largely dominated by Keynesian macroeconomics and Neoclassical microeconomics.\(^{268}\)
6. Institutional and Historical Critics of Neoclassical Economics

Neoclassical economics swept through England and France, but not Germany. “In the United States, too, it was met with resistance. Around the turn of the century, it was still commonplace, therefore, for American graduate students in economics to study for their Ph.D.s in Germany. Many of these scholars returned home with a full knowledge and sympathetic view of the position of the German historical school. Added to this, imported criticism of neoclassical theory were some distinctly American elements that had roots in the populist and progressive movements of the Middle West.” This section first summarizes the controversy over method that took place largely between German-speaking economists. It then considers the contributions of certain non-Marxist American heterodox economists of the last century, focusing on a group of U.S. writers who often are referred to as institutionalists. Even with this limited focus, it was not easy to decide which writers to include. We emphasize Gustav Schmoller in the historical school because of his importance in the debate. Veblen was chosen from among the Americans writing early in the twentieth century because of his acknowledged influence on subsequent heterodox thought, Mitchell because of his pioneering work in collecting and analyzing data relevant to economic fluctuations, and Commons because of his impact on present social theory and legislation. Finally, we chose Hobson, an Englishman, as a representative of non-American heterodox economists because of his influence on contemporary English attitudes toward social policy. Ear dissent from orthodoxy had two major aspects: from the scope of method and of theoretical core, and from the overriding view of orthodox theory, resulting in a harmonious resolution.

Table IV-6-1. Important Writers

<table>
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<tr>
<th>Writers</th>
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<tr>
<td>Friedrich List</td>
<td><em>The National System of Political Economy</em>, 1841</td>
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<tr>
<td>Wilhelm Roscher</td>
<td>Outline of Lectures on Political Economy based on Historical Method, 1843</td>
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<tr>
<td>Karl Knies</td>
<td><em>Political Economy from the Standpoint of Historical Method</em>, 1853</td>
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<tr>
<td>T. E. Cliffe Leslie</td>
<td><em>Essay in Political Economy</em>, 1879</td>
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<tr>
<td>Arnold Toynbee</td>
<td><em>Lectures on the Industrial Revolution of the 18th Century in England</em>, 1884</td>
</tr>
<tr>
<td>John A. Hobson</td>
<td><em>The Psychology of Industry</em>, 1889</td>
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<tr>
<td>Gustav von Schmoller</td>
<td><em>The Mercantile System and its Historical Significance</em>, 1897</td>
</tr>
<tr>
<td>Werner Sombart</td>
<td><em>The Moderne Kapitalismus</em>, 1902, 1927</td>
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<tr>
<td>Thorstein Veblen</td>
<td><em>The Theory of Business Enterprise</em>, 1904</td>
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<tr>
<td>Wesley Clair Mitchell</td>
<td><em>Business Cycle</em>, 1913</td>
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<tr>
<td>John R. Commons</td>
<td><em>Institutional Economics</em>, 1934</td>
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Photo IV-6-1. Torstein Veblen (1857-1929) (Upper Left)
https://upload.wikimedia.org/wikipedia/commons/thumb/e/e9/Veblen3a.jpg/220px-Veblen3a.jpg

Photo IV-6-2. Wesley Clair Mitchell (1874-1948) (Upper Right)
https://upload.wikimedia.org/wikipedia/commons/c/c1/Wesley_Clair_Mitchell.jpg

Photo IV-6-3. John R. Commons (1862-1945) (Lower Left)
https://www.dol.gov/sites/default/files/media/dol/aboutdol/ballofhonor/images/Commons_hi.jpg

Photo IV-6-4. John A. Hobson (1858-1940) (Lower Right)
https://imperialglobalexeter.files.wordpress.com/2015/01/john_atkinson_hobson.jpg; Accessed all 9 March 2017
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Methodological Controversy: The orthodox classical theory was being criticized by certain nonsocialist German writers, but they had enough in common to be referred to collectively as the German historical school. “The influence of this school began in Germany during the 1840s and extended into the twentieth century. Many historians divide it into an older and a younger historical school, noting differences of opinion…between the earlier and the latter writers. Criticism of orthodox classical theory and advocacy of the so-called historical method also appeared in England in the 1870s independently of the German historical school. These English advocates of the historical method, however, formed no cohesive group, so it would be improper to speak of an English historical school. These German and English writers deserve our attention because of the influence they had on certain neoclassical economists, particularly Alfred Marshall. The Germans also influenced economic theory and policy in the United States because of the number of American economists who received graduate education in Germany.”

The Historical School “rejected the universal validity of economic theorems. They saw economics as resulting from careful empirical and historical analysis instead of from logic and mathematics. The School also preferred historical, political, and social as well as economic reality, to self-referential mathematical modeling. Most members of the school…concerned with social reform and improved conditions for the common man during…industrialization. The German Historical School has not been well understood as an approach to the study of economics in English speaking countries. However, its impact has been, and continues to be, rather significant in the realm of economic thought and beyond. The influential sociologist Max Weber was also an economist of this school. Economists influenced by this school, such as Joseph Schumpeter, taught in the United States and their ideas influenced American institutional economics.”

“Unlike Auguste Comte’s theory of sociological method, for example, the views of the German Historical School of economics do not appear to have arisen out of general philosophical ideas; rather, they seem to have been suggested by an extension to the economic field of the conceptions developed by the historical school of jurisprudence of which Savin was the most eminent representative. This approach viewed the juristic system not as a fixed social phenomenon, but as variable from one stage in the progress of society to another; it is in vital relation with the other coexistent social factors; and what is, in the jural sphere, adapted to one period of development, is often unfit for another. The influence of historical thinking can also be attributed to the fact that history and economics were linked in many ways in German curricula, and often individuals taught both: The emergence of economics in Germany as a research program was shaped to a great extent by the pedagogical environment in which it grew. Another influence is what can be called historical specificity, the idea that different socio-economic phenomena require theories that are in some respects different from each other…with diverse, complex phenomena, there are limits to explanatory unification. This clearly retards any unified theories, supposed to explain everything. These ideas were seen to be applicable to the economic system too: the relative point of view was thus reached, and the absolute attitude was found to be untenable. Cosmopolitanism in theory, or the assumption of a system equally true of every country, and what has been called perpetualism, or the assumption of a system applicable to every social stage, were alike discredited. In such an environment the Historical School emerged. The Historical School can be divided into three time-defined eras…They are usually termed as the Older School, the Younger School, and the Youngest School, and these labels are used to trace the economic thoughts of each group: The Older School led by Wilhelm Roscher, Karl Knies, and Bruno Hildebrand; The Younger School, led by Gustav von Schmoller, and also including Erwin Nasse, Karl Bücher, Lujo Brentano, Adolf Wagner, and others; The Youngest School, led by Werner Sombart and including Arthur Spiethoff and Max Weber.”
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(a) **The Older Historical School**: Wilhelm Roscher (1817-94) laid down methodological principles. He rejected universal theoretical systems, "arguing that economic behavior was contingent upon the historical, social, and institutional context. Roscher's fundamental principles are stated in his *Grundriss zu Vorlesungen über die Staatswirthschaft nach geschichtlicher Methode* (1843). The following are the leading ideas he presented in the preface to that work: The historical method exhibits itself not merely in the external form of a treatment of phenomena according to their chronological succession, but in the following fundamental ideas: (i) The aim is to represent what nations have thought, willed, and discovered in the economic field, what they have striven after and attained, and why they have attained it. (ii) A people is not merely the mass of individuals now living; it will not suffice to observe contemporary facts. (iii) All the peoples of whom we can learn anything must be studied and compared from the economic point of view, especially the ancient peoples, whose development lies before us in its totality. (iv) We must not simply praise or blame economic institutions; few of them have been salutary or detrimental to all peoples and at all stages of culture; rather it is a principal task of science to show how and why, out of what was once reasonable and beneficent, the unwise and inexpedient has often gradually arisen. Based on these principles, the task of the economist was to study history in search of clues to the relationship between the social and economic organization of society. As a result, much of the work of the early Historical school, particularly that of Bruno Hildebrand and Karl Knies, is described in terms of stages of economic organization through history.²⁷²

Bruno Hildebrand (1812-78) may be doubted whether amongst German economists there has been any endowed with a more profound and searching intellect. "His main work, *Economics of the Present and the Future* (1848), contains a masterly criticism of the economic systems which preceded, or belonged to his time, including those of Adam Smith, Adam Muller, Friedrich List, and the socialists. His conception of the real nature of political economy is interesting. The object of his work, he said, was to open a way in the economic domain to a thorough historical direction and method, and to transform the science into a doctrine of the laws of the economic development of nations. It is interesting to observe that the method he wanted to use to reform political economy was not that of historical jurisprudence, but that of the science of language as reconstructed in the nineteenth century; typically, such a selection indicates the comparative method, which he considered to be more appropriate. In both sciences we have the presence of an ordered variation in time, and the consequent substitution of the relative for the absolute.²⁷³

Karl Knies (1821-98) wrote *Die Politische Oekonomie von Standpunkte der geschichtlichen Methode*, (*Political Economy from the Standpoint of the Historical Method*) appeared in 1853. "This is an elaborate exposition and defense of the historical method in its application to economic science, and it is the most systematic and complete manifesto of the school, at least on the logical side. The fundamental propositions are that, on the one hand, the economic constitution of society in any epoch, and, on the other hand, the contemporary theoretical conception of economic science are results of a definite historical development; and that they are both in vital connection with the whole social organism of the period, growing up along with it and under the same conditions of time, place, and nationality. Thus, the economic system must be regarded as passing through a series of phases, correlated with the successive stages of civilization, and can at no point of this movement be considered to have an entirely definitive form. Also, no previous economic organizations of society are to be regarded as absolutely good and right, but only as phases in a continuous historical evolution; and, consequently, the current economic doctrine is not to be viewed as complete and final, but only as a representative of a certain stage in the unfolding progress of our grasping of the truth. Again, Knies adopted the relativist point of view, regarding human society as being in a continuous process of change and development."²⁷⁴
(b) **The Younger Historical School**: “The major difference between the Older and the Younger schools can be described thus: the Older School was programmatic but failed to realize their vision; while the Younger School executed the programme but lost the vision. When the Younger Historical School generation emerged under the leadership of Gustav Schmoller (1838-1917), it claimed that economics was inherently a normative discipline. Its purpose should be the development of tools for use by policymakers and businessmen...the purpose of historical study was to find examples relevant to the immediate situation. The Historiologists, including in addition to Schmoller such as Lujo Brentano, Adolf Held, Erwin Nasse, Albert Schäffle, Hans von Scheel, Gustav Schönberg, and Adolf Wagner thus formed the Verein für Sozialpolitik in 1872 as a vehicle for economic policy activism. Besides the general principle of a historical treatment of the science, the leading ideas of the Younger School were the following.”

(i) The necessity of accentuating the moral element in economic study: “This consideration was stressed with special emphasis by Schmoller (1875) and by Schäffle (1861). According to the most advanced thinkers of this generation, there are three principles of organization in practical economy: (1) personal interest of individuals; (2) the general interest of society; and (3) benevolent impulses. Corresponding to these are three different systems or spheres of activity: (1) private economy; (2) the compulsory public economy; and (3) the charitable sphere. Even in the first principle, however, the action of private interests cannot be unlimited, nor to mention the intervention, excesses, and abuses of public power. Thus, the fundamental principle of checking and control in this area must be an “economic morality” which can never be left out of account in theory any more than in practical applications. In the third principle above, moral influences of course reign supreme.”

(ii) The close relation which necessarily exists between economics and jurisprudence. “The economic position of an individual, instead of depending merely on so-called natural rights or even on his natural powers, is conditioned by the contemporary juristic system, which is itself an historical product. This had been systematically established by Adolf Wagner, one of the most eminent German economists of the Younger school. He claimed that the doctrine of the jus nature, on which the Physiocrats based their economic structure, had lost its hold together with the absolute conceptions of personal freedom and property. The point on which this hinges is the old question of the relation between the individual and the community in which he lives. Thus, Wagner and others investigated, above all, the conditions of the economic life of the community, and how, based on this, it determined the sphere of the economic freedom of the individual.”

(c) A different conception of the functions of the state: “Adam Smith and the classical economists had, in general, followed the view of Rousseau and Kant that the sole task of the state is the protection of the members of the community from violence and fraud. However, in the view of the German Historical School, it could not stand against the growing practical demands of modern civilization. The German historical school recognized the State as not merely an institution for the maintenance of law and order, but as the sort of ombudsman of the nation, namely the members of the society, for all their needs and problems...Quite a significant influence that affected this Younger School group of economists came from the socialist practices of such writers as Saint-Simon, Charles Fourier, Proudhon, Ferdinand Lassalle, Karl Marx, and Frederick Engels. These were a powerful stimulation for the younger German economists who, as seen above, regarded the state as an ombudsman of the nation. Ethical issues including public health and the protection of weaker members of society were always on their minds. So, no wonder that, speaking on the occasion of his inauguration as rector of the University of Berlin in 1897, Schmoller remarked proudly: Today’s economics has reached a historical and ethical conception of nation and society contrary to rationalism and materialism.”
(c) The Youngest Historical School: “The members of the Youngest Historical School were of a different flavor. Initially, they seemed to operate in some other world than the Schmoller generation and sought to return to the early positivism of Roscher. However, as soon became obvious, the major reason was that they wanted to be simply different so that to ensure their academic careers, attract large audiences, and, hence, contracts with publishers. For this reason, the members of this Youngest school, Werner Sombart, Arthur Spiethoff, and Max Weber, simply had to be seen as closer to Marxian economics than they did to the Schmoller group - although Sombart would later implicate himself in quite a different group with his connections to German nationalism. The Kiel School, led by Adolph Lowe in the 1920s, may also be included in this Youngest school. They were an important center for both independent business cycle research as well as cross-disciplinary social science. In that sense, they adopted the positivist position of Roscher and Older Historical School. This group was, however, disbanded when Hitler came to power, most of its members leaving for the United States.”

Werner Sombart (1863-1941) drew the Historical school away from the conservative and normative weight of the Schmoller group. “Among others, his early Marxian writings - which include two laudatory studies of its founders - did much to disengage his group from the Schmoller heritage at the beginning. According to Sombart, Schmoller was a reactionary who attempted to protect the old middle class and to restrain capitalistic development. In his 1897 essay Ideale des Sozialpolitik, Sombart attacked the perspective of ethical economists who viewed the ideal of social policy not from economic life itself but heteronomously based on disciplines like ethics and religion…However, for Schmoller, ethical did not mean interference with economic development. In any case, in the second edition of Der moderne Kapitalismus, Sombart came to partly accept Schmoller’s view. In his later work in general Sombart began giving way to a more conservative and nationalist, and, finally, an overtly Nazi position.”

Arthur Spiethoff (1873-1957) was “a student of Schmoller and a staunch supporter of the School. His work on the business cycle was based on Mikhail Tugan-Baranovsky's overinvestment theory. From that evolved his important impact on economics, the suggestion that the impulse to overinvestment is created by innovations such as technological inventions or the discovery of new markets, based on his study of the German economy.”

Max Weber (1864-1920): “His most valued contribution to the field of economics, which lies within the tradition of the Youngest School, is his famous work, The Protestant Ethic and the Spirit of Capitalism. This seminal essay discussed the differences between religions and the relative wealth of their followers. Weber's work paralleled Werner Sombart's treatise of the same phenomenon, which, however, located the rise of capitalism in Judaism. Weber acknowledged that capitalist societies had existed prior to Calvinism. However, he argued that in those cases, religious views did not support the capitalist enterprise, but rather limited it. Only the Protestant ethic, based on Calvinism, actively supported the accumulation of capital as a sign of God's grace as well as regarding excessive spending as sinful, thus encouraging frugality and greater saving of wealth. Weber's other contributions to economics include his work on the dual roles of Idealism and Materialism in the history of capitalism, found in his Economy and Society (1914), and his General Economic History (1923), which reflects the Historical School at its empirical best. Weber felt that economics should be a broad science covering not only economic phenomena, but also non-economic phenomena (economically relevant phenomena) that might influence the economy and non-economic phenomena that, to some extent, had been influenced by economic phenomena (economically conditioned phenomena). The name that Weber gave to this broad type of economics was “social economics.” Weber’s thought in this area provided a platform for productive interdisciplinary dialogue between economists and sociologists.”
(d) **The English Historical School of Economics:** The School, although not nearly as famous as its German counterpart, was a significant movement in nineteenth century economics. “These scholars sought a return to inductive methods in economics. In this, they were staunch opponents of the abstract construction of the classical economists such as David Ricardo and John Stuart Mill. The school considered itself the intellectual heirs of past figures who had emphasized empiricism and induction, such as Francis Bacon and Adam Smith. Included in this school are William Whewell, Richard Jones, John Kells Ingram, Thomas Edward Cliffe Leslie, Walter Bagehot, Thorold Rogers, Arnold Toynbee, William Cunningham, and William Ashley. As the school revered the inductive process, the members invariably called for the merging of historical fact with those of their contemporary period. It can be noted that the members of this school were well versed in history, in some cases much more so than in economics having trained for the ministry; several were also trained in mathematics. Their lasting contributions, unsurprisingly, are not in terms of advances in economic theory. Rather, they made advances in quantitative methodology, including some pioneering methods of mathematical economics, and in guiding the study of economics toward finding solutions to important contemporary issues, those that orthodox theory could not handle, through emphasis on applied subjects and economic history.”

“The English Historical School considered itself the intellectual heirs of past figures who had emphasized empiricism and induction, such as Francis Bacon, Adam Smith, Auguste Comte, and Herbert Spencer. John Kells Ingram, one of its early adherents, in decrying the state of political economy in England suggested that a revolt had already occurred elsewhere. He noted that economists in Germany had rejected the methods and doctrines of the Ricardians, implying that the German Historical School could be introduced as an alternative. However, none of those who became part of the English Historical School referred directly to the work of any of the Germans. Strictly speaking, and despite the English label, two of the group’s most notable representatives, the above-mentioned Ingram and Thomas Edward Cliffe Leslie, were not English but Irish. This has led some economic historians to an argument that English historical economics was not only developed by Irish economists, but that it was a direct response to Irish economic conditions, for the gap between economic theory and reality was particular evident in Ireland. On the other hand, Ingram and Leslie and, for that matter, William Cunningham of Scotland, all considered themselves English not British members of the EHS group of socio-economic and historical thinkers. Leslie clearly identified himself, and other Irish and Scottish economists, as English.”

“The economists of the English historical school were in general agreement on several ideas. They pursued an inductive approach to economics rather than the deductive approach taken by classical and neo-classical theorists. They recognized the need for careful statistical research. They rejected the hypothesis of the profit maximizing individual or the calculus of pleasure and pain as the only basis for economic analysis and policy. They believed that it was more reasonable to base analysis on the collective whole of altruistic individuals. The prime reason why the deductive method, derived from Ricardo and being followed by Fawcett and Cairnes, was not applicable, stemmed from the need to derive a political economy from the circumstances of each country. The distinction between deductive and inductive methodology can be understood by reviewing their definitions: Deductive methodology: A model for a deductive theory is a set of objects that have the properties stated axioms. The deductive theory is then used to prove theorems that are true for all its models at one time. Inductive method: Mathematical induction is a method that proves a law or a theorem by showing that it holds in the first case and if it also holds for all the preceding cases, it also hold for this case.” John Stuart Mill, Auguste Comte, and Herbert Spencer appear among the influences on the English historical economists. The rise of the historical school of jurisprudence provided allies in the struggle against the dominance of the abstract theory.”
Thorstein Veblen (1857-1929) American sociologist and social critic, was born in Cato, Wisconsin, and brought up on subsistence farms in Wisconsin and Minnesota. “His parents had migrated to the United States in 1847 from rural Norway; Veblen was the sixth of 12 children. In that newly settled frontier region the Norwegian immigrants were divided from the Yankee upper class by religious, linguistic, and other cultural barriers...Veblen’s father, for example, did not learn English. Even in college, Veblen and his brother Andrew - the first members of the family to attain higher education - were handicapped by lingering difficulties with English, their second language. Their generation tended to be marginal-oriented partly to the Yankee and partly to the Norwegian way of life and skeptical of both. In later years Veblen looked upon this kind of skeptical marginality as a stimulus to intellectual creativity, especially among Jews. Veblen’s own alienation was reinforced by early encounters with the mutual hostility of townspeople and farmers. In 1880 Veblen graduated from Carleton College, Minnesota. After one term at Johns Hopkins, he took his Ph.D. in philosophy at Yale in 1884. Failing to find a job because of his agnosticism, he returned to the Minnesota countryside for seven years of reading and rustication. Finally, in 1891, wearing a coonskin cap, he enrolled as a graduate student in economics at Cornell, under J. Laurence Laughlin, who took Veblen with him when he moved to the University of Chicago the following year. Fourteen years on the Chicago faculty were followed by three at Stanford, from 1906 to 1909. He was unemployed in 1910/1911 and then went to the University of Missouri for seven years. In 1918, he left the academic profession - his tenure therein had always been somewhat precarious because of his unorthodox classroom performance and his domestic difficulties - for a brief period of wartime government service, occasional teaching at the New School for Social Research, in New York, and writing. He retired to a California cabin in 1926 and died there three years later in obscurity and poverty.”

“The American Midwest, during Veblen’s youth, was the scene of repeated agrarian revolts and urban labor struggles. Many people were receptive to the reformist ideas of Henry George and Edward Bellamy, and scathing attacks on the great corporations by social critics like Henry Lloyd and Upton Sinclair were widely applauded. It was an age of head-on confrontations. But enthusiasm for Populism, radical unionism, Debs’s brand of socialism, and for other left-leaning movements was, in Veblen’s adult years, gradually eclipsed by increasing support for business and imperialist values. The outcome, which marked a major turning point in American history, was largely settled by 1920, at the expense of the radical protest movements; and Veblen, who was keenly interested in and sympathetic toward these movements, perceived far more clearly than most of his contemporaries the decisiveness of the triumph of business civilization. The study of that great development and of some responses to it became Veblen’s life work. This is not to say that Veblen thought that the nature of change was reducible to the clash of business values with protest movements. Instead, he believed it hinged on the long-run, indirect, and often opaque interactions of both business values and various institutional norms with the machine process Veblen took no direct part in any social movement. Although basically critical of modern capitalist institutions and culture, he claimed to be a detached observer, above the battle. His ironic wit did not spare his friends; if he did not chastise them as much as he did his foes, he did so enough to support plausibly his claim to objectivity. His general orientation, of course, was unmistakably leftward, and his career is a minor chapter in the history of American radicalism. Main intellectual influences. Although Veblen’s major works in the social sciences were produced over four decades and cover a wide variety of concrete topics, their central ideas show a high degree of consistency. This unity derives from the fact that three important intellectual strands run through all of Veblen’s work: Darwinian evolutionism, Utopian anarchism, and Marxism, each of which Veblen developed in an original way.”
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**Darwinian Evolution:** “The element in Darwinism that especially influenced Veblen was its implication that individuals have little or no control over the forces of change. His focus on this aspect of historical development helped to correct the overemphasis of the classical economists and of Marx on the role of rational decisions in social life. However, unlike many social scientists of the time, including William Graham Sumner, his own teacher at Yale, Veblen implicitly denied the relevance for social science of such other key Darwinian concepts as natural selection, the struggle for existence, and the survival of the fittest. Social Darwinism, he believed, tended only to reinforce capitalist values.”

**Utopian Anarchism:** “Somewhat more important in Veblen’s work than evolutionism was the strand of Utopian anarchism. His vague picture of the prehistoric “savage state,” in effect a primeval golden age, was based on the conjectural evolutionary theories of the anthropologist L. H. Morgan and on Veblen’s own interpretation of anthropological and archeological reports. This idyllic era was characterized by the absence of class hierarchies, states, and organized warfare. By implication Veblen judged social institutions to be “evil” and human instincts to be “good.” (More will be said below about his conception of instincts.) Veblen’s own ideal, never openly professed, seems to have been the irreverent masterless man, living frugally but independently in small rural communities too poor to support any overlords.”

**Marxism:** “Certain of Veblen’s core ideas are strikingly similar to those of Marx, not in terminology but in content. The principal similarities are an emphasis on class and on economic and property institutions as keys to historical change, and the relegation of ideological elements to secondary importance; a belief in the proposition that crises of overproduction are inherent in capitalist economies; a conception of class structure as resting primarily on two mutually antagonistic groups of occupations; a view of the modern state as “an executive committee for businessmen” and a conviction that states are bound to become involved in militarism and war. Unlike the Marxists, Veblen made little use of such concepts as surplus value, capital accumulation as a stimulus to imperialism, and the inevitability of socialism. Finally, he usually relied on vaguely defined sociological and psychological mechanisms to explain major social changes, rather than on the kind of tightly reasoned economic analyses used by Marx.”

Let’s review his analytical categories, social and economic analysis, and his contributions to economics.

(a) **Analytical Categories:** “Veblen analyzed human behavior primarily in terms of instincts and habits, and social processes in terms of culture lag. He distinguished three instincts, all of which he considered benevolent and all of which, in fact, he used as norms: the parental bent, a benevolent feeling toward kin and fellowman; the instinct or sense of workmanship, a desire to maximize production of goods and services and to do a job well for its own sake; and idle curiosity, the most difficult of the three to define. Two interpretations of idle curiosity seem possible. The usual one is that it refers to the norm of disinterested pursuit of scientific knowledge, i.e., the pursuit of such knowledge for its own sake. But it may also be argued that Veblen was aware of the extent to which socioeconomic institutions mold knowledge and ideologies and that he anticipated - however awkwardly - our latter-day sociology of knowledge. The greater part of human behavior was attributed by Veblen to habit. The more persistent among the patterns of “use and wont” he designated loosely as social institutions. Veblen never classified institutions systematically. Rather, he characterized them broadly by such terms as patterns of pecuniary emulation or patterns of conspicuous consumption (which we would now call status competition) or, again, as patterns for the maintenance of national integrity (i.e., nationalism) or patterns for the maintenance of the price system (capitalism). Habits or institutions, unlike instincts, were according to Veblen far from benevolent. Indeed, he maintained that all social institutions have three properties in common: they are predatory; they are wasteful; and they are survivals from earlier historical epochs. Briefly, they are obstacles to Utopia.”
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“The concept of culture lag, which Veblen used to analyze social processes, has been widely used by American sociologists to account both for social change and social problems. Change stems mainly from science and technology, and problems are due to the failure of institutions and organizations to keep pace. For example, factories were introduced in Western nations several decades before the institutional arrangements - safety rules, child-labor laws, and retirement pensions - needed to round out the industrialization process were established. On a broader scale, Veblen often contrasted the still-surviving eighteenth-century institutional framework of private property and national sovereignty with the twentieth-century machine process of industrial production, which was severely restricted, he argued, by its archaic…institutional context. In his later, more outspoken writings Veblen frequently spoke of the triumph of imbecile institutions. The culture-lag approach has been one of the master concepts of modern social analysis. The realization that technologies may sometimes change faster than the organizational patterns and institutional norms which control their application is a germinal insight. However, Veblen did not adequately recognize that the concept of culture lag may give undue weight to factors of ignorance and drift, at the expense of vested-interest rationality, or that technology may not always change first. Thus, in his books on Germany (1915) and peace (1917) Veblen could readily show the waste created by the chauvinism and colonialism of the Great Powers, but he could not as clearly depict the organic relationship between capitalism, imperialism, and war; hence his interpretation of World War I as a clash between Germany’s obsolete yet still potent feudal dynasticism and England’s free institutions, instead of as an inevitable collision between two inherently expanding capitalistic imperialisms. Veblen did not originate the important yet one-sided culture-lag approach; the idea is central in Marx and in the emphasis on survivals evident in the Darwinian and other evolutionary traditions in social science.”

(b) Social and Economic Analysis: “Veblen’s primary interest was in the analysis of latter-day industrial society, but characteristically he took a long historical view. Thus, in his Instinct of Workmanship (1914) he attempted a social-evolutionary analysis of stages preceding the emergence of modern society. He divided social evolution into two great phases; the prehistoric savage state and the predatory society. Except for the unduly idyllic description of the former phase, Veblen’s outlines of social evolution roughly parallel those of such later authorities as V. Gordon Childe and Leslie White. He saw the snail-like advance of technology ultimately producing, in the hunting-and-gathering economy of the savage state, an economic surplus, which was decisively enlarged by the appearance of agriculture. Society then took on a modern cast, with the development of property, classes, the state, priesthoods, and war. Predatory society, or historic times, has had two main subdivisions, according to Veblen: barbarism, wherein coercion was exercised directly by military and priestly agencies; and pecuniary times, the post-medieval age, wherein exploitation was effected by roundabout, semi-peaceable methods. In turn, pecuniary society may be subdivided into the handicraft era (early modern Western times) and the machine age (the last two centuries). Veblen emphasized the wasteful nature of pecuniary institutions and their intrinsic bent toward crisis and change.”

“Veblen modified the Marxist analysis of machine-age society, stressing the key importance of the conflict between business (profit-seeking ownership) and industry (maximum production of goods and services). He described production as a seamless web of specialized technological processes. The conflict between business and industry arises because, although the "industrial arts" have been developed over centuries by the whole community and are its proper heritage, they have come to be controlled by a few owners, in whose interest it is to restrict output in order to maximize profit. Welfare, to Veblen, meant maximum output at lowest cost - such is the spirit of industry. The spirit of business, on the other hand, he defined as sabotage and salesmanship, charging what
the traffic will bear. It is business management, according to Veblen, that is responsible for depressions. These are inherent in the profit-oriented control of competitive industrial enterprises, because new and more efficient firms force the liquidation of older ones. Moreover, the efforts of profit-oriented business to counteract depressions can only have undesirable consequences. Veblen predicted such consequences as increased mergers, the expansion of salesmanship, and wasteful consumption by the government and by the kept classes."

"The dominance of business values, said Veblen, extends over many areas of American life, including higher education. His *Higher Learning in America* (1918) was a searing analysis of the effects of pecuniary canons upon university organization, administration, teaching, and research. In general, however, Veblen’s main focus throughout his life was on the development of American social and economic institutions in their international setting. Most of his major works have that sweeping outlook: two on the American economy (1904; 1923); the books on Germany (1915) and on peace (1917); and many of the essays in his collected papers, in *The Place of Science in Modern Civilization* and the posthumously published *Essays in Our Changing Order*. Also in these two volumes are his occasional forays into technical economic theory. But Veblen was much more interested in the social milieu and the consequences of economic factors in modern industrial society than in abstract economic analysis. Perhaps the best short introduction to his leading ideas on social change, business versus industry, nationalism, and other modern developments is the small book called *The Vested Interests and the Common Man* (1919)."

"By far the best known of Veblen’s work is his first book, *The Theory of the Leisure Class* (1899) - the only one that became popular during his lifetime. This treatise is essentially an analysis of the latent functions of “conspicuous consumption” and “conspicuous waste” as symbols of upper-class status and as competitive methods of enhancing individual prestige. Veblen’s term “conspicuous consumption” has become part of everyday language. Although most relevant to the gilded age in which he wrote the book, the work is also based on many examples from leisure-class behavior in barbarian and feudal times. Most of the key concepts of Veblen’s thought are either present or clearly foreshadowed in *The Theory of the Leisure Class* - for example, his distinction between industrial and pecuniary pursuits; his concept of evolutionary stages; his definition of certain cultural traits as survivals, with consequent implications for the importance of culture lag; his nostalgic bias for the simple, preindustrial life. Although some of his evolutionary history and anthropology was conjectural and although racial theorizing was a recurrent vein in his earlier works, Veblen’s chief method was strikingly modern. He practiced, without so naming it, the analysis of latent or unintended functions of social phenomena. Veblen was never a methodologist; he was always concerned with substantive theories about empirical groups, structures, and processes. That is why commentators see his works both as exposes and as objective expositions. Veblen believed that although business had acquired a dominant position in society since the eighteenth century, in the long run the incompatibility of business and industry would undermine that position. The real threat to profit-oriented business (based on eighteenth-century canons of mutual right) came not from the business cycle but from the impersonal, skeptical, matter-of-fact habits of thought engendered by the twentieth-century machine process. These would eventually erode the institutions necessary to business, such as nationalism, religious observance, and private ownership. The very tendency of the machine technology toward ever greater productivity seemed to Veblen increasingly likely to shatter the eighteenth-century institutional bonds that restricted output and bent it to wasteful nationalistic and class ends… Veblen founded no school. He influenced many scholars and public officials, but nearly always they differed from him more than they resembled him. Even so, those whose work in some respect touched his constituted a large portion of the intellectual leaders of two generations."
(c) **Veblen’s Contribution**: “Among academic economists may be mentioned such diverse personalities as H. J. Davenport, Joseph Dorfman, and Walter Stewart. W. C. Mitchell, a pioneer in the field of business-cycle history and theory, often acknowledged his indebtedness to Veblen, his onetime teacher at Chicago. (In 1920 Mitchell founded the National Bureau of Economic Research; Stewart later created the Federal Reserve index of industrial production.) In labor economics Robert Hoxie, a former student, and Carleton Parker were both strongly influenced by Veblen. Some writers have grouped Veblen, Mitchell, and J. R. Commons together as institutional economists, along with Clarence Ayres, Sumner Slichter, and a handful of others. A view of these men as members of a school, however, would be difficult to defend. When the New School for Social Research was founded in 1919, Veblen was one of the big four - along with Dewey, Robinson, and Mitchell - who lectured there intermittently for two or three years. Early workers in consumer economics (Hazel Kyrk, Theresa McMahon) owed something to Veblen. A stronger Veblen impress is discernible in the writings of Robert Brady, A. A. Berle, and R. A. Gordon on modern corporate development. At least one minor social movement was a direct heir of certain of Veblen’s ideas, although Veblen carefully avoided participation in that enterprise. This was technocracy, a movement founded about 1920 with the aim of maximizing engineering (i.e., productive) efficiency in modern society.”

“Veblen’s influence has been less pervasive among sociologists than among economists, although Ogburn developed the concept of culture lag in Social Change in 1922. During the 1930s Veblen’s germinal views on waste and lag reached a wide public through the popular books of Stuart Chase. About the same time, several leading legal and academic minds reflected Veblenian themes - especially Thurman Arnold, Felix Frankfurter, and J. Laurence Laughlin. The same can be said of a number of New Deal public administrators - Henry Wallace, R. G. Tugwell, Isador Lubin, and others. Several younger academics, like Max Lerner and David Riesman, have learned from Veblen. In the era after World War II it seems to have been C. Wright Mills who spoke the loudest in Veblen’s accents, although Mills was far more outspoken as a social critic than Veblen. While most of the aforementioned persons disagreed with Veblen more often than they agreed with him, all of them had a penchant for a long, broad view of their several fields and for a more or less skeptical attitude toward establishments. In these respects, rather than in specific thought systems, they were spiritual followers of Veblen. Someone once said that Veblen was the last man who knew everything. His interest ranged over several disciplines and long periods of time. Several writers have compared him to Keynes and Schumpeter. He was one of the few Americans who sensed that victory in World War I might prove to be an adverse turning point in American history. American intervention, wrote Veblen bitterly in 1922, had saved the war system. Indeed, his essays on international relations in the early 1920s are still meaningful for the years following World War II. He remains a source of astonishingly relevant insights, of ironic humor, of saving skepticism, and of a chilling presciment of the present as tragedy.”

“Veblen’s reputation reached another high point in the 1930s, when the economic depression appeared to many to vindicate his criticisms of the business system. Although the reading public saw him as a political radical or socialist, Veblen was a pessimist who never committed himself to any form of political action. Among economists he has had both admirers and critics, but more of the latter. The scholarly analysis of modern industrial society owes much more to Veblen’s German contemporary Max Weber, whose ideas are more complex than Veblen’s. Even his closest disciples found his anthropological and historical approach too sweeping to satisfy their scientific requirements, though they admired his vast learning and original insights. One of his most eminent admirers, Wesley C. Mitchell, called him a visitor from another world, saying, No other such emancipator of the mind from the subtle tyranny of circumstance has been known in social science…”
Chapter IV. Economic Thought and Other Intellectual Developments

Wesley Clair Mitchell (1874-1948): “Wesley Mitchell pioneered the empirical study of business cycles. A founder of the National Bureau of Economic Research, he was one of the major figures within the institutionalist movement in American economics. Mitchell was born in Rushville, Illinois, and brought up in Decatur, Illinois. He entered the new University of Chicago in 1892, obtaining his AB degree in 1896 and his PhD in 1899. At Chicago he came under the influence of Thorstein Veblen and John Dewey, but it was J. Laurence Laughlin who supervised his PhD dissertation, published in 1903 as A History of the Greenbacks. In that year Mitchell moved to the University of California at Berkeley and then to Columbia University in New York in 1913. Except for a brief period at the New School for Social Research (1919–1922), which he helped to found, he remained at Columbia until his retirement in 1944. He was also director of research for the National Bureau of Economic Research (NBER) from its founding in 1920 until 1945 and a major figure in the founding of the Social Science Research Council (SSRC). Mitchell wrote on many subjects, including rationality and economic activity (1910), the economics of the household (1912), the history of economics (1918), the distinction between making money and making goods (1923), and the links he saw between institutional and quantitative economics (1925), but Mitchell’s major work was his 1913 book Business Cycles. Here Mitchell provided an analytic description of the course of business cycles consisting of four stages, with each stage setting the conditions for the next, and the cycle as a whole growing out of the institutions of the money economy in the form of the interaction of business decisions based on profit expectations, the behavior of the banking system, and the leads and lags in the movement of wages and prices. The book also commented on the shortcomings of many of the existing theories of the cycle.

“After 1922 Mitchell continued his own work on cycles through the NBER. The original plan was for two books, later expanded to three. The first, Business Cycles: The Problem and Its Setting (1927), discussed existing theories and statistics and laid out the research agenda. The project grew, and with it a vast number of studies of particular aspects of the cycle and an array of measurement issues relating to timing, amplitude, and rates of change across successive cycles. This eventually resulted in the development of the NBER method of specific and reference cycles, presented in detail in the second book, Measuring Business Cycles (1946), coauthored with Arthur F. Burns. The final volume, which was supposed to be a theoretical volume, was never completed, although a part was published after Mitchell’s death as What Happens during Business Cycles (1951). Measuring Business Cycles was sharply attacked by Tjalling Koopmans of the Cowles Commission for engaging in measurement without theory (Koopmans 1947). Mitchell did of course use theories as a guide to what data should be collected and examined, but he was not enthusiastic about enamored econometric methods. Mitchell’s great contribution was in the development of institutional research in economics, not only through his own work but also through the work he promoted via the NBER and SSRC...for Mitchell, it was only through such research that economics could become a useful tool in the solution of economic problems.”

Mitchell’s views about orthodox economic theory are expressed in a number of his essays and in his Lecture Notes on Types of Economic Theory. In an unusually candid letter to J. M. Clark, he revealed the turn of mind that deflected him from the mainstream of economic theory.16 Mitchell said that at a young age he began to prefer concrete problems and methods to abstract ones. He recalled a great aunt who was the best of Baptists, and knew exactly how the Lord had planned the world. Mitchell remembered how he developed an impish delight in dressing up logical difficulties which my great aunt could not dispose of. She always slipped back into the logical scheme, and blinked the facts in which I came to take proprietary interest. Mitchell accounted for his particular approach to economics by citing the fact that when he went to Chicago he studied both philosophy and economics.”

Book V. The Consolidation of Nation States and Industrialization, 1815-1914 841
Chapter IV. Economic Thought and Other Intellectual Developments

“Mitchell criticized the abstract models of orthodox theory. Economic theory of the speculative kind is as cheap and easy to produce as higher mathematics or poetry - provided one has the gift. And it has the same problematical relation to reality as do those products of imagination.” He also objected to the hedonistic psychological assumptions of orthodox theory but did not accept Veblen’s instinct theories. He claimed that the social sciences could develop a better explanation of the activities of humans by basing their explanation upon empirically grounded behaviorist psychology, and he advocated a more generalized approach to studying human behavior than could be achieved by letting the various branches go their own ways. Orthodox theory had incorrectly focused on normality and equilibrium in the system instead of examining its dynamic interrelationships. 290

“Mitchell particularly emphasized the evolutionary cumulative causation approach in his study of the business cycle. Implicit in Mitchell's writings is an ethical dissent as well as a scientific dissent from orthodox theory. Mitchell, who hoped to use economic knowledge to improve welfare, maintained that a study of the economy revealed a need for national planning in order to achieve better integration of the activities of firms and better control of fluctuations in economic activity. Mitchell took Veblen's distinction between pecuniary and industrial employments as a broad guide in his approach to the study of business cycles. Fluctuations in economic activity can be accounted for largely by the reactions of businesses to changing rates of profit. Because business decisions are made in a setting of expectations and uncertainty, the businessperson's investment decisions always reflect either an optimistic or a pessimistic outlook on the future. Fluctuations in economic activity are to be expected in economies with developed monetary systems; therefore, orthodox theory, with its conceptual framework of normal, static, and equilibrium, is not appropriate. Mitchell did not attempt to build another abstract model of the business cycle. He tried instead to explain what happens during the business cycle, giving what he called a descriptive analysis of the cycle. Because each cycle is unique, the possibility of developing a general theory is restricted; yet all cycles have certain similarities, because all reveal the interactions of economic forces during the various phases of depression, revival, prosperity, and crisis. Although others before Mitchell had seen the cycle as a self-generating process, he was the first to give this conception explicit form and to support it with extensive empirical data. His explanation of the cycle is based on business reactions to changing levels of profits. A depression carries the seeds of the subsequent revival as interest rates fall, inefficient firms are eliminated, both fixed and variable costs decline, inventories decrease, and so on. Prosperity also carries the seeds of crisis and subsequent depression as costs rise, with a consequent squeeze on profits. 291

Mitchell’s descriptive analysis, reflecting as it does a scholar’s judicious blend of theory, description, and history devoid of mathematical encumbrances, is somewhat like Marshall’s. Yet the hard theoretical core that underlay Marshall’s microeconomic analysis was missing, to such an extent that some call Mitchell’s work measurement without theory. Others, with post-Keynesian hindsight, find in it the multiplier process, the accelerator principle, and a counterpart to Keynes’s marginal efficiency of capital and liquidity preference. Mitchell believed that business cycles cannot be considered apart from the rest of the economy; they are part and parcel of the system and are, in fact, generated by the system. As each phase of the cycle evolves into the next phase, the institutional structure of society changes so that economists of each generation will see reason to recast the theory of business cycles which they learned in their youth. In 1920, at the age of forty-five, Mitchell founded the National Bureau of Economic Research. This private, nonprofit organization has been tremendously important in financing economic research in the United States. Although its most important efforts have involved the measurement of national income and business-cycle research, it has sponsored research in nearly all areas of the economy.” 292
John R. Commons (1862-1945): “As an adventurous economic historian and theorist, John Rogers Commons was a leader in the development of a number of vital areas of investigation, especially industrial relations and monetary economics. His academic talents, along with a sanguine temperament and a gift for economic statesmanship, made him a major architect of economic reform in the period of American history that covers Theodore Roosevelt’s Square Deal, Woodrow Wilson’s New Freedom, and Franklin D. Roosevelt’s New Deal. Commons was born in Hollandsburg, Ohio, in 1862; his parents were active abolitionists. His religious Calvinist mother, hoping that he would become a minister, sent him, in 1882, to her alma mater, Oberlin College. He paid part of his expenses by working as a printer, at which time he became interested in trade-unionism and Henry George’s single-tax movement. After receiving a BA in 1888, he attended The Johns Hopkins University for two years of graduate study. There he was attracted to the two leading movements for the reform of the dominant classical economics. His teacher, Richard T. Ely, was a prominent figure in one, namely, the infusion into classical economics of the viewpoint of the German historical school, which emphasized the use of history, statistics, comparative economic development, jurisprudence, and ethics. The objective was to develop a sound economics for social guidance. The other movement was the marginalist, or utility, approach, in which some of Commons’ friends among the graduate students took a prominent part. This school he viewed as providing a more logically unified theory of price determination than did classical economics. Thus armed with the latest tools of inquiry and an overwhelming interest in practically all the controversial social and economic issues of the day, in 1890 he began his academic career. Before the decade was over he had taught at four schools - Wesleyan, Oberlin, Indiana, and Syracuse. The abolition of his chair of sociology at Syracuse in 1899 temporarily ended his academic career. In 1904, Ely, who had moved to the University of Wisconsin, brought his protégé there. The period at Wisconsin proved to be Commons’ most creative one.”

“Commons soon made a reputation as the leading student of American labor problems. With the collaboration of disciples, he published the pioneering A Documentary History of American Industrial Society (1910–11) and History of Labor in the United States (1918–35). His theory of the origin and development of the American trade-union movement as a response to the scope of product markets, which he presented most clearly in American Shoemakers, 1648–1895: A Sketch of Industrial Evolution (1909), is still the most widely accepted one. The trade-union movement, he held, arose out of the efforts of individual workmen to protect their job rights against cheaper labor. The effectiveness of unions in improving wages and other major terms of employment depends upon their ability to control and standardize conditions within the product market areas in the industry in which they operate. The market area for some goods and most services is local; for others the region is important; for most goods the market area has become the entire nation, and in such cases success of the union depends on its ability to organize the whole industry. Commons had extraordinary success as a policy maker. He helped prepare most of the legislation that made Wisconsin the laboratory in social and economic reform for other states and the federal government. This included, notably, legislation for civil service, public utility and railroad regulation, workmen’s accident compensation, and unemployment insurance. He not only helped to draft the bill creating the Wisconsin Industrial Commission to supervise the state’s labor laws but also was a member of the first commission, from 1911 to 1913. He did similar work for the federal government in 1901 as a member of the Industrial Commission, which made the first comprehensive inquiry into the American economy, and in 1914–1915 as a member of President Woodrow Wilson’s Industrial Relations Commission. The major designers of the epoch-making Social Security Act of 1935 were his students. He also played a leading role in the development of the notion of having the federal authority manage the monetary system.”
Chapter IV. Economic Thought and Other Intellectual Developments

“Commons wrote three major treatises in economic theory. The first, *The Distribution of Wealth* (1893), was an ingenious attempt to combine marginalist economics with the emphasis of the German historical school on the fundamental importance of jurisprudence for achieving sound economic growth and equitable distribution of income. In the other two, *Legal Foundations of Capitalism* (1924) and *Institutional Economics* (1934a), which should be read with his early essay ‘A Sociological View of Sovereignty’ (1899–1900), he sought to demonstrate the importance for economic theory of collective action in all its varieties. These included not only the state but also a host of voluntary associations, such as the corporation and the trade union; in fact, collective action conceptually embraced all institutions, since Commons defined an institution as collective action in control of individual action. From the standpoint of the theory of collective action, he developed, as the basic economic unit of investigation, “the transaction,” which included both social and individual action. He borrowed from Thorstein Veblen the concept of transactions performed by going concerns, but he broadened it so that it applied to any form of desirable organized economic activity, containing conflicting but reciprocal interests. The principles of the going concern are the network of working rules, or customs. To Commons, these controls are laws broadly conceived; they are the outgrowth of experience and make possible the orderly growth of individual action. Some type of judge ultimately determines the appropriateness of the working rule. Thus, he viewed the Supreme Court of the United States as “the supreme faculty of political economy” for the nation.”

“A major pivot in Commons’ analysis was the role of the administrative process. The germ of this idea dates back to his *Proportional Representation* (1896). He believed that the sound enactment of new working rules takes place through collective bargaining between the representatives of the affected organized group interests. His model was the Wisconsin Industrial Commission with its advisory committees. Such quasi-judicial commissions, he maintained, were a fourth branch of government and had as their ideal reasonable regulation through constructive investigation. With the world-wide growth of collective action and the consequent problems of adjusting conflicts between organized groups, or blocs, Commons’ institutional theory has been found increasingly relevant, and his economic statesmanship continues to be admired.”

His works are quoted as follows: (i) “...An institution is defined as collective action in control, liberation and expansion of individual action.” - "Institutional Economics" *American Economic Review*, vol. 21 (December 1931). (ii) “...But the smallest unit of the institutional economists is a unit of activity - a transaction, with its participants. Transactions intervene between the labor of the classic economists and the pleasures of the hedonic economists, simply because it is society that controls access to the forces of nature, and transactions are, not the "exchange of commodities," but the alienation and acquisition, between individuals, of the rights of property and liberty created by society, which must therefore be negotiated between the parties concerned before labor can produce, or consumers can consume, or commodities be physically exchanged...” - "Institutional Economics" *American Economic Review*, vol. 21 (December 1931). (iii) "Other races of immigrants, by contact with our institutions, have been civilized - the negro has only been domesticated.” - Races and Immigrants in America. (iv) “It is an easy and patriotic matter for the lawyer, minister, professor, employer, or investor, placed above the arena of competition, to proclaim the equal right of all races to American opportunities; to avow his own willingness to give way should even a better Chinaman, Hindu, or Turk come in to take his place; and to rebuke the racial hatred of those who resist this displacement. His patriotism and world-wide brotherhood cost him and his family nothing, and indeed they add to his profits and leisure.” - Races and Immigrants in America. (v) “The Chinese and Japanese are perhaps the most industrious of all races, while the Chinese are the most docile.”
John A. Hobson (1858-1940): Hobson was an accomplished author, journalist, historian, economist and critic of the materialist methodology of both Classical and Neoclassical economics. “Hobson was born in Derby, the son of William Hobson, a rather prosperous newspaper proprietor, and Josephine Atkinson. He was the brother of the mathematician Ernest William Hobson. He studied at Derby School and Lincoln College, Oxford, afterwards teaching classics and English literature at schools in Faversham and Exeter. When Hobson relocated to London in 1887, England was in the midst of a major economic depression. While classical economics was at a loss to explain the vicious business cycles, London had many societies that proposed alternatives. While living in London, Hobson was exposed to the Social Democrats and Henry Mayers Hyndman, Christian Socialists, and Henry George's Single-tax system. He befriended several of the prominent Fabians who would found the London School of Economics, some of whom he had known at Oxford. However, none of these groups proved persuasive enough for Hobson; rather it was his collaboration with a friend, the famous businessman and mountain climber Albert F. Mummery that would produce Hobson's contribution to economics: the theory of under-consumption. First described by Mummery and Hobson in the 1889 book *Physiology of Industry*, under-consumption was a scathing criticism of Say's law and classical economics' emphasis on thrift. The forwardness of the book's conclusions discredited Hobson among the professional economics community. Ultimately he was excluded from the academic community."

“During the very late 19th century his notable works included *Problems of Poverty* (1891), *Evolution of Modern Capitalism* (1894), *Problem of the Unemployed* (1896) and *John Ruskin: Social Reformer* (1898). They developed Hobson's famous critique of the classical theory of rent and his proposed generalization anticipated the Neoclassical marginal productivity theory of distribution. Soon after this period Hobson was recruited by the editor of the newspaper *The Manchester Guardian* to be their South African correspondent. During his coverage of the Second Boer War, Hobson began to form the idea that imperialism was the direct result of the expanding forces of modern capitalism. He believed the mine owners, with Cecil Rhodes, who wanted control of the Transvaal, in the vanguard, were manipulating the British into fighting the Boers so that they could maximize their profits from mining. His return to England was marked by his strong condemnation of the conflict. His publications during the next few years demonstrated an exploration of the associations between imperialism and international conflict. These works included *War in South Africa* (1900) and *Psychology of Jingoism* (1901). In what is arguably his magnum opus, *Imperialism* (1902), he espoused the opinion that imperial expansion is driven by a search for new markets and investment opportunities overseas. Imperialism gained Hobson an international reputation, and influenced such notable thinkers as Vladimir Lenin and Leon Trotsky, and Hannah Arendt's *The Origins of Totalitarianism* (1951). Hobson wrote for several other journals before writing his next major work, *The Industrial System* (1909). In this tract he argued that maldistribution of income resulted, through over-saving and under-consumption, in unemployment and that the remedy was in eradicating the surplus by the redistribution of income by taxation and the nationalization of monopolies. Hobson's opposition to the First World War caused him to join the Union of Democratic Control. His advocacy for the formation of a world political body to prevent wars can be found clearly in his piece *Towards International Government* (1914). However, he was staunchly opposed to the League of Nations. In 1919 Hobson joined the Independent Labor Party. This was soon followed by writings for socialist publications such as the New Leader, the Socialist Review and the New Statesman. During this period it became clear that Hobson favored capitalist reformation over communist revolution. He was a notable critic of the Labor Government of 1929. During the later years of his life, Hobson published his autobiography, *Confessions of an Economic Heretic* (1938)."
Imperialism: A Study (1902), by John A Hobson, is “a politico-economic discourse about the negative financial, economic, and moral aspects of imperialism as a nationalistic business enterprise. The taproot of imperialism is not in nationalist pride, but in capitalist oligarchy; and, as a form of economic organization, imperialism is unnecessary and immoral, the result of the misdistribution of wealth in a capitalist society. That dysfunction of political economy created the socio-cultural desire to extend the national markets into foreign lands, in search of profits greater than those available in the Mother Country. In the capitalist economy, rich capitalists received a disproportionately higher income than did the working class. If the owners invested their incomes to their factories, the greatly increased productive capacity would exceed the growth in demand for the products and services of said factories.”

“When productive capacity grew faster than consumer demand, there was very soon an excess of this capacity (relative to consumer demand), and, hence, there were few profitable domestic investment outlets. Foreign investment was the only answer. But, insofar as the same problem existed in every industrialized capitalist country, such foreign investment was possible only if non-capitalist countries could be civilized, Christianized, and uplifted - that is, if their traditional institutions could be forcefully destroyed, and the people coercively brought under the domain of the invisible hand of market capitalism. So, imperialism was the only answer. As a political scientist, J.A. Hobson said that imperialism was an economic, political, and cultural practice common to nations with a capitalist economic system. Because of its innate productive capacity for generating profits, capitalism did not functionally require a large-scale, large-term, and costly socio-economic enterprise such as imperialism. A capitalist society could avoid resorting to imperialism through the radical re-distribution of the national economic resources among the society, and so increase the economic-consumption power of every citizen. After said economic adjustments, a capitalist nation did not require opening new foreign markets, and so could profitably direct the production and consumption of goods and services to the in-country markets, because the home markets are capable of indefinite expansion…provided that the income, or power to demand commodities, is properly distributed.”

“Imperialism established his international reputation in political science. "His geopolitical propositions influenced the work of prominent figures such as Nikolai Bukharin, Vladimir Lenin, and Hannah Arendt. In particular, Lenin drew much from Imperialism: A Study to support and substantiate Imperialism, the Highest Stage of Capitalism (1916), which then was a contemporary, war-time analysis of the geopolitical crises of the imperial empires of Europe that culminated in the First World War (1914–18). In Imperialism, the Highest Stage of Capitalism, Lenin said that Karl Kautsky had taken the idea of ultra-imperialism from the work of J.A. Hobson, and that: Ultra-imperialism, or super-imperialism, [was] what Hobson, thirteen years earlier, [had] described as inter-imperialism. Except for coining a new and clever catch-word, replacing one Latin prefix by another, the only progress [that] Kautsky has made, in the sphere of 'scientific' thought, is that he gave out, as Marxism, what Hobson, in effect, [had] described as the cant of English parsons. Moreover, Lenin ideologically disagreed with Hobson’s opinion that capitalism, as an economic system, could be separated from imperialism; instead, he proposed that, because of the economic competitions that had provoked the First World War, capitalism had come to its end as a functional socio-economic system, and that it would be replaced by pacifist socialism, in order for imperialism to end. Nevertheless, Hobson’s influence in Lenin’s writings became orthodoxy for all Marxist historians. Hobson was also influential in liberal circles, especially the British Liberal Party. Hobson’s theory of Imperialism has had many critics…Fieldhouse says that the "obvious driving force of British expansion since 1870” came from explorers, missionaries, engineers, and empire-minded politicians. They had little interest in financial investments.”
7. Austrian Critiques of Neoclassical Economics: Socialism versus Capitalism

“Contributors to both orthodox and heterodox economic ideas have at times tried to determine the most appropriate set of economic institutions for achieving economic efficiency, equity, and growth. Sometimes, these writings have been highly technical, addressing the theoretical requirements for optimum resource allocation under any economic system; sometimes they have been broad-brushed, speculating about the long-run possibilities of socialism or capitalism. Orthodox mainstream economists often do not engage in these broader questions of which economic system is preferable: socialism or capitalism. Instead, they focus on the economics of markets. Their response to Marx was mostly silence, as if the topic were beneath them. Edgeworth, for example, wrote, ‘We have much sympathy with those who hold that the theories of Marx are beneath the notice of a scientific writer.’ When some mainstream neoclassical economists did enter the debate, because it touched upon a technical point – whether markets and socialism were compatible – they argued that free markets and socialism were compatible, a response that the Austrian economists disputed. This question concerning the most appropriate set of institutions is one of the most important questions facing societies in the world today. Modern means of communication and travel allow people in poorer societies to be cognizant of the disparities between their level of well-being and those of wealthier societies. Those countries that were formerly members of the USSR and those that were dominated by the USSR are presently in the process of trying to fashion new institutional structures to replace those that failed to give them adequate levels of wealth and freedom. It seems appropriate, therefore, to survey economic literature on the merits of these two often juxtaposed systems, capitalism and socialism.”

Table IV-7-1. Important Writers

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<thead>
<tr>
<th>Writers</th>
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<tr>
<td>J. C. L. Sismondi</td>
<td><em>New Principles of Political Economy</em>, 1819</td>
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<td>Henri de Saint-Simon</td>
<td><em>Du systeme industriel</em>, 1821</td>
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<td>Robert Owen</td>
<td><em>What Is Socialism</em>, 1841</td>
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<td>Albert Schaffle</td>
<td><em>The Quintessence of Socialism</em>, 1874</td>
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<td>Vilfredo Pareto</td>
<td><em>The Socialist Systems</em>, 1902</td>
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<td>Enrico Barone</td>
<td>“The Ministry of Production,” 1908</td>
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<td>Ludwig von Mises</td>
<td>“Economic Calculation,” 1920</td>
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<td>F. A. von Hayek</td>
<td><em>Collectivist Economic Planning</em>, 1935</td>
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<td><em>The Road to Serfdom</em>, 1944</td>
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<td>Oscar Lange</td>
<td>“On the Economic Theory of Socialism,” 1936</td>
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<td>Joseph Schumpeter</td>
<td><em>Capitalism, Socialism, and Democracy</em>, 1942</td>
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<td>Milton Friedman</td>
<td><em>Capitalism and Freedom</em>, 1962</td>
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Definition of Capitalism and Socialism: “Capitalism is a peculiar form of class society. Like previous class societies it involves a minority section of society grabbing the surplus created by the toil of the rest of society. But there are important differences. Previous ruling classes simply seized the surplus, while capitalists get it by buying people’s capacity to work (what Marx called labor power). And previous ruling classes used almost all the surplus on their own luxury consumption or on fighting each other. The use of any of the surplus to improve the means of production was spasmodic. Economic growth was usually slow, often non-existent, and sometimes negative for centuries at a time. Capitalist ruling classes, however, are driven by economic competition within and between themselves to plough a sizeable portion of the surplus back into expansion of the means of production. There is not merely economic growth, but compulsive accumulation. It is this which has enabled capitalist ruling classes that two and a half centuries ago controlled only fringe areas of north Western Europe to engulf the globe today.”

Given a property rights structure, markets coordinate and allow people trade and thereby increase the value of their initial endowment of rights, so capitalism could not resolve inequality of the people.

“Capitalism and socialism are somewhat opposing schools of thought in economics. The central arguments in the socialism vs. capitalism debate are about economic equality and the role of government. Socialists believe economic inequality is bad for society, and the government is responsible for reducing it via programs that benefit the poor (e.g., free public education, free or subsidized healthcare, social security for the elderly, higher taxes on the rich). On the other hand, capitalists believe that the government does not use economic resources as efficiently as private enterprises do, and therefore society is better off with the free market determining economic winners and losers. The U.S. is widely considered the bastion of capitalism, and large parts of Scandinavia and Western Europe are considered socialist democracies. However, the truth is every developed country has some programs that are socialist. An extreme form of socialism is communism.”

“One of the central arguments in economics, especially in the socialism vs. capitalism debate, is the role of the government. A capitalist system is based on private ownership of the means of production and the creation of goods or services for profit. A socialist system is characterized by social ownership of the means of production, e.g., cooperative enterprises, common ownership, direct public ownership, or autonomous state enterprises. Proponents of capitalism espouse competitive and free markets and voluntary exchanges (instead of the forced exchange of labor or goods). Socialists advocate greater government involvement, but the opinions of supporters differ in terms of types of social ownership they advocate, the degree to which they rely on markets versus planning, how management is to be organized within economic enterprises, and the role of the state in regulating businesses to ensure fairness.”

“Both systems have been continuously evolving in their theoretical and, especially, in their actual forms. Part of the evolution has occurred because our theoretical understanding of the two systems and ideal types has advanced. Another part has occurred because existing systems change over time. Because of change, capitalism and socialism today are quite different from what they were fifty years ago; these changes complicate analysis. From the 1930s through the 1960s, it was capitalism that was changing – theoretically and in practice. The definition of capitalism became more and more compatible with positions of government control of capitalism and separation of ownership and control, because of either managerial control of firms or governmental regulation. In the 1980s through the early 2000s, it has been socialism that has been changing; markets and private ownership in theory and in practice are now seen as consistent with socialism. Thus, there has been a movement in both theoretical and actual socialism toward greater use of the institution of capitalism, and a shift in both theoretical and actual capitalism toward greater use of institutions of socialism.” Those...have led some to speculate that the two systems are converging.”
Chapter IV. Economic Thought and Other Intellectual Developments

The Evolution of Austrian Thought: “Key early members of the Austrian economic school of thought were Menger, Wieser, and Bohm-Bawerk. Menger is considered one of the founders of neo-classical thought, with its focus on utilitarianism and value determined by the subjective views of individuals, not by costs. Wieser and Bohm-Bawerk were followers of Menger who remained adherents of mainstream neoclassical economics. But mainstream economics soon gravitated toward formalist mathematical thought, focusing on perfect competition and a narrow analysis that assumed the market's existence and eschewed broad-brush questions. It was on these issues that Austrian economics began to part company with mainstream neoclassical economics. While members of the Austrian school considered formal issues at times, they also considered broad-brush issues, believing them to be more central to economic thinking than the technical issues. Thus, it was this group that took the lead in responding to the socialist challenge concerning what system was preferable and in defending capitalism. Specifically, Bohm-Bawerk challenged the Marxists on what became known as the transformation problem, and a later Austrian, Ludwig von Mises, challenged the very foundation of socialist economics, arguing that there was no basis for rational resource allocation in a socialist economy.”

In his Austrian and German Economic thought: From Subjectivism to Social Evolution (2011), Kiichiro Yagi reviews “the process of formation, development and evolution of Austrian and German Economic thought from subjectivism to social evolution during the late nineteenth century and early twentieth century, with Carl Menger, Bohm-Bawerk, Friedrich Wieser, Max Weber, and Joseph A. Schumpeter.”

“Despite starting from the same point, Austrian economics became increasingly separated from neoclassical economics in its method and focus: in method because, whereas mainstream neoclassical economics became increasingly mathematical, Austrian economics proceeded non-mathematically, incorporating laws and institutions into its analysis, and in focus because, whereas neoclassical economics focused on equilibrium, the Austrian school focused on the study of institutions, process, and disequilibrium. Also, whereas mainstream neoclassical economics, consisting mainly of English and French neoclassical, focused on perfect competition as a reference point, Austrian economics did not; it had some sense of the correct institutional structure but not of the correct price. For Austrians the correct price was whatever price the correct institutional structure produced. This difference manifested itself in Menger's lack of concern about mathematical formalism and Wieser's combining of a theory of power with his theory of markets to arrive at a full theory of the economy.”

As neoclassical economics progressed, the followers of Menger, Wieser, Bohm-Bawerk, Mises, and Hayek grew further and further away from the neoclassical mainstream. But it was only in the last half of the twentieth century that Austrian economics came to be seen as a separate heterodox approach, rather than a subbranch of neoclassical economics. Once Austrian economics was seen as a separate approach, the Austrians' earlier work was reexamined and the differences between them and the neoclassicals were put into focus. Wieser, for instance, emphasized the evolutionary institutional aspect of economics, arguing that institutions, created by individuals, lead to natural controls of freedom that affect the behavior of individuals. These natural controls include systems of property rights, contracts, and laws. Thus, in his view, in thinking about economics and policy, economists had to go far beyond markets and market prices and consider the entire process through which market forces work. Wieser also included in his economic analysis a theory of power and, in Social Econom-ics, developed a normative program of economic policy far exceeding any policy program that came from the neoclassical mainstream. Neoclassical economics became a theory of prices; Austrian economics became a theory of economic process and institutions. It was for this reason that the Austrians responded to Marx's attack on capitalism, while mainstream neoclassical economics, for the most part, ignored it.”

Book V. The Consolidation of Nation States and Industrialization, 1815-1914
The Development of Socialist Economic Thought: “Socialist economics refers to the economic theories, practices, and norms of hypothetical and existing socialist economic systems. A socialist economic system is characterized by social ownership and democratic control of the means of production, which may mean autonomous cooperatives or direct public ownership; wherein production is carried out directly for use. Where markets are utilized for allocating inputs and capital goods among economic units, the designation market socialism is used. When planning is utilized, the economic system is designated a planned socialist economy. Non-market forms of socialism usually include a system of accounting based on calculation-in-kind or a direct measure of labor-time as a means to value resources and goods. The term socialist economics may also be applied to analysis of former and existing economic systems that call themselves socialist, such as the works of Hungarian economist János Kornai. Socialist economics has been associated with different schools of economic thought. Marxian economics provided a foundation for socialism based on analysis of capitalism, while neoclassical economics and evolutionary economics provided comprehensive models of socialism. During the 20th century, proposals and models for both planned economies and market socialism were based heavily on neoclassical economics or a synthesis of neoclassical economics with Marxian or institutional economics.”

“Karl Marx and Friedrich Engels believed that hunter-gatherer societies and some primitive agricultural societies were communal, and called this primitive communism. Engels wrote about this at length in the book The Origin of the Family, Private Property and the State, which was based on the unpublished notes of Marx on the work of Lewis Henry Morgan. Values of socialism have roots in pre-capitalist institutions such as the religious communes, reciprocal obligations, and communal charity of Mediaeval Europe, the development of its economic theory primarily reflects and responds to the monumental changes brought about by the dissolution of feudalism and the emergence of specifically capitalist social relations…Many socialists have considered their advocacy as the preservation and extension of the radical humanist ideas expressed in Enlightenment doctrine such as Jean-Jacques Rousseau's Discourse on Inequality, Wilhelm von Humboldt's Limits of State Action, or Immanuel Kant's insistent defense of the French Revolution. Capitalism appeared in mature form as a result of the problems raised when an industrial factory system requiring long-term investment and entailing corresponding risks was introduced into an internationalized commercial (mercantilist) framework. Historically speaking, the most pressing needs of this new system were an assured supply of the elements of industry – land, elaborate machinery, and labor – and these imperatives led to the commodification of these elements.”

The forceful transformation of land, money and especially labor into commodities to be allocated by an autonomous market mechanism was an alien and inhuman rupture of the pre-existing social fabric. “Marx had viewed the process in a similar light, referring to it as part of the process of primitive accumulation whereby enough initial capital is amassed to begin capitalist production. The dislocation that Polanyi and others describe, triggered natural counter-movements in efforts to reembed the economy in society. These counter-movements, that included, for example, the Luddite rebellions, are the incipient socialist movements. Over time such movements gave birth to or acquired an array of intellectual defenders who attempted to develop their ideas in theory. As Polanyi noted, these counter-movements were mostly reactive and therefore not full-fledged socialist movements. Some demands went no further than a wish to mitigate the capitalist market's worst effects. Later, a full socialist program developed, arguing for systemic transformation. Its theorists believed that even if markets and private property could be tamed so as not to be excessively exploitative, or crises could be effectively mitigated, capitalist social relations would remain significantly unjust and anti-democratic, suppressing universal human needs for fulfilling.”

For further, see Section 3. Socialism in Chapter III.
Chapter IV. Economic Thought and Other Intellectual Developments

“Capitalism is criticized for encouraging exploitative practices and inequality between social classes. In particular, critics argue that capitalism inevitably leads to monopolies and oligarchies, and that the system's use of resources is unsustainable. In Das Kapital, one of the most famous critiques of capitalism, Karl Marx and Friedrich Engels claim that capitalism centers profits and wealth in the hands of the few who use the labor of others to gain wealth. The concentration of money (capital and profits) in capitalism can lead to the creation of monopolies or oligopolies. As postulated by British economist John Maynard Keynes, oligopolies and monopolies can then lead to oligarchies (government by a few) or fascism (the merging of government and corporations with monopolistic power). Laissez faire capitalism, as espoused in 19th century U.S. business growth, did reach the point where monopolies and oligopolies were formed, which gave rise to antitrust laws, trade union movements, and legislation to protect workers. Critics such as Richard D. Wolff and environmental groups also state that capitalism is destructive of resources both natural and human, as well as disruptive to economic stability, though this is actually considered a plus in the "creative destruction" facet of Joseph Schumpeter's economic theories. The unplanned, almost chaotic, factors of a capitalist economy, with its recessions, unemployment, and competition, are often seen as negative forces. As defined by historian Greg Grandin and economist Immanuel Wallerstein, the destructive nature of capitalism moves beyond workers and communities to natural resources, where the pursuit of growth and profits tends to ignore or overwhelm environmental concerns. When linked to imperialism, as in the works of Vladimir Lenin, capitalism is also seen as a destroyer of cultural differences, spreading a message of sameness across the globe that undermines or drowns out local traditions and mores.”

“Critics of socialism tend to focus on three factors: the loss of individual freedom and rights, the inefficiency of planned or controlled economies, and the inability to establish the constructs socialism theorizes are ideal. Based on long-term growth and prosperity, planned or controlled economies typical of socialist states have fared poorly. Austrian economist Friedrich Hayek noted that prices and production quotas would never be adequately supported by market information, since the market in the socialist system is basically non-reactive to prices or surpluses, only to shortages. This would lead to irrational and ultimately destructive economic decisions and policies. Ludwig von Mises, another Austrian economist, argued that rational pricing is not possible when an economy has only one owner of goods (the state), as this leads to imbalances in production and distribution. Because socialism favors the community over the individual, the loss of freedoms and rights is deemed undemocratic at best and totalitarian at worst. Objectivist philosopher Ayn Rand stated that the right to private property is the fundamental right, for if one cannot own the fruits of one's labors, then the person is always subject to the state. A similar argument raised by supporters of capitalism, and therefore often by critics of socialism, is that competition (considered a basic human trait) cannot be legislated away without undermining the will to achieve more, and that without proper compensation for one's efforts, the incentive to do well and be productive (or more productive) is taken away. Socialism is often criticized for tenets that are not socialist, but rather communist or a hybrid of the two economic systems. Critics point out that the most socialist regimes have failed to deliver adequate results in terms of economic prosperity and growth. Examples cited range from the former U.S.S.R. to current regimes in China, North Korea, and Cuba, most of which were or are more on the communist end of the spectrum. Based on historical evidence from communist governments, to date, extensive famine, severe poverty, and collapse are the end results of trying to control an economy based on 5-year plans and assigning people to jobs and tasks as if the country were a machine rather than a society. A common observation about particularly restrictive socialist or communist economies is that they eventually develop classes with government officials as the rich, a fringe-like middle class, and a large lower class.”
### Table IV-7-2. The Timeline of Comparison: Capitalism versus Socialism


<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1776</td>
<td>Adam Smith publishes <em>The Wealth of Nations</em>, establishing an economic point of view on history, sustainability, and progress.</td>
</tr>
<tr>
<td>1789</td>
<td>The French Revolution espouses a philosophy of equality for all, building upon the tenets also included in the U.S. Declaration of Independence and the Constitution.</td>
</tr>
<tr>
<td>1848</td>
<td>Karl Marx and Friedrich Engels publish <em>The Communist Manifesto</em>, defining the social struggle between the moneyed classes and workers, the former exploiting the latter.</td>
</tr>
<tr>
<td>1864</td>
<td>International Workingman's Association (IWA) is founded in London.</td>
</tr>
<tr>
<td>1866</td>
<td>The U.S. National Labor Union is founded.</td>
</tr>
<tr>
<td>1869</td>
<td>The Social Democratic Worker's Party forms in Germany. Socialism becomes increasingly linked to trade unions in the 1870s, particularly in France, Austria, and other countries in Europe.</td>
</tr>
<tr>
<td>1886</td>
<td>The American Federation of Labor (AFL) is created.</td>
</tr>
<tr>
<td>1890</td>
<td>The Sherman Antitrust Act passes, with the aim of encouraging competition.</td>
</tr>
<tr>
<td>1899</td>
<td>The Australian Labor Party becomes the first elected socialist party.</td>
</tr>
<tr>
<td>1902</td>
<td>The British Labor Party wins its first seats in the House of Commons.</td>
</tr>
<tr>
<td>1911</td>
<td>John D. Rockefeller's Standard Oil is broken up under antitrust laws. After the breakup of Standard Oil, Rockefeller's wealth rises until he becomes the world's first billionaire.</td>
</tr>
<tr>
<td>1917</td>
<td>The Russian Revolution overthrows the Tsarist regime and imposes a Communist government, led by Vladimir Lenin. Europe.</td>
</tr>
<tr>
<td>1918</td>
<td>The German Revolution establishes the Weimar Republic with the Social Democratic Party nominally in charge, facing challenges by communist supporters and National Socialists.</td>
</tr>
<tr>
<td>1922</td>
<td>Benito Mussolini assumes control of Italy, calling his blend of corporations and government power.</td>
</tr>
<tr>
<td>1924</td>
<td>The British Labour Party forms its first government under Prime Minister Ramsay MacDonald.</td>
</tr>
<tr>
<td>1926-1928</td>
<td>Joseph Stalin consolidates power in Russia, as the leading force for communism.</td>
</tr>
<tr>
<td>1929</td>
<td>The Great Depression begins, plunging the world into an unprecedented economic slowdown.</td>
</tr>
<tr>
<td>1944</td>
<td>The Canadian province of Saskatchewan forms the first socialist government in North America.</td>
</tr>
<tr>
<td>1945</td>
<td>The British Labour Party returns to power, ousting Prime Minister Winston Churchill.</td>
</tr>
<tr>
<td>1947</td>
<td>China is taken over by a communist regime led by Mao Zedong.</td>
</tr>
<tr>
<td>1959</td>
<td>Fidel Castro overthrows the Fulgencio Batista regime in Cuba, then surprisingly announces an alliance with the Communist Party of the U.S.S.R.</td>
</tr>
<tr>
<td>1960s - 1970s</td>
<td>Nordic countries, such as Norway, Denmark, Sweden, and Finland, increasingly blend socialism and capitalism to develop higher standards of living.</td>
</tr>
<tr>
<td>1991</td>
<td>The Soviet Union (U.S.S.R.,) collapses, and former Soviet republics attempt to throw off their communist past to explore democratic and capitalist systems, with limited success.</td>
</tr>
<tr>
<td>1995</td>
<td>China begins capitalist practices under the Communist Party's auspices, launching the fastest-growing economy in history.</td>
</tr>
<tr>
<td>1998</td>
<td>Hugo Chávez is elected President of Venezuela and embarks on a nationalization program, leading a social democratic movement in Latin America led by Bolívia, Brazil, Argentina, and others.</td>
</tr>
</tbody>
</table>
### Table IV-7-3. Comparison: Capitalism versus Socialism


<table>
<thead>
<tr>
<th>Category</th>
<th>Capitalism</th>
<th>Socialism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy</td>
<td>Capital (or the &quot;means of production&quot;) is owned, operated, and traded in order to generate profits for private owners or shareholders. Emphasis on individual profit rather than on workers or society as a whole. No restriction on who may own capital.</td>
<td>From each according to his ability, to each according to his contribution. Emphasis on profit being distributed among the society or workforce to complement individual wages/salaries.</td>
</tr>
<tr>
<td>Ideas</td>
<td>Laissez-faire means to &quot;let it be&quot;; opposed to government intervention in economics because capitalists believe it introduces inefficiencies. A free market produces the best economic outcome for society. Government should not pick winners and losers.</td>
<td>All individuals should have access to basic articles of consumption and public goods to allow for self-actualization. Large-scale industries are collective efforts and thus the returns from these industries must benefit society as a whole.</td>
</tr>
<tr>
<td>Definition</td>
<td>A theory or system of social organization based around a free market and privatization in which ownership is ascribed to the individual persons. Voluntary co-ownership is also permitted.</td>
<td>A theory or system of social organization based on the holding of most property in common, with actual ownership ascribed to the workers.</td>
</tr>
<tr>
<td>Key Elements</td>
<td>Competition for ownership of capital drives economic activity &amp; creates a price system that determines resource allocation; profits are reinvested in the economy. “Production for profit”: useful goods and services are a byproduct of pursuing profit.</td>
<td>Calculation in kind, Collective ownership, Cooperative common ownership, Economic democracy Economic planning, Equal opportunity, Free association, Industrial democracy, Input-output model, Internationalism, Labour voucher, Material balancing.</td>
</tr>
<tr>
<td>Political System</td>
<td>Can coexist with a variety of political systems, including dictatorship, democratic republic, anarchism, and direct democracy. Most capitalists advocate a democratic republic.</td>
<td>Can coexist with different political systems. Most socialists advocate participatory democracy, some (Social Democrats) advocate parliamentary democracy, and Marxist-Leninists advocate “Democratic centralism.”</td>
</tr>
<tr>
<td>Economic System</td>
<td>Market-based economy combined with private or corporate ownership of the means of production. Goods and services are produced to make a profit, and this profit is reinvested into the economy to fuel economic growth.</td>
<td>The means of production are owned by public enterprises or cooperatives, and individuals are compensated based on the principle of individual contribution. Production may variously be coordinated through either economic planning or markets.</td>
</tr>
<tr>
<td>Social Structure</td>
<td>Classes exist based on their relationship to capital: the capitalists own shares of the means of production and derive their income in that way while the working class is dependent on wages or salaries. Large degree of mobility between the classes.</td>
<td>Class distinctions are diminished. Status derived more from political distinctions than class distinctions. Some mobility.</td>
</tr>
<tr>
<td>Private Property</td>
<td>Private property in capital and other goods is the dominant form of property. Public property and state property play a secondary role, and there might also be some collective property in the economy.</td>
<td>Two kinds of property: Personal property, such as houses, clothing, etc. owned by the individual. Public property includes factories, and means of production owned by the State but with worker control.</td>
</tr>
</tbody>
</table>
### Table IV-7-4. Comparison: Communism versus Socialism


<table>
<thead>
<tr>
<th>Category</th>
<th>Communism</th>
<th>Socialism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy</td>
<td>From each according to his ability, to each according to his needs. Free-access to the articles of consumption is made possible by advances in technology that allow for super-abundance.</td>
<td>From each according to his ability, to each according to his contribution. Emphasis on profit being distributed among the society or workforce to complement individual wages/salaries.</td>
</tr>
<tr>
<td>Ideas</td>
<td>All people are the same and therefore classes make no sense. The government should own all means of production and land and also everything else. People should work for the government and the collective output should be redistributed equally.</td>
<td>All individuals should have access to basic articles of consumption and public goods to allow for self-actualization. Large-scale industries are collective efforts and thus the returns from these industries must benefit society as a whole.</td>
</tr>
<tr>
<td>Key Elements</td>
<td>Centralized government, planned economy, dictatorship of the &quot;proletariat&quot;, common ownership of the tools of production, no private property. equality between genders and all people, international focus. Usually anti-democratic with a 1-party system.</td>
<td>Calculation in kind, Collective ownership, Cooperative common ownership, Economic democracy Economic planning, Equal opportunity, Free association, Industrial democracy, Input-output model, Internationalism, Labour voucher, Material balancing.</td>
</tr>
<tr>
<td>Definition</td>
<td>International theory or system of social organization based on the holding of all property in common, with actual ownership ascribed to the community or state. Rejection of free markets and extreme distrust of Capitalism in any form.</td>
<td>A theory or system of social organization based on the holding of most property in common, with actual ownership ascribed to the workers.</td>
</tr>
<tr>
<td>Political System</td>
<td>A communist society is stateless, classless and is governed directly by the people. This however has never been practiced.</td>
<td>Can coexist with different political systems. Most socialists advocate participatory democracy, some (Social Democrats) advocate parliamentary democracy, and Marxist-Leninists advocate “Democratic centralism.”</td>
</tr>
<tr>
<td>Private Property</td>
<td>Abolished. The concept of property is negated and replaced with the concept of commons and ownership with “usership”.</td>
<td>Two kinds of property: Personal property, such as houses, clothing, etc. owned by the individual. Public property includes factories, and means of production owned by the State but with worker control.</td>
</tr>
<tr>
<td>Economic Coordination</td>
<td>Economic planning coordinates all decisions regarding investment, production and resource allocation. Planning is done in terms of physical units instead of money.</td>
<td>Planned-socialism relies principally on planning to determine investment and production decisions. Planning may be centralized or decentralized. Market-socialism relies on markets for allocating capital to different socially-owned enterprises.</td>
</tr>
<tr>
<td>Ownership Structure</td>
<td>The means of production are commonly-owned, meaning no entity or individual owns productive property. Importance is ascribed to &quot;usership&quot; over &quot;ownership&quot;.</td>
<td>The means of production are socially-owned with the surplus value produced accruing to either all of society (in Public-ownership models) or to all the employee-members of the enterprise (in Cooperative-ownership models).</td>
</tr>
</tbody>
</table>
Chapter IV. Economic Thought and Other Intellectual Developments

Communism versus Socialism: “In a way, communism is an extreme form of socialism. Many countries have dominant socialist political parties but very few are truly communist. In fact, most countries - including staunch capitalist bastions like the U.S. and U.K. - have government programs that borrow from socialist principles. "Socialism" is sometimes used interchangeably with "communism" but the two philosophies have some stark differences. Most notably, while communism is a political system, socialism is primarily an economic system that can exist in various forms under a wide range of political systems.

Economic differences between socialists and communists: “In a Socialist economy, the means of producing and distributing goods is owned collectively or by a centralized government that often plans and controls the economy. On the other hand, in a communist society, there is no centralized government - there is a collective ownership of property and the organization of labor for the common advantage of all members. For a Capitalist society to transition, the first step is Socialism. From a capitalist system, it is easier to achieve the Socialist ideal where production is distributed according to people's deeds (quantity and quality of work done). For Communism (to distribute production according to needs), it is necessary to first have production so high that there is enough for everyone's needs. In an ideal Communist society, people work not because they have to but because they want to and out of a sense of responsibility. Political differences: “Socialism rejects a class-based society. But socialists believe that it is possible to make the transition from capitalism to socialism without a basic change in the character of the state. They hold this view because they do not think of the capitalist state as essentially an institution for the dictatorship of the capitalist class, but rather as a perfectly good piece of machinery which can be used in the interest of whichever class gets command of it. No need, then, for the working class in power to smash the old capitalist state apparatus and set up its own—the march to socialism can be made step by step within the framework of the democratic forms of the capitalist state. Socialism is primarily an economic system so it exists in varying degrees and forms in a wide variety of political systems. On the other hand, communists believe that as soon as the working class and its allies are in a position to do so they must make a basic change in the character of the state; they must replace capitalist dictatorship over the working class with workers' dictatorship over the capitalist class as the first step in the process by which the existence of capitalists as a class is ended and a classless society is eventually ushered in.”

America's first experiment with Socialism: “After the Pilgrims landed in 1620, they decided that they would plant a community garden and share the fruits and vegetables equally at the end of the season. The idea was that all would work together and share equally at the end of the season. However, no one wanted to work in the gardens. Most were reluctant to do the planting and weed a garden that was not theirs. That first year, the gardens were not well kept and they had poor crops, which led to hunger the next winter. Under this system, by 1623 the colony was facing starvation. It was decided that a new system be used the following year. Each family was given a plot of land to garden in proportion to its size. They would be allowed to keep the fruits and vegetables for themselves. Governor William Bradford's account: This had very good success, for it made all hands industrious, so as much more corn was planted than otherwise would have been by any means the Governor or any other could use, and saved him a great deal of trouble, and gave far better content. The women now went willingly into the field, and took their little ones with them to set corn; which before would allege weakness and inability; whom to have compelled would have been thought great tyranny and oppression. The lesson here seems to be, when you own it you take care of it. If it belongs to someone else, you won't take interest in it or care for it. But if it is yours to own, you take interest in it and take care of it. The Pilgrims started out with socialism for the first two years but abandoned it in favor for capitalism after two years.”
Chapter IV. Economic Thought and Other Intellectual Developments

Photo IV-7-1. Ludwig von Mises (1881-1973) (Upper Left)

Photo IV-7-2. Friedrich A. Hayek (1899-1992) (Upper Right)
https://upload.wikimedia.org/wikipedia/commons/7/7f/Friedrich_Hayek_portrait.jpg

Photo IV-7-3. Oscar R. Lange (1904-65) (Bottom Left)

Photo IV-7-4. Joseph A. Schumpeter (1883-1950) (Bottom Right)
Chapter IV. Economic Thought and Other Intellectual Developments

7-1. The Debate Concerning Economic Systems

Ludwig von Mises (1881-1973) was a theoretical Austrian School economist. “Mises wrote and lectured extensively on behalf of classical liberalism. He is best known for his work on praxeology, a study of human choice and action. Mises emigrated from Austria to the United States in 1940. Since the mid-20th century, the libertarian movement in the United States has been strongly influenced by Mises’s writings. Mises’s student, Friedrich Hayek, viewed Mises as one of the major figures in the revival of liberalism in the post-war era. Hayek’s work, The Transmission of the Ideals of Freedom (1951) pays high tribute to the influence of Mises in the twentieth century liberal movement. Mises’s Austrian School was a leading group of economists. Many of its alumni, including Hayek and Oskar Morgenstern, emigrated from Austria to the United States and Great Britain. Mises has been described as having approximately seventy close students in Austria, and the Austrians as the insiders of the Chicago School of economics. The Ludwig von Mises Institute was founded in the United States to continue his teachings.”

“Ludwig von Mises was born to Jewish parents in the city of Lemberg, in Galicia, Austria-Hungary. The family of his father Arthur Edler von Mises had been elevated to the Austrian nobility in the 19th century; they had been involved in financing and constructing railroads. Ludwig’s mother, Adele, was a niece of Dr. Joachim Landau, a Liberal Party deputy to the Austrian Parliament. Arthur von Mises was stationed in Lemberg as a construction engineer with the Czernowitz railway company. By the age of twelve, Ludwig spoke fluent German, Polish and French, read Latin, and could understand Ukrainian. Mises had a younger brother, Richard von Mises, who became a mathematician and a member of the Vienna Circle, and a probability theorist. When Ludwig and Richard were still children, their family moved back to Vienna. In 1900, Ludwig Von Mises attended the University of Vienna, becoming influenced by the works of Carl Menger. Mises’ father died in 1903. Three years later, Mises was awarded his doctorate from the school of law in 1906.”

“In the years from 1904 to 1914, Mises attended lectures given by Austrian economist Eugen von Böhm-Bawerk. He graduated in February 1906 (Juris Doctor) and started a career as a civil servant in Austria’s financial administration. After a few months, he left to take a trainee position in a Vienna law firm. During that time, Mises began lecturing on economics, and in early 1909, he joined the Vienna Chamber of Commerce and Industry. During World War I, Mises served as a front officer in the Austro-Hungarian artillery and as an economic adviser to the War Department. Mises was chief economist for the Austrian Chamber of Commerce and was an economic adviser of Engelbert Dollfuss, the austrofascist but strongly anti-Nazi Austrian Chancellor. Later he was economic adviser to Otto von Habsburg, the Christian democratic politician and claimant to the throne of Austria. In 1934, Mises left Austria for Geneva, Switzerland, where he was a professor at the Graduate Institute of International Studies until 1940. While in Switzerland, Mises married Margit Herzfeld Serény, a former actress and widow of Ferdinand Serény. In 1940 Mises and his wife fled the German advance in Europe and immigrated to New York City in the United States. He had come to the United States under a grant by the Rockefeller Foundation. Like many other classical liberal scholars who fled to the US, he received support by the William Volker Fund to obtain a position in American universities. Mises became a visiting professor at New York University, and held this position from 1945 until his retirement in 1969 – though he was not salaried by the university. Businessman and libertarian commentator Lawrence Fertig, a member of the NYU Board of Trustees, funded Mises and his work. For part of this period, Mises studied currency issues for the Pan-Europa movement, which was led by Richard von Coudenhove-Kalergi, a fellow NYU faculty member and Austrian exile…Mises retired from teaching at the age of 87, and died at the age of 92 in New York.”
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Contribution and Influence in Economics: “Mises wrote and lectured extensively on behalf of classical liberalism. In his treatise Human Action, Mises adopted praxeology as a general conceptual foundation of the social sciences and set forth his methodological approach to economics...Economist and political theorist F.A. Hayek first came to know Mises while working as his subordinate at a government office dealing with Austria’s post-World War I debt. In 1956, while toasting Mises at a party, Hayek said, ‘I came to know him as one of the best educated and informed men I have ever known...’ Mises’ seminars in Vienna fostered lively discussion among established economists there. The meetings were also visited by other important economists who happened to be traveling through Vienna. In New York, at his NYU seminar and at informal meetings at his apartment, Mises attracted college and high school students who had heard of his European reputation. They listened while he gave carefully prepared lectures from notes.”318

“Mises sees economic calculation as the most fundamental problem in economics. The economic problem to Mises is that of action. Man acts to dispel feelings of uneasiness, but can only succeed in acting if he comprehends causal connections between the ends that he wants to satisfy, and available means. The fact that man resides in a world of causality means that he faces definite choices as to how he satisfies his ends. Human action is an application of human reason to select the best means of satisfying ends. The reasoning mind evaluates and grades different options. This is economic calculation. Economic calculation is common to all people. Mises insisted that the logical structure of human minds is the same for everybody. Of course, this is not to say that all minds are the same. Man makes different value judgments and possess different data, but logic is the same for all. Human reason and economic calculation have limitations, but Mises sees no alternative to economic calculation as a means of using scarce resources to improve our wellbeing. Human action concerns dynamics. The opposite to action is not inaction. Rather, the opposite to action is contentment. In a fully contented state there would be no action, no effort to change the existing order of things. Man acts because he is never fully satisfied, and will never stop because he can never be fully satisfied. This might seem like a simple point, but modern economics is built upon ideas of contentment-equilibrium analysis and indifference conditions. It is true that some economists construct models of dynamic equilibrium, but the idea of a dynamic equilibrium is oxymoronic to Mises. An actual equilibrium may involve a recurring cycle, but not true dynamics. True dynamics involve non-repeating evolutionary change.”319

“Mises explains dynamic change in terms of the plain state of rest. A final state of rest involves perfect plans to fully satisfy human desires. A plain state of rest is a temporary and imperfect equilibrium deriving from past human plans. Though any set of plans is imperfect, to act means attempting to improve each successive set of plans. Movement from one plain state of rest to another represents the process of change, either evolutionary or devoluntary. Mises links progress and profits. Profits earned from voluntary trades are the indicator of economic success. It is monetary calculation of profits that indicates whether an enterprise has generated a net increase in consumer wellbeing over true economic costs. The close association that Mises draws between economic calculation and monetary calculation leads him to conclude that market prices are indispensable to progress in bettering the human condition. Without markets there are no prices, and without prices there is no economic calculation. Monetary calculation is vitally important. Mises stresses the importance of entrepreneurship because only entrepreneurs actually do monetary calculation. This fact puts entrepreneurs at the center of all progress (and failure). Entrepreneurs who estimate costs more correctly than their rivals earn high profits while also serving consumers. Such men rise to top positions in industry. Entrepreneurs who err seriously in their calculations experience financial losses and cease to direct production. Mises described this market test of entrepreneurial skills as the only process of trial and error that really matters.”320
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Friedrich A. Hayek (1899-92): Life and Education: Hayek was “an Austrian and British economist and philosopher best known for his defense of classical liberalism. Hayek shared the 1974 Nobel Memorial Prize in Economic Sciences with Gunnar Myrdal for his pioneering work in the theory of money and economic fluctuations and…penetrating analysis of the interdependence of economic, social and institutional phenomena. Hayek was a major social theorist and political philosopher of the twentieth century, and his account of how changing prices communicate information which enables individuals to co-ordinate their plans is widely regarded as an important achievement in economics, leading to his Nobel Prize. Hayek served in World War I and said that his experience in the war and his desire to help avoid the mistakes that had led to the war drew him to his career. Hayek lived in Austria, Great Britain, the United States, and Germany and became a British subject in 1938. He spent most of his academic life at the London School of Economics, the University of Chicago, and the University of Freiburg. In 1984, he was appointed a member of the Order of the Companions of Honor by Queen Elizabeth II…for his services to the study of economics. He was the first recipient of the Hanns Martin Schleyer Prize in 1984. He also received the US Presidential Medal of Freedom in 1991 from President George H. W. Bush. In 2011, his article ‘The Use of Knowledge in Society’ was selected as one of the top 20 articles published in The American Economic Review during its first 100 years.”

Friedrich August von Hayek was born in Vienna to August von Hayek and Felicitas Hayek. His father was a medical doctor employed by the municipal ministry of health, with passion in botany; and his mother was from a wealth, conservative, land-owning family. Hayek was the oldest of three brothers. “On his mother’s side, Hayek was second cousin to the philosopher Ludwig Wittgenstein. His mother often played with Wittgenstein’s sisters, and had known Ludwig well…Although Hayek met Wittgenstein on only a few occasions, Hayek said that Wittgenstein’s philosophy and methods of analysis had a profound influence on his own life and thought. In his later years, Hayek recalled a discussion of philosophy with Wittgenstein, when both were officers during World War I. Hayek displayed an intellectual and academic bent from a very young age. He read fluently and frequently before going to school. At his father’s suggestion, Hayek, as a teenager, read the genetic and evolutionary works of Hugo de Vries and the philosophical works of Ludwig Feuerbach. In school Hayek was much taken by one instructor’s lectures on Aristotle’s ethics…He preferred to associate with adults. Austro-Hungarian artillery unit appearing in The Illustrated London News in 1914. In 1917, Hayek joined an artillery regiment in the Austro-Hungarian Army and fought on the Italian front. Much of Hayek’s combat experience was spent as a spotter in an aeroplane. Hayek suffered damage to his hearing in his left ear during the war, and was decorated for bravery. During this time Hayek also survived the 1918 flu pandemic. Hayek then decided to pursue an academic career, determined to help avoid the mistakes that had led to the war. Hayek said of his experience. The decisive influence was really World War I. It’s bound to draw your attention to the problems of political organization.”

“Jackson University, Hayek earned doctorates in law and political science in 1921 and 1923 respectively; and he also studied philosophy, psychology, and economics. For a short time, when the University of Vienna closed, Hayek studied in Constantin von Monakow’s Institute of Brain Anatomy, where Hayek spent much of his time staining brain cells. Hayek’s time in Monakow’s lab, and his deep interest in the work of Ernst Mach, inspired Hayek’s first intellectual project, eventually published as The Sensory Order (1952). It located connective learning at the physical and neurological levels, rejecting the sense data associationism of the empiricists and logical positivists. Hayek presented his work to the private seminar he had created with Herbert Furth called the Geistkreis. During Hayek’s years at the University of Vienna, Carl Menger’s work on the explanatory strategy of social science and Friedrich von Wieser’s commanding
presence in the classroom left a lasting influence on him. Upon the completion of his examinations, Hayek was hired by Ludwig von Mises on the recommendation of Wieser as a specialist for the Austrian government working on the legal and economic details...Between 1923 and 1924 Hayek worked as a research assistant to Prof. Jeremiah Jenks of New York University, compiling macroeconomic data on the American economy and the operations of the US Federal Reserve.”

“Initially sympathetic to Wieser’s democratic socialism, Hayek’s economic thinking shifted away from socialism and toward the classical liberalism of Carl Menger after reading von Mises’ book Socialism. It was sometime after reading Socialism that Hayek began attending von Mises’ private seminars, joining several of his university friends...With the help of Mises, in the late 1920s Hayek founded and served as director of the Austrian Institute for Business Cycle Research, before joining the faculty of the London School of Economics in 1931 at the behest of Lionel Robbins. Upon his arrival in London, Hayek was quickly recognized as one of the leading economic theorists in the world, and his development of the economics of processes in time and the co-ordination function of prices inspired the ground-breaking work of John Hicks, Abba Lerner, and many others in the development of modern microeconomics. In 1932, Hayek suggested that private investment in the public markets was a better road to wealth and economic co-ordination in Britain than government spending programs, as argued in a letter he co-signed with Lionel Robbins and others in an exchange of letters with John Maynard Keynes in The Times. The nearly decade long deflationary depression in Britain dating from Churchill’s decision in 1925 to return Britain to the gold standard at the old pre-war, pre-inflationary par was the public policy backdrop for Hayek’s single public engagement with Keynes over British monetary and fiscal policy, otherwise Hayek and Keynes agreed on many theoretical matters, and their economic disagreements were fundamentally theoretical, having to do almost exclusively with the relation of the economics of extending the length of production to the economics of labor inputs... Unwilling to return to Austria after the Anschluss brought it under the control of Nazi Germany in 1938, Hayek remained in Britain. Hayek and his children became British subjects in 1938. He held this status for the remainder of his life...He lived in the United States from 1950 to 1962 and then mostly in Germany but also briefly in Austria.”

“Hayek was concerned about the general view in Britain’s academia that fascism was a capitalist reaction to socialism and The Road to Serfdom arose from those concerns. It was written between 1940 and 1943. The title was inspired by the French classical liberal thinker Alexis de Tocqueville’s writings on the road to servitude. It was first published in Britain by Routledge in March 1944 and was quite popular, leading Hayek to call it “that unobtainable book,” also due in part to wartime paper rationing. When it was published in the United States by the University of Chicago in September of that year, it achieved greater popularity than in Britain. At the arrangement of editor Max Eastman (an ardent socialist), the American magazine Reader’s Digest also published an abridged version in April 1945, enabling The Road to Serfdom to reach a far wider audience than academics. The book is widely popular among those advocating individualism and classical liberalism.”

In 1950 he became a professor in Committee on Social Thought at the University of Chicago and published The Constitution of Liberty in 1960. During 1962-68, he was a professor at the University of Freiburg, West Germany. Following his retirement, Hayek spent a year as a visiting professor of philosophy at the University of California. He published Law, Legislation and Liberty in three volumes in 1973, 1976, and 1979. “Hayek pointed out that the neoclassical model’s assumption that consumers and producers have perfect knowledge is false, and that, in fact, one of the functions of markets and the process of competition is the discovery of such knowledge. Planners cannot acquire the needed knowledge except as it is revealed through the operation of makers” (which was more serious than expected).
(a) **The Business Cycle**: "Hayek’s principal investigations in economics concerned capital, money, and the business cycle. Mises had earlier applied the concept of marginal utility to the value of money in his *Theory of Money and Credit* (1912), in which he also proposed an explanation for “industrial fluctuations” based on the ideas of the old British Currency School and of Swedish economist Knut Wicksell. Hayek used this body of work as a starting point for his own interpretation of the business cycle, elaborating what later became known as the ‘Austrian Theory of the Business Cycle’. Hayek spelled out the Austrian approach in more detail in his book, published in 1929, an English translation of which appeared in 1933 as *Monetary Theory and the Trade Cycle*. There he argued for a monetary approach to the origins of the cycle. In his *Prices and Production* (1931), Hayek argued that the business cycle resulted from the central bank’s inflationary credit expansion and its transmission over time, leading to a capital misallocation caused by the artificially low interest rates. Hayek claimed that the past instability of the market economy is the consequence of the exclusion of the most important regulator of the market mechanism, money, from itself being regulated by the market process. Hayek’s analysis was based on Böhm-Bawerk’s concept of the average period of production and on the effects that monetary policy could have upon it. In accordance with the reasoning later outlined in his essay *The Use of Knowledge in Society* (1945), Hayek argued that a monopolistic governmental agency like a central bank can neither possess the relevant information which should govern supply of money, nor have the ability to use it correctly. Hayek continued his research in monetary and capital theory, revising his theories of the relations between credit cycles and capital structure.

(b) **The Economic Calculation Problem**: “Building on the earlier work of Ludwig von Mises and others, Hayek also argued that while in centrally planned economies an individual or a select group of individuals must determine the distribution of resources, these planners will never have enough information to carry out this allocation reliably. This argument, first proposed by Max Weber, says that the efficient exchange and use of resources can be maintained only through the price mechanism in free markets. In 1935, Hayek published *Collectivist Economic Planning*, a collection of essays from an earlier debate that had been initiated by Ludwig von Mises. Hayek included Mises’s essay, in which Mises argued that rational planning was impossible under socialism. Some socialists such as H. D. Dickinson and Oskar Lange, responded by invoking general equilibrium theory, which they argued disproved Mises’s thesis. They noted that the difference between a planned and a free market system lay in who was responsible for solving the equations. They argued, if some of the prices chosen by socialist managers were wrong, gluts or shortages would appear, signaling them to adjust the prices up or down, just as in a free market. Through such a trial and error, a socialist economy could mimic the efficiency of a free market system, while avoiding its many problems. Hayek challenged this vision in a series of contributions. In ‘Economics and Knowledge’ (1937), he pointed out that the standard equilibrium theory assumed that all agents have full and correct information. In the real world, however, different individuals have different bits of knowledge, and furthermore, some of what they believe is wrong. In *The Use of Knowledge in Society* (1945), Hayek argued that the price mechanism serves to share and synchronize local and personal knowledge, allowing society’s members to achieve diverse, complicated ends through a principle of spontaneous self-organization. He contrasted the use of the price mechanism with central planning, arguing that the former allows for more rapid adaptation to changes in particular circumstances of time and place. Thus, he set the stage for Oliver Williamson’s later contrast between markets and hierarchies as alternative coordination mechanisms for economic transactions. He used the term catallaxy to describe a self-organizing system of voluntary co-operation. Hayek’s research into this argument was specifically cited by the Nobel Committee in its press release awarding Hayek the Nobel Prize.”

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(c) **Against Collectivism**: *The Road to Serfdom* (1944) and in subsequent academic works, Hayek argued that socialism required central economic planning and that such planning in turn leads towards totalitarianism. (1) **The Abandoned Road**: For over two hundred years English ideas had been spreading eastward. The rule of freedom which had been achieved in England seemed destined to spread throughout the world. The intellectual influence which German thinkers were able to exercise during this period on the whole world was supported not merely by the great material progress of Germany but even more by the extraordinary reputation which German thinkers and scientists had earned during the preceding hundred years. But it soon served to assist the spreading from Germany of ideas directed against the foundations of that civilization. The Germans themselves were fully aware of conflict, long before the Nazis. Western was liberalism and democracy, capitalism and individualism, free trade and any form of internationalism or love of peace.328

(2) **The Great Utopia**: De Tocqueville saw that democracy as an individualist institution stood in an irreconcilable conflict with socialism: Democracy extends the sphere of individual freedom, he said in 1848: socialism restricts it. Democracy attaches all possible value to each man; socialism makes each man a mere agent, a mere number. Democracy and socialism have nothing in common but one word: equality. But notice the difference: while democracy seeks equality in liberty, socialism seeks equality in restraint and servitude. Socialism is certain to prove, in the beginning at least, the road not to freedom, but to dictatorship and counter-dictatorships, to civil war of the fiercest kind. Marxism has led to Fascism and National Socialism, because, in all essentials, it is Fascism and National Socialism. The complete collapse of the belief in the attainability of freedom and equality through Marxism.329

(3) **Individualism and Collectivism**: In this sense socialism means the abolition of private enterprise, of private ownership of the means of production, and the creation of a system of planned economy in which the entrepreneur working for profit is replaced by a central planning body. The economic planning is the prime instrument of socialist reform, but can be used for many other purposes. Socialism is a species of collectivism so as to include all types of planned economy. Both capitalist competition and central direction of socialism become poor and inefficient tools if they incomplete. Planning and competition can be combined only by planning for competition but not by planning against competition. (4) **The Inevitability of Planning**: Modern technological progress makes planning inevitable; that can be interpreted in a different manner. (5) **Planning and Democracy**: The various kinds of collectivism, communism, fascism, etc. differ among themselves in the nature of the goal toward which they want to direct the efforts of society. But they all differ from liberalism and individualism in wanting to organize the whole of society and all its resources for this unitary end and in refusing to recognize autonomous spheres in which the ends of the individualists are supreme. In short, they are totalitarian in true sense of this new word which we have adopted to describe the unexpected but nevertheless inseparable manifestations of what in theory we call collectivism. Delegation is usually justified by the technical character of the task. Hitler did not have to destroy democracy; he merely took advantage of the decay of democracy. If capitalism means a competitive system based on free disposal over private property, it is far more important to realize that only within this system is democracy possible. When it becomes dominated by a collectivist creed, democracy will inevitably destroy itself. (6) **Planning and the Rule of Law**: The Rule of Law, in a sense of the rule of formal law, the absence of legal privileges of particular people designated by authority, which safeguards that equality before the law which is the opposite of arbitrary government. There will be no individual rights but only individual duties, but it is possible to pursue a policy of ruthless discrimination against national minorities by the use of recognized instruments of economic policy without ever infringing the letter of statutory protection of minority rights.330
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(7) Economic Control and Totalitarianism: The authority directing all economic activity would control not merely the part of our lives which is concerned with inferior things; it would control the allocation of the limited means for all our ends. Economic control is not merely control of a sector of human life which can be separated from the rest; it is the control of the means for all our ends. An authority directing the whole economic system would be the most powerful monopolist conceivable. In a directed economy, where the authority watches over the ends pursued, it is certain that it would use its power to assist some ends and to prevent the realization of others. Political freedom is meaningless without economic freedom. (8) Who, Whom? That the ideal of justice of most socialists would be satisfied if merely private income from property were abolished and the differences between the earned incomes of different people remained what they are now is true. What this people forget that, in transferring all property in the means of production to the state, they put the state in a position whereby its action must in effect decide all other incomes. So long as property is divided among many owners, none of them acting independently has exclusive power to determine the income and position of particular people – nobody is tied to any one property owner except by the fact that he may offer better terms than anybody else. (9) Security and Freedom: There is no incompatibility in principle between the state’s providing greater security in this way and the preservation of individual freedom. The recurrent waves of large-scale unemployment is one of the gravest and most pressing problems of our time. Though its solution will require much planning in its good sense, it does not require that special kind of planning which replacing the market. The more we try to provide full security by interfering with the market system, the greater the insecurity becomes. Those who would give up essential liberty to purchase a little temporary safety deserve neither liberty nor safety. (10) Why the Worst Get on Top: Power tends to corrupt, and absolute power corrupts absolutely. The interaction between morals and institutions may well have the effect that the ethics produced by collectivism will be altogether different from the moral ideals that lead to the demand for collectivism. Collectivism has no room for the wide humanitarianism of liberalism but only for the narrow particularism of the totalitarian. The very concepts of humanity and of any form of internationalism are entirely products of the individualistic view of man, and there can be no place for them in a collective system of thought. The selection of the leaders is closely bound up with the wide problem of selection according to the opinions held, or rather according to the readiness with which a person conforms to an ever changing set of doctrines. (11) The End of Truth: The tragedy of collectivist thought is that totalitarian propaganda destroys reason making right decisions. (12) The Socialist Roots of Nazism: In Germany, the state has undergone a process of socialization, and Social Democracy has undergone a process of nationalization in the tract on Prussianism and Socialism; while France and England aim at three forms of existence – Freedom, Equality, and Community. (13) The Totalitarian in Our Midst: The revolution which began in the last war, which has been the driving force of every significant political movement in the last twenty years…a revolution against the predominant ideas of the nineteenth century: liberal democracy, national self-determination and laissez faire economics. Monopoly has become the danger as a result of deliberate collaboration of organized capital and organized labor. (14) Material Conditions and Ideal Ends: People admit that present political trends constitute a serious threat to our economic prospects, but we are making material sacrifices to gain ideal ends. (15) The Prospect of International Order: We need an international economic authority while the states can at the same time retain their unrestricted political sovereignty, almost exactly the opposite is true. (16) Conclusion: If we are to build a better world, we must have the courage to make a new start. It is those who cry louder for the New Order who are most completely under the sway of the ideas which have created this war and most of the evils from which we suffer.331
(d) **Investment and Choice**: “Hayek investigated the choice theory of investment. He examined the inter-relations between non-permanent production goods and “latent” or potentially economic permanent resources – building on the choice theoretical insight that, processes that take more time will evidently not be adopted unless they yield a greater return than those that take less time. Hayek’s work on the microeconomics of the choice theories of investment, non-permanent goods, potential permanent resources, and economically-adapted permanent resources mark a central dividing point between his work in areas of macroeconomics and that of almost all other economists. Hayek’s work on the macroeconomic subjects of central planning, trade cycle theory, the division of knowledge, and entrepreneurial adaptation especially, differ greatly from the opinions of macroeconomic Marshallian economists in the tradition of John Maynard Keynes and the microeconomic Walrasian economists in the tradition of Abba Lerner.”

(e) **Philosophy of Science**: “During World War II, Hayek began the ‘Abuse of Reason’ project. His goal was to show how a number of then-popular doctrines and beliefs had a common origin in some fundamental misconceptions about the social science. In his philosophy of science, which has much in common with that of his good friend Karl Popper, Hayek was highly critical of what he termed scientism: a false understanding of the methods of science that has been mistakenly forced upon the social sciences, but that is contrary to the practices of genuine science. Usually, scientism involves combining the philosophers’ ancient demand for demonstrative justification with the associationists’ false view that all scientific explanations are simple two-variable linear relationships. Hayek points out that much of science involves the explanation of complex multivariable and nonlinear phenomena, and the social science of economics and undesigned order compares favorably with such complex sciences as Darwinian biology. These ideas were developed in *The Counter-Revolution of Science* in 1952, and in some of Hayek’s later essays in the philosophy of science such as *Degrees of Explanation* and *The Theory of Complex Phenomena*. In *Counter-Revolution*, for example, Hayek observed that the hard sciences attempt to remove the human factor in order to obtain objective, strictly controlled results.”

(f) **Psychology**: “In *The Sensory Order: An Inquiry into the Foundations of Theoretical Psychology* (1952), Hayek independently developed a Hebbian learning model of learning and memory – an idea which he first conceived in 1920, prior to his study of economics… Hayek posited two orders, the sensory order that we experience, and the natural order that natural science has revealed. Hayek thought that the sensory order is in fact a product of the brain. He characterized the brain as a highly complex but self-ordering, hierarchical classification system, a huge network of connections.”

(g) **Social and Political Philosophy**: “In the latter half of his career Hayek made a number of contributions to social and political philosophy, which he based on his views on the limits of human knowledge, and the idea of spontaneous order in social institutions. He argues in favour of a society organised around a market order, in which the apparatus of state is employed almost (though not entirely) exclusively to enforce the legal order (consisting of abstract rules, and not particular commands) necessary for a market of free individuals to function. These ideas were informed by a moral philosophy derived from epistemological concerns regarding the inherent limits of human knowledge. Hayek argued that his ideal individualistic, free-market polity would be self-regulating to such a degree that it would be a society which does not depend for its functioning on our finding good men for running it. Hayek disapproved of the notion of social justice. He compared the market to a game in which there is no point in calling the outcome just or unjust and argued that social justice is an empty phrase with no determinable content; likewise the results of the individual’s efforts are necessarily unpredictable, and the question as to whether the resulting distribution of incomes is just has no meaning.”
Oscar R. Lange (1904-1965): “was a Polish economist and diplomat. He is best known for advocating the use of market pricing tools in socialist systems and providing a model of market socialism. During his stay in the United States, Lange was a sought-after academic teacher and researcher in mathematical economics. Later in communist Poland, he was a member of the Central Committee of the Polish United Workers’ Party and a believer in centrally-managed economy. Lange was born in Tomaszów Mazowiecki as son of Arthur Julius Lange and Sophie Albertine Rosner. He studied law and economics at the University of Kraków, where he defended a doctoral dissertation in 1928. From 1926 to 1927 Lange worked at the Ministry of Labor in Warsaw, and then was a research assistant at the University of Kraków (1927–31). He married Irene Oderfeld in 1932. In 1934, a Rockefeller Foundation fellowship brought him to England, from where he emigrated to the United States in 1937. Lange became a professor at the University of Chicago in 1938 and was naturalized as a U.S. citizen in 1943.”

“Joseph Stalin, who identified Lange as a person of leftist and pro-Soviet sympathies, prevailed on President Franklin D. Roosevelt to obtain a passport for Lange to visit the Soviet Union in an official capacity, so that Stalin could speak with him personally; he also proposed offering him a position in the future Polish cabinet. The State Department was opposed to Lange traveling as an emissary because they felt that his political views represented neither Americans of Polish descent nor American public opinion in general. Lange’s trip to the Soviet Union in 1944 caused further controversy, as the newly-establish Polish American Congress condemned him and defended the interests of the London-based Polish government-in-exile. Lange returned to the United States at the end of May and met, at Roosevelt’s request, with Prime Minister Stanisław Mikołajczyk of the government-in-exile, who was on a visit in Washington. Lange stressed how reasonable Stalin was prepared to be (Stalin told him of the Soviet desire to preserve independent Poland under a coalition government), and asked the State Department to put pressure on the exiled Polish leadership to reach an understanding with the Soviet leader. Towards the end of World War II, Lange broke with the Polish government-in-exile and transferred his support to the Lublin Committee (PKWN) sponsored by the Soviet Union. Lange served as a go-between for Roosevelt and Stalin during the Yalta Conference discussions on post-war Poland. After the war ended in 1945, Lange returned to Poland… Oskar Lange worked for the Polish government while continuing his academic pursuits at the University of Warsaw and the Main School of Planning and Statistics. He was deputy chairman of the Polish Council of State in 1961–65, and as such one of four acting chairmen of the Council of State.”

“The bulk of Lange’s contributions to economics came during his American interlude of 1933–45. Despite being an ardent socialist, Lange deplored the Marxian labor theory of value because he was very much a believer in the neoclassical theory of price. In the history of economics, he is probably best known for his work On the Economic Theory of Socialism published in 1936, where he famously put Marxian economics and neoclassical economics together. In the book, Lange advocated the use of market tools (especially the neoclassical pricing theory) in economic planning of socialism and Marxism. He proposed that central planning boards set prices through trial and error, making adjustments as shortages and surpluses occur rather than relying on a free price mechanism. Under this system, central planners would arbitrarily pick a price for products manufactured in government factories and raise it or reduce, depending on whether it resulted in shortages or gluts. After this economic experiment had been run a few times, mathematical methods would be employed to plan the economy: if there were shortages, prices would be raised; if there were surpluses, prices would be lowered. Raising the prices would encourage businesses to increase production, driven by their desire to increase profits, and in doing so eliminate the shortage. Lowering the prices would encourage businesses to curtail production
in order to prevent losses, which would eliminate the surplus. In Lange’s opinion, such simulation of market mechanism would be capable of effectively managing supply and demand. Proponents of this idea argued that it combines the advantages of a market economy with those of socialist economy. “Lange went on to point out that under competitive capitalism, neoclassical theory has found that three conditions obtain in equilibrium. (1) Both consumers and producers are in maximizing positions; (a) consumers are spending their limited income so as to maximize satisfaction, and (b) producers are maximizing profits. (2) Every price is such that quantity supplied equals quantity demanded, so that all markets are cleared. (3) Income from consumers will be equal to their receipts from the factors sold plus profits. Under planned socialism equilibrium (1a) is unchanged. Thus Lange argued that consumers would be able to spend their income to maximize satisfaction. Condition (1b) no longer holds under socialism, because state-owned firms are not interested in profit maximization. Lange would replace condition (1b) by requiring producers to follow two rules: first, that they produce every output at the lowest possible cost; second, that they choose the scale of output so that price equals marginal cost. Condition (2) is brought about in capitalism by free market forces. Lange contended that the clearing of markets under socialism would be brought about by state planners adjusting prices on a trial-and-error basis. A price that is too high would bring about surpluses and indicate to the planners the necessity of lowering prices. Too low a price would result in shortages. Condition (3) would hold under socialism, except that there would be no profits.”

“With the utilization of this idea, Lange claimed, a state-run economy would be at least as efficient as a capitalist or private market economy. He argued that this was possible, provided the government planners used the price system as if in a market economy and instructed state industry managers to respond parametrically to state-determined prices (minimize cost, etc.). Lange’s argument was one of the pivots of the socialist calculation debate with the Austrian School economists. At that time, the view among English socialists of the Fabian Society was that Lange had won the debate. His works provided the earliest model of market socialism. Lange also made contributions in various other areas. He was one of the leading lights of the Paretian Revival in general equilibrium theory during the 1930s. In 1942, he provided one of the first proofs of the First and Second Welfare Theorems. He initiated the analysis of stability of general equilibrium (1942, 1944). His critique of the quantity theory of money (1942) prompted his student Don Patinkin to develop his remarkable integration of money into general equilibrium theory. Lange made several seminal contributions to the development of neoclassical synthesis (1938, 1943, 1944). He worked on integrating classical economics and neoclassical economics into a single theoretical structure (e.g. 1959). In his final years, Lange also worked on cybernetics and the use of computers for economic planning.”

The International Institute of Social Studies (ISS) awarded Oskar Lange an honorary fellowship in 1962. The ISS of “Erasmus University Rotterdam in The Hague is a unique, independent and international graduate school in the social sciences. The Institute of Social Studies was established in the aftermath of World War II at a time when there was widespread concern in Europe about reconstruction and when decolonization had been set in motion in India, Pakistan, Ceylon and then Indonesia. The Dutch government set up a development institute, the Institute of Social Studies, in 1952. It was the first of its kind in Europe, an innovative and far-reaching move that was to prove well ahead of its time. As in Britain about a decade later, the Dutch were primarily concerned with the potential loss of influence and markets in their former colonies and a training centre was seen as a way of forging new links. It would provide much needed assistance, influencing the thinking of future policy-makers, and building new allegiances that would keep open the door for their own interests and businesses.”
Joseph A. Schumpeter (1883-1950): Schumpeter was an Austrian-born American economist and political scientist. He briefly served as Finance Minister of Austria in 1919. In 1932 he became a professor at Harvard University where he remained until the end of his career. One of the most influential economists of the 20th century, Schumpeter popularized the term creative destruction in economics. “Schumpeter was born in Triesch, Habsburg Moravia (now Třešť in the Czech Republic, then part of Austria-Hungary) in 1883 to Catholic German-speaking parents. His father owned a factory, but he died when Joseph was only four years old. In 1893, Joseph and his mother moved to Vienna. After attending school at the Theresianum, Schumpeter began his career studying law at the University of Vienna under the Austrian capital theorist Eugen von Böhm-Bawerk, taking his PhD in 1906. In 1909, after some study trips, he became a professor of economics and government at the University of Czernowitz. In 1911, he joined the University of Graz, where he remained until World War I. In 1918, Schumpeter was a member of the Socialization Commission established by the Council of the People’s Deputies in Germany. In March 1919, he was invited to take office as Minister of Finance in the Republic of German-Austria. He proposed a capital levy as a way to tackle the war debt and opposed the socialization of the Alpine Mountain plant. In 1921, he became president of the private Biedermann Bank. He was also a board member at the Kaufmann Bank. Problems at those banks left Schumpeter in debt. His resignation was a condition of the takeover of the Biedermann Bank in September 1924. From 1925 to 1932, Schumpeter held a chair at the University of Bonn, Germany. He lectured at Harvard in 1927–1928 and 1930. In 1931, he was a visiting professor at The Tokyo College of Commerce. In 1932, Schumpeter moved to the United States, and soon began what would become extensive efforts to help central European economist colleagues displaced by Nazism. Schumpeter also became known for his opposition to Marxism and socialism that he thought would lead to dictatorship, and even criticized President Franklin Roosevelt’s New Deal. In 1939, Schumpeter became a US citizen. In the beginning of World War II, the FBI investigated him and his wife for pro-Nazi leanings, but found no evidence of Nazi sympathies.”

“At Harvard, Schumpeter was considered a memorable character, erudite and even showy in the classroom. He became known for his heavy teaching load and his personal and painstaking interest in his students. He served as the faculty advisor of the Graduate Economics Club and organized private seminars and discussion groups. Some colleagues thought his views outdated by Keynesianism which was fashionable; others resented his criticisms, particularly of their failure to offer an assistant professorship to Paul Samuelson, but recanted when they thought him likely to accept a position at Yale University. This period of his life was characterized by hard work and comparatively little recognition of his massive 2-volume book Business Cycles. However, the Schumpeters persevered, and in 1942 published what became the most popular of all his works, Capitalism, Socialism and Democracy, reprinted many times and in many languages in the following decades, as well as cited thousands of times. Schumpeter claimed that he had set himself three goals in life: to be the greatest economist in the world, to be the best horseman in all of Austria and the greatest lover in all of Vienna. He said he had reached two of his goals, but he never said which two, although he is reported to have said that there were too many fine horsemen in Austria for him to succeed in all his aspirations. Schumpeter died in his home in Taconic, Connecticut, at the age of 66, on the night of 7 January 1950. He was married three times. His first wife was Gladys Ricarde Seaver, an English woman nearly 12 years his senior. His second was Anna Reisinger, 20 years his junior and daughter of the concierge of the apartment where he grew up…They married in 1925, but within a year, she died in childbirth. In 1937, Schumpeter married the American economic historian Elizabeth Boody, who helped him popularize his work and edited…the posthumously published History of Economic Analysis.”
“The source of Schumpeter’s dynamic, change-oriented, and innovation-based economics was the Historical School of economics. Although his writings could be critical of the School, Schumpeter’s work on the role of innovation and entrepreneurship can be seen as a continuation of ideas originated by the Historical School, especially the work of Gustav von Schmoller and Werner Sombart. According to Christopher Freeman (2009), a scholar who devoted much time researching Schumpeter’s work: the central point of his whole life work: that capitalism can only be understood as an evolutionary process of continuous innovation and creative destruction.”

(a) *History of Economic Analysis*: “Schumpeter’s scholarship is apparent in his posthumous History of Economic Analysis, although some of his judgments seem idiosyncratic and sometimes cavalier. For instance, Schumpeter thought that the greatest 18th century economist was Turgot, not Adam Smith, as many consider, and he considered Léon Walras to be the greatest of all economists, beside whom other economists’ theories were like inadequate attempts to catch some particular aspects of Walrasian truth. Schumpeter criticized John Maynard Keynes and David Ricardo for the Ricardian vice. According to Schumpeter, Ricardo and Keynes reasoned in terms of abstract models, where they would freeze all but a few variables. Then they could argue that one caused the other in a simple monotonic fashion. This led to the belief that one could easily deduce policy conclusions directly from a highly abstract theoretical model. In this book, Joseph Schumpeter recognized the implication of a gold monetary standard compared to a fiat monetary standard. It links every nation’s money rates and price levels with the money-rates and price levels of all the other nations that are ‘on gold.’ However, gold is extremely sensitive to government expenditure and even to attitudes or policies that do not involve expenditure directly, for example, to foreign policy, to certain policies of taxation, and, in general, to precisely all those policies that violate the principles of liberalism. This is the reason why gold is so unpopular now and also why it was so popular in a bourgeois era.”

(b) *Business Cycles*: “Schumpeter’s relationships with the ideas of other economists were quite complex in his most important contributions to economic analysis – the theory of business cycles and development. Following neither Walras nor Keynes, Schumpeter starts in The Theory of Economic Development with a treatise of circular flow which, excluding any innovations and innovative activities, leads to a stationary state. The stationary state is, according to Schumpeter, described by Walrasian equilibrium. The hero of his story is the entrepreneur. The entrepreneur disturbs this equilibrium and is the prime cause of economic development, which proceeds in cyclic fashion along several time scales. In fashioning this theory connecting innovations, cycles, and development, Schumpeter kept alive the Russian Nikolai Kondratiev’s ideas on 50-year cycles, Kondratiev waves. Schumpeter suggested a model in which the four main cycles, Kondratiev (54 years), Kuznets (18), Juglar (9) and Kitchin (about 4) can be added together to form a composite waveform. Actually there was considerable professional rivalry between Schumpeter and Kuznets. The wave form suggested here did not include the Kuznets Cycle simply because Schumpeter did not recognize it as a valid cycle. See “business cycle” for further information. A Kondratiev wave could consist of three lower degree Kuznets waves. Each Kuznets wave could, itself, be made up of two Juglar waves. Similarly two (or three) Kitchin waves could form a higher degree Juglar wave. If each of these were in phase, more importantly if the downward arc of each was simultaneous so that the nadir of each was coincident it would explain disastrous slumps and consequent depressions. As far as the segmentation of the Kondratiev Wave, Schumpeter never proposed such a fixed model. He saw these cycles varying in time – although in a tight time frame by coincidence – and for each to serve a specific purpose.”

Walrasian equilibrium is not adequate to capture the mechanism of economic development.
(c) Demise of Capitalism: His most popular book in English is *Capitalism, Socialism and Democracy*. While he agrees with Karl Marx that capitalism will collapse and be replaced by socialism, Schumpeter predicts a different way this will come about. While Marx predicted that capitalism would be overthrown by a violent proletarian revolution, which actually occurred in the least capitalist countries, Schumpeter believed that capitalism would gradually weaken by itself and eventually collapse. Specifically, the success of capitalism would lead to corporatism and to values hostile to capitalism, especially among intellectuals. “Intellectuals” are a social class in a position to critique societal matters for which they are not directly responsible and to stand up for the interests of other classes. Intellectuals tend to have a negative outlook of capitalism, even while relying on it for prestige, because their professions rely on antagonism toward it. The growing number of people with higher education is a great advantage of capitalism, according to Schumpeter. Yet, unemployment and a lack of fulfilling work will cause intellectual critique, discontent and protests. Parliaments will increasingly elect social democratic parties, and democratic majorities will vote for restrictions on entrepreneurship. Increasing workers’ self-management, industrial democracy and regulatory institutions would evolve non-politically into “liberal capitalism”. Thus, the intellectual and social climate needed for thriving entrepreneurship will be replaced by some form of “laborism”. This will exacerbate “creative destruction” (a borrowed phrase to denote an endogenous replacement of old ways of doing things by new ways), which will ultimately undermine and destroy the capitalist structure.

Schumpeter emphasizes throughout this book that he is analyzing trends, not engaging in political advocacy.

(d) Democratic Theory: “Schumpeter expounded a theory of democracy which sought to challenge what he called the “classical doctrine”. He disputed the idea that democracy was a process by which the electorate identified the common good, and politicians carried this out for them. He argued this was unrealistic, and that people’s ignorance and superficiality meant that in fact they were largely manipulated by politicians, who set the agenda. This made a ‘rule by the people’ concept both unlikely and undesirable. Instead he advocated a minimalist model, much influenced by Max Weber, whereby democracy is the mechanism for competition between leaders, much like a market structure. Although periodic votes by the general public legitimize governments and keep them accountable, the policy program is very much seen as their own and not that of the people, and the participatory role for individuals is usually severely limited.”

(e) Entrepreneurship: “Schumpeter was probably the first scholar to theorize about entrepreneurship, and the field owed much to his contributions. His fundamental theories are often referred to as Mark I and Mark II. In the first, Schumpeter argued that the innovation and technological change of a nation come from the entrepreneurs, or wild spirits. He coined the word *Unternehmergeist*, German for entrepreneur-spirit, and asserted that … the doing of new things or the doing of things that are already being done in a new way.”

(f) Cycles and Long Wave Theory: “Schumpeter was the most influential thinker to argue that long cycles are caused by innovation, and are an incident of it. His treatise on business cycles developed were based on Kondratiev’s ideas which attributed the causes very differently. Schumpeter’s treatise brought Kondratiev’s ideas to the attention of English-speaking economists. The Schumpeterian variant of long-cycles hypothesis, stressing the initiating role of innovations, commands the widest attention today. In Schumpeter’s view, technological innovation is at the cause of both cyclical instability and economic growth. Fluctuations in innovation cause fluctuation in investment and those cause cycles in economic growth. Schumpeter sees innovations as clustering around certain points in time periods that he refers to as “neighborhoods of equilibrium”, when entrepreneurs perceive that risk and returns warrant innovative commitments. These clusters lead to long cycles by generating periods of acceleration in aggregate growth.”
Chapter IV. Economic Thought and Other Intellectual Developments

Photo IV-8-1. Auguste Comte (1798-1857) (Left)
https://d.pr-assets.com/authors/1391988401p5/5428890.jpg

Photo IV-8-2. Lewis Henry Morgan (1818-81) (Right)
http://www.centrosangiorgio.com/piaghe_sociali/comunismo/immagini/lewis_henry_morgan.jpg
Accessed both 27 January 2017

Photo IV-8-3. Lester Frank Ward (1841-1913) (Left)
https://upload.wikimedia.org/wikipedia/commons/3/36/%D0%9B%D0%B5%D1%81%D1%82%D0%B5%D1%80%D0%A4%D0%92%D0%BE%D1%80%D0%B4.jpeg

Photo IV-8-4. Max Weber (1864-1920) (Right)
http://a3.files.biography.com/image/upload/c_fill,cs_srgb,dpr_1.0,g_face,h_300,q_80,w_300/MTI5NDt0MDU1MTYzOTMwMTI3.jpg
Accessed both 27 January 2017

Book V. The Consolidation of Nation States and Industrialization, 1815-1914
Chapter IV. Economic Thought and Other Intellectual Developments

8. Socio-cultural Evolutionism

Liberalism was already discussed in Chapter III (pages 421-53: Social Darwinism 437; Herbert Spencer 446-7), so in this section we review sociocultural evolutionism, which is significantly related with the change of economic thought in this period. “Sociocultural evolution, sociocultural evolutionism or cultural evolution are theories of cultural and social evolution that describe how cultures and societies change over time. Whereas sociocultural development traces processes that tend to increase the complexity of a society or culture, sociocultural evolution also considers process that can lead to decreases in complexity (degeneration) or that can produce variation or proliferation without any seemingly significant changes in complexity (cladogenesis). Sociocultural evolution is the process by which structural reorganization is affected through time, eventually producing a form or structure which is qualitatively different from the ancestral form. Most 19th-century and some 20th-century approaches to socio-culture aimed to provide models for the evolution of humankind as a whole, arguing that different societies have reached different stages of social development. The most comprehensive attempt to develop a general theory of social evolution centering on the development of socio-cultural systems, the work of Talcott Parsons (1902–1979), operated on a scale which included a theory of world history. Another attempt, on a less systematic scale, originated with the world-systems approach. More recent approaches focus on changes specific to individual societies and reject the idea that cultures differ primarily according to how far each one is on the linear scale of social progress. Most modern archaeologists and cultural anthropologists work within the frameworks of neo-evolutionism, sociobiology and modernization theory. Many different societies have existed in the course of human history, with estimates as high as over one million separate societies; however, as of 2013, only about two hundred or so different societies survive.”

“Anthropologists and sociologists often assume that human beings have natural social tendencies and that particular human social behaviors have non-genetic causes and dynamics (i.e. they are learned in a social environment and through social interaction). Societies exist in complex social environments (i.e. with natural resources and constraints) and adapt themselves to these environments. It is thus inevitable that all societies change. Specific theories of social or cultural evolution often attempt to explain differences between coeval societies, by positing that different societies have reached different stages of development. Although such theories typically provide models for understanding the relationship between technologies, social structure or the values of a society, they vary as to the extent to which they describe specific mechanisms of variation and change. Early sociocultural evolution theories – the theories of Auguste Comte, Herbert Spencer, and Lewis Henry Morgan – developed simultaneously with, but independently of, Charles Darwin's works and were popular from the late 19th century to the end of World War I. These 19th-century unilinear evolution theories claimed that societies start out in a primitive state and gradually become more civilized over time, and equated the culture and technology of Western civilization with progress. Some forms of early sociocultural evolution theories (mainly unilinear ones) have led to much criticized theories like social Darwinism and scientific racism, used in the past to justify existing policies of colonialism and slavery and to justify new policies such as eugenics. Most 19th-century and some 20th-century approaches aimed to provide models for the evolution of humankind as a single entity. However, most 20th-century approaches, such as multilinear evolution, focused on changes specific to individual societies. Moreover, they rejected directional change. Most archaeologists work within the framework of multi-linear evolution. Other contemporary approaches to social change include neo-evolutionism, sociobiology, dual inheritance theory, modernization theory and postindustrial theory.”

Book V. The Consolidation of Nation States and Industrialization, 1815-1914
Stadial Theory is about stages of society. “Enlightenment and later thinkers often speculated that societies progressed through stages: in other words, they saw history as stadial. While expecting humankind to show increasing development, theorists looked for what determined the course of human history. Georg Wilhelm Friedrich Hegel (1770–1831), for example, saw social development as an inevitable process. It was assumed that societies start out primitive, perhaps in a state of nature, and could progress toward something resembling industrial Europe. While earlier authors such as Michel de Montaigne (1533–1592) had discussed how societies change through time, the Scottish Enlightenment of the 18th century proved key in the development of the idea of sociocultural evolution. In relation to Scotland’s union with England in 1707, several Scottish thinkers pondered the relationship between progress and the affluence brought about by increased trade with England. They understood the changes Scotland was undergoing as involving transition from an agricultural to a mercantile society. In conjectural histories, authors such as Adam Ferguson (1723–1816), John Millar (1735–1801) and Adam Smith (1723–1790) argued that societies all pass through a series of four stages: hunting and gathering, pastoralism and nomadism, agriculture, and finally a stage of commerce.”

“Philosophical concepts of progress, such as that of Hegel, developed as well during this period. In France, authors such as Claude Adrien Helvétius (1715–1771) and other philosophes were influenced by the Scottish tradition. Later thinkers such as Comte de Saint-Simon (1760–1825) developed these ideas. Auguste Comte (1798–1857) in particular presented a coherent view of social progress and a new discipline to study it: sociology. These developments took place in a context of wider processes. The first process was colonialism. Although imperial powers settled most differences of opinion with their colonial subjects through force, increased awareness of non-Western peoples raised new questions for European scholars about the nature of society and of culture. Similarly, effective colonial administration required some degree of understanding of other cultures. Emerging theories of sociocultural evolution allowed Europeans to organize their new knowledge in a way that reflected and justified their increasing political and economic domination of others: such systems saw colonized people as less evolved, and colonizing people as more evolved. Modern civilization, appeared the result of steady progress from a state of barbarism, and such a notion was common to many thinkers of the Enlightenment, including Voltaire (1694–1778). The second process was the Industrial Revolution and the rise of capitalism, which together allowed and promoted continual revolutions in the means of production. Emerging theories of sociocultural evolution reflected a belief that the changes in Europe wrought by the Industrial Revolution and capitalism were improvements. Industrialization, combined with the intense political change brought about by the French Revolution of 1789 and the U.S. Constitution, which paved the way for the dominance of democracy, forced European thinkers to reconsider some of their assumptions about how society was organized.”

“Eventually, in the 19th century three major classical theories of social and historical change emerged: sociocultural evolutionism; the social cycle theory; the Marxist theory of historical materialism. These theories had a common factor: they all agreed that the history of humanity is pursuing a certain fixed path, most likely that of social progress. Thus, each past event is not only chronologically, but causally tied to present and future events. The theories postulated that by recreating the sequence of those events, sociology could discover the laws of history.” Unlike the theory of social evolutionism, sociological cycle theory argues that events and stages of society and history are generally repeating themselves in cycles. Such a theory does not necessarily imply that there cannot be any social progress. Historical materialism is principally a theory of history according to which the material conditions of a society’s way of producing and reproducing the means of human existence are the causes of development and changes of human society.
“While sociocultural evolutionists agree that an evolution-like process leads to social progress, classical social evolutionists have developed many different theories, known as theories of unilinear evolution. Sociocultural evolutionism became the prevailing theory of early sociocultural anthropology and social commentary, and is associated with scholars like Auguste Comte, Edward Burnett Tylor, Lewis Henry Morgan, Benjamin Kidd, L. T. Hobhouse and Herbert Spencer. Sociocultural evolutionism attempted to formalize social thinking along scientific lines, with the added influence from the biological theory of evolution. If organisms could develop over time according to discernible, deterministic laws, then it seemed reasonable that societies could as well. Human society was compared to a biological organism, and social science equivalents of concepts like variation, natural selection, and inheritance were introduced as factors resulting in the progress of societies. The idea of progress led to that of a fixed stages through which human societies progress, usually numbering three – savagery, barbarism, and civilization – but sometimes many more. As early as the late 18th century, the Marquis de Condorcet (1743–1794) listed ten stages, or epochs, each advancing the rights of man and perfecting the human race. At that time, anthropology was rising as a new scientific discipline, separating from the traditional views of primitive cultures that was usually based on religious views.”

Classical social evolutionism is closely associated with the 19th-century writings of Auguste Comte and of Herbert Spencer. “In many ways, Spencer's theory of cosmic evolution has much more in common with the works of...Auguste Comte than with contemporary works of Charles Darwin. Spencer also developed and published his theories several years earlier than Darwin. In regard to social institutions, however, there is a good case that Spencer's writings might be classified as social evolutionism. Although he wrote that societies over time progressed – and that progress was accomplished through competition – he stressed that the individual rather than the collectivity is the unit of analysis that evolves; that, in other words, evolution takes place through natural selection and that it affects social as well as biological phenomenon. Nonetheless, the publication of Darwin's works proved a boon to the proponents of sociocultural evolution, who saw the ideas of biological evolution as an attractive explanation for many questions about the development of society.” They view society “as a kind of organism subject to the process of growth - from simplicity to complexity, from chaos to order, from generalization to specialization, from flexibility to organization. They agree that the process of societal growth can be divided into certain stages, have their beginning and eventual end, and that this growth is in fact social progress: each newer, more-evolved society is better. Thus progressivism became one of the basic ideas underlying the theory of sociocultural evolutionism.”

Herbert Spencer (1820-1903) advocated the preeminence of the individual over society and of science over religion. He argued against government intervention as he believed that society should evolve toward more individual freedom, differentiated between two phases of development: "the military and industrial societies. The earlier military society has the goal of conquest and defense, is centralized, economically self-sufficient, collectivistic, puts the good of a group over the good of an individual, uses compulsion, force and repression, and rewards loyalty, obedience and discipline. The industrial society, in contrast, has a goal of production and trade, is decentralized, interconnected with other societies via economic relations, works through voluntary cooperation and individual self-restraint, treats the good of individual as of the highest value, regulates the social life via voluntary relations; and values initiative, independence and innovation. The transition process from the military to industrial society is the outcome of steady evolutionary processes within the society.” His Sociology and Social Philosophy was discussed in the Section 7. Utilitarianism of Chapter III (666-67) in this book.
Auguste Comte (1798–1857) “was a French philosopher who founded the discipline of sociology, coining the term, and the doctrine of positivism. He is sometimes regarded as the first philosopher of science in the modern sense of the term. Influenced by the utopian socialist Henri Saint-Simon, Comte developed the positive philosophy in an attempt to remedy the social malaise of the French Revolution, calling for a new social doctrine based on the sciences. Comte was a major influence on 19th-century thought, influencing the work of social thinkers such as Karl Marx, John Stuart Mill, and George Eliot. His concept of sociology and social evolutionism set the tone for early social theorists and anthropologists such as Harriet Martineau and Herbert Spencer, evolving into modern academic sociology presented by Émile Durkheim as practical and objective social research. Comte's social theories culminated in his Religion of Humanity, which presaged the development of religious humanist and secular humanist organizations in the 19th century. Comte may have coined the word altruisme (altruism).” 357

“Comte’s father, Louis Comte, a tax official, and his mother, Rosalie Boyer, were strongly royalist and deeply sincere Roman Catholics. But their sympathies were at odds with the republicanism and skepticism that swept through France in the aftermath of the French Revolution. Comte resolved these conflicts at an early age by rejecting Roman Catholicism and royalism alike. He was intellectually precocious and in 1814 entered the École Polytechnique - a school in Paris that had been founded in 1794 to train military engineers but was soon transformed into a general school for advanced sciences. The school was temporarily closed in 1816, but Comte soon took up permanent residence in Paris, earning a precarious living there by the occasional teaching of mathematics and by journalism. He read widely in philosophy and history and was especially interested in those thinkers who were beginning to discern and trace some order in the history of human society. The thoughts of several important French political philosophers of the 18th century - such as Montesquieu, the Marquis de Condorcet, A. R. J. Turgot, and Joseph de Maistre - were critically worked into his own system of thought.” 358

“Comte’s most important acquaintance in Paris was Henri de Saint-Simon, a French social reformer and one of the founders of socialism, who was the first to clearly see the importance of economic organization in modern society. Comte’s ideas were very similar to Saint-Simon’s, and some of his earliest articles appeared in Saint-Simon’s publications. There were distinct differences in the two men’s viewpoints and scientific backgrounds, however, and Comte eventually broke with Saint-Simon. In 1826 Comte began a series of lectures on his “system of positive philosophy” for a private audience, but he soon suffered a serious nervous breakdown. He made an almost complete recovery from his symptoms the following year, and in 1828/29 he again took up his projected lecture series. This was so successfully concluded that he redelivered it at the Royal Athenaeum during 1829–30. The following 12 years were devoted to his publication (in six volumes) of his philosophy in a work entitled Cours de philosophie positive (1830–42; “Course of Positive Philosophy”; Eng. trans. The Positive Philosophy of Auguste Comte). From 1832 to 1842 Comte was a tutor and then an examiner at the revived École Polytechnique. In the latter year he quarreled with the directors of the school and lost his post, along with much of his income. During the remainder of his life he was supported in part by English admirers such as John Stuart Mill and by French disciples, especially the philologist and lexicographer Maximilien Littre. Comte married Caroline Massin in 1825, but the marriage was unhappy and they separated in 1842. In 1845 Comte had a profound romantic and emotional experience with Clotilde de Vaux, who died the following year of tuberculosis. Comte idealized this sentimental episode, which exerted a considerable influence on his later thought and writings, particularly with regard to the role of women in the positivist society he planned to establish.” His other writings include The Catechism of Positive Religion (1852) and Subjective Synthesis (1856).359
(a) **Comte's Positivism.** “Comte first described the epistemological perspective of positivism in *The Course in Positive Philosophy*, a series of texts published between 1830 and 1842. These texts were followed by the 1848 work, *A General View of Positivism* (published in English in 1865). The first three volumes of the *Course* dealt chiefly with the physical sciences already in existence (mathematics, astronomy, physics, chemistry, biology), whereas the latter two emphasized the inevitable coming of social science. Observing the circular dependence of theory and observation in science, and classifying the sciences in this way, Comte may be regarded as the first philosopher of science in the modern sense of the term. Comte was also the first to distinguish natural philosophy from science explicitly. For him, the physical sciences had necessarily to arrive first, before humanity could adequately channel its efforts into the most challenging and complex Queen science of human society itself. His *View of Positivism* would therefore set out to define, in more detail, the empirical goals of sociological method. Comte offered an account of social evolution, proposing that society undergoes three phases in its quest for the truth according to a general law of three stages. The idea bears some similarity to Karl Marx's view that human society would progress toward a communist peak. This is perhaps unsurprising as both were profoundly influenced by the early utopian socialist, Henri de Saint-Simon, who was at one time Comte's teacher and mentor. Both Comte and Marx intended to develop, scientifically, a new secular ideology in the wake of European secularization.”

“Comte’s stages were (1) the theological stage, (2) the metaphysical stage, and (3) the positive stage. (1) The Theological stage was seen from the perspective of 19th century France as preceding the Enlightenment, in which man's place in society and society's restrictions upon man were referenced to God. Man blindly believed in whatever he was taught by his ancestors. He believed in a supernatural power. Fetishism played a significant role during this time. (2) By the Metaphysical stage, Comte referred not to the Metaphysics of Aristotle or other ancient Greek philosophers. Rather, the idea was rooted in the problems of French society subsequent to the revolution of 1789. This Metaphysical stage involved the justification of universal rights as being on a vauntedly higher plane than the authority of any human ruler to countermand, although said rights were not referenced to the sacred beyond mere metaphor. This stage is known as the stage of investigation, because people started reasoning and questioning although no solid evidence was laid. The stage of investigation was the beginning of a world that questioned authority and religion. (3) In the Scientific stage, which came into being after the failure of the revolution and of Napoleon, people could find solutions to social problems and bring them into force despite the proclamations of human rights or prophecy of the will of God. Science started to answer questions in full stretch. In this regard he was similar to Karl Marx and Jeremy Bentham…Comte's law of three stages was one of the first theories of social evolution.”

“Comte's explanation of the Positive philosophy introduced the important relationship between theory, practice and human understanding of the world. On page 27 of the 1855 printing of Harriet Martineau's translation of *The Positive Philosophy* of Auguste Comte, we see his observation that, ‘If it is true that every theory must be based upon observed facts, it is equally true that facts cannot be observed without the guidance of some theories. Without such guidance, our facts would be desultory and fruitless; we could not retain them: for the most part we could not even perceive them.’ Comte's emphasis on the interconnectedness of social elements was a forerunner of modern functionalism. Nevertheless, as with many others of Comte's time, certain elements of his work are now viewed as eccentric and unscientific, and his grand vision of sociology as the centerpiece of all the sciences has not come to fruition. The early sociology of Herbert Spencer came about broadly as a reaction to Comte; writing after various developments in evolutionary biology, Spencer attempted to reformulate the discipline.”
(b) **The Religion of Humanity**: “In later years, Comte developed the religion of humanity for positivist societies in order to fulfill the cohesive function once held by traditional worship. In 1849, he proposed a calendar reform called the positivist calendar. For close associate John Stuart Mill, it was possible to distinguish between a good Comte (the author of the Course in Positive Philosophy) and a bad Comte (the author of the secular-religious system). The system was unsuccessful but met with the publication of Darwin's *On the Origin of Species* (1859) to influence the proliferation of various Secular Humanist organizations in the 19th century, especially through the work of secularists such as George Holyoake and Richard Congreve. Although Comte's English followers, including George Eliot and Harriet Martineau, for the most part rejected the full gloomy panoply of his system, they liked the idea of a religion of humanity and his injunction to *vivre pour autrui* (live for others), from which comes the word altruism.”

(c) **Law of Three Stages** is the evolution of society in which the stages have already occurred or are currently developing. The reason why there are newly developed stages after a certain time period is that the system has lost its power and is preventing the progression of civilization, causing complicated situations in society. The only way to escape the situation is for people within the civilized nations to turn towards an organic new social system.

1. **Theological Stage** relies on supernatural or religious explanations of the phenomena of human behavior because the human mind explains the apparent anomalies in the universe as interventions of supernatural agents. “In this stage, humans focus on discovering absolute knowledge. Comte disapproved this stage because it turned to simple explanation humans created in their minds that all phenomena was caused by supernatural agents, rather than human reason and experience. Comte refers to Bacon’s philosophy that there can be no real knowledge except that which rests upon observed facts, but he observes that the primitive mind could not have thought that way because it would have only created a vicious circle between observations and theories…Although Comte disliked this stage, he explains that theology was necessary in the beginning of the developing primitive mind.”

2. **Metaphysical or Abstract Stage** is merely a modification of the first because a supernatural cause is replaced by an “abstract entity; “it is meant to be a transitional stage, where there is the belief that abstract forces control the behavior of human beings. Because it is a transitional stage between the theological stage and the positive stage, Comte deemed it the least important of the three stages and was only necessary because the human mind cannot make the jump from the theological to the positive stage on its own…Because Theology and physics are so profoundly incompatible, and their conceptions are so radically opposed in character, human intelligence must have a gradual transition.”

3. **The Positive Stage** is “when the mind stops searching for the cause of phenomena and realizes that laws exist to govern human behavior, and that this stage can be explained rationally with the use of reason and observation, both of which are used to study the social world. This stage relies on science, rational thought, and empirical laws. Comte believed that this study of sociology he created was the science that [came] after all the others; and as the final science, it must assume the task of coordinating the development of the whole of knowledge because it organized all of human behavior… Humans realize that laws exist, and that the world can be rationally explained through science, rational thought, laws, and observation. Comte was a positivist, believing in the natural rather than the supernatural, and so he claimed that his time period, the 1800s, was in the positivist stage. He believed that within this stage, there is a hierarchy of sciences: mathematics, astronomy, terrestrial physics, chemistry, and physiology.” Mathematics, for example, is the most perfect science of all, and is applied to the most important laws of the universe. This stage will fix the problems in current nations, allowing progression and peace.”
Lewis Henry Morgan (1818-81) “was a pioneering American anthropologist and social theorist who worked as a railroad lawyer. He is best known for his work on kinship and social structure, his theories of social evolution, and his ethnography of the Iroquois. Interested in what holds societies together, he proposed the concept that the earliest human domestic institution was the matrilineal clan, not the patriarchal family. Also interested in what leads to social change, he was a contemporary of the European social theorists Karl Marx and Friedrich Engels, who were influenced by reading his work on social structure and material culture, the influence of technology on progress. Morgan is the only American social theorist to be cited by such diverse scholars as Marx, Charles Darwin, and Sigmund Freud. Elected as a member of the National Academy of Sciences, Morgan served as president of the American Association for the Advancement of Science in 1879. Morgan was a Republican member of the New York State Assembly (Monroe Co., 2nd D.) in 1861, and of the New York State Senate in 1868 and 1869.”

“About 1856 Morgan’s interest turned to the Seneca way of designating relatives, which differed markedly from Anglo-American convention. Upon discovering virtually identical designations among the Ojibwa of northern Michigan, he conjectured that if the system were also to be found in Asia, the Asiatic origin of the American Indians might be shown. He thereupon embarked on a series of far-flung investigations of the kinship terms used by the people of many other cultures. He gathered his results in his influential pioneer elaboration of kinship, Systems of Consanguinity and Affinity of the Human Family (1871). This work inaugurated the modern anthropological study of kinship systems as the basic organizing principle in most preindustrial societies. Morgan’s kinship study led him to develop his theory of cultural evolution, which was set forth in Ancient Society, or Researches in the Lines of Human Progress from Savagery through Barbarism to Civilization (1877). This was among the first major scientific accounts of the origin and evolution of civilization. Morgan posited that advances in social organization arose primarily from changes in food production. Society had progressed from a hunting-and-gathering stage (which he denoted by the term savagery) to a stage of settled agriculture (barbarism) and then on to an urban society possessing a more advanced agriculture (civilization). He illustrated these developmental stages with examples drawn from various cultures. Morgan’s ideas about the development of technology over time have come to be regarded as generally correct in their fundamental aspects. His theory that human social life advanced from an initial stage of promiscuity through various forms of family life.”

(a) Work in Technology: “In the 1840s, Morgan had befriended the young Ely S. Parker of the Seneca tribe and the Tonawanda Reservation. With a classical missionary education, Parker went on to study law. With his help, Morgan studied the culture and the structure of Iroquois society. Morgan had noticed they used different terms than Europeans to designate individuals by their relationships within the extended family. He had the creative insight to recognize this was meaningful in terms of their social organization. He defined European terms as descriptive and Iroquois (and Native American) terms as classificatory, terms that continue to be used as major divisions by anthropologists and ethnographers. Based on his extensive research, Morgan wrote and published The League of the Ho-de-no-sau-nee or Iroquois (1851)…This work presented the complexity of Iroquois society in a path-breaking ethnography that was a model for future anthropologists, as Morgan presented the kinship system of the Iroquois with unprecedented nuance. Morgan expanded his research far beyond the Iroquois. Although Benjamin Barton had posited Asian origins for Native Americans as early as 1797, in the mid-nineteenth century, other American and European scholars still supported widely varying ideas, including a theory they were one of the lost tribes of Israel, because of the strong influence of biblical and classical conceptions of history. Morgan had begun to theorize the Native Americans originated in Asia as
well as tribes in North America. He wanted to provide evidence for monogenesis, the theory that all human beings descend from a common source (as opposed to polygenesis). In the late 1850s and 1860s, Morgan collected kinship data from a variety of Native American tribes. In his quest to do comparative kinship studies, Morgan also corresponded with scholars, missionaries, US Indian agents, colonial agents, and military officers around the world. He created a questionnaire which others could complete so he could collect data in a standardized way. Over several years, he made months-long trips to what was then the Wild West to further his research. With the help of local contacts and, after intensive correspondence over the course of years, Morgan analyzed his data and wrote his seminal *Systems of Consanguinity and Affinity of the Human Family* (1871), which was printed by the Smithsonian Press.\(^{367}\)

(b) **Theory of Social Revolution**: “This original theory became less relevant because of the Darwinian revolution, which demonstrated how change happens over time. In addition, Morgan became increasingly interested in the comparative study of kinship (family) relations as a window into understanding larger social dynamics; he saw kinship relations as a basic part of society. In the years that followed, Morgan developed his theories. Combined with an exhaustive study of classic Greek and Roman sources, he crowned his work with his magnum opus *Ancient Society* (1877). Morgan elaborated upon his theory of social evolution. He introduced a critical link between social progress and technological progress. He emphasized the centrality of family and property relations. He traced the interplay between the evolution of technology, of family relations, of property relations, of the larger social structures and systems of governance, and intellectual development. Looking across an expanded span of human existence, Morgan presented three major stages: savagery, barbarism, and civilization. He divided and defined the stages by technological inventions, such as use of fire, bow, pottery in the savage era; domestication of animals, agriculture, and metalworking in the barbarian era; and development of the alphabet and writing in the civilization era…The concept of evidence-based chronological dating received wider notice in English-speaking nations as developed by J. J. A. Worsaae.”\(^{368}\)

“Initially Morgan's work was accepted as integral to American history, but later it was treated as a separate category of anthropology. Henry Adams wrote of *Ancient Society* that it must become the foundation of all future work in American historical science…Morgan's final work, *Houses and House-life of the American Aborigines* (1881), was an elaboration on what he had originally planned as an additional part of *Ancient Society*. In it, Morgan presented evidence, mostly from North and South America, that the development of house architecture and house culture reflected the development of kinship and property relations. Although many specific aspects of Morgan's evolutionary position have been rejected by later anthropologists, his real achievements remain impressive. He founded the sub-discipline of kinship studies. Anthropologists remain interested in the connections which Morgan outlined between material culture and social structure. His impact has been felt far beyond the Ivory Tower…Most of his effort seems to have been limited to a few months in 1846, and the issue was not settled until 1857, more than ten years later. The Indians' principal legal counsel in these years was not Morgan, but John Martindale. Morgan's role, such as it was, was that of citizen activist.”\(^{369}\)

(c) **Influence on Marxism**: “In 1881, Karl Marx started reading Morgan's *Ancient Society*, thus beginning Morgan's posthumous influence among European thinkers. Frederick Engels also read his work after Morgan's death. Although Marx never finished his own book based on Morgan's work, Engels continued his analysis. Morgan's work on the social structure and material culture strongly influenced Engels' sociological theory of dialectical materialism (expressed in his work *The Origin of the Family, Private Property, and the State*, 1884). Scholars of the Communist bloc considered Morgan as the preeminent anthropologist.”\(^{370}\)
Chapter IV. Economic Thought and Other Intellectual Developments

Lester Frank Ward (born in 1841, Joliet, Illinois, U.S., died in 1913, Washington, D.C.): “American sociologist who was instrumental in establishing sociology as an academic discipline in the United States. An optimist who believed that the social sciences had already given mankind the information basic to happiness, Ward advocated a planned, or telic, society (sociocracy) in which nationally organized education would be the dynamic factor. In his system social scientists, assembled into a legislative advisory academy in Washington, D.C., would occupy much the same role as did the sociologist-priests in the utopian plan of French sociologist Auguste Comte. After fighting for the Union in the American Civil War, Ward obtained degrees in botany and law. For most of his life he worked for the federal government, mainly in the fields of geology, paleontology, botany, and paleobotany; he made some significant contributions to botanical theory. By 1876 Ward had shifted the focus of the work, which was begun in 1869, to sociology, and in 1906, when he was 65 years old, he was appointed professor of sociology at Brown University. Ward followed Comte in conceiving of sociology as the fundamental social science, the primary responsibility of which is to teach methods of improving society. Ward’s emphasis on social function and planning, rather than social structure, had considerable effect on Thorstein Veblen and the institutional economists. The original subject of Ward’s most important book, Dynamic Sociology, 2 vol. (1883), was education. Among his other writings are Pure Sociology (1903), A Textbook of Sociology (1905; with James Quayle Dealey), and Applied Sociology (1906), which concerns his ideas of social telesis, sociocracy, and social planning.”

(a) Works and Ideas: “By the early 1880s the new field of sociology had become dominated by ideologues of the left and right, both determined to claim the science of society as their own. The champion of the conservatives and businessmen was Herbert Spencer; he was opposed on the left by Karl Marx. Although Spencer and Marx disagreed about many things they were similar in that their systems were static: they both claimed to have divined the immutable stages of development that a society went through and they both taught that mankind was essentially helpless before the force of evolution. With the publication of the two-volume, 1,200-page, Dynamic Sociology: Or Applied Social Science as Based Upon Statical Sociology and the Less Complex Sciences (1883), Lester Ward hoped to restore the central importance of experimentation and the scientific method to the field of sociology.”

(b) Criticism of laissez-faire: “Ward is most often remembered for his relentless attack on Herbert Spencer and his theories of laissez-faire and survival of the fittest that totally dominated socio/economic thought in the United States after the American Civil War. While Marx and communism/socialism didn’t catch on in the United States during Ward’s lifetime, Spencer became famous: he was the leading light for conservatives. Ward placed himself in direct opposition to Spencer and Spencer’s American disciple, William Graham Sumner, who had become the most well-known and widely read American sociologist by single-mindedly promoting the principles of laissez-faire. To quote the historian Henry Steele Commager: Ward was the first major scholar to attack this whole system of negativist and absolutist sociology and he remains the ablest.... Before Ward could begin to formulate that science of society which he hoped would inaugurate an era of such progress as the world had not yet seen, he had to destroy the superstitions that still held domain over the mind of his generation. Of these, laissez-faire was the most stupefying, and it was on the doctrine of laissez-faire that he trained his heaviest guns. The work of demolition performed in Dynamic Sociology, Psychic Factors and Applied Sociology was thorough.”

(c) Female Equality: “Ward was a strong advocate for equal rights for women and even theorized that women were naturally superior to men, much to the scorn of mainstream sociologists. In this regard, Ward presaged the rise of feminism, and especially the difference feminism of writers such as Harvard’s Carol Gilligan.”
(d) **White Supremacy and Race:** “Ward’s views on the question of race and the theory of white supremacy underwent considerable change throughout his life. Ward was a Republican Whig and supported the abolition of the American system of slavery. He enlisted in the Union army during the Civil war and was wounded three times. However, a close reading of his *Dynamic Sociology* will uncover several statements that would be considered somewhat racist and ethnocentric by today’s standards. There are references to the superiority of Western culture and the savagery of the American Indian and black races, made all the more jarring by the modern feel of much of the rest of the book. However, Ward lived in Washington D.C., then the center of anthropological research in the US; he was always up-to-date on the latest findings of science and in tune with the developing zeitgeist, and by the early twentieth century, perhaps influenced by W. E. B. Du Bois and German-born Franz Boas he began to focus more on the question of race. During this period his views on race were arguably more progressive and in tune with modern standards than any other white academic of the time.”

(e) **Positivism:** “While Durkheim is usually credited for updating Comte’s positivism to modern scientific and sociological standards, Ward accomplished much the same thing 10 years earlier in the United States. However, Ward would be the last person to claim that his contributions were somehow unique or original to him. As Gillis J. Harp points out in *The Positivist Republic*, Comte’s positivism found a fertile ground in the democratic republic of the United States, and there soon developed among the pragmatic intellectual community in New York City, which featured such thinkers as William James and Charles Sanders Peirce and, on the other hand, among the federal government scientists in Washington D.C. a general consensus regarding positivism.”

(f) **Theory of War and Conflict:** In his *Pure Sociology: A Treatise on the Origin and Spontaneous Development of Society* (1903), “Ward theorizes that throughout human history conflict and war has been the force that is most responsible for human progress. It was through conflict and war that Homo Sapiens wiped out the less advanced hominid species and it was through war that the more technologically advanced races and nations expanded their territory and spread civilization. Ward sees war as a natural evolutionary process and like all natural evolutionary processes war is capricious, slow, and often ineffective and shows no regard for the pain inflicted on living creatures. One of the central tenets of Wards world view is that the artificial is superior to the natural and thus one of the central goals of Applied Sociology is to replace war with a system that retains the progressive elements that war has provided but without the many downsides.”

(g) **Influence on U.S. Government Policy:** “Ward influenced a rising generation of progressive political leaders, such as Herbert Croly. In the book *Lester Ward and the Welfare State*, Commager details Ward’s influence and refers to him as the father of the modern welfare state. As a political approach, Ward’s system became known as social liberalism, as distinguished from the classical liberalism of the eighteenth and nineteenth centuries which featured such thinkers as Adam Smith and John Stuart Mill. While classical liberalism had sought prosperity and progress through laissez-faire, Ward’s American social liberalism sought to enhance social progress through direct government intervention. Ward believed that in large, complex and rapidly growing societies human freedom could only be achieved with the assistance of a strong democratic government acting in the interest of the individual. The characteristic element of Ward’s thinking was his faith that government, acting on the empirical and scientifically based findings of the science of sociology, could be harnessed to create a near Utopian social order. Progressive thinking had a profound impact on the administrations of Presidents Theodore Roosevelt, Woodrow Wilson, Franklin D. Roosevelt and Lyndon B. Johnson and on the liberal wing of the modern Democratic Party. Ward’s ideas were in the air but there are few direct links.”
Max Weber was born in 1864, in Erfurt, Province of Saxony, Prussia. “He was the oldest of the seven children of Max Weber Sr., a wealthy and prominent civil servant and member of the National Liberal Party, and his wife Helene, who partly descended from French Huguenot immigrants and held strong moral absolutist ideas. Weber Sr.’s involvement in public life immersed his home in both politics and academia, as his salon welcomed many prominent scholars and public figures. The young Weber and his brother Alfred, who also became a sociologist and economist, thrived in this intellectual atmosphere. Weber’s 1876 Christmas presents to his parents, when he was thirteen years old, were two historical essays entitled ‘About the course of German history, with special reference to the positions of the Emperor and the Pope’, and ‘About the Roman Imperial period from Constantine to the migration of nations’. In class, bored and unimpressed with the teachers...he secretly read all forty volumes of Goethe, and it has been recently argued that this was an important influence on his thought and methodology. Before entering the university, he would read many other classical works. Over time, Weber would also be significantly affected by the marital tension between his father, a man who enjoyed earthly pleasures, and his mother, a devout Calvinist who sought to lead an ascetic life.”

“In 1882 Weber enrolled in the University of Heidelberg as a law student. After a year of military service, he transferred to the University of Berlin. After his first few years as a student, during which he spent much time drinking beer and fencing, Weber would increasingly take his mother’s side in family arguments and grew estranged from his father. Simultaneously with his studies, he worked as a junior lawyer. In 1886 Weber passed the examination for Referendar, comparable to the bar association examination in the British and American legal systems. Throughout the late 1880s, Weber continued his study of law and history. He earned his law doctorate in 1889 by writing a dissertation on legal history titled Development of the Principle of Joint Liability and the Separate Fund in the Public Trading Company. This work was used as part of a longer work On the History of Trading Companies in the Middle Ages, based on South-European Sources, published in the same year. Two years later, Weber completed his Roman Agrarian History and its Significance for Public and Private Law, working with August Meitzen. Having thus become a Privatdozent, Weber joined the University of Berlin’s faculty.”

Early Work: “In the years between the completion of his dissertation and habilitation, Weber took an interest in contemporary social policy. In 1888 he joined the Verein für Socialpolitik, a new professional association of German economists affiliated with the historical school...He also involved himself in politics, joining the left-leaning Evangelical Social Congress. In 1890 the Verein established a research program to examine the Polish question or Ostflucht: the influx of Polish farm workers into eastern Germany as local laborers migrated to Germany’s rapidly industrializing cities. Weber was put in charge of the study and wrote a large part of the final report, which generated considerable attention and controversy and marked the beginning of Weber’s renown as a social scientist. From 1893 to 1899 Weber was a member of the Alldeutscher Verband (Pan-German League), an organization that campaigned against the influx of the Polish workers...In some of his work...on ‘The Nation State and Economic Policy’ delivered in 1895, Weber criticizes the immigration of Poles and blames the Junker class for perpetuating Slavic immigration to serve their selfish interests. Also in 1893 he married his distant cousin Marianne Schnitger, later a feminist activist and author in her own right, who was instrumental in collecting and publishing Weber’s journal articles as books after his death, while her biography of him is an important source for understanding Weber's life. They would have no children and it is usually acknowledged that their marriage was never consummated. The marriage granted long-awaited
financial independence to Weber, allowing him to finally leave his parents' household. The couple moved to Freiburg in 1894, where Weber was appointed professor of economics at the university, before accepting the same position at the University of Heidelberg in 1896. There Weber became a central figure in the so-called Weber Circle... Weber remained active in the Verein and the Evangelical Social Congress. His research in that period was focused on economics and legal history. In 1897 Max Weber Sr. died two months after a severe quarrel with his son that was never resolved. After this, Weber became increasingly prone to depression, nervousness and insomnia, making it difficult for him to fulfill his duties as a professor. His condition forced him to reduce his teaching and eventually leave his course unfinished in the autumn of 1899. After spending months in a sanatorium during the summer and autumn of 1900, Weber and his wife travelled to Italy at the end of the year and did not return to Heidelberg until April 1902. He would again withdraw from teaching in 1903 and not return to it till 1919.

Later Work: “After Weber's immense productivity in the early 1890s, he did not publish any papers between early 1898 and late 1902, finally resigning his professorship in late 1903. Freed from those obligations, in that year he accepted a position as associate editor of the Archives for Social Science and Social Welfare, where he worked with his colleagues Edgar Jaffé (de) and Werner Sombart. His new interests would lie in more fundamental issues of social sciences; his works from this latter period are of primary interest to modern scholars. In 1904, Weber began to publish some of his most seminal papers in this journal, notably his essay The Protestant Ethic and the Spirit of Capitalism, which became his most famous work and laid the foundations for his later research on the impact of cultures and religions on the development of economic systems. This essay was the only one of his works from that period that was published as a book during his lifetime. Some other of his works written in the first one and a half decades of the 20th century – published posthumously and dedicated primarily from the fields of sociology of religion, economic and legal sociology – are also recognized as among his most important intellectual contributions. Also in 1904, he visited the United States and participated in the Congress of Arts and Sciences held in connection with the World's Fair (Louisiana Purchase Exposition) in St. Louis. A monument to his visit was placed at the home of relatives whom Weber visited in Mt. Airy, North Carolina. Despite his partial recovery evident in America, Weber felt that he was unable to resume regular teaching at that time and continued on as a private scholar, helped by an inheritance in 1907. In 1909, disappointed with the Verein, he co-founded the German Sociological Association (DGS) and served as its first treasurer. He would, however, resign from the DGS in 1912. In 1912, Weber tried to organize a left-wing political party to combine social-democrats and liberals. This attempt was unsuccessful.

Weber joined the worker and soldier council of Heidelberg in 1918. He then served in the German delegation to the Paris Peace Conference and advisor to the Confidential Committee for Constitutional Reform, drafting the Weimar Constitution. Weber ran, unsuccessfully, for a parliamentary seat, as a member of the liberal German Democratic Party, which he had co-founded. “Frustrated with politics, Weber resumed teaching during this time, first at the University of Vienna, then, after 1919, at the University of Munich. His lectures from that period were collected into major works, such as the General Economic History, Science as a Vocation and Politics as a Vocation. In Munich, he headed the first German university institute of sociology, but never held a professorial position in sociology. Many colleagues and students in Munich attacked his response to the German Revolution and some right-wing students held protests in front of his home. Max Weber...died of pneumonia in Munich on 14 June 1920. At the time of his death, Weber had not finished writing his magnum opus on sociological theory: Economy and Society. His widow Marianne helped prepare it for its publication in 1921–22.”
Chapter IV. Economic Thought and Other Intellectual Developments

The Protestant Ethic and the Spirit of Capitalism (1904-5) (a) Basic Concepts: “Although not a detailed study of Protestantism but rather an introduction to Weber’s later studies of interaction between various religious ideas and economics (The Religion of China: Confucianism and Taoism, The Religion of India: The Sociology of Hinduism and Buddhism, and Ancient Judaism), The Protestant Ethic and the Spirit of Capitalism argues that Puritan ethics and ideas influenced the development of capitalism. The spirit of capitalism does not refer to the spirit in the metaphysical sense but rather a set of values, the spirit of hard work and progress. Religious devotion, Weber argues, is usually accompanied by a rejection of worldly affairs, including the pursuit of wealth and possessions. To illustrate his theory, Weber quotes the ethical writings of Benjamin Franklin… Weber notes that this is not a philosophy of mere greed, but a statement laden with moral language. Indeed, Franklin claims that God revealed the usefulness of virtue to him. The Reformation profoundly affected the view of work, dignifying even the most mundane professions as adding to the common good and thus blessed by God, as much as any sacred calling. A common illustration is that of a cobbler, hunched over his work, who devotes his entire effort to the praise of God. To emphasize the work ethic in Protestantism relative to Catholics, he notes a common problem that industrialists face when employing pre-capitalist laborers: Agricultural entrepreneurs will try to encourage time spent harvesting by offering a higher wage, with the expectation that laborers will see time spent working as more valuable and so engage it longer. However, in pre-capitalist societies this often results in laborers spending less time harvesting. Laborers judge that they can earn the same, while spending less time working and having more leisure. He also notes that societies having more Protestants are those that have a more developed capitalist economy.”

“It is particularly advantageous in technical occupations for workers to be extremely devoted to their craft. To view the craft as an end in itself, or as a calling would serve this need well. This attitude is well-noted in certain classes which have endured religious education, especially of a Pietist background. He defines spirit of capitalism as the ideas and esprit that favor the rational pursuit of economic gain: ‘We shall nevertheless provisionally use the expression spirit of capitalism for that attitude which, in the pursuit of a calling [berufsmäßig], strives systematically for profit for its own sake in the manner exemplified by Benjamin Franklin.’ Weber points out that such a spirit is not limited to Western culture if one considers it as the attitude of individuals, but that such individuals – heroic entrepreneurs, as he calls them – could not by themselves establish a new economic order (capitalism). He further noted that the spirit of capitalism could be divorced from religion, and that those passionate capitalists of his era were either passionate against the Church or at least indifferent to it. Desire for profit with minimum effort and seeing work as a burden to be avoided, and doing no more than what was enough for modest life, were common attitudes. As he wrote in his essays: In order that a manner of life well adapted to the peculiarities of the capitalism…could come to dominate others, it had to originate somewhere, and not in isolated individuals alone, but as a way of life common to the whole groups of man. After defining the spirit of capitalism, Weber argues that there are many reasons to find its origins in the religious ideas of the Reformation. Many others like William Petty, Montesquieu, Henry Thomas Buckle, John Keats have noted the affinity between Protestantism and the development of commercialism. Weber shows that certain branches of Protestantism had supported worldly activities dedicated to economic gain, seeing them as endowed with moral and spiritual significance. This recognition was not a goal in itself; rather they were a byproduct of other doctrines of faith that encouraged planning, hard work and self-denial in the pursuit of worldly riches.”

(b) Origins of the Protestant Work Ethic: “Weber traced the origins of the Protestant ethic to the Reformation, though he acknowledged some respect for secular everyday labor as early as the Middle Ages. The Roman Catholic Church assured salvation to individuals who accepted the
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church's sacraments and submitted to the clerical authority. However, the Reformation had effectively removed such assurances. From a psychological viewpoint, the average person had difficulty adjusting to this new worldview, and only the most devout believers or religious geniuses within Protestantism, such as Martin Luther, were able to make this adjustment...In the absence of such assurances from religious authority, Weber argued that Protestants began to look for other signs that they were saved. Calvin and his followers taught a doctrine of double predestination, in which from the beginning God chose some people for salvation and others for damnation. The inability to influence one's own salvation presented a very difficult problem for Calvin's followers. It became an absolute duty to believe that one was chosen for salvation, and to dispel any doubt about that: lack of self-confidence was evidence of insufficient faith and a sign of damnation. So, self-confidence took the place of priestly assurance of God's grace."

"Worldly success became one measure of that self-confidence. Luther made an early endorsement of Europe's emerging divisions. Weber identifies the applicability of Luther's conclusions, noting that a vocation from God was no longer limited to the clergy or church, but applied to any occupation or trade. Weber had always detested Lutheranism for the servility it inspired toward the bureaucratic state. When he discussed it in the Protestant Ethic, he used Lutheranism as the chief example of the unio mystica that contrasted sharply with the ascetic posture. Later he would associate Luther, the symbolic exponent of bureaucratic despotism, with the ascetic hostility to Eros - an example of Weber's sporadic tendency to link together bureaucratic and ascetic modes of life and to oppose both from mystical and aristocratic perspectives. However, Weber saw the fulfillment of the Protestant ethic not in Lutheranism...but in Calvinistic forms of Christianity. The trend was carried further still in Pietism. The Baptists diluted the concept of the calling relative to Calvinists, but other aspects made its congregants fertile soil for the development of capitalism - namely, a lack of paralyzing ascetism, the refusal to accept state office and thereby develop unpolitically, and the doctrine of control by conscience which caused rigorous honesty...According to the Protestant religions, an individual was religiously compelled to follow a secular vocation with as much zeal as possible. A person living according to this world view was more likely to accumulate money. The new religions effectively forbade wastefully using hard earned money and identified the purchase of luxuries as a sin. Donations to an individual's church or congregation were limited due to the rejection by certain Protestant sects of icons. Finally, donation of money to the poor or to charity was generally frowned on as it was seen as furthering beggary. This social condition was perceived as laziness, burdening their fellow man, and an affront to God; by not working, one failed to glorify God. The manner in which this paradox was resolved, Weber argued, was the investment of this money, which gave an extreme boost to nascent capitalism."

Weber maintained that while Puritan religious ideas had significantly impacted the development of economic system in Europe and United States, there were other factors in play, as well. They included a deeper relationship between mathematics and observation, the enhanced value of scholarship, rational systematization of government administration, and an increase in entrepreneurship ventures. In the end, the study of Protestant ethic, according to Weber, investigated a part of the detachment from magic, that disenchantment of the world that could be seen as a unique characteristic of Western culture."

In the final endnotes Weber states that he abandoned research into Protestantism because his colleague Ernst Troeltsch, a professional theologian, had begun work on The Social Teachings of the Christian Churches and Sects. Another reason for Weber's decision was that Troeltsch's work already achieved what he desired in that area, which is laying groundwork for comparative analysis of religion and society. Weber moved beyond Protestantism with his research but would continue research into sociology of religion within his later works (the study of Judaism and the religions of China and India)."
General Economic History (1923) is “a book of economic theory which was composed by his students from lecture notes and released three years after his death in 1920. In his General Economic History, Weber creates an institutional theory of the rise of capitalism in the west. Unlike in his earlier work, The Protestant Ethic and the Spirit of Capitalism, religion is given a minor role. The emphasis of the work lies instead on the place of the state and calculable law in allowing economic actors to predict exchange for gain.”

Weber intended General Economic History to be primarily a work in economic history, not in economic sociology, which is instead to be found in his Economy and Society (1921-22).

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Chapter 22: It must be possible to conduct the provision for need exclusively on the basis of market opportunities and the calculation of net income. The addition of this commercialization to the other characteristics of capitalism involves intensification of the significance of another factor not yet mentioned, namely speculation. Speculation reaches its full significance only from the moment when property takes on the form of negotiable paper.

Chapter 23: The external facts in the evolution of capitalism: In modern economic life, the issue of credit instruments is a means for the rational assembly of capital. Stock companies are created and regulated by the state. Alongside the financing of state needs through stock companies stands direct financing by measures of the state itself. This begins with compulsory loans against a pledge of resources and the issue of certificates of indebtedness against anticipated revenues. The second point of departure for rational forms of administration was the English exchequer system, in which the finances were not conducted through setting up a budget in which all receipts and disbursements were included, but a special-fund system was used.

Chapter 24: The first great speculative crises: In the financial practice of the large states it had long been customary to anticipate revenues by the issue of certificates, to be redeemed later. In consequence of the War of the Spanish Succession, the financial requirements of the government rose to an extraordinary height in England as well as France. John Law was appointed Controller General of Finances, and intended to carry out undertaking similar to the East India Company for the Mississippi Company. Because of optimistic speculation, the stock price rose tremendously, but the end was a complete bankruptcy of that company. In the same years, a parallel phenomenon was exhibited in England, except that the course of development was not so wild as that in France. Speculative crises of a similar shot have taken place from that time forward, but never since on the same scale. Crises became an imminent factor of the economic order. Crises in the broader sense of chronic unemployment, destitution, glutting of the market and political disturbances which destroy all industrial life, have existed always and everywhere.

Chapter 25: Free wholesale trade: The development of a wholesale trade requires the presence of an adequate news service and an adequate commercial organization, providing advertisement and transportation. The railway is the most revolutionary instrumentality.

Chapter 26. Accumulation of wealth brought about through colonial trade has been of little significance for the development of modern capitalism. The end of the capitalistic method of exploiting colonies coincides with the abolition of slavery.

Chapter 27. Industrial technique: The significant developments are: First, coal and iron released technology and productive possibilities from the limitations of the qualities inherent in organic materials; from this time forward industry was no longer dependent upon animal power or plant growth. Second, the mechanization of the production process through the steam engine liberated production from the organic limitations of human labor. Third, through the union with science, the production of goods was emancipated from all the bonds of inherited tradition, and came under the dominance of the freely roving intelligence. The recruiting of the labor force for the new form of production was carried out by means of compulsion, though of an indirect sort. The decisive impetus toward capitalism could come only from a mass market demand. In the market for the products of these newly established industries, two great sources of demand appeared, namely war and luxury, the military administration and court requirements. The military administration became a court requirements. The military administration became a consumer of the products of industry to the extent that the great mercenary armies developed and the more so as army discipline and the rationalization of arms and all military technique progressed. In the textile industry, the production of uniforms was fundamental. The production of cannon and fire arms occupied the iron industry. Court luxury existed in China and India.
Chapter 28: Quite different was the fate of the city in the modern era. Here again its autonomy was progressively taken away. The English city of the 17th and 18th centuries had ceased to be anything but a clique of guilds which could lay claim only to financial and social class significance. The German cities of the same period, with the exception of the imperial cities, were merely geographical entities in which everything was ordered from above. In the French cities, this development appeared even earlier, while the Spanish cities were deprived of their power by Charles V, in the insurrection of the comuneros. The Italian cities found themselves in the power of the signory and those of Russia never arrived at freedom in the western sense. Everywhere the military, judicial, and industrial authority was taken away from the cities. In form the old rights were as a rule unchanged, but in fact the modern city was deprived of its freedom as effectively as had happened in antiquity with the establishment of the Roman dominion, though in contrast with antiquity they came under the power of competing national states in a condition of perpetual struggle for power in peace or war. This competitive struggle created the largest opportunities for modern western capitalism. The separate states had to compete for mobile capital, which dictated to them the conditions under which it would assist them to power. Out of this alliance of the state with capital, dictated by necessity, arose the national citizen class, the bourgeoisie in the modern sense of the word.

Chapter 29. The rational state: (a) The state itself is law and officialdom. (b) The economic policy of the rational state: The single measure of economic policy on the part of the German kings was the conflict over the Rhine tolls, in view of the great number of petty lords along the river. Aside from this, there was no planned economic policy. Protective duties are unknown with few exceptions, directed against the competition of imports from Italy. The customs policy as a whole is dominated by the fiscal point of view and that of maintaining the traditional standard of living. The first trace of a rational economic policy on the part of the prince appears in the 14th century in England. This was mercantilism, so-called since Adam Smith. (c) Mercantilism in the sense of a league between the state and the capitalistic interest had appeared under two aspects. One was that of class monopoly, and the other form may be called national. It limited itself to the protection of industries actually in existence, in contrast with the attempt to establish industries through monopolies. Here for the last time irrational and rational capitalism faced each other in conflict, that is, capitalism in the field of fiscal and colonial privileges and public monopolies, and capitalism oriented in relation to market opportunities which were developed from within by business interests themselves on the basis of saleable services. It finally disappeared with free trade.

Chapter 30: Evolution of the capitalistic spirit: Neither the growth of population nor the importation of precious metal called forth western capitalism. Capitalism in the west was born in the industrial cities of the interior, not in the cities which were centers of sea trade. In Catholicism, the complete Christian is the monk. The distinction between monk ethics and mass ethics meant that the most worthy individuals in the religious sense withdrew from the world and established a separate community, where the powerful influence of asceticism dominated the monastic life. The Reformation had a decisive break with this system, which meant the disappearance of the dualistic ethics, of the distinction between a universally binding morality and a specifically advantageous code for virtuosi. The other-worldly asceticism came to an end. It expresses the value placed upon rational activity carried on according to the rational capitalistic principle, as the fulfillment of a God-given task. This development of the concept of the calling quickly gave to the modern entrepreneur a fabulously clear conscience. The religious root of modern economic humanity is dead; today the concept of the calling is caput mortuum in the world. Economic ethics arose against the background of the ascetic ideal. It was possible for the working class to accept its lot as long as the promise of eternal happiness could be held out to it.
Table IV-8-2. Contents of *Economy and Society* by Max Weber

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| Appendix I. Types of Social Action and Groups         |
| Appendix II. Parliament and Government in a Reconstructed Germany |
Economy and Society: In *Economy and Society*, Weber defines that sociology is a science concerning itself with the interpretive understanding of social action and thereby with a causal explanation of its course and consequences. Economic sociology: “The basic unit in sociology is the individual, or more precisely, the social actions of the individual. Just like economic theory, in other words, sociology starts its analysis with the individual and the meaning that the individual attaches to his or her behavior. The individual is driven primarily by his or her interests, which can be ideal as well as material; habits and emotions often play a role as well. What first and foremost distinguishes sociology from economic theory, however, is that the action of the individual also has to be social. This last point is crucial, according to Weber, who defines social action in the following way: ‘Action is social only insofar as its subjective meaning takes account of the behavior of others and is thereby oriented in its course.’ While economic theory...analyzes economic action in general, sociology only analyzes economic action that is also oriented in its meaning to the behavior of others.” The concept of utility is central to Weber’s concept of economic action, as in most economic theory, and covers objects (goods) as well as human behavior (services).

Economy and Politics: Weber’s analysis of the relationship between the economy and the political realm is focused on the ruling political organization, especially the state. First, the ruling political organization regulates not only the economy, but also people’s interactions in a specific territory. Second, the effort to gain complete control over the territory and to eliminate private violence was supported by religious authorities as well as by certain interests. Groups with special market interests supported the political authorities in their quest for public peace. The taxpaying capacity of their subjects are important. Third, violence is the final item that characterizes a ruling political organization: struggles in political arena are ultimately settled through violence or the threat of violence. The use of force is negative to the economy.

Economy and Law: According to Weber, the modern state has five basic functions, and three of these are directly related to the legal system: “the enactment of law (legislative function), the protection of vested rights (administration of justice), and the protection of personal safety and public order (the police). There is furthermore, in Weber’s mind, a strong tendency in Western societies for legitimation to be legal in nature; political leaders are obeyed primarily because they have received and exercise power in accordance with law. Law also plays a key role in the modern economy, owing mainly to the contract: Present-day economic life, rests on opportunities acquired through contracts. All contracts are in principle guaranteed by the threat of legal coercion, which is administered through the state. In general, there is a need for calculability in the modern economy, and this includes the legal system. One of the presuppositions of Western rational capitalism, according to Weber, is rational, that is calculable, law. The second reason why Weber pays so much attention to law in his economic sociology probably has to do with his interest in and vast, comparative knowledge of the subject – commercial law.”

Economy and Religion: Weber’s central themes in his analysis of economy and religion include: “the attitude toward riches in religion; religious organizations and their relationship to economic affairs; the religious propensity of certain socio-economic classes and strata; and different ways to approach salvation and how these may affect the economy. Weber also devotes quite a bit of space to two other, equally central themes, namely attitudes toward the economy in the great world religions and the relationship between economy and religion in the Reformation.” Both of these topics are discussed in his other works: *The Protestant Ethic* and *The Economic Ethics of the World Religions*, and *General Economic History*. “Since Economy and Society is a work in sociology, religious action is analyzed as a special form of social action oriented to the behavior of others. Religious social action, as well as religious action in general, is driven by a combination of ideal interests, habits, and emotions.” Weber argues, religious benefits can be material or spiritual.
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Photo IV-8-5. Children in 19th Century Art reflects Nation’s Fears, Dreams
Endnotes

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19 Ibid., 792-3.
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