

CLASSICAL and EARLY MODERN
DOCTRINES
of
VALUE and WEALTH DISTRIBUTION

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Value and Wealth Distribution

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Abstract

The major doctrines of classical economics related to production, exchange value, and wealth distribution. This thesis is predominantly concerned with wealth distribution.

There have been four models of distribution theory since 1776. The 'deduction' doctrine of A. Smith held the rent 'share', due to monopoly over land, and the 'profit share', due to the ease with which capitalist employers could combine against labour in the wage bargain, to be deducted from the "rightful wages of labour". The 'residual claimant' doctrines of Ricardo and J.S. Mill held the profits of stock to be the residual surplus retained by capitalists after labour's subsistence wages had been paid, rents having been eliminated from the problem of the distribution of "original revenue" because all rent was erroneously believed to be differential rent which is not among the costs of production on the agricultural margin that govern the exchange value of produce, being merely a "nominal value" transferred to land owners from the other orders of society. Mill observed that in "some then distant future", scarcity rents would come not only to be a component of exchange value, but perhaps even govern it. The marginal productivity theory of distribution is usually attributed to J.B. Clark who held that in static equilibrium, entrepreneurial profits will have been competed away, leaving the differential surpluses, aggregate wages and aggregate interest, to exhaust society's product. The former is governed by the wage rate which, assuming no "friction" (pure competition in Clark's terms) equals the value of the marginal labourer's product, while the latter is governed by the interest rate, which assuming no "friction", will equal the marginal product of capital. Though he observed the progressing "extinction of competition" through the formation of trusts and mergers, he proclaimed that a study of economic dynamics would show competition to be an "inextinguishable force". Marshall accepted that the demand-price of a factor was governed by its productivity in its marginal application but rejected that the marginal productivity doctrine could be in itself, a valid theory of factor remuneration and distribution because other considerations determined the supply-price of factors. He also rejected Clark's belief that "manifold applications of the laws of rent" could be

the basis of distribution theory. Marshall identified, inter alia, 'modern developments of combination and monopoly' as aspects, the lack of his consideration of which precluded any but 'very few practical conclusions' on the subject of income distribution. Hobson could not accept that imperfections in competition were mere 'friction' and did not radically alter the 'laws of distribution'. He seized Mill's concept of scarcity rents and held that through either natural or contrived scarcity, factor owners appropriated incomes based on prices (market prices, not normal, 'real cost' prices) containing varying amounts of "unearned surplus".

Modern value and distribution theories should reflect the growing importance of scarcity rents resulting from the exploitation and exhaustion of non-renewable natural resource endowments, and from contrived scarcity resting upon monopolistic restriction of supply, whether of product or production factors, upon price conspiracy or other restrictive business practices, or upon some pernicious form of market 'regulation' by governmental authorities.

Résumé

Les grandes doctrines de l'économie classique se rapportent à la production, à la valeur d'échange et à la distribution des richesses. La présente thèse portera principalement sur la distribution des richesses.

Quatre modèles ont été élaborés depuis 1776 sur la théorie de la distribution. Selon la doctrine du "prélèvement" de A. Smith, la "contribution" aux rentes, due à des monopoles sur la propriété foncière, et la "contribution" aux bénéfices, due à la facilité avec laquelle les employeurs capitalistes pourraient se liguer contre les travailleurs dans le processus des négociations salariales, sont autant de prélèvements sur le "salaire légitime des ouvriers". D'après les doctrines du "demandeur résiduel" de Ricardo et J.S. Mill, les bénéfices sur les investissements représentent l'excédent résiduel conservé par les capitalistes après que la rémunération de subsistance des ouvriers a été versée; les rentes sont éliminées du problème de la distribution du "revenu original", car toute rente est indûment considérée comme une rente différentielle qui n'entre pas dans les coûts de production de la marge agricole régissant la valeur d'échange des produits, mais ne constitue qu'une "valeur nominale" remise aux propriétaires fonciers par les autres classes de la société. Mill a fait observer que dans "un avenir alors éloigné", la rente due à la rareté non seulement deviendrait une composante de la valeur d'échange, mais pourrait éventuellement la régir. Si l'on en croit la théorie de la productivité marginale, habituellement attribuée à J.B. Clark, les profits des entrepreneurs sont concurrencés dans un équilibre statique, et les excédents différentiels, soit la rémunération et l'intérêt globaux, engloutissent alors le produit de la société. La rémunération globale est régie par le taux des salaires qui, en l'absence de "frictions" (dans un régime de concurrence pure, selon les termes employés par Clark) est égal au produit marginal de l'ouvrier, tandis que l'intérêt global est régi par le taux d'intérêt qui, en l'absence de "frictions", est égal au produit marginal du capital. Bien qu'il ait observé "l'extinction graduelle de la concurrence" par le biais des fusions et de la formation de trusts, Clark affirmait qu'une étude de la dynamique économique montrerait que la concurrence est une "force inextinguible". D'après Marshall, il est

plausible que le prix-demande d'un facteur soit régit par sa productivité en situation d'application marginale, mais la doctrine de la productivité marginale ne peut constituer en soi une théorie valide de la rémunération et de la distribution des facteurs, en raison d'autres considérations qui déterminent le prix-offre des facteurs. Il conteste en outre les prétentions de Clark selon lesquelles "une application diversifiée des lois de la rente pourrait constituer le fondement de la théorie de la distribution". Marshall a fait ressortir "l'évolution moderne des coalitions et des monopoles" au nombre des aspects qui, n'ayant pas été pris en considération, ne permettent d'en arriver qu'à "très peu de conclusions pratiques" sur la distribution du revenu. Quant à Hobson, il ne peut accepter l'hypothèse voulant que les imperfections de la concurrence ne soient que de simples "frictions" et n'aient pas d'incidences radicales sur les "lois de la distribution". Tirant parti du concept de rente due à la rareté avancé par Mill, il affirme qu'en raison d'une rareté naturelle ou artificielle, les propriétaires de facteurs se sont appropriés des revenus établis selon des prix (prix du marché et non prix normaux, "du coût réel") comportant des quantités variables d'"excédents non mérités".

Dans les théories modernes sur la valeur et la distribution, il y aurait lieu de rendre compte de l'importance croissante des rentes dues à la rareté par suite de l'exploitation et de l'épuisement des richesses naturelles non renouvelables et en raison de la rareté artificielle qui résulte de la limitation monopolisatrice de l'approvisionnement en produits ou en facteurs de production, par le biais de complots au niveau des prix ou d'autres pratiques commerciales restrictives, ou encore par le biais de quelque incidiouse "réglementation" du marché par les gouvernements.

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Chapter 1

Value and Distribution

A. The Requisites of Production

The classical economists divided economic men into three orders based on the services each rendered to production; landowners who permitted their land (or other natural resources) to be used in raising nature's products received an income known as 'rent'; capitalists, who owned stocks of unconsumed past produce capable of abridging labour or sustaining it through the period of production, received an income known as the 'profits of stock' -- which return 'governed' the reward for the ownership and use of monetary capital, interest; and labour received wages for its toil and trouble. The tradition of the 'triad' as this classification became known, originated with Adam Smith's division of exchange value, and the annual produce, or 'wealth' as defined by Smith, into their three 'natural' components.

"The whole annual produce of the land and labour of every country, or what comes to the same thing, the whole price of that annual produce, naturally divides itself. . . into three parts; the rent of land, the wages of labour, and the profits of stock; and constitutes a revenue to three different orders of people; to those who live by rent, to those who live by wages, to those who live by profit. These are the three great, original and constituent orders of every civilized society, from whose revenue that of every other order is ultimately derived."¹

Despite the identification of the three economic orders of society, classical economists differed in which was considered a 'requisite of production'. Adam Smith, for example, held that labour was the source of all value, or that "the landlord's and capitalist's shares are 'deducted' from the total product that

1. Smith, A., Wealth of Nations, p. 248.

is 'naturally' in its entirety, the product of labour"¹, which points to a demotion of the factors land and capital from the requisites of production. Torrens was among the first to formally accept all the members of the "triad" as requisites.

"In the language of political economy, the original acquisition of wealth is called production; and those things by means of which this acquisition is made are termed instruments of production. Thus the land which supplies the primary materials of wealth, the labour by which these materials are appropriated, prepared, augmented, or transferred, and the capital that aids these several operations, are all instruments of production."²

Senior and J.S. Mill did not accept the triad of requisites. Senior held labour and natural resources to be the primary requisites of production noting, "But although human labour and the agency of nature, independently of men, are the primary production powers, they require the concurrence of a third productive principle to give them complete efficiency. . . To the third productive principle, we shall give the name of Abstinence."³ The fruit of Abstinence, capital, was a requisite of production, but one of a status less than that of the primary requisites. J.S. Mill adopts this viewpoint, differentiating between raw materials and natural motive powers by holding that only the former and labour are the primary requisites. He accepted the prevailing doctrines and represented capital to be embodied past labour in an indirect shape.⁴ Nevertheless, Mill believed that capital must be

1. Schumpeter, History of Economic Analysis, p.588.

2. Torrens, quoted in Cannan, Theories of Production and Distribution, p.32.

3. Senior quoted in Cannan, op. cit., p.32.

4. Mill, J.S., Principles of Political Economy, I, vii, 2.

specified a requisite, but not a primary one. Mill and the majority of the classical writers divided capital into two components. One part, which Mill said was "... by far the largest portion" was the "Wage-Fund" which "conduces to production only by sustaining in existence the labour which produces."¹ The other part of capital consisted of useful machines and instruments of trade which facilitated and abridged labour.

Cannan considers the triad an "unlucky invention"², believing it diverted attention from Adam Smith's view of production that "the per capita amount of a nation's annual produce is regulated, first, by the skill, dexterity, and judgment with which its labour is directed; and secondly, by the proportion between the number of workers and the number of non-workers."³ Cannan believed that the elevation of capital to the status of a 'requisite of production', and "the imagination it possesses a productiveness of its own"⁴, resulted in a failure to recognize that a major cause of variation in the productiveness of labour, was variation in the amount of capital used.⁵

Towards the end of the classical period, a fourth requisite of production, the 'entrepreneurs' emerged, largely from the ranks of the capital owning order. The scholastic writers had distinguished a businessman's industria from a workingman's labour, but the entrepreneurs who in a 'going concern' combine land, labour, and capital in the exploitation

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1. Ibid.
 2. Cannan, op. cit., p. 299.
 3. Ibid. p. 299.
 4. Ibid. p. 300.
 5. Ibid.

of opportunities, and who establish new 'going concerns,' were largely ignored by Smith. J.B. Say was the first to assign Cantillon's notion of the 'entrepreneur' a role distinct from that of the capitalist. It was Say who defined the entrepreneur's function as being to combine the other requisites of production. The American 'institutionalist' writers such as J.R. Commons, and early exponents of the 'marginal productivity' theory of wealth distribution such as J.B. Clark had published analyses in which the entrepreneur was made in the schema of analysis what he was in economic reality, the pivot. The Marshallian school retained the triad of land, labour and capital, although Marshall allowed that 'Organization' and 'Knowledge' which figure substantially among the components of an entrepreneur's talents that equip him to combine the other requisites successfully, should "sometimes" be regarded as requisites of production, distinct from capital.¹

B. Value and the Distribution of Wealth

What are the implications of such a triad of production requisites for the theory of distribution? Distribution is not visualized as a series of 'deductions' from the produce attributable in total to one 'original' factor, as did Smith, nor as 'residuals' as held by Ricardo and J.S. Mill. (The latter in a

1. Marshall, A., Principles of Economics, IV, i, 1.

modified form which provided for partial functional determination of profits as a reward for abstinence, rather than the strictly residual determination of profits, as the "leavings of wages"; as taught by the Ricardians). Under the triad, distribution fundamentally came to mean the pricing of scarce and requisite factors through the demand-supply apparatus.

"Let me restate (the fullest and deepest meaning of the triad). Production in the economic sense of the term is nothing but a combination, by purchase, of scarce and requisite services. In this process, each of the requisite and scarce services secures a price, and the determination of these prices is all that distribution or income formation fundamentally consists in. Thus the process effects, in one and the same series of steps, production in the economic sense and, through the evaluation of productive services incident to production, also distribution or the formation of incomes."¹

Dobb comments that the reduction of the distribution process of society to the pricing of scarce factors, requisite to the production process, "had the result of excluding the social circumstances of the individuals (or social groups) associated with the supply of these 'services'."² J.S. Mill had done much to stress that the 'Laws of Production' were natural and immutable, being determined by the laws of the physical universe while the 'Laws of Distribution' were dependent upon social institutions such as private property in

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1. Schumpeter, J., History of Economic Analysis, p. 567.
 2. Dobb, M., Theories of Value and Distribution, p. 175.

the means of production, primogeniture, and competitive markets. Mill describes his Principles as being different from other treatises, and its merit is "chiefly in making the proper distinction between the laws of production of wealth, which are real laws of nature, dependent on the properties of objects, and the modes of its Distribution, which subject to certain conditions depend on human will".¹

Mill held that value is part of distribution, not production. And value is relevant to distribution "only so far as competition, and not usage or custom is the distributing agency."² Exchange, for Mill's world, in which "all concerned in production depend for their remuneration on the price of a particular commodity",³ is not a "fundamental law of distribution. . . but merely a part of the machinery for effecting it."⁴ To Mill the introduction of money and exchange into a community alter in no way the principles which govern distribution:

"The primary division of the produce of human exertion and frugality is. . . into three shares, wages, profits, and rent; and these shares are portioned out to the persons entitled to them, in the form of money, and by a process of exchange; or rather, the capitalist, with whom the usual arrangements of society the produce remains, pays in money, to the other two sharers, the market value of their labour and land. If we examine, on what the pecuniary value of labour, and the pecuniary value of the use of the land depend, we shall find that it is on the very same causes by which we found that wages and rent would be regulated if there were no money and no exchange of commodities."⁵

1. Mill, J.S., Principles of Political Economy, p. 246; quoted in Dobb, op. cit. p. 124.
2. Mill, J.S., Ibid., III, i, 1.
3. Ibid.
4. Ibid.

There are two rival and distinct traditions in the classical literature concerning the nexus between the distribution of wealth doctrines and those concerning exchange value. On the one hand, the Smithian tradition followed by Malthus and partially embraced by J.S. Mill, was the species of demand-supply analysis termed the 'Adding-Up the Components' theory. On the other hand, the 'Real Cost of Production' theory which originated in Smith's 'toil and trouble' of acquiring a thing being equated to the 'real price' of it,¹ was most highly developed by J.S. Mill, who started with Ricardo's formulation of it in the labour-quantity theory of value which made the cost of wage goods the cost of production, and added to that 'real cost', the equally real cost of Abstinence. The major Smithian doctrine, termed the 'Adding-Up the Components' theory of value, "treated the value of any commodity as being determined as the sum of the various expenses or costs involved in its production; these expenses depending upon the various amounts of these needed to produce the commodity in question"². Adam Smith held three

1. "The real price of everything, what every thing really costs to the man who wants to acquire it, is the toil and trouble of acquiring it. What every thing is really worth to the man who has acquired it, and who wants to dispose of it or exchange it for something else, is the toil and trouble which it can save to himself, and which it can impose upon other people. . . . Labour was the first price, the original purchase money that was paid for all things. It was not by gold or by silver, but by labour, that all the wealth of the world was originally purchased. . . ." (Smith, A., op. cit. p. 30)
2. Dobb, M. Theories of Value and Distribution, p. 112.

different theories of value; "the labour quantity theory illustrated by his beaver and deer example; the labour-disutility theory conveyed by his reference to 'toil and trouble'; the cost theory he actually used in the central part of his analysis" the latter being termed the 'Adding-Up the Components' theory of exchange value, and is the nexus between exchange value and distribution. It is described by Smith in the following passage.

"As the price or exchange value of every particular commodity, taken separately, resolves itself into some one or other, or all of three parts (i.e. wages, profits of stock, and rent); so that of all the commodities which compose the whole annual produce of labour of every country, taken complexly, must resolve itself into the same three parts, and be parcelled out among different inhabitants of the country, either as wages of their labour, the profits of stock, or the rent of their land. The whole of what is annually either collected or produced by the labour of every society, or what comes to the same thing, the whole price of it, is in this manner originally distributed among some of its different members. Wages, profit, and rent, are the three original sources of all revenue as well as of all exchangeable value."¹

Before further examining the doctrine of 'natural' prices, which according to Smith constitutes the foundation of distribution, it is necessary to establish Smith's ethical preconceptions as they are relevant to the study of 'value'. Smith believed that the whole of society's annual product is "naturally" labour's, and that in "that original state of things, which precedes both the appropriation of land and the accumulation of stock"², labour will, indeed, secure to itself the whole of

1. Smith, A., Wealth of Nations, p. 52.
2. Ibid, p. 64.

annual produce. However, as soon as the appropriation of land and the accumulation of capital commenced, "landlords, like all other men, love to reap where they did not sow, and demand a rent even for its natural produce"¹. Rent is a deduction from the produce of labour. And so is profit a deduction, which is 'justified' because the 'masters' advance a portion of their capital goods, the 'Wage-Fund' of later classical writers, to sustain labour during the period of production, in both agriculture and manufacturing.

"The produce of labour constitutes the natural recompense or wages of labour.

In that original state of things, which precedes both the appropriation of land and the accumulation of stock, the whole produce of labour belong to the labourer. He has neither landlord nor master to share with him. . . .

But this original state of things, in which the labourer enjoyed the whole produce of his own labour, could not last beyond the first introduction of the appropriation of land and the accumulation of stock. . . .

As soon as land has become private property, the landlord demands a share of almost all the produce which the labourer can either raise, or collect from it. His rent makes the first deduction from the produce of the labour which is employed upon the land.

It seldom happens that the person who tills the ground has the wherewithal to maintain himself till he reaps the harvest. His maintenance is generally advanced to him from the stock of a master, the farmer who employs him, and who would have no interest to employ him, unless he was to share in the produce of his labour, or unless his stock was to be replaced to him with a profit. This profit makes a second deduction

1. Smith, A., Wealth of Nations, p. 49.

from the produce of labour which is employed upon land.

The produce of almost all other labour is liable to the like deduction of profit. In all arts and manufactures, the greater part of the workmen stand in need of a master to advance them the materials of their work, and their wages and maintenance till it be completed. He shares in the produce of their labour, or in the value which it adds to the materials upon which it is bestowed; and, in this share consists his profit."¹

Of this vision of value's source and its distribution as a series of deductions from labour's rightful product, Schumpeter comments that Smith's reference to an "original state" preceding appropriation of land and accumulation of capital is to a "psuedo-historical background"², and that Smith confuses the two quite different facts that, on one hand, there are no landlords and no masters, and, on the other, that labour is the only scarce factor of production. Schumpeter holds that Smith's attribution of rent's nature, as a deduction from wages, to the appropriation of land complements Smith's view that rent arises from monopoly in the possession of property rights in land (and other natural resources). Rent is not an income grounded in the productivity of land.

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1. Smith, op. cit., pp. 64-65.
 2. Schumpeter, op. cit. p. 268.

"Rent is a deduction from 'natural' wages that is motivated not by the productivity of land but by the emergence of private property in it which tallies nicely with his monopoly theory of rent: some people monopolize land exactly as they might monopolize air, were it technologically possible to do so."¹

Nor could it be said Schumpeter views Smith's vision of profit as a deduction with sympathy:

"And profit is another deduction motivated not by the productivity of capital-stock 'advanced' to the labourers -- but solely by the power of its owners to insist on it, a power that is much enhanced by the ease with which these owners can combine against the poor and helpless labourers who must either starve or frighten their masters into immediate compliance with their demand."²

Smith appears to be influenced in his study of exchange value by the work of Cantillon, who dealt with it in terms of natural prices, and market prices reflecting the state of competition and scarcity (given analytic manifestation by the Demand-Supply apparatus). While later authors would view natural prices to be themselves determined by competition and scarcity, Cantillon restricted the operation of these forces to the determination of market prices. "Thus emerges the superficial and, as the later development of the theory of value was to show, misleading formula--normal price is determined by cost, market price is determined by supply and demand."³

1. Ibid.

2. Ibid.

3. Schumpeter, op. cit., p. 221."

We have seen Smith holds that the exchange value of produce is the sum of the normal amount payable to the requisites labour, land, and capital. He identifies the "ordinary or average rates" of wages, profits and rent as the "natural rates of wages, profit, and rent, at the time and place in which they commonly prevail."¹ Smith then defines what he means by the 'natural' price of a commodity, saying "When the price of any commodity is neither more nor less than what is sufficient to pay the rent of the land, the wages of the labour and the profits of stock employed in raising, preparing, and bringing it to market, according to their natural rates, the commodity is then sold for what may be called its natural price."² The natural price is the price towards which competition resolutely causes market price to tend, despite "accidents" which from time to time may cause the latter to diverge from the natural price; it is "... the price of free competition"³.

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1. "There is in every society or neighbourhood an ordinary or average rate both of wages and profit in every different employment of labour and stock. This rate is naturally regulated, partly by the general circumstances of the society, their riches or poverty, their advancing, stationary, or declining condition; and partly by the particular nature of each employment.

There is likewise in every society or neighbourhood an ordinary or average rate of rent, which is regulated too; partly by the general circumstances of the society or neighbourhood in which the land is situated, and partly by the natural or improved fertility of the land.

These ordinary or average rates may be called the natural rates of wages, profit, and rent, at the time and place in which they commonly prevail." (Smith, A. Wealth of Nations, p.55).

2. Ibid.

3. Ibid., p. 61.

The notion of a 'natural price' is an attempt to formulate a long run equilibrium price concept. Market price, on the other hand, is dependent upon particular demand-supply conditions at a given place, at a given time. It is regulated, according to Smith, by the proportion between the amount actually brought to the market, and the demand of "effective demanders", who are willing to incur the whole cost of wages, rent and profits required to produce the commodity.

"The market price of every particular commodity is regulated by the proportion between the quantity which is actually brought to market, and the demand of those who are willing to pay the natural price of the commodity, or the whole value of the rent, labour, and profit, which must be paid in order to bring it thither. Such people may be called the effectual demanders, and their demand the effectual demand; since it may be sufficient to effectuate the bringing of the commodity to market. It is different from the absolute demand. A very poor man may be said to have a demand for a coach and six; he might like to have it; but his demand is not an effectual demand, as the commodity can never be brought to market in order to satisfy it."¹

Smith is explicit about the role of competition in ensuring that the market price converged upon the natural price and that the 'equilibrium' is stable. Where effective demand exceeds supply, competition between buyers will force price to rise above natural price, but 'perfect liberty' (the absence of barriers to the mobility of factors between employments) will permit employment of more labour, capital and land in that production activity as surplus revenue beyond normal wages, profits and rents is thereby obtainable. Augmentation of supply

1. Smith, A., op. cit., p. 56.

and heightened competition between sellers will cause market price to fall to natural price, and tend to remain there.

Where supply brought to the market exceeds effectual demand, competition between sellers will force market price below the natural price, but, "the market price of any particular commodity, though it may continue long above, can seldom continue long below, its natural price.. Whatever part of it was paid below the natural rate, the persons whose interest it effected would immediately withdraw so much land or so much labour, or so much stock, from being employed about it, that the quantity brought to market would soon be no more than sufficient to supply the effectual demand. Its market price, therefore, would soon rise to its natural price. This at least would be the case where there was perfect liberty."¹ In 'long run equilibrium', a concept not used by Smith, effective demand will equal the amount brought to market, and market price will, actually or approximately, be equal to the natural price. As to how the natural prices of land, labour and capital were supposed to have been determined and to the causes of variation in the natural rate of profit, rent per acre, and per capita wages, discussion is best accommodated in succeeding chapters.

The flaw in the Smithian theory of exchange value based on the 'Adding-Up the Components' theory is that it explains prices in terms of prices.

1. Smith, A., op. cit. p. 62.

"A cost of production theory of value of a commodity obviously is empty and meaningless if it does not include some explanation of how the prices of productive services are determined. But in fact Adam Smith had no theory of profit or pure interest at all. To say that the normal price of an article is the price that just covers costs is to explain prices by prices. In this sense, Adam Smith had no theory of value whatever."¹

To David Ricardo, the Smithian 'Adding-Up the Components' theory of exchange value which relied upon Demand-Supply analysis, was unpalatable. He held that it was the cost of production which determined the price of commodities, not the proportion between demand and supply. Ricardo believed that that proportion could have only a temporary effect on the market price. The Smithian doctrine was held by Ricardo to have been ". . . the source of much error in that science (of political economy)."²

It was noted earlier that Adam Smith held another theory of exchange value in addition to the demand-supply theory and the 'toil and trouble' theory, that being the 'labour-quantity' theory. Ricardo having rejected the demand-supply theory, seized Smith's 'labour-quantity' theory, which Smith had restricted in validity to the 'early and rude State of Society', and sought to apply it to explain exchange value in a society subsequent to the appropriation of land and accumulation of capital, apparently believing that Smith's

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1. Blaug, Economic Theory in Retrospect, p. 40.
 2. Ricardo, D. Principles of Political Economy and Taxation, p. 375.

'toil and trouble' argument was part of the 'labour-quantity' doctrine.¹

"Smith's peculiar theory of value (with its polarized distinction between 'the early and rude state' and developed capitalist society) was refashioned by Ricardo so as to make conditions of production, and in particular, quantities of labour expended in production, the basic determinant alike in capitalist and pre-capitalist society. In doing so he rejected the Adding-Up-the-Components theory, and by implication rejected the possibility of treating the sphere of exchange relations as an 'isolated system', and anchored the explanation of the exchange-relations firmly in the conditions and circumstances of Production."²

1. Smith's statement of the labour-quantity theory was:
"In that early and rude state of society, which precedes both the accumulation of stock and the appropriation of land, the proportion between the quantities of labour necessary for acquiring different objects seems to be the only circumstance which can afford any rule for exchanging them for one another. If among a nation of hunters, for example, it usually costs twice the labour to kill a beaver which it does to kill a deer, one beaver should naturally exchange for or be worth two deer. It is natural that what is usually the produce of the two days or two hours labour, should be worth double of what is usually the produce of one day's or one hour's labour. . . . (In the earliest and rudest state of society) the whole produce of labour belongs to the labourer, and the quantity of labour commonly employed in acquiring or producing any commodity, is the only circumstance which can regulate the quantity of labour which it ought commonly to purchase, command, or exchange for."
(Smith, A., op. cit., pp. 47-48.)
2. Dobb, Theories of Value and Distribution, pp. 114-115.

While Ricardo focused attention on the cost of production in his explanation of exchange value, he was certainly not unaware that demand, based on the essentiality of a commodity's having utility before it might have exchange value played a necessary role in the determination of exchange value. He says, "Utility then is not the measure of exchange value, although it is absolutely essential to it. If a commodity were in no way useful, in other words, if it could in no way contribute to our gratification it would be destitute of exchange value, however scarce it might be or whatever quantity of labour might be necessary to procure it."¹ Ricardo holds that goods which are a source of utility to consumers, have exchange value which are dependent upon scarcity and the quantity of labour (not labour's wages). Commodities which cannot be increased in supply have exchange values "determined by scarcity alone"²; "Their value is wholly independent of the quantity of labour originally necessary to produce them, and varies with the varying wealth and inclinations of those who are desirous to possess them."³ With respect to commodities which "may be increased in quantity by the exertion of human industry", Ricardo quotes Adam Smith on the 'toil and trouble' argument found on page 8, footnote 1, of this text, and then the labour quantity theory found on page 16, footnote 1. Ricardo then asserts that ". . . the proportion between the quantities of labour necessary for acquiring or

1. Ricardo, Principles, p. 55.

2. Ibid., p. 56.

3. Ibid.

() producing different commodities. . . is really the foundation of the exchangeable value of all things, excepting those which cannot be increased by human industry, is a doctrine of the utmost importance in political economy"¹.

0 Ricardo was concerned that Adam Smith's formulation of the labour-quantity theory was said to be valid only in the 'early and rude state', so in his study of society after the appropriation of land and accumulation of capital, Ricardo analytically places society on the 'margin of cultivation' where land, according to his doctrine of rent, does not enter into the cost of production. This is because rent is a differential surplus, and the surplus attributable to the last land brought into cultivation equals zero; 'marginal land is rentless', and rent therefore cannot be a cost of production on the marginal land whose costs 'govern' the price of all raw produce. This analytic stance is critical to the Ricardian labour-quantity theory, as land, unlike capital, cannot even conceivably be reduced to the quantity of labour embodied in it, land being a 'free gift of nature'. Land therefore constitutes an independent source of value, which is not easily reconciled with a labour quantity theory of value being universally valid. That rent represented a return to the productivity of a factor and would therefore be a cost governing value in conjunction with the cost of labour, was inconsistent with the labour-quantity doctrine.

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1. . Ibid., p. 57.

To establish that the accumulation of capital by capitalists does not alter the exchange value of raw produce, and so contradict Smithian doctrine of the non-validity of the labour quantity theory of value after the passing of the 'early state', Ricardo assumes capital goods to be of equal durability in all employments, and asserts that despite the capital used in slaying deer having been appropriated and supplied by one class of persons, and all labour services having been supplied by another class of persons ". . . still their comparative prices would be in proportion to the actual labour bestowed, both on the formation of the capital, and on the destruction of the animals."¹

Adam Smith considered profits and rent as deductions from the total produce which was 'naturally' labour's remuneration. Ricardo however treats rent as a price determined differential surplus that does not influence exchange value, and profits are considered a residual, the 'leavings of wages', as Thomas de Quincey portrayed Ricardian theories of distribution.

"It might be said of profits--that they are the leavings of wages: so much will the profit be upon any act of production. . . as the wages upon that act permit to be left behind. . . But do not wages and profits, themselves, on the contrary, predetermine the price? No, that is the old superannuated doctrine. But the new economy has shown that all price is governed by the proportional quantity of producing labour, and by that only. . . Any change that can disturb the existing relations between wages and profits, must originate in wages: whatever change may silently take place in profits, always we must view as recording and measuring a previous change in wages."²

1. Ricardo, Principles, p. 66.
2. Thomas de Quincey, The Logic of Political Economy, p. 204; quoted in Dobb, op. cit. p. 78.

The division of produce among capitalists and labourers according to the doctrine of the residual nature of profits was held by Ricardo to not affect the principle that exchange value is determined by the relative quantities of labour embodied in the commodity during the production process.¹

Ricardo concludes by stating that it is only a variation in the amount of labour required to produce the commodities that will cause exchange values to vary, assuming a constant proportion of fixed to circulating capital, and fixed capital of equal durability in all fields of endeavour. A mere change in money wages will not cause exchange value to vary; only an alteration in the quantity of labour can affect exchange value assuming such conditions on capital hold, and that the numeraire relative to which the commodities are valued is, in fact, an "invariable standard".²

As to the effect on exchange value should the proportion of fixed capital to circulating capital vary,³ Ricardo concludes that a "considerable" (but not fundamental) "modification" of the 'labour-quantity' theory of exchange value is necessary; and that given an increase in wages, the quantity of labour remaining constant, the exchange value of the

1. Ricardo, op. cit., p. 69.

2. Ibid., p. 71.

3. See Ricardo, Ibid., p. 79 and also chapter 3 of this paper, wherein this modification of the 'labour-quantity' theory of value is discussed in more detail, as are those caused by variation in the durability of fixed capital, and differences in the length of the production process.

commodity will fall, and fall more in industries which employ a larger proportion of fixed to circulating capital. With respect to the variation in exchange value resulting from differences in the durability of fixed capital, Ricardo concludes that such variation also modifies the 'labour-quantity' theory; where durable capital predominates in production, exchange value will vary inversely with wages; ". . . in proportion to the durability of capital employed in any kind of production, the relative prices of those commodities on which such durable capital is employed, will vary inversely as wages. . . ." ¹ Those commodities produced with a high proportion of labour to fixed capital, and those produced with capital which is less durable than that used in the production of the numeraire good will vary directly with wages.

Ricardo, as we found earlier, believed that the Smithian doctrine that exchange value was determined by the operation of the demand-supply apparatus in a competitive economy, was analytically incorrect. He proposed in its place a 'cost of production' theory based on the quantity of labour embodied in a commodity as the determinant of exchange value even in the state of society in which land had been appropriated and capital accumulated. Ricardo, Schumpeter says, was quite aware that the labour-quantity theory could only be valid, if at all, in a situation of perfectly competitive equilibrium. As that

1. Ibid., p. 83.

concept was not fully available to Ricardo, he held that the labour-quantity theory was validly applied in the study of 'natural prices' determined in what we now call 'the long run'.¹ Ricardo, it appears, considered the demand-supply analysis to be correctly applied only to questions of market price.¹ Ricardo was clearly in possession of a demand-supply apparatus when he treated market price in a competitive economy of profit maximizers.

"In the ordinary course of events, there is no commodity which continues for any length of time to be supplied precisely in that degree of abundance, which the wants and wishes of mankind require, and therefore there is none which is not subject to accidental and temporary variations in price.

It is only in consequence of such variations, that capital is apportioned precisely, in the requisite abundance and no more, to the production of the different commodities which happen to be in demand. With the rise or fall of price, profits are elevated above or depressed below their general level, and capital is either encouraged to enter into, or is warned to depart from the particular employment in which the variation has taken place."²

The Ricardian doctrine held sway over minds for decades during the 19th century, but not all abandoned the doctrines of Adam Smith. One who did not follow Ricardo was his chief sparring partner in matters of political economy, Malthus. Schumpeter notes, "... whereas Ricardo recoined the

1. Schumpeter, op. cit., p. 593.
2. Ricardo, Principles, p. 111.

doctrine of the Wealth of Nations by means of the labour-quantity theory, Malthus recoined it by means of the theory of value that A. Smith actually used, namely, the theory of supply and demand."¹

Dobb raises the possibility that Ricardo believed a fundamental difference existed between demand-supply analysis as applied to prices, and as the basis of a theory of distribution. Dobb considers that Ricardo held wages and profits to be determined independently of and prior to market price and even natural value. To support this contention Dobb quotes Malthus:

"... the two systems, one of which accounts for the prices of the great mass of commodities by the cost of their production, and the other accounts for prices of all commodities, under all circumstances, permanent as well as temporary, by the relation of the demand and supply, though they touch each other necessarily at a great number of points, have an essentially different origin, and require, therefore, to be very carefully distinguished."²

Malthus' conclusion was "that the great principle of demand and supply is called into action to determine what Adam Smith calls natural prices as well as market prices"³, to which Ricardo responded:

"The author forgets Adam Smith's definition of natural price, or he would not say that demand and supply could determine natural price. When any commodity sells for that price which will repay the wages of labour expended on it, it will also afford

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1. Schumpeter, op. cit., p. 482.
 2. Malthus, Principles of Political Economy, p. 73; quoted in Dobb, op. cit., p. 120.
 3. Ibid., p. 75.

rent, and profit at their then current rate, Adam Smith would say that commodity was at its natural price. Now these charges would remain the same, whether commodities were much or little demanded, whether they sold at a high or low market price."¹

Dobb states, "Does not this comment of Ricardo place it beyond any doubt that he was thinking of both wages and profit as being determined independently of and prior to market prices, or even of natural value?"²

J.S. Mill, despite his desire to restate in improved form the Ricardian doctrines, erected a theory of value which Schumpeter calls a "Half-Way House"³ between the demand-supply analysis of Smith and Malthus, and Ricardo's labour-quantity theory. Mill pronounced himself pleased with the prior development of the theory of value: "Happily, there is nothing in the laws of Value which remains for the present or any future writer to clear up; the theory of the subject is complete"⁴.

Mill accepted utility and difficulty of attainment as conditions of a commodity's having value.

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1. Ricardo, Notes on Malthus in Works and Correspondence of Ricardo, ed. Sraffa, Vol. II, p. 46; quoted in Dobb, op. cit., p. 120.
 2. Dobb, op. cit., p. 120.
 3. Schumpeter, op. cit., p. 603.
 4. Mill, J.S. "Principles", III, i, 2.

"That a thing may have any value in exchange, two conditions are necessary. It must have some use; that is. . . it must conduce to some purpose, satisfy some desire. No one will pay a price, or part with anything which serves some of his purpose, to obtain a thing which serves none of them. But secondly, the thing must not only have some utility, there must also be some difficulty in its attainment."¹

Mill, in constructing his theory of value, develops the demand-supply analysis implicit in the Smithian 'Adding-Up the Components' theory of exchange value, and then adds to the "Cost of Production" theory of Ricardian origin by holding that the return to capital (goods) is a reward for abstinence, and that the 'profits of stock' are a necessary cost of production in the same sense that the cost of labour is a necessary cost of production.² Despite this apparent reliance upon a functionally

1. Ibid., III, ii, 1.

2. Mill stated,

". . . in our analysis of the First Book, of the requisites of production we found that there is another necessary element in (the costs of production) besides labour. There is also capital; and this being the result of abstinence, the produce, or its value, must be sufficient to remunerate, not only all the labour required, but the abstinence of all the persons by whom the remuneration of the different classes of labour was advanced. The return for abstinence is Profit. and profit, is not exclusively the surplus remaining to the capitalist after he has been compensated for his outlay, but forms, in most cases, no unimportant part of the outlay itself. . . . Profits, therefore, as well as wages, enter into the cost of production which determines the value of the produce."
(Mill, op. cit., III, iv, 4.)

determined concept of profit, Mill retains in part the Ricardian residual determination of profit. Mill, also retains the Ricardian rent doctrine in its essence, so differential rents do not enter into the costs of production on the marginal, product price 'governing' land. He does allow that conceptually, 'scarcity rents' might enter into those costs. However, Mill believed it was only the land of the highest fertility that was limited in supply while less fertile land was not so limited--he held that such scarcity rents could become an important influence on exchange value in the future as land and resources became more completely utilized in production but that such a time was distant. Might it not now be upon us?

On the demand-supply theory of exchange value determination, Mill explicitly rejected the belief that the proportion or ratio of demand to supply determined exchange value, holding that the demand-supply relationship is essentially an equation, and that competition is the means by which demand and supply are equilibrated.

"Thus we see that the idea of a ratio, as between demand and supply, is out of place and has no concern in the matter: the proper mathematical analogy is that of an equation. Demand and supply, the quantity demanded and the quantity supplied, will be made equal. If unequal at any moment, competition equalizes them, and the manner in which this is done is by an adjustment of the value. If the demand increases, the value rises; if the demand diminishes, the value falls: again, if the supply falls off, the value rises; and falls if the supply is increased. The rise or the fall continues

() until the demand and supply are again equal to one another: and the value which a commodity will bring in any market is no other than the value, which, in that market, gives a demand just sufficient to carry off the existing or expected supply."I (Emphasis in original)

Though market price will always be such, in a state of 'short-run' equilibrium, as to clear the market at the equilibrium price, there is a "minimum exchange value" any commodity (both those susceptible to unlimited multiplication and those not) must attain before production of it may be sustained. That minimum is one which covers the costs of production, both those of labour and capital, and is called the "necessary price or value".

0 Mill, then, divides commodities into two classes; those which are not capable of being indefinitely increased in supply by appropriation or industry; and, those whose supply may so be increased. The exchange values of commodities in the former class which are the products of industry are determined by demand and supply subject to a minimum determined by the costs of production; the exchange value of those found in nature and fixed in supply, and those products of men, which are not capable of replication, are determined solely by supply and

1. Ibid., III, iii, 1.

demand. The exchange value of those in the second class, i.e., those which may be indefinitely increased by industry ("if we are only willing to bear the cost") is determined only in the 'short run' by demand and supply. Value will tend towards the costs of production. Demand and supply variation are said to reflect a tendency towards equilibrium; they "always rush to an equilibrium", Mill says. However, the stability of any particular equation of supply to demand is determined by whether the exchange value of commodities is equal to the costs of production or as Mill puts it, 'the cost of production and the ordinary expectation of profit.'

"To recapitulate: demand and supply govern the value of all things which cannot be indefinitely increased; except that even for them when produced by industry, there is a minimum value determined by the cost of production. But in all things which admit of indefinite multiplication, demand and supply only determine the perturbations of value, during a period which cannot exceed the length of time necessary for altering the supply. While thus ruling the oscillations of value they themselves obey a superior force, which makes value gravitate towards Cost of Production, and which would settle it and keep it there if fresh disturbing influences were not continually arising to make it again deviate. To pursue the same strain of metaphor, demand and supply always rush to an equilibrium, but the condition of stable equilibrium is when things exchange for each other according to their cost of production, or, in the expression we have used, when things are at their Natural Value."¹

1. Ibid., III, iii, 1.

C. The Distribution of Wealth in Classical Thought.

Having considered the classical economists' doctrines of value, and the basic inter-relations they held to exist between value and distribution, we now turn our attention to their teachings on distribution per se.

Cannan tells us that the first use of the term 'Distribution' in relation to political economy appears to have been in Turgot's Reflexions sur la formation et la distribution des richesses, published six years prior to A. Smith's Wealth of Nations. The latter is the first to use it in the English literature as part of the title of Book I, "Of the causes of improvement in the productive powers of labour, and of the order in which its produce is naturally distributed among the different ranks of people". However, Cannan holds that A. Smith's theory of distribution "... instead of being made one of the main subjects of the Book, is inserted in the middle of the chapter on prices as a mere appendage or corollary of his doctrine of prices."¹ Cannan seeks to explain the prominence of distribution in the title of Book I compared with the failure to provide a theory of the shares of wages, rents and profits save for an attempt to study these incomes as components of price, by holding that the Wealth of Nations was virtually complete when Smith made his trip to France and became influenced by the Physiocrats, Quesnay in particular, and that, "When this happened, he may very well have thought that his theory of prices and his observations on wages, profit and rent made a very good theory of what the physiocrats called 'distribution', and thus

1. Cannan, op. cit., p. 146.

have been led to affix the present title of the Book, and to interpolate the passage about the whole produce being parcelled out and distributed as wages, profit and rent."¹.

Ricardo writes in his preface to his Principles of Political Economy and Taxation that "To determine the laws which regulate distribution, is the principal problem in Political Economy. . ."², having postulated that in a predominantly agricultural society, its product, derived from the land by "the united application of labour, machinery and capital", is divided into wages, profits and rents in (what Ricardo alleges are) proportions, which will differ at different stages of society, "depending mainly on the actual fertility of the soil, on the accumulation of capital and population, and on the skill, ingenuity, and instruments employed in agriculture."³

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1. Ibid., p. 148. The passage in Wealth of Nations that Cannan believes was interpolated is:

"As the price or exchange value of any particular commodity, taken separately resolves itself into some one or other of all those three parts; so that all the commodities which compose the whole annual produce of labour of every country, taken complexly, must resolve itself into the same three parts, and be parcelled out among different inhabitants of the country either as the wages of their labour, the profits of their stock, or the rent of their land; the whole of what is annually either collected or produced by the labour of every society, or what comes to the same thing, the whole price of it, is in this manner originally distributed among some of its different members. Wages, profit, and rent are the three original sources of all revenue, as well as of all exchangeable value."

2. Ricardo, op. cit. Preface.
3. Ibid.

Thus unlike Adam Smith, Ricardo chose not to focus analytic attention on the factors which determine total output, but to dedicate his work to the study of distribution. Having chosen this orientation, Ricardo merely accepts total net output as a datum. In this system net output equals rent plus profit plus wages; one equation in three unknowns. Ricardo therefore places himself analytically on the margin of cultivation where differential rent is zero. In order to render one equation in two unknowns soluble, Ricardo advances the Malthusian argument that in the longer run, wages will also be a datum as they will equal a bare minimum required for subsistence and perpetuation of the labouring order with neither increase or diminution in their number. Profit, the remaining unknown is determined as a residual surplus which depends upon the external conditions that govern wages.

Ricardo's and J.S. Mill's opinions on the division of net produce minus rent between wages and profits did not differ significantly. Profits will fall as a result of the accumulation of capital at a faster rate than the growth of population and the competition of capital owners for labour, and, as the result of the increase of population and consequent increased demand for food which may be obtained only at greater cost. Profits will rise if population growth is greater than the rate of capital accumulation, as a result of the competition of labourers for employment, or if technological improvements cause the price of necessaries to fall. However, the role of competition was

minimized by both, and stress laid upon variation in the price of wage goods.

"As to the causes which increase or decrease the cost of wages, and therefore the ultimate causes of a fall or rise of the rate of profit, Mill has nothing to add to Ricardo:

'The rate of profits', he says, 'tends to fall from the following causes: (1) An increase of capital beyond population, producing increased competition for labour; (2) An increase of population, occasioning a demand for an increased quantity of food, which must be produced at a greater cost. The rate of profits tends to rise from the following causes (1) An increase of population beyond capital, producing increased competition for employment; (2) Improvements producing increased cheapness of necessaries and other articles habitually consumed by the labourer."¹

Ricardo expected that ". . . in the progress of society . . . the proportion of produce-minus-rent which falls to wages (has) a tendency to increase."² He believed that a growing population forced recourse to poorer lands or more intensive cultivation and that increasingly severe diminishing returns would be encountered. Labour's share of net produce minus rent would increase. This was necessarily at the expense of the capitalist's share.

"But when poor lands are taken into cultivation, or when more capital and labour are expended on the old land, with a less return of produce, the effect (wages will rise) must be permanent. A greater proportion of that part of the produce which remains to be divided after paying rent, between the owners of stock and the labourers, will be apportioned to the latter. Each man may and probably will, have a less absolute quantity; but more labourers are employed in proportion to the whole produce retained

1. Cannan, Ibid., p. 238.

2. Ricardo, p. 102, 103 (1st ed.) quoted in Cannan, op. cit., p. 273.

by the farmer, the value of a greater proportion of the whole produce will be absorbed by wages and consequently the value of a smaller proportion will be devoted to profits. This necessity (will) be rendered permanent by the laws of nature, which have limited the productive powers of the land."¹

As for variations in rent per acre, the Ricardian tradition held that as population grew, and capital accumulated, the Law of Diminishing Returns and the limited supply of more fertile land would eventually combine, forcing the price of raw produce upward. Both the value of the commodity in which rent is paid, and the share of the landlords increase.

"In speaking of the rent of the landlord, we have considered it as a proportion² of the produce, obtained with a given capital on any farm, without

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1. Ibid.
 2. Canan notes of Ricardo's word 'proportion' in this passage that:

"When he says that he has rather considered rent as a proportion of the whole produce, all he means is that he has hitherto been reckoning the rent in corn rather than money. . . There is not the slightest ground for asserting that Ricardo had considered rent as the proportion of the whole produce in the proper meaning of the word proportion. Throughout the chapter he had considered it as an absolute amount, either of corn or money, and even if we supposed that the proportion of produce falling to rent varies with the absolute quantity of labour required to produce it, which we have shown not to be the case, an increase in the absolute amount of money paid in rent would not necessarily coincide with an increase in the proportion falling to rent." (Cannan, op. cit., p. 238)

reference to its exchangeable value, but since the same cause, the difficulty of production, raises the exchangeable value of raw produce, and raises also the proportion of raw produce paid to the landlord for rent, it is obvious that the landlord is doubly benefited by the difficulty of production. First, he obtains a greater share, and secondly, the commodity in which he is paid is of a greater value."¹

There is, in Cannan's mind, a grave fault in the classical doctrines of distribution: it is that what the classics, following Adam Smith, considered under wages, profit, and rent, were wages per capita, profit per cent, and rent per acre. These concepts are not the same as the proportion of each of aggregate wages, aggregate profit and aggregate rent to net output. Consequently, Cannan holds that what the classics studied might be better called "Pseudo-Distribution".² His argument in favour of this contention is stated thus:

"In the equation, produce = wages + profits + rents, the produce should now be taken as a given quantity, and the question should be to determine what settles the relative magnitude of the three terms on the other side of the equation.

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1. Ricardo, op. cit., p. 107.
 2. See Cannan's title for Chapter VII of Theories of Production and Distribution.

Now with the changes in the relative magnitude of wages, profits, and rent, as the terms must be understood in the equation, increases and decreases or rises and falls of wages, profits, and rent, understood in the ordinary sense, are, of course, by no means identical. In the equation, 'wages' means the total or aggregate of all wages, 'profits' the total or aggregate of all profits, and 'rents' the total or aggregate of all rents paid in a given length of time. If the total or aggregate of annual wages or remuneration of labour paid in the United Kingdom amounts to 1,000,000,000 pounds, the total or aggregate of profits to 400,000,000 pounds, and the total or aggregate of rent to 100,000,000 pounds, then the total ultimate produce or income must be 1,500,000,000 pounds. . . . But in ordinary language, when we speak of increases and decreases of wages, profits and rent, we mean by wages the amount paid to a single man, by profits the rate of interest or proportion which interest bears to principal, and by rent the rent of a single acre of land. This sense of the terms is obviously wholly inappropriate to the equation. We cannot tell how great the produce or income is by adding together a per capita wage, a percentage, and a rent per acre. It is not true that 1,500,000,000 pounds = 90 pounds a year + 3 per cent + 1 pound an acre. Increases or decreases of wages, profits or rent in the one sense do not by any means necessarily correspond with increases or decreases of wages, profits or rent in the other sense. The aggregate of wages depends on the number of workers as well as on the amount paid to each, the aggregate of profits depends on the amount of capital as well as on the rate of interest, and the aggregate of rent depends on the extent of land paying rent as well as on the amount paid per acre. And the relative or proportionate magnitude of aggregate wages, profits and rent which is logically the subject of Distribution, is still more remotely connected with wages per capita, profits per cent, and rent per acre than their absolute magnitude. A rise of wages per capita may be coincident with a fall in the proportion of produce allotted to profits if

either the total capital has diminished or if the total produce has increased. A fall of rent per acre may be coincident with an increase in the proportion of produce allotted to rent, if either the number of acres paying rent has increased or the total produce has decreased."¹

Cannan does hold, however, that the Ricardian doctrines of rent per acre, profit percent and wages per capita do correspond to a study of the causes of variation in the proportionate share of each income in net product for the specific circumstances with respect to which Ricardo was attempting to derive a policy i.e., the free importation of raw produce into a mature country. "The confusion of wages per head, profits per cent and rent per acre with proportions of the produce, was of little importance in view of the fact that variations in wages per head, profits per cent, and rent per acre, when suddenly caused by changes in the corn laws, would, as a matter of fact, correspond with variations in the proportions of the produce allotted to wages, profits and rent."²

One could expect a similar convergence to be evident whenever there is an abrupt alteration of the society's institutional arrangements.

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1. Cannan, op. cit., p. 180.
 2. Cannan, op. cit., pp. 299-301.

D. Distribution by the Principle of Marginal Productivity

To Longfield, writing in 1834, goes the honour of having 'originated' the marginal productivity theory of distribution. Although Longfield's capital is still capital-goods, he does derive a ". . . reasonably complete and reasonably correct"¹ theory of distribution based on the marginal productivity principle, i.e., "he explained both 'profits' (return on physical capital) and wages in terms of the contributions to total product that result from the addition to the productive set-up of the last element of capital (tools) or labour."² With the exception of Von Thunen's 'rediscovery' of it (apparently independently of Longfield's work), the classical tradition held sway over the minds of men, save for the integration of "utility theory" into the theory of value in a considerably more explicit manner than had the classical economists. Not until the 1880's and 1890's did the elaboration of the marginal productivity principle by John Bates Clark (whose work we shall examine in some detail), Wicksteed and Wicksell offer a theory of distribution which did not rely on the 'deduction' theory of Adam Smith, or the 'residual' theory of Ricardo. J.B. Clark based the theory of marginal productivity distribution on the Ricardian doctrines of differential surpluses or 'rent'.

1. Schumpeter, op. cit., p. 465.

2. Ibid.

() Schumpeter writes of Clark's methodology, ". . . what he did was to turn the 'Ricardian' theory of rent, which with Ricardo had no other function than to eliminate rent from the price problem by making it an intra-marginal surplus, into a principle that was of general application to all kinds of competitive returns (law of three rents) without becoming tautological in the process -- marginal utility (and disutility) coming in quite naturally on this route."¹ (Emphasis in original)

Metaphysically, Clark rejected the Smithian doctrine of 'natural' value which attributed the total product of society to labour, and the consequent 'deduction' theory of distribution. Clark wished to show that by the operation of the marginal productivity principle in a 'competitive' society, each requisite of production would receive "the amount of wealth which that agent creates":

"It is the purpose of this work to show that the distribution of the income of society is controlled by a natural law, and that this law, if it worked without friction, would give to every agent of production the amount of wealth which that agent creates. However wages may be adjusted by bargains freely made between individual men, the rates of pay that result from such transactions tend, it is here claimed, to equal that part of the produce of industry which is traceable to the labour itself; and however interest may be adjusted by similarly free bargaining, it naturally tends to equal the fractional product that is separately traceable to capital. At the point in the economic system where titles to property originate, -- where labour and capital come into possession of the amounts that the state afterwards treats as their own, -- the social procedure is true to the principle on which the right of property rests. So far as it is not obstructed, it assigns to every one what he has specifically produced."²

1. Schumpeter, History of Economic Analysis, p. 868.
2. John Bates Clark, Distribution of Wealth, Preface.

Clark asks, "Does natural distribution identify men's products and their gains? Is that which we get and which the civil law enables us to keep really our own property by right of creation? Do our actual estates rest, from their very beginning, on production?"¹ His general thesis is:

"Where natural laws have their way, the share of income that attaches itself to any productive function is gauged by the actual product of it. In other words, free competition tends to give to labour what labour creates, to capitalists what capital creates, and to entrepreneurs what the coordinating function creates."²

During the period between J.S. Mill and J.B. Clark, the classical notion of the 'static state of society' was refined. Clark explicitly formulated his vision of economic life as a static model of a synchronized system which contrasted to the classical system of 'advances' (thereby Clark eliminated any philosophic need for the 'wages-fund' doctrine): He distinguished between the static and dynamic implications of changes in system parameters, and attributed the study of profit (entrepreneurial profit, not the profits of stock as studied by the classical economists) to dynamic theory, as in static state, competition will 'annihilate' any entrepreneurial gains beyond the wages of management.³ Wages and interest on the

1. Ibid., p. 8.

2. Ibid., p. 3.

3. "The interval between actual wages and the static standard is the result of friction; for if competition worked without let or hindrance, pure business profit (excluding wages of management) would be annihilated as fast as it could be created--entrepreneurs, as such, could not get and keep any income. The annihilation would consist in converting profit into another type of income." (Ibid., p. 410.)

("fund of social capital" (not the capital-goods) are necessary costs of production, being rewards for incurring the disutilities of labour and abstinence, land being considered a form of capital and land rent being merged with interest. Wages in total (not per capita wages) and interest in total (not interest percent) are held to be differential surpluses or rents in the Ricardian sense, and exhaust the total income in static equilibrium. The wage rate is determined by the value of the product of the marginal unit of labour applied to a fixed amount of "social capital"; while the interest rate is determined by the productivity of the marginal or last unit of capital applied to a fixed amount of labour. Clark rejects the Ricardian doctrine of distribution in which rent is eliminated and principles such as "profits are the leavings of wages" propounded to account for the remaining incomes. He holds that to derive a law of distribution one must first eliminate what is not rent, i.e., pure profit, by focusing on static state equilibrium, and then to show that aggregate wages and aggregate interest are both differential surpluses.

"Wages and interest are incomes that may be treated as static in their nature; they would exist if society were to remain in an unprogressive state, with its forces in a balanced condition that excludes internal changes. Disturb this equilibrium of forces, make structural changes in society, create a condition in which labour and capital begin to move from one point in the general system to another, and you furnish opportunities for the creating of another income that is distinctly dynamic. We shall call this pure profit. It is a product of unbalanced forces, and exists, under natural law, only while society is changing. Eliminate those internal movements of the industrial forces that we have indicated, and you destroy it. The remaining product

of social industry will then resolve itself into wages and interest; and both of those are rents, or differential products due to permanent agents. In this respect they are analogous to the income from land as it appears in current theories, and they in fact include that income with others. The true method of attaining a law of distribution is not, therefore, first to eliminate from the earnings of society the element of ground rent and then to try to find principles that will account for the remaining elements: it is to eliminate what is not rent, namely, pure profit, by reducing society to a static condition, and then, by a use of the rent law, to account for all that remains."¹

Before the division of the total product into aggregate wages and aggregate interest, there is a prior step in distribution which Clark names "group distribution", that of determining through the operation of demand and supply in the competitive marketplaces the exchange values of goods produced by capital and labour in each area of endeavour. This determines the share of total produce which labour and capital in that endeavour may divide between themselves on the basis of the law of marginal productivity.

"There is a kind of distribution that does not fix the rate of wages and interest, but determines how much one industry, as a whole, including its labourers, its capitalists, and its entrepreneurs, shall get, as compared with other industries. It determines whether one whole branch of business shall be more prosperous than another. There is an intermediate part of the general distributing operation, and it is accomplished by means of prices. When wheat, for example, is high in price, the farming industry is well paid, as compared with

1. Clark, J.B. Distribution as Determined by a Law of Rent, p. 330.

others; and when wheat is cheap, that industry is ill paid. If what we have in mind is the so called 'market price' of an article,--this kind of value governs what we may call group distribution. If steel, for example sells at a high rate, a large income goes to the group that produces it. This income distributes itself somewhere in the group; but how much of it labourers get, and how much capitalists get, is a question that we do not now raise. This is determined by an ultimate distribution taking place within the groups. Group distribution is a preliminary division of the social income, and it deals with branches of industry in their entirety. The terms of this primary division of the social income depend on the prices of different kinds of goods. Farmers want wheat to be dear, as miners want ore to be dear, etc. Prices, then, fix the incomes of groups."¹

Clark separates the social act of exchange into two parts; the determination of exchange value is an element of distribution while the double transfer of ownership rights over the goods is the sole element of 'exchange'. "The fixing of a rate of exchange," Clark says, "is an act in social distribution, while the double transfer of the commodities themselves is all that, in the last analysis there is in the process of exchange".²

At first observation, it would appear that market prices determine the shares of aggregate produce accruing to each group, but in reality, the force of competition and

1. Clark, J.B. Distribution of Wealth, pp. 12-13.

2. Ibid., p. 62.

hypoththesized absence of barriers to entry and exit ('friction' in Clark's terms), will cause market price to converge on 'normal' prices, and in static equilibrium, wages and interest will be equalized between industries.

"It is clear that the study of market value falls within the science of distribution. On the surface, it is current market prices that control the distribution which takes place among different groups or specific industries. These prices, however, are transient, and they fluctuate about certain more permanent standards. The tendency of group distribution to become normal--that is, to bring wages and interest to an approximate equality in different industries--draws prices toward the normal standard."

Clark considers the classical notions of natural wages, 'interest' and value as unconscious and imprecise formulations of the static state equilibrium concept. "The term 'natural', as used by classical economists in connection with standards of value, wages and interest, was unconsciously employed as an equivalent of the term 'static'",¹ he stated.

Natural values are those towards which market prices are tending under the pressure of competition, and in a state of static equilibrium, these natural values are equivalent to the real costs of production. This Clark believes is the viewpoint

1. Ibid., p. vi.

(not of society, but of the individual entrepreneur. From society's viewpoint, not only must competition cause exchange values to equal the costs of production, but it also causes factor productivities to be equalized between industries or groups, so that no unit of any factor may increase its reward by transferring to another group.

"The familiar definition of natural price is: that which conforms to the cost of production. The economist has been in the habit of putting himself, in imagination, in the businessman's position, and considering the money that he pays out in producing an article as the cost and what he gets by selling the article as the return. The tendency of competition, is to bring the price down to the point at which the return equals the cost. This is, however, an individualistic and limited view of the law of normal prices. It presents that law as it appears to a man who is performing his one particular part of the social operation of creating wealth. . . . The traditional statement of the law of natural price is not incorrect; but it is misleading, because it is partial and inadequate. It presents things from an entrepreneur's point of view, instead of from a social point of view.

It will be seen. . . that a condition in which all things sell for the amount of money that they have cost--including interest and wages of management, as elements of cost--is a state in which the gross gain of the different industrial groups are brought to pro rata equality, that is, to a condition in which the returns of all groups yield the same amount per unit of capital and also the same amounts per unit of labour. Cost prices, then are those that give equalized earnings."¹

¹. Ibid., p. 17.

Clark stresses that the means by which exchange value is equalized to the costs of production, and value products of marginal factors equalized between groups or industries is competition. As Clark says, "When competition has its way, it puts a certain amount of each agent into each subgroup; and you cannot make the amount less or more without making the quantity of the product smaller, than a perfect action of natural law requires."¹

A major conclusion of the preceding paragraphs is that the social institution of competition is as critical to distribution to the marginal productivity theory as it was to the distribution theories of the classical writers. Thus the fledgling marginal productivity theory of distribution was vulnerable to being rendered irrelevant by the progressive extinction of competition during the 1880's and 1890's. Says Clark:

"To many persons any theory based on competition may seem to have somewhat of the character of a theoretical romance. Will not competition itself soon be a thing of the past? There are forming on every side trusts and other consolidations of capital that threaten to extinguish competition and to introduce a regime of monopoly within much of the business field. Have we, then, completed the theory of competitive distribution, only to find that the fact on which the whole of it is predicated has ceased to be? If, when competition was at its best, theories of natural value, natural wages and natural interest seemed to have a character of

1. Clark, Ibid., p. 355.

unreality what is to be said of them when competition appears to be a vanishing element?

It remains for economic dynamics to show that competition is an inextinguishable force."¹

Clark did not publish his planned work on dynamics which might have proven competition to be an "inextinguishable force"; he did subsequently publish two works which dealt with the correction of the increasingly manifest defects in the institution of competition. One of these, The Problem of Monopoly, published in 1904 carries a subtitle, "A Study of a Grave Danger and of the Natural Mode of Averting It", suggesting the "inextinguishable force" was flickering, placing in jeopardy all theories of economic distribution, though methods short of repudiating the existing distribution of property rights could be relied upon to revive the institution.

1. Clark, J.B. Distribution of Wealth, pp. 440-441.

Chapter 2

The Development of the Laws of Natural Resources Rent

There are three distinct theories explaining land and natural resources rent. These may be identified as the productivity-scarcity theory, the diminishing returns theory, and the monopoly theory. What is held in common is that the classical writers identified land rent as the return those possessing the "original and indestructible powers of the soil" receive for allowing others to use the powers in the raising of nature's products.

A. The Productivity-Scarcity Theory

The French physiocrat writers and Cantillon depended heavily on the proposition that pure rent was a return explained by the productivity and scarcity of the natural agents used in social production. The physiocrats differentiated that part of rent which could be said to be a return to original and indestructible powers of the soil, from that part of rent which ~~was a return to the capital embodied in the soil.~~

"Cantillon and after him, the physiocrats, may be said to have been the first to entertain a distinctive view of the phenomenon: it simply amounted to the proposition, if we may couch it in terms of a later time, that land yields a rent because it is a scarce factor of production (or even the 'original' one), and that this rent is partly a payment for the natural and indestructible powers of the soil."¹

1. Schumpeter, op. cit., p. 264.

In Cantillon, the land-owning agricultural class controlled national consumption and therefore production through their consumption decisions. These were based on "an income which is a return to the possession of a factor of production which was not capable of reproduction, and whose services were costlessly taken from Nature.

" 'All the orders of society and all the men in a state subsist or enrich themselves at the expense of the landowners;' this will be seen to mean no more than that whereas every other income item is being balanced by a cost item, including in costs the necessary living expenses of the receivers, the landowners' rent the only one that is not so balanced because to use a phrase, it is a return to a 'costless' that is, nonproduced, natural factor. . . . Its expenditure is undetermined, and precisely because of this, the determining and active factor in the total of national consumption--hence also in the total of national production, so that everyone's economic fate depends upon les humeurs, les modes et façons de vivre of the prince and the land owning aristocracy."¹

In addition to being favourably disposed towards the monopoly theory of rent, Adam Smith was much impressed with the belief, drawn from the physiocrats, that land was unique in that it produced a surplus above that cost incurred to maintain the labour at a high level of subsistence, plus affording the 'ordinary' profits of stock and the maintenance cost of that capital stock. From that surplus, the landlord will obtain his rent.

1. Ibid., p. 221.

"But land, in almost any situation, produces a greater quantity of food than what is sufficient to maintain all the labour necessary for bringing it to market, in the most liberal way in which that labour is ever maintained. The surplus too is always more than sufficient to replace the stock which employed that labour, together with its profits. Something, therefore always remains for a rent to the landlord."¹

Ricardo rejected Smith's doctrine of productivity and the ability of land to produce a surplus as a sufficient explanation of rent. As Marshall puts it, "(Ricardo) delighted to argue that no surplus can be reaped from ownership of those of nature's gifts the supply of which is everywhere practically unlimited"². Ricardo tied rent to the need to have recourse to land of inferior productivity rather than to land's absolute productivity as had Adam Smith in his dictum, "The value both of the produce (of 'estates above ground') and their rent is in proportion to their absolute, and not their relative fertility."³

Ricardo stated:

"Nothing is more common than to hear of the advantage which the land possesses over every other source of useful produce, on account of the surplus which it yields in the form of rent. Yet when land is most abundant, when most productive and most fertile, it yields no rent; and it is only when its powers decay, and less is yielded in return for labour, that a share of the original produce of the most fertile portions is set aside for rent."⁴

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1. Smith, Adam. Wealth of Nations, p. 146.
 2. Marshall, A., Principles, VI, ix, 4.
 3. Smith, A., The Wealth of Nations, p. 173.
 4. Ricardo, Principles, p. 98.

The debate which led to the enunciation of rent theory was that over the English 'Corn Laws' during the second decade of the 19th century. Malthus provided several theories of rent which were grounded in the notion that rent was a surplus, owing to the 'bounty of nature', a form of productivity theory. Ricardo, on the other hand enunciated a theory which denied that the 'bounty of nature' was the origin, putting in its place one which depended on the 'niggardliness of nature'; the scarcity of more fertile land, and the necessity of having recourse to land of inferior quality as population grew. The reason for Ricardo's rejection of Malthus' "bounty of nature" theory was that Ricardo had embraced a value theory resting on the amount of labour embodied in a product and that therefore the notion that any other factor could secure an addition to product value was inconsistent:

"Among other things Malthus insisted on the proposition that rent is a surplus that we owe to the bounty of nature. Now this clumsy phrase which has been much misunderstood, adumbrates a productivity explanation of rent. The reason why it was unacceptable for Ricardo was not that it complimented the landlords; his not less clumsy phrases about the 'niggardliness of nature' means not more than that the land is not a free good, a fact that is just as necessary for a productivity explanation as is the bounty. The reason was that this idea was incompatible with his value theory."¹

Ricardo summarized Malthus' argument that the excess of raw produce price over the costs of its production is determined by:

1. Schumpeter, op. cit., pp. 677-678.

"Firstly, and mainly, that quality of the earth, by which it can be made to yield a greater portion of the necessities of life than is required for the maintenance of the persons employed on the land.

Secondly, that quality peculiar to the necessities of life, of being able to create their own demand, or to raise up a number of demanders in proportion to the quantity of necessities produced.

And thirdly, the comparative scarcity of necessities produced."¹

The first cause we have seen, is drawn from the writings of Adam Smith and the physiocrats. Cannan explained "... if the whole land were such that it could not be made to produce more than a subsistence for its cultivators, there could obviously be no surplus produce for rent however much the land might be monopolized."² In replying to Malthus' proof that as the fertility of the land is diminished, the surplus will disappear, Ricardo agreed that as fertility is diminished, the physical surplus of raw produce will diminish, but that the question is whether money rent diminishes. He goes on to say that Malthus would be right and rent would be proportional to fertility if the landlord were able to appropriate a larger share of produce produced on more fertile land. Ricardo denies,

1. Ricardo, Principles, p. 392.

2. Cannan, Theories of Production and Distribution, p. 174.

however, that this is so and states that when no land but the most fertile is in cultivation the landlord will have a smaller share of the produce and the produce has a smaller value. It is only when recourse is necessary to less fertile land that the share of the landlord and the value of raw produce both increase.

"... when no other but the most fertile land is in cultivation, the landlord has the smallest proportion of the whole produce as well as the smallest value, and it is only when inferior lands are required to feed an augmenting population, that both the landlords share of the whole produce, and the value he receives progressively increase."¹

With respect to Malthus' second cause of rent, that raw produce creates its own demand, Cannan notes that Ricardo did not believe it. "It is not, he says, 'the abundance of necessities which raises up demanders, but the abundance of demanders which raises up necessities.' (Principles, 1st edition, p. 560; omitted in 2nd edition)"²

Ricardo accepts Malthus' third reason for the existence of rent, the comparative scarcity of the most fertile land as the sole and sufficient reason for rent, when taken in conjunction with the natural increase in wealth and population. He notes

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1. Cannan, Theories of Production and Distribution, p. 177.
 2. Ibid.

that as cultivation is required to be extended to land of inferior fertility or site by whatever cause (most frequently in the progress of society by a growing population) rent increases both in terms of the exchange value of the raw produce in which rent is paid, and as a share of net output, although the quantity of raw produce the landlord receives is smaller. He concludes that:

"Whatever cause may drive capital to inferior land, must elevate rent on the superior land; the cause of rent being as stated by Mr. Malthus in his third proposition, the comparative scarcity of the most fertile land."¹

Cannan notes in his discussion of Ricardo and Malthus on rent that while Ricardo accepts 'the comparative scarcity of the most fertile land' as the cause of rent, he "also treats it in such a way as to make it appear far more unpleasant than it does in Malthus' Inquiry into the Nature and Progress of Rent."²

"In Malthus' Inquiry 'the comparative scarcity of the most fertile land', which is one of the causes of rent, is looked on as if it were a fact of which no one could explain. 'All land cannot be most fertile, all situations cannot be the nearest to navigable rivers and markets'. The superior fertility of land is represented as a 'bountiful gift of Providence', which results in rent. Ricardo, on the contrary, in his Essay on the Influence of the Low Price of Corn on the Profits of Stock takes the most fertile and best situated land as his starting point and leads his readers to deplore the niggardliness of nature in not providing more of it."³

1. Ricardo, op. cit., p. 392.
2. Cannan, op. cit., p. 177.
3. Ibid.

To Ricardo, rent was defined as the return to the 'original and indestructible powers of the soil', excluding any interest for capital invested by the landlord. Land is assumed to be an inexhaustible and non-reproducible agent of production which is strictly limited in supply and specialized in the production of one product, termed 'corn' or 'raw produce'. The only differences in land are those in fertility and location. In the Ricardian system, rent can arise if homogeneous land is limited in supply, in which case a 'scarcity rent' accrues to the landlord, or it may arise in the form of a 'differential rent', due to differences in the land's fertility.

"Ricardo's careful definition of rent (is) a payment for the 'use of the original and indestructible powers of the soil.' This excludes from contractual rent payments any interest on the capital invested by the landlord in the form of buildings, drains, hedges, and the like as well as the gains resulting from the removal of timber or the extraction of minerals. What is left is pure rent to 'land' considered as virgin territory and untapped mineral wealth; it is an inexhaustible and non-reproducible agent, unalterably fixed in supply, completely specialized in the production of one crop, and homogeneous in quality except for difference in fertility and location. Rent, therefore arises for two reasons. If land is homogeneous, the limitation of supply creates scarcity rents. Rent is then the difference between the product of all capital-and-labour and the product of the final dose at the intensive margin. When land differs in quality, the scarcity of acres of a particular quality gives rise to differential rents. Ricardo thought that extensive no-rent land did exist in contemporary Europe, but clearly it would make no difference to his theory if this were not true. Rent would no longer constitute a pure differential, but scarcity rents would still exist."¹

1. Blaug, Economic Theory in Retrospect, p. 85.

In a developed country, such as that about which Marshall theorized, the land will embody a significant amount of capital in addition to the productivity of the powers of nature. This capital will react negatively or positively on the productivity of the land, altering the 'original and indestructible' powers of the soil:

"But even now the greater part of the soil in old countries owes much of its character to human action; all that lies just below the surface has in it a large element of capital, the produce of man's past labour. Those free gifts of nature which Ricardo classed as the 'inherent' and 'indestructible' properties of the soil, have been largely modified; partly impoverished and partly enriched by the work of many generations of men."¹

Marshall, in attempting to discern the original powers of land, fixes on the concept of 'extension' and the 'annuity that nature has given it of sunlight and air and rain'.² These services are non-reproducible and no supply price will induce the production of more of these properties.

"We shall find that the fundamental attribute of land is its extension. The right to use a piece of land gives command over a certain space-- a certain part of the earth's surface. The area of the earth is fixed: the geometric relations in which any particular part of it stands to the other parts are fixed. Man has no control over them; they are wholly unaffected by demand; they have no cost of production, there is no supply price at which they can be produced.

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1. Marshall, op. cit., IV, ii, 3.
 2. Ibid.

The use of a certain area of the earth's surface is a primary condition of anything that man can do: it gives him room for his own actions, with the enjoyment of the heat and light, the air and the rain which nature assigns to that area; and it determines his distance from and in a great measure his relations to, other things and persons."¹

While Smith was mindful of the distinction between that part of rent which is a pure rent or return to the 'original and indestructible powers of land' and that part which is a return to the capital embodied in the soil, Cannan notes that he was somewhat inconsistent in practice, not always excluding "the profit on improvement from the rent of the land proper."²

Ricardo did maintain the distinction between pure rent and the 'profits of stock'.

"By rent I always mean the remuneration given to the landlord for the use of the original and inherent power of the land. If either the landlord expends capital on his own land, or the capital of the preceding tenant is left upon it at the expiration of his lease, he may obtain what is indeed called a larger rent but a portion of this is evidently paid for the use of capital. The other portion only is paid for the use of the original power of the land."³

To J.S. Mill, the return to the capital invested in buildings and cattle which were 'regularly consumed and reproduced' was properly regarded as profit. As for capital

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1. Ibid., IV, ii, 2.
 2. Cannan, op. cit., p. 152.
 3. Ricardo, Principles, p. 91.

sunk in an improvement which had affected the productivity of the soil and did not require frequent renewal, the return is governed by the principle of rents, it being correct to regard the expected value of the return as profit only before an investment had been made.

"Under the name of rent, many payments are commonly included which are not a remuneration for the original powers of the land itself, but for the capital expended upon it. The additional rent which the land yields in consequence of this outlay of capital, should, in the opinion of some writers, be regarded as profit, not rent. Before this can be admitted, a distinction must be made. The annual payment by a tenant almost always includes a consideration for the use of the buildings on the farm; not only barns, stables and other out-houses, but a house to live in, not to speak of the fences and the like. The landlord will ask, and the tenant give, for these whatever is considered sufficient to yield the ordinary profit, or rather (risk and trouble being here out of the question) the ordinary interest, on the value of the buildings: that is, not on what it has cost to erect them, but on what it would cost to erect others as good: the tenant being bound, in addition, to leave them in as good repair as he found them, for otherwise a much larger payment than simple interest would of course be required from him. These buildings are as distinct a thing from the farm as the stock or the timber on it; and what is paid for them can no more be called rent of land, than a payment for cattle would be, if it were the custom that the landlord should stock the farm for the tenant. The buildings like the cattle are not land, but capital, regularly consumed and reproduced: all payments made in consideration for them are properly interest.

But with regard to capital actually sunk in improvements, and not requiring periodical renewal, but spent once for all in giving the land a permanent increase of productiveness, it appears to me that the return made to such capital loses altogether the character of profits, and is governed by the

laws of rent. It is true that a landlord will not expend capital in improving his estate unless he expects from the improvements an increase of the income surpassing the interest of his outlay. Prospectively, this increase of income may be regarded as profit: but when the expense has been incurred and the improvement made, the rent of the improved land is governed by the same rules as that of the unimproved. Equally fertile land commands an equal rent whether its fertility is natural or acquired."¹

The principle that the return to capital sunk in agricultural production was governed by the same factors as governed natural resources rent was elaborated by economists subsequent to J.S. Mill into the doctrine of "quasi-rents". This affirmed that the return to all agents of production which exhibited little responsiveness to variations in their supply prices was more properly regarded as a rent and not a profit or interest.

The basic distinction between capital goods and land was that while the supply of capital goods might, by increasing the goods supply price, be augmented, land was created by Nature in an approximately fixed supply which was not very responsive to increases in the price men would pay for its services. Alfred Marshall held that man-made appliances and land were unlike in that the former had and was responsive to its supply price, and alike in that during a period insufficiently long (and that might be relatively long in time

1. Mill, J.S., Principles, II, xvi, 5.

duration) to permit replication of the appliance, the supply might be regarded as an approximately fixed stock, and that ". . . for those periods the income derived from them stand in the same relation to the value of the products raised by them as do true rents."¹

In elaborating the doctrine of 'quasi-rents' Marshall states that where capital is 'free' in the sense of not having been embodied in a capital good, it will earn an interest, but where it has been embodied, its return is of the nature of rent. The two concepts of capital grade into each other gradually and land rent is seen as "the leading species of a larger genus" which Schumpeter has termed the 'costless surplus'.

"... the rate of interest is a ratio: and the two things which it connects are both sums of money. So long as capital is 'free', and the sum of money or general purchasing power over which it gives command is known, the net money income expected to be derived from it, can be represented at once as bearing a given ratio. . . to that sum. But when the free capital has been invested in a particular thing its money value cannot be as a rule ascertained except by capitalizing the net income which it will yield and therefore the causes which govern it are likely to be akin in a greater or less degree to those which govern rents.

We are thus brought the central doctrine of this part of economics viz.--"That which is rightly regarded as interest on 'free' or 'floating' capital, or on new investment of capital, is more properly treated as a sort of rent--a Quasi-Rent--on old investments of capital. And there is no sharp line

1. Marshall, A., Principles, V, x, 3.

of division between floating capital and that which has been sunk for a special branch of production, nor between new and old investments of capital; each group shades into the other gradually. And thus even the rent of land is seen, not as a thing in itself, but as the leading species of a large genus; though indeed it has peculiarities of its own which are of vital importance from the point of view of theory as well as practice."¹

This conclusion is reinforced later in the Principles when Marshall declares, "Thus our central doctrine is that interest on free capital and quasi-rent on an old investment of capital shade into one another gradually; even the rent of land being not a thing in itself, but the leading species of a large genus." In seeking to flesh out the attributes of the 'large genus', Marshall proposes a set of hypotheses in which the incomes earned by meteoric stones range from a pure rent when the stones are both durable and their supply cannot be augmented, to interest when the supply of undurable stones can be augmented at constant cost, concluding that in the intermediate case where the value of their services in the marginal uses varies widely during the life span of a particular enterprise and reflects variations in demand rather than the not considerable increase in the cost of augmenting the supply of stones, the income yielded by the stones is more properly regarded as of the nature of a rent rather than interest."²

1. Ibid., V, vii, 6.

2. Ibid., V, ix, 3.

B. Diminishing Returns and the Laws of Rent

There are three cases of 'diminishing returns'.

Firstly, the case of 'decreasing marginal productivity' means that total product will increase only at a decreasing rate when the amount of one of the factors of production is increased by equal increments, the others being held constant. Secondly, 'decreasing average productivity' is encountered when the total product per unit of the variable factor declines as equal increments of the variable factor are added to constant amounts of the fixed factor. What has been termed 'Millian Diminishing Returns' occurs when the increments to total product, or average products decline as a result of adding equal 'doses' of all other factors to a given amount of land.

Anderson appears to have been the first to tie diminishing returns to the Laws of Rent,¹ but the enunciation of

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1. "In his Observations of 1977 Anderson arrived at the conclusion that the rent of land is a premium paid for the privilege of cultivating soils that are more fertile than other and in his Enquiry of the same year, he formulated more precisely the conditions which Cannan stated established the formula: 'The rent paid in respect of any particular boll is equal to the difference between the expense of raising the most expensive boll and the expense of raising that boll', explaining fully how the competition among farmers will secure exactly this amount for the landlord." Schumpeter, op. cit., p. 265.

the diminishing returns phenomenon is dated from the writing of Steuart in 1767 who presented what later came to be called the Extensive Margin case of diminishing returns, which occurs when successively poorer soils are called into production due to a growing population and equal amounts of additional productive effort produces diminishing outputs. Turgot discovered the case of diminishing returns on the Intensive Margin or an eventually diminishing product which accompanies the addition of equal quantities of the other factors of production to a given amount, quality and location of land.

"Steuart in his Principles (1767)--and after him Ortes in his Economia Nazionale (1774)--presented what the later followers of Ricardo were to call the case of the Extensive Margin: as population increases, poorer and poorer soils have to be taken into cultivation, applied to these progressively poorer soils, equal amounts of productive effort produce progressively smaller harvests. Turgot discovered the other case of decreasing physical returns, the one that the same followers of Ricardo were to refer to as the case of the Intensive Margin: as equal quantities of capital (advances)--amounts of labour would, however, do just as well in this case--are successively applied to a given piece of land, the quantity of product that results from each application will first successively increase up to a certain point at which the ratio between the increment of product and increment of capital will reach a maximum. Beyond this point, however, further application of equal quantities of capital will be attended by progressively smaller increments in product, and the sequence of these decreasing returns will in the end converge toward zero."¹

Schumpeter notes that Turgot phrased his statement of diminishing returns in terms of the marginalist concept of successive increments of product and not in terms of average product, thereby securing a substantial methodological advance.²

1. Schumpeter, History of Economic Analysis, p. 259.

2. Ibid., p. 261.

Adam Smith, despite the prior discovery of the Law of Diminishing Returns by Steuart and Turgot, did not invoke that law in his Wealth of Nations. He did note a difference between the degree to which labour might be increasingly divided in agriculture and industry and apparently meant to convey that in both the agricultural and industrial sectors, returns might increase but to a lesser degree in agriculture.

In 1815 in response to the debate on the 'Corn Laws' which regulated the importation of grains into England, four writers, West, Torrens, Malthus and Ricardo independently formulated the law of differential rents and each made the law depend on the necessity of cultivating inferior soils and consequent diminishing returns as population grew.

"The underlying explanation the four authors agreed, lay in the phenomenon of decreasing returns, 'the principle', as West put it, 'that the progress of the improvement of cultivation the raising of rude produce becomes progressively more expensive.'
'Each equal additional quantity of work bestowed on agriculture,' West went on to explain 'yields an actually diminished return. . . ' "1

The reference to an 'equal quantity of work' in West's formulation is usually taken to mean, as Ricardo pointed out, that "West was really thinking about a single homogenous dose of capital and labour combined in fixed proportions and applied to the land in equal successive increments."² West's law of

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1. Blaug, Economic Theory in Retrospect, p. 80.
 2. Ibid., p. 81.

diminishing returns is formulated in terms of a diminishing average, not marginal physical product.¹ He does recognize the 'Intensive' and 'Extensive' Margins and expounds the prevalence of diminishing returns in both cases, and in the theory pertaining to the 'Extensive' margin, West includes the factor of inferior location.²

All four authors supposed that diminishing returns uniquely applied to agriculture, and not to manufacturing.

As West put it:

"The additional principle to which I allude is that each additional quantity of work bestowed on agriculture yields an actually diminished return, and, of course, if each additional quantity of work yields an actually diminished return, the whole of the work bestowed on agriculture in the progress of improvement yields an actually diminished proportionate return. Whereas it is obvious that an equal quantity of work will always fabricate the same quantity of manufactures. . . ."³

Marshall notes that when the 'older economists' spoke of the Law of Diminishing Returns on the intensive margin, they, in regarding agriculture from the position of society as a whole, saw that in an old country, the total supply of land is fixed and cannot be increased as artificial implements of production may be. These earlier economists believed that the Law of Diminishing Returns was founded in the fixedness of agricultural land supply.

1. Ibid.

2. Schumpeter, op. cit., p. 586.

3. West, The Application of Capital to Land, Quoted in Cannan, op. cit., p. 123.

"But when the older economists spoke of the Law of Diminishing Returns they were looking at the problems of agriculture not only from the point of view of the individual cultivator but also from that of the nation as a whole. Now, if the nation as a whole finds its stock of planting machines or ploughs inappropriately large or inappropriately small it can redistribute its resources. It can obtain more of that in which it is deficient, while gradually lessening its stock of such things as are superabundant, but it cannot do that in regard to land: it can cultivate its land more intensively, but it cannot get any more. And for that reason the older economists rightly insisted that, from the point of view of society, land is not on exactly the same footing as those impliments of production which man can increase without limit."¹

Blaug states that diminishing returns on the intensive margin are uniquely associated with the fixedness of land supply only in a two factor model, including those in which labour-and-capital are 'dosed'. In a three factor model, "capital may increase relative to labour sufficiently to offset the effects of the increasing ratio of labour to land, even in the absence of technological change: the fact that the supply of land is fixed proves nothing about the law of diminishing returns."²

The four writers attempted to demonstrate the existence of diminishing returns by showing that historically, cultivation proceeded under pressure from population growth through a series of progressively less fertile lands:

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1. Marshall, A., Principles, IV, iii, 8.
 2. Blaug, op. cit., p. 82.

"In every country the gradations between the richest land and the poorest land must be innumerable. The richest land, or the most conveniently situated for a market or in a word, that which on account of its situation and quality combined, produces the largest return to the expense bestowed on it, will, of course, be cultivated first, and when in the progress of improvement new land is brought into cultivation, recourse is necessarily had to poor land, or to that, at least, which is second in quality to that which is already cultivated. It is clear that the additional work bestowed in this case will bring a less return than the work bestowed before. And the very fact that in the progress of society new land is brought into cultivation, proves that additional work cannot be bestowed with the same advantages as before on the old land."¹

In addition to the appeal to history to confirm the law of diminishing returns, the classical writers sought to confirm it:

"... through a logical deduction from the fact that different grades of soil are at any moment of time simultaneously cultivated. If it were possible to raise additional product at constant or diminishing expense from the soil of a given fertility, why resort to inferior soil?"²

It is common ground among the earlier writers that diminishing returns is a phenomenon associated with a given level of the technological arts as applied to agriculture. It was generally agreed that an improvement in technology might suppress the tendency to diminishing returns, but that it could only do so temporarily--eventually as population grew, the Law of Diminishing Returns would overcome the increase in productivity possible through technological improvements. West stated his

1. West, op. cit., p. 123.

2. Blaug, op. cit., p. 82.

belief in the eventual overcoming of the tendency for machines and increased division of labour to promote 'increasing returns' by the tendency of decreasing returns in agricultural production on either the intensive or extensive margins of cultivation as follows:

"But another course, namely the necessity of having recourse to land inferior to that already in tillage, or of cultivating the same land more expansively, tends to make labour in agriculture less productive in the progress of improvement. And the latter cause more than counteracts the effects of machinery and the division of labour in agriculture."¹

Ricardo similarly expresses a conviction that in the course of population growth, improvements in agriculture will not outweigh the tendency of diminishing returns to prevail.

"The causes that render the acquisition of an additional quantity of corn more difficult are, in progressive countries, in constant operation, whilst marked improvements in agriculture or in the implements of husbandry are less frequent in occurrence. If these opposite causes acted with equal effort, corn would be subject only to accidental variation of price arising from bad seasons, from greater or less real wages of labour, or from an alteration in the value of precious metals, proceeding from their abundance or scarcity."²

Malthus agrees that diminishing returns will prevail over improvements in agriculture:

"The cost of producing corn and labour continually increases from inevitable physical causes, while the cost of producing manufactures and articles of

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1. West quoted in Cannan, op. cit., p. 123.
 2. Ricardo quoted in Cannan, op. cit., p. 130.

commerce sometimes diminish, sometimes remains stationary, and at all events increases much slower than the cost of producing corn and labour."¹

Ricardo's analysis of the relation between rent and diminishing returns proceeds on the basis of the extensive margin of agriculture--the case in which the growth of population calls into agricultural use a succession of lands with diminishing fertility. He was also aware of the operation of the tendency to diminishing returns on the intensive margin.²

In his publication, An Essay on the Influence of a Low Price of Corn on the Profits of Stock, Ricardo grounds the theory of rent in three propositions:

- "(1) that increasing density of population tends to force recourse to inferior land and more expensive methods of cultivation, and thus to diminish the productiveness of agricultural industry;
- (2) that it would always force recourse to poorer and more expensive cultivation, and thus actually diminish the productiveness of agricultural industry if there were no improvements in agriculture and;
- (3) that, as a general rule, or in the long run, in spite of the improvement which takes place in agriculture, it does actually force recourse to poorer land and more expensive cultivation, and thus actually diminish the productiveness of agricultural industry."³

1. Malthus, Nature and Progress of Rent, p. 300.

2. Schumpeter, History of Economic Analysis, p. 265.

3. Cannan, op. cit., p. 130.

In commenting on Malthus' Nature and Progress of Rent relative to Malthus' theories of the causes of the rise in the exchange value of raw produce, Ricardo expounds the core of his own theory. The cause of the increase in the relative price of raw produce in a rich country as population grew was, Ricardo stated, ". . . the necessity¹ of resorting constantly to poorer land, to machines which require a greater expenditure to work them, and which consequently occasion each fresh addition to the raw produce of the country to be purchased at a greater cost."²

Ricardo states that it is not the paying of rent which causes the price of agricultural produce to be high, but, rather because more labour is required to produce the output under

1. Ricardo and West believed that it was the "necessity of having recourse to land inferior to that in tillage", not the actuality of such a progression which caused rent to arise. This is pointed out by Mill who comments:

"Many. . . have imputed absurdity to Mr. Ricardo's theory, because it is absurd to say that cultivation of inferior land is the cause of rent on the superior. Mr. Ricardo does not say that it is the cultivation of inferior land, but the necessity of cultivating it, from the insufficiency of the superior land to feed a growing population: between which and the proposition imputed to him there is no less a difference than that between demand and supply.",
(Mill, op. cit., II, xvi, 5.) Emphasis in original.

2. Ricardo, op. cit., pp. 400-401.

conditions of diminishing returns. The value of agricultural produce is determined by the cost of production on the rentless last unit of land cultivated. The price of agricultural produce would not be affected if landlords were to forego rent because the 'real cost' of production on that rentless marginal land which governs raw produce price does not change should the landlords not receive rent.

"The reason then, why raw produce rises in comparative value, is because more labour is employed in the production of the last portion obtained, and not because a rent is paid to the landlord. The value of corn is regulated by the quantity of labour bestowed on its production on that quality of land, or with that portion of capital, which pays no rent. Corn is not high because a rent is paid, but rent is paid because corn is high; and it has been justly observed that no reduction would take place in the price of corn, although the landlord should forego the whole of their rent. Such a measure would only enable some farmers to live like gentlemen, but would not diminish the quantity of labour necessary to raise raw produce on the least productive land in cultivation."¹

Through the competition of farmer-tenants, however, there is no reason for the landlords to forego the appropriation of rent. And the landlord will be doubly benefited by the growth of population and the operation of the Law of Diminishing Returns. The exchange value of agricultural production composing the rent share will rise and the share of produce going as rents will rise also.²

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1. Ricardo, *op. cit.*, p. 98.
 2. See Ricardo, *Ibid.*, p. 107.

While Ricardo's argument proceeded in terms of progressively less fertile land being called into production on the extensive margin, J.S. Mill carefully explained that Ricardo also held rent on the intensive margin would rise in the progress of population, if the fixed stock of cultivatable land were required to produce more than its capacity.

"It is also distinctly a portion of Ricardo's doctrine, that even apart from differences of situation, the land of a country supposed to be of uniform fertility would, all of it, on a certain supposition pay rent: namely, if the demand required that it should all be cultivated, and cultivated beyond the point at which a further application of capital begins to be attended with a smaller proportional return. It would be impossible to show that, except by forcible exaction, the whole land of a country can yield a rent on any other supposition."¹

John Stuart Mill adopted almost completely Ricardo's formulation of the relation between rent, diminishing returns, the determination of factor prices, and their course in the progress of population.

"On all important questions, such as the determination of factor prices and their variations in the course of economic progress, Mill adheres to Ricardo's postulates. Everything is traced back to the cost of producing wage goods, the crucial element in determining the rate of profit; under the portmanteau of 'corn' wage goods are identified as the product of agriculture; and the law of diminishing returns to scale as well as to technical progress is required as uniquely applicable to agricultural production."²

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1. Mill, J.S., Principles, II, xvi, 5.
 2. Blaug, Economic Theory in Retrospect, p. 220.

owners of land may extract for this ownership right. Commons holds that rent is an element in the costs of production on the margin, for there is no production on land which does not pay a rent. He accepts that the commodity produced will be priced by the most expensive part of production, but since the costs of production include rent, rent will enter into the price of the commodity.

"But the niggardliness of nature is not the only cause for limiting the supply for certain human wants. There are important social institutions and regulators which do the same thing. . . But more especially does government give this power to individuals through the institution of private property, and the creation of artificial monopoly privileges. Private property in land is simply the power given to individuals to combine with nature in limiting the supply of land relatively to the demands of society for it. Rent is that share of the social income which landowners can command by virtue of this ownership. It is a part of the cost of production of every article which society consumes. There is no product which is not produced upon rent paying land. If we agree that the most expensive part of the customary supply of a commodity determines the price of the whole, then we can always find that a portion of the expenses of production of this part goes to pay the rent of the landlord."¹

Other writers too have believed that rents do enter into prices. One of these, J.A. Hobson, praised Marshall's extension of the laws of rent to explain the incomes of other factors of production whose supply cannot be expanded in the short run. Hobson believes that "quasi-rents are analogous, not to differential rents of land, but to scarcity rents".²

1. Ibid., p. 15.

2. Hobson, Economics of Distribution, p. 341.

Hobson further held that scarcity rents do enter into the costs of production on the margin which govern price, stating that "the quasi-rent is a direct measure of the pressure of scarcity which is as much, and in the same sense, a determinant of value and of price as the utility measured by demand".¹

Only differential rents do not enter into price because the marginal land earns no differential rent.

"These quasi-rents then, in so far as they are rents at all, are monopoly or scarcity rents, and are liable to taxation. They also enter into prices, for we have seen whenever a scarcity rent exists, the marginal portion of supply is able to obtain it, and it will figure in supply prices. Professor Marshall indeed denies that they enter into prices, but when the marginal labourer in a class of labour or the marginal mill in a particular industry obtains a higher wage or a higher interest than 'free competition' would assign, that marginal wage or interest must figure in expenses of production and price.

Professor Marshall himself illustrates a 'quasi-rent of labour' by the high wages miners drew in 1873. Now it would scarcely be possible for him to affirm that the high piece wages then paid did not 'enter into' the price of a ton of coal, for every ton of coal paid this piece wage. If it be admitted that the quasi-rent here 'enters into' the price of coal, it may be contended that it does not help to determine the price of coal, but consists in a surplus which remains after the necessary 'expenses of production' are defrayed from the price. But even here the denial that the quasi-rent helps to determine the price is a mere verbal quibble. For the quasi-rent is a direct measure of the pressure of scarcity, which is as much, and in the same sense, a determinant of value and of price as the utility measured by demand. The quasi-rent is under the circumstances a necessary payment of marginal labour, it is not a mere surplus in the sense that it takes what remains after expenses are paid out of prices, for that implies that price is determined exclusively from the demand side, which, as

1. Ibid., p. 347.

we have already seen is not true, even of the closest of monopolies. The quasi-rent of the miner not only enters price, but helps to determine price."¹

Adam Smith contended that rent was paid due to a monopoly by landlords over land and other natural resources, and did not distinguish between differential rents and scarcity rent. Differential rents have little to do with monopoly, being rather the measure by which the productivity or fertility of mines or agricultural soils above the margin of utilization exceeds that of the land on the margin. Scarcity rents are, as Mill pointed out, like the super-normal profits of a monopolist, even though it could not be said that landlords conspire to elevate the commodity price. Scarcity rents, resulting from either the natural scarcity of fertile land or contrived scarcity are among the costs of production on the marginal land which govern product price, while differential rents do not, unless, as Commons believes there is no 'no-rent' land in cultivation. There is considerable merit to Hobson's belief that Marshallian 'quasi-rents' are more akin to scarcity rents than differential rents which Marshall believed them to be. While one appliance may be more productive than the marginal appliance, the earnings of the owner are better regarded as being in large part scarcity rents stemming from the fixed stock of such appliances in the short run.

1. Ibid.

D. Rent, Prices and Opportunity Costs.

In the foregoing sections we have found two doctrines, one being that rent is not a cost of production, and for the marginal land that rent does not enter into the price of agricultural produce, which is governed by the expenses of production incurred in utilizing the marginal land or dose of capital-and-labour, a doctrine formulated by Ricardo and embraced by the major theorists who succeeded him. On the other hand, Smith and others were seen to adopt the proposition that rent is a component of price, and ascribed this to the alleged fact that land was 'naturally a monopoly'.

One must examine carefully the assumptions of the classical writers as regards land. Ricardo, in studying the question of distribution made the assumption that not only was land limited in supply but also that it was completely specialized in the production of a single commodity 'corn' or 'raw produce'. There were no competing uses for land. Smith, and others including Mill in some sections of his work considered situations in which land had alternative uses and its use in one field of endeavour implies an opportunity cost which must be regarded as a necessary expense of production and hence 'entered into price' as did scarcity rents.

Rent regarded as a share of the distribution of income is very different from rent regarded as an element in the cost of producing a particular commodity. In a theory of distribution

it is proper to regard the produce of agriculture as a single product, whereas if one is considering relative prices, one must surely emphasize that land has alternative uses, both as a producer of different agricultural products such as barley and flax, and as furnishing room and situation as factors of production in non-agricultural activities.

"The theories. . . are not antagonistic, but complementary; they arise from the application of the same principle to two different questions, and constitute together something like a complete theory of the subject."¹

Where land is assumed to have alternative uses, rent is considered to be ". . . the competitive rental (which) must be paid in order to secure it for any one particular commodity."² In such a case, rent must be regarded as a cost of production. Where rent is not considered to be the payment necessary to secure an acre to be devoted to the production of a particular commodity, but as the income of the land owning class, its services were assumed to have been costlessly taken from nature and to have had no use but to produce "raw produce" or to return to nature, the classical economists considered that the payment of rent was unnecessary: it was not among the costs of production which determined exchange value.

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1. Buchanan, D.H., The Historical Approach to Rent and Price Theory, p. 156.
 2. Buchanan, op. cit., pp. 129-130.

"This land (the whole of the estates owned by the landed interest) was in a very different situation from the fields which had sharply competing uses. It had been taken from nature without payment and had no possible other use. It must be used for generalized raw produce or return to nature. Consequently payment to it was not a condition of the furnishing of raw produce. The taking away of a share of particular rent meant that fields would go to the uses which would pay the full rent" but the taking away of this generalized rent meant that the land stayed on in the same use because it had no alternative which would bring it anything. In the former case rent was, in the latter case it was not, a necessary payment."¹

When Smith addressed himself to the theory of value, he considered particular commodities and the rent paid for fields which had sharply competing uses. However, in the formal chapter on rent, Smith considered rent as the payment to the land owning class for farm land as a whole, it having no competing uses--its opportunity cost was zero.

"Adam Smith pointed out in the Wealth of Nations (bk.1, ch.5) when the market price of a commodity sinks below its natural price, 'the interest of the landlords will immediately prompt them to withdraw a part of their land' into better rental uses than this low-priced commodity affords. Here rent is a cost to the individual producer that enters into the determination of price. In his formal chapter on rent (bk.1, ch.11) however, Smith lost sight of the plurality of the uses of land as a whole. His followers emphasized the latter half of Smith's reasoning and without further explanation deduced bold practical maxims from the assumption that the opportunity cost of land is zero."²

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1. Buchanan, op. cit., pp. 129-130.
 2. Blaug, Economic Theory in Retrospect, p. 85.

Ricardian rent theory, being part of a work predominantly concerned with wealth distribution, considered rent from the standpoint of the 'no competing uses case' -- his theory was based on a completely specialized requisite of production devoted to the raising of raw produce, 'corn' and was in completely inelastic supply. While labour and capital were considered to shift from manufacturing to agriculture and vice versa, land did not. Since marginal land could only return to nature if not producing raw produce, its opportunity cost was zero and rent is considered a price-determined surplus, rather than being a component of price.

"The only kind of rent considered in the Ricardian theory is agricultural rent; moreover, it is rent for the 'raw produce' of agriculture as a whole, not rent for land devoted to particular products. Land used for tillage is thought to have no competing uses for grazing, but land itself never shifts between alternative uses. This explains the presence of the extensive margin in classical rent theory: land is supposed to be taken up freely when needed, not from some other rent paying alternative but from non-paying idleness. And since land is completely specialized and fixed in supply, it follows that rent is price determined, not price determining: as Ricardo has it, 'corn is not high because a rent is paid, but a rent is paid because corn is high' "1

In Smith's case of competing uses, land to be devoted to one particular commodity had to be bid away from competing uses, and the return it would have earned in its alternative use must be paid before the agent of production would transfer and remain in the other use. In Ricardo's work, land is taken freely from non-paying idleness and there is no rent-paying alternative to which it can go apart from its use in the production of raw produce.

1. Blaug, Economic Theory in Retrospect, p. 85.

"The land of a society is taken up freely whenever it is needed and is taken, not away from some other rent paying use, but from non-paying idleness. It is clear that this is a different situation than that considered by Smith when treating the value of particular commodities. . . It is also a different situation from that mentioned by Ricardo when speaking of the movement of capital between the land, manufactures and trade. . In those cases the agent was taken from a paying use and could only be taken if that payment were equalled. So also in these cases it was necessary to keep on paying for the agent because it would go back to another use unless it were well paid. In this case it is not so."¹

Blaug notes that John Stuart Mill was the first of Ricardo's followers to conclude that when land had alternative uses, its opportunity costs are an element of the costs of production.² Mill states that only in the cases where rent is a scarcity rent and when land has competing uses does land rent become a cost of production.

"Rent is not an element in the cost of production of the commodity which yields it; except in the cases (rather conceivable than actually existing) 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 production of the commodity which it is employed to produce."³

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1. Buchanan, Ibid., pp. 143-144.
 2. Blaug, Economic Theory in Retrospect, p. 86.
 3. Mill, J.S., Principles, III, vi, 1.

Buchanan holds that, like Smith, Mill advances both the value and distribution points of view with respect to rent and does not distinguish between them. Mill tended to focus, as did Ricardo, upon the question of distribution, concluding rent did not enter into the price of the raw produce, and was not a necessary cost of production where there were no competing uses of land. When studying value Mill, like Smith, found rent to be a necessary cost of production because land had competing uses. Nonetheless, the distributive, Ricardian point of view received the most attention.¹

Alfred Marshall applies the term 'rent' only to the return to the owners of the 'free gifts of nature'. Like Ricardo, Marshall singles out land because its supply is price-inelastic. As we have seen, Marshall viewed the income accruing to fixed investments as being of the nature of a rent, calling it 'quasi-rent'. Quasi-rents are, according to Marshall, like land rent when land has no alternative uses, price determined for both the economy as a whole, and the individual farmer, and not price-determining. They are characteristic of short-run situations.

"Like rents on superior grades of land, quasi-rents are price determined and not price determining. In other words, in the short run the price paid for the services of capital goods is analogous to the price paid for the services of natural agents because in each case the return is not necessary to call forth the corresponding service. The analogy to Ricardian rents is, however, somewhat misleading. Ricardian

1. Buchanan, op. cit., p. 145.

() rents are only price determined for the economy as a whole. If land has competing uses, as it usually has, Ricardian rents do enter into the costs of production of an individual farmer: the alternative costs of using a tract of land to an individual farmer are measured by the rental payments required to bid land away from competing uses. But Marshall's quasi-rents are price determined both for society as a whole and for the individual entrepreneur; they are the result of the failure to complete adjustment in any given slice of time and will disappear in the long run as all costs become variable."¹

O The Ricardian argument that marginal land is rentless is rejected by Hobson, who held that the Ricardian theory is only valid when land is devoted to producing the Ricardian 'raw produce' and if land can be freely taken from nature, but is of lower fertility or inferior situation as cultivation progresses. Hobson supposes that the supply of land, given an increase in population becomes less than is needed to produce the quantity demanded. In such circumstances, the marginal land will bear a 'scarcity' value or rent which will be regarded as an expense of production and enter into prices. Secondly, he accepts that rent will enter into price when land was seen to have alternative uses as postulated by Adam Smith.

"The assumption that the extensive margin is necessarily a no-rent margin arises from a fallacious simplicity in the abstract setting given by Ricardo to his problem. If all land is considered as contributing to a single supply, e.g. wheat, and if this supply contains more land than is required, some of which is slightly inferior to the worst land in use, the margin will be no-rent land.

O 1. Blaug, Economic Theory in Retrospect, pp. 380-381.

But neither of these assumptions is absolutely warranted.

Suppose that an increase in the population and the demand for wheat brings into cultivation all the land available, the worst land in use may or must pay an actual rent. This will not be a differential rent, but a forced or scarcity rent limited in its rise only by the pressure of the need for land and representing the power of the stronger bargainer in the final pair that determines the market price. Such forced rent would evidently be reckoned as an expense incidental to all portions of the wheat supply, and would enter into prices.

What really invalidated the Ricardian treatment is the fact that most land might be better for grazing than the worst grazing land, in which case it can only be obtained for growing wheat by paying a little more than its differential rent for grazing purposes; this rent for the worst land will be a positive rent and will enter into wheat prices."¹

Scarcity or monopoly rents in J.S. Mill's sense are potentially significant elements of the costs of production on the marginal price-governing land or other natural agent when the agent has no alternative uses, as is validly assumed in considering the question of distribution. When the agent is assumed to have alternative uses, opportunity costs exist and necessarily enter into price of the produce. Differential rents which accrue to the owners of natural agents which are of superior productivity or better situated than the marginal agent do not enter into the necessary costs of production which govern product price, as the marginal unit of the requisite is 'rentless' in terms of differential rent. It may be, however, that the society has progressed to such a point in the utilization of requisites that the marginal unit, while bearing no differential rent, does bear a scarcity rent, which will enter into price, perhaps even governing it.

1. Hobson, Economics of Distribution, p. 118.

Chapter 3

Capital; Profit and Interest.

"Interest is. . . the Rent of Stock, and is the same as the Rent of Land; the First is the Rent of the Wrought or Artificial Stock; the Latter, of the Unwrought or Natural Stock."

Barbon,
Discourse of Trade
(1690)

I. Concepts of Capital

A. Classical Doctrines

To the predecessors of the classical economists, the scholastic doctors, interest was the income from loan of money. Barbon shunted analysis onto another track which endured until the end of the nineteenth century. The classical conception of capital was not as a sum of money, though for convenience it was considered so; rather it was a stock of accumulated real produce which had the capacity to sustain or abridge labour during the production process. The net revenue earned by the 'capital-goods' is the 'profits of stock', not 'interest'. Interest remained a pure profit of stock to the classical economists, being ". . . simply that part of a business's net receipts which its owner-manager hands over to a lender whom he saves the trouble and risk of doing business. . ."¹.

Adam Smith drew heavily on Barbon in his capital theory in the Wealth of Nations. Though money was included in capital by Smith, as were the 'acquired and useful abilities of all the inhabitants', and goods destined for labour's subsistence, the

1. Schumpeter, History of Economic Analysis, p. 646.

role of these was limited relative to that of 'tools', machines, and other items of 'real capital'. Smith identifies an individual's stock as the whole amount of the individual's personal property possessed at a moment in time. The nation's stock is the sum of the individuals' stocks. Capital is not identical with stock, however; and it is only that part of stock which generates a revenue which may be called 'capital', as may the revenue itself net of a capital replacement fund, the remainder of the stock being a reserve for immediate consumption.¹ Smith assumes that society's stock like an individual's may be divided into sub-groups on the basis of "function or office", or whether and how the element yields a revenue. Society's stock is divided by Smith into firstly, that part reserved for immediate consumption; secondly, fixed capital, which "affords a revenue or profit without circulating or changing masters";² and, lastly, circulating capital which "affords a revenue only by circulating or changing masters."³ Of these concepts, Cannan is especially critical:

"Now, as regards the community, the distinction between stock which brings in a revenue in money to its owner, and stock which brings in immediate benefits, is even more trivial than it is as regards the individual. . . . To the community in general the distinction can itself be of no importance. Whether a thing brings in a monetary revenue to its owner or not, depends on the prevalence of exchange."⁴

1. Smith, Wealth of Nations, p. 262.

2. Ibid., pp. 264-266.

3. Ibid.

4. Cannan, Theories of Production and Distribution, p. 48.

Smith was not so quick to assert that the capital of society was identical to the aggregate of the individuals'. For a thing to be part of society's capital, it must ". . . not only bring in a money revenue to its owner, but also bring in a real revenue to the community."¹ Real revenue, to Smith, here means 'tangible objects' and Cannan comments: "It is nothing to him that houses, clothes, and furniture yield shelter, warmth, and comfort; they yield no tangible objects and no real revenue. If the owners of such things receive a money income from them, that money revenue is 'paid out of some other revenue', and therefore they are not part of the capital of the country."² Cannan quotes an unnamed critic who argues that Smith's distinction between the stock of capital which generated revenue, and that which did not, arises from ". . . the fundamental error of considering nothing as productive which does not yield a tangible return, and confounding use with exchange."³ Cannan concludes that the distinction between parts of stock which afford a real revenue and those which do not is indefensible and that the whole of society's stock produces real revenue.

"Adam Smith's division of the stock of a country into the part from which it derives a revenue and the part from which it does not derive a revenue is in short, perfectly indefensible. The society derives a real revenue consisting of 'necessaries, conveniences, and amusements' from the whole of its stock."⁴

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1. Ibid., p. 49.
 2. Ibid.
 3. Ibid., p. 71.
 4. Ibid., p. 50.

In order to draw a distinction among the elements of capital on the basis of function, Smith reached for a concept of the Physiocratic school, the 'advances'. Generally, the 'advance' theory was that "... the fundamental flows of goods (and money) that constitute the economic process consist of a flux and of an (augmented) reflux of 'advances'."¹ The 'avances foncieres', or initial expenditures on rendering land fit for cultivation do not recur, or only do so after long intervals.² The 'avances primitive' are expenditures on animal stock and equipment. These two types of 'advance' inspired Smith's 'fixed capital', while the 'avances annuelles', or current expenditures on seed grain and purchased animal feed inspired his 'circulating capital'.

Smith identifies 'fixed capital', (which secures a revenue 'without changing masters') as consisting largely of:

1. "All useful machines and instruments of trade which facilitate and abridge labour."³
2. "... profitable buildings which are the means of procuring a revenue, not only to their proprietor who lets them for a rent, but to the person who possesses them and pays that rent for them. . . . These are very different from mere dwelling houses. They are a sort of instrument of trade. . . ."⁴
3. "... the improvement of land, of what has been profitably laid out in clearing, draining, enclosing, manuring, and reducing it into the condition most proper for tillage and culture."⁵
4. "... the acquired and useful abilities of all the inhabitants or members of society."⁶

1. Schumpeter, op. cit., p. 564.

2. Ibid., p. 236.

3. Smith, op. cit., p. 265.

4. Smith, A., Wealth of Nations, pp. 264-266.

5. Ibid.

6. Ibid.

That portion of society's stock which is called 'circulating capital', affords a revenue, says Smith, only "by changing masters". The circulating capital consists ". . . of provisions, materials and finished work of kinds that are in the hands of their respective dealers, and of money that is necessary for circulating and distributing them to those who are finally to use or to consume them."¹

The distinction between circulating and fixed capital turns on whether the individual obtains the profit he calls his own by keeping and using the capital goods, or by exchanging those articles.

"There are two different ways in which a capital may be employed so as to yield a revenue or profit to its employer.

First, it may be employed in raising, manufacturing, or purchasing goods, and selling them again with a profit. The capital employed in this manner yields no revenue to its employer, while it remains in his possession, or continues in the same shape. The goods of the merchant yield him no revenue or profit till he sells them for money and the money yields him as little till it is again exchanged for goods. His capital is continually going from him in one shape, and returning to him in another, and it is only by means of such circulation, or successive exchanges, that it can yield him any profit. Such capitals therefore, may very properly be called circulating capitals.

Secondly, it may be employed in the improvement of the land, in the purchase of useful machines and instruments of trade, or in such-like things as yield a revenue or profit without changing masters, or circulating any further. Such capital, therefore, may very properly be called fixed capitals."²

1. Ibid.

2. Ibid., pp. 262-263.

To Smith's credit, he noticed something which would come to be of signal importance to the Ricardian 'labour-quantity' theory of value. Some industries required capital composed of different proportions of 'fixed' and 'circulating' capital than did others. While Smith did not explore the implications for value theory, Ricardo did, and found that the presence of fixed capital causes exchange values of products to diverge from the labour-quantity law unless, of course, all the branches of industry employ the same proportion of fixed and circulating capital. This will be discussed more thoroughly momentarily; first we shall explore the Smithian concepts.

The function of fixed capital is to make labour more productive and efficient, in Smith's words, "to facilitate and abridge labour", and to permit production of goods which hitherto had been technically impossible. Cannan notes, "Machines are his great type of fixed capital, and the function of machines is obvious."¹

While the function of fixed capital presented few problems of understanding, that of circulating capital was less 'obvious'. Circulating capital appears to be antedecent to fixed capital since the former is the origin of fixed capital, but the ultimate end of both is the enhancement of stock for immediate consumption.²

1. Cannan, op. cit., p. 66.

2. The enhancement of that part of stock reserved for immediate consumption is the ultimate end of fixed capital, and circulating capital alike. "To maintain and augment the stock which may be reserved for immediate consumption, is the sole end and purpose both of fixed and circulating capitals.", says Smith. (op. cit., p. 267.)

"So great a part of the circulating capital being continually withdrawn from it, in order to be placed in the other two branches of the general stock of the society; it must in its turn require continual supplies, without which it would soon cease to exist. These supplies are principally drawn from three sources, the produce of land, of mines, and of fisheries. These afford continual supplies of provisions and materials, of which are replaced the provisions, materials and finished work continually withdrawn from the circulating capital.¹

Not only is circulating capital the origin of fixed capital but fixed capital is supported by a flow of circulating capital; "Every fixed capital", writes Smith, "is both originally derived from, and requires to be continually supported by a circulating capital."² He adds that ". . . it is the circulating capital which furnishes the materials and wages of labour, and puts industry into motion",³ a function which fixed capital does not appear to share.

Smith believes that it is only through the accumulation of capital that the Division of Labour can proceed. "As the accumulation of stock must", he states, "in the nature of things, be previous to the division of labour, so labour can be more and more subdivided in proportion only as stock is previously

1. Smith, op. cit., p. 266.

2. Ibid., p. 121.

3. Ibid., p. 128.

more and more accumulated."¹ Cannan's comment on this theory is that Smith's argument is "most delusive", noting that "the division of labour far from necessitating a greater provision of stock or capital, rather economizes it."², and that "The isolated man is not less, but more, in need of a stock of the produce of past labour than men who live in society."³ Cannan concludes:

"As usual, we must trace Adam Smith's error to his habit of reasoning too hastily from the individual to the community. Seeing that the capital of an employer should be greater if he is to be successful, when the division of labour is far advanced and the processes of production are more effective and elaborate, he promptly assumes that the community is subject to the same need; whereas, though the increase of capital and the increase of the division of labour may as a matter of fact, advance together, the increase of capital is not the cause or indispensable preliminary of the increase of division of labour."⁴

A particular difficulty in the interpretation of the classical economists, especially Adam Smith, is the frequent confounding of "stocks" and "flows". Schumpeter states that ". . . the classics were not very clear concerning the differences between funds and flows. . . Mostly, however, they actually meant flows of income goods (or even services) when they spoke of wealth. This applies in particular to A. Smith, whose wealth is simply the 'whole annual produce of a country's land and labour'."⁵ Cannan writes that Smith in his chapter 'Of the

1. Smith, A., op. cit., p. 260.

2. Cannan, op. cit., p. 64.

3. Ibid.

4. Ibid., p. 65.

5. Schumpeter, op. cit., p. 628.

accumulation of capital, or of productive and unproductive labour', "... identifies that part of the annual produce 'which is destined for replacing a capital' with the capital itself. He thus makes the capital of a country a part of its annual produce instead of a part of its stock; it becomes a thing which must be said to be worth so much per annum instead of so much at a point in time."¹ Cannan goes on to consider Smith's dictum "Capitals are increased by parsimony",² concluding:

" 'But', it may be urged, 'Adam Smith immediately goes on to teach that capitals are increased by parsimony, and that whatever industry might acquire, if parsimony did not save and store up, the capital would never be the greater. This surely shows he considered the capital to be not a part of incoming produce, so much. . . a week, or so much a year, but stored up produce, so much on January 1st, or September 30th, 1772 for instance'. Unfortunately for this objection, Adam Smith's notion of the manner in which parsimony saves and stores up is quite consistent with what is saved and stored up being a part of incoming produce, and quite inconsistent with its being really accumulated."³

In closing our discussion of Smith's concept of capital, we should bear in mind Cannan's conclusion on Smith's performance in this field:

"It can scarcely be denied that Adam Smith left the whole subject of capital in the most unsatisfactory state. He makes unscientific distinctions between

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1. Cannan, op. cit., p. 53.
 2. See Smith, op. cit., p. 267.
 3. Cannan, Ibid., p. 56.

fixed and circulating capital; he confuses the capital of a country with a particular part of its annual produce; and with regard to the functions of the capital he fails completely to prove his most important proposition, namely that the amount of capital determines the amount of industry."¹

David Ricardo defines capital as ". . . that part of the wealth of a country which is employed in production, and consists of food, clothing, tools, raw materials, machinery,² etc., necessary to give effect to labour."³

1. Ibid., p. 70.

2. In his Preface to the Principles, Ricardo distinguishes capital from machinery as factors of production. Cannan provides an interesting illustration of Ricardo's distinction:

"I (Ricardo) do not clearly see the distinction which you (Malthus) think important between productiveness of industry and productiveness of capital. Every machine which abridges labour adds to the productiveness of industry, but it adds also to the productiveness of capital. England with machinery and with a given capital will obtain a greater real net produce than Otaheite with the same capital without machinery, whether it be in manufacturers or in the produce of the soil. It will do so because it employs much fewer hands to obtain the same produce. Industry is more productive; so is capital. It appears to me that one is a necessary consequence of the other, and that the opinion which I have advanced and which you are combating is that in the progress of society, independently of all improvements in skill and machinery, the produce of industry constantly diminishes, as far as the land is concerned, and consequently capital becomes less productive."

3. Ricardo, Principles, 1st ed., pp. 93, 94.

Ricardo made a distinct advance on Smith's mistaken conception of capital as a part of the annual produce, rather than a stock to which a part of annual produce was added should production be greater than consumption during the period.

"When the annual productions of a country exceed its annual consumption, it is said to increase its capital; when annual consumption at least is not replaced by its annual production, it is said to diminish its capital. Capital may therefore be increased by an increased production, or by a diminished consumption."¹

In the third edition of the Principles, Ricardo added a note to the above passage which identifies as a great error, the belief that capital could be increased by non-consumption, adding that whether capital is added to by consumption is dependent upon whether productive or unproductive labour is supported.

"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 labourers. There can be no greater error than in supposing capital is increased by non-consumption."²

Ricardo rejects Smith's criterion for distinguishing fixed and circulating capital which depended on whether the revenue was generated by the articles' changing 'masters', and

1. Ibid., p. 187.

2. Ibid., 3rd ed., p. 87.

in its place erected a distinction based on the durability of that which constitutes capital.

"According as capital is rapidly perishable, and requires to be frequently reproduced, or is of slow consumption, it is classed under the heads of circulating or of fixed capital. A brewer, whose buildings and machinery are valuable and durable is said to employ a large proportion of fixed capital: on the contrary, a shoemaker, whose capital is chiefly employed in the payment of wages, which are expended on food and clothing, commodities more perishable than buildings and machinery, is said to employ a large portion of his capital as circulating capital."¹

"In proportion as fixed capital is less durable, it approaches to the nature of circulating capital."²

It should be noted that Ricardo, according to Cannan, regards circulating capital "... as consisting entirely of amounts paid by employers in wages."³

As was observed when considering Adam Smith's concepts of fixed and circulating capital, differing proportions of fixed to circulating capital employed between industries, or on the Ricardian definition, differences in the durability of capitals employed in industry will cause the exchange values of the products to diverge from the 'labour-quantity' employed in production, posing a substantial contradiction to the Ricardian value theory. And it is a contradiction, not merely a "modification", be the word conditioned by the adjective "considerable"

1. Ricardo, op. cit., p. 22, 1st ed., quoted in Cannan, op. cit., p. 73.

2. Ricardo, Ibid., p. 79.

3. Cannan, op. cit., pp. 74-75.

or any other. Ricardo concludes his study of the question with the following passage.

"It appears, then, that the division of capital into different trades, introduces a considerable modification to the rule, which is of universal application when labour is almost exclusively employed in production; namely, that commodities never vary in value, unless a greater or less quantity of labour be bestowed on their production, it being shown. . . that without any variation in the quantity of labour, the rise of its value merely will occasion a fall in the exchange value of those goods, in the production of which fixed capital is employed; the larger the amount of fixed capital, the greater will be the fall."¹

Where the capitals employed in each of the industries embody equal amounts of labour, and the capitals are of equal durability, "the comparative value (of the products) would be entirely regulated by the quantity of labour realized in each; whatever might be the quantity of production, or however high or low general wages or profits might be."² Given an invariable standard of value, Ricardo says it would be found that unless more labour were required, the value of the commodities would not vary, assuming the composition of capital to be constant; in particular,

"A rise of wages would not raise them in money value, nor relatively to any other commodity the production of which required no additional quantity of labour, which employed the same proportion of fixed and circulating capital, and fixed capital of the same durability."³

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1. Ricardo, Principles, p. 79.
 2. Ibid., p. 69.
 3. Ricardo, op. cit., p. 72.

Ricardo explicitly recognizes that where different durabilities of fixed capital and different proportions of fixed to circulating capital characterize production of different commodities, a cause of variation in exchange or relative value, in addition to the quantity of labour necessary, will be the "rise or fall in the value of labour."¹ As wages rise, the relative value of commodities produced with more durable capital will fall,

"But a rise in the wages of labour would not equally affect commodities produced with machinery quickly consumed, and commodities produced with machinery slowly consumed. In the production of the one, a great deal of labour would be continually transferred to the commodity produced--in the other, very little would be so transferred. Every rise of wages, therefore, or which is the same thing, every fall of profits, would lower the relative value of those commodities which were produced with a capital of a durable nature, and would proportionally elevate those which were produced with capital more perishable. A fall of wages would have precisely the contrary effect."²

Ricardo holds the effect of a given change in labour's wages on the exchange value of commodities produced with differing proportions of fixed to circulating capital to be identical to that on the value of commodities produced with differing durabilities of fixed capital. Ricardo states, "... in proportion as fixed capital predominates in a manufacture, when wages rise, the value of commodities produced in that manufacture is relatively lower than that of commodities produced

1. Ibid., pp. 79-80.

2. Ibid., pp. 81-82.

in manufactures where circulating capital preponderates. In proportion to the less durability of fixed capital, and its approach to the nature of circulating capital, the same effect will be produced by the same cause."¹

Finally, Ricardo's noticing that there is a strong analogy between differences in fixed capital's durability and differences in rates of turnover of different kinds of circulating capital makes him a direct precursor of later capital theory by Bohm-Bawerk.²

Each of the three considerations, (a) the differences in proportions of fixed to circulating capital, (b) the durability of different industries' fixed capitals, and (c) "the unequal rapidity with which (the capital) is returned to its employer",³ was recognized by Ricardo to have a fundamentally common element beyond the fact that they each spelt "modification" of the 'labour-quantity' theory of value--each represented "time distance between investment and the emergence of the corresponding consumer's good."⁴ From this,

1. Ibid., p. 79.

2. Ricardo said:

"On account, then, of the different degrees of durabilities of their capitals, or, which is the same thing, on account of the time which must elapse before one set of commodities can be brought to market, they will be valuable, not exactly in proportion to the quantity of labour bestowed on them. . . but something more, to compensate for the greater length of time which must elapse before the most valuable can be brought to market." (op. cit., p. 75.)

3. Ricardo, Principles, p. 79.

4. Schumpeter, op. cit., p. 636.

Ricardo concluded that there is no essential difference and no clear line of demarcation between fixed and circulating capital, or as Schumpeter puts it, "Both are nothing but immature (elements of) consumer's goods--intermediate products of 'inchoate wealth' as Taussig was to call them about eighty years later. Or both may be 'resolved' into hoarded labour--James Mill's term, which expresses Ricardo's meaning very well. . .".¹

Nassau Senior made important contributions to both the theory of capital and to the theory of 'interest'. Senior advanced in his propositions on capital that ". . . the powers of Labour, and of other instruments which produce wealth may be indefinitely increased by using their Products as the means of further production."² This added to Ricardo's teaching the belief that the productivity of factors other than labour would be increased by using their products as 'produced means of production'. Senior realized that if production attributable to the produced means of production is counted in the produce of a given amount of labour, the total produce of a two-year production process will be greater than that of two successive one-year production periods in which no use of produced means of production is permitted.

The difference from Ricardo's theory is that "Ricardo's real value of a product cannot increase simply because the same

1. Ibid., p. 637.

2. Quoted in Schumpeter, Ibid., p. 638.

quantity of labour produces a greater quantity of product in the two year process than it would in two successive one year processes. But Senior's value may.¹ Senior's doctrine of 'Abstinence' as the source of capital and justification of 'interest' will be considered under the section of this chapter on 'interest'.

J.S. Mill regarded capital as a 'requisite of production', but capital does not have the status of labour or natural agents as it is conceived of as being 'stored-up labour'. This we have shown on page 2 of this thesis in connection with the evolution of the 'Triad'. Mill does appear in the following to have firmly fixed in his mind the concept of capital as an accumulated stock rather than as a flow, a part of the annual produce as Smith conceived it.

"It has been seen . . . that besides the primary and universal requisites of production, labour and natural agents, there is another requisite without which no productive operations, beyond the rude and scanty beginnings of primitive industry, are possible: namely, a stock, previously accumulated of the products of former labour. This accumulated stock of the produce of labour is termed Capital."²

Cannan nonetheless holds that, "It was distinguished from the accumulated stock of the country, with which, in any scientific view of the question, it must be regarded as identical, and was mixed up with periodical working expenses."³

1. Ibid.

2. Mill, J.S., Principles; I, iv, 1.

3. Cannan, op. cit., p. 300.

Capital, to Mill is not synonymous with money, because money does not itself perform capital's role of assisting in production; money must be exchanged for capital-goods which provide shelter, tools, raw materials entering directly into production, and commodities destined to sustain labour during the period in which production occurs.¹

To Mill, the distinction between what is capital and what is not, turns, upon the capitalist-employer-entrepreneur's intentions as to the use of the good, rather than upon the characteristics of the good itself. The goods which are "set apart for productive reinvestment" are capital-goods, as any good can be "transformed" into a good which is "directly applicable to production". In this Mill is a direct precursor of the marginal productivity theorists who conceived that the fruits of saving or Abstinence accumulated in a 'social capital fund' whose temporal manifestation was individual capital-goods which could be transformed (apparently without cost) into any other desired temporal form of capital-good.

"The distinction, then, between Capital and Not-Capital, does not lie in the kind of commodities, but in the mind of the capitalist--in his will to employ them for one purpose than another; and all property, however ill adapted in itself for the use of labourers, is a part of capital, so soon as it, or the value to be received from it, is set apart

1. Mill, J.S., op. cit., I, iv, 1.

for productive reinvestment. The sum of all the values so destined by their respective possessors, composes the capital of the country. Whether all those values are in a shape directly applicable to productive uses, makes no difference. Their shape, whatever it may be is a temporary accident; but once destined for production, they do not fail to find a way of transforming themselves into things capable of being applied to it."¹

J.S. Mill enunciated a set of four "fundamental theorems" respecting capital and its accumulation. The first of these was "That industry is limited by capital".² Mill, in Cannan's opinion, does not provide adequate support for the assertion, and Mill eventually ends up finding firmer ground in the necessity for the sustained existence of labour, of a store of food, and additionally (but, incorrectly in Cannan's reasoning) that labour must be provided with materials and instruments of production.³ This was the 'Wages-Fund' doctrine later to be recanted by Mill.

Schumpeter agrees that Mill effectively restricts the theorem and its corollary, "every increase of capital. . . is capable of giving additional employment to industry; and this without assignable limit."⁴, to 'wage capital' alone. Schumpeter holds that the theorem and corollary would be "interesting propositions" if they had applied to fixed or "technological" capital. He summarized Mill's first proposition

1. Ibid.

2. Ibid.; I, v, 1.

3. Cannan, op. cit., p. 94.

4. Mill, J.S., op. cit.; I, v, 3..

saying, "But Mill restricted it to (wages capital) so that the proposition he meant to defend amounts only to this: 'the portion which is destined to their (labourers') maintenance may (supposing no alteration in anything else) be indefinitely increased, without creating an impossibility of finding them employment'--which is either trivial or false."¹ Cannan comments that "Mill's only reason for writing the paragraph was that he considered 'industry is limited by capital' a useful catch-word with which to attack the protectionist fallacy of giving employment or 'creating an industry' "², and concludes:

"... it may possibly be said with truth that it is the capitalists or owners of the capital who for the most part take the initiative in industrial enterprise, and so in a way 'put labour into motion'. But it certainly is not the capital itself, a mere mute mass of objects, which puts industry into motion. Nor does the magnitude of capital decide how much labour shall be put into motion. Everyone knows that neither the number of workers in each of the different countries of the world, nor the length of time they work, nor the energy they show, is regulated by the magnitude of the different national capitals. A country which is poor in aggregate capital may be more populous and more industrious than one which is richer in capital; the destruction of a part of the capital of a country, while it would certainly diminish the produce of industry, would not seriously diminish the quantity of industry unless the destruction was so great as to lead to starvation or ill-health; and finally, an increase of the capital of a country may, and often does cause, not an increase, but a diminution of industry by allowing people to 'live on their means'."³

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1. Schumpeter, op. cit., p. 640.
 2. Cannan, op. cit., pp. 93-94.
 3. Ibid.

J.S. Mill's second theorem on capital is that, "It is the result of saving."¹ To save is to forebear consumption, which can be the only means by which goods destined to support the labour of others may be accumulated. It is to be noted that saving is said to be the origin especially of additions to capital. The theorem is of 'greater material inaccuracy' when applied to the 'original' stocks of capital-goods which, per force of custom frequently were acquired through conquest, guile or primogeniture.

"All that anyone employs in supporting and carrying on any other labour than his, must have been originally brought together by saving; somebody must have produced it and forborne to consume it. We may say, therefore, without material inaccuracy, that all capital, and especially all addition to capital, is the result of saving."²

The exception to the theorem is that of a man who labours "on his own account", and "the provision of necessities on which he subsists until he has reaped his harvest or sold his commodity, though a real capital, cannot be said to have been saved, since it is all used for the supply of his own wants, and perhaps as speedily as if it had been consumed in idleness."³

Cannan notes of this exception, "Whether a thing has been saved or not is thus settled, not by whether it is actually in existence and therefore constitutes for the time a part of the excess of produce over consumption, but by what ultimately becomes of it."⁴

1. Mill, J.S., op. cit., i, iv, 4.
2. Ibid.
3. Ibid.
4. Cannan, op. cit., p. 82.

To Mill, though capital could result only from saving, saving need not be the result of "greater abstinence and increased privation". Thus, "To consume less than is produced, is saving; and that is the process by which capital is increased; not necessarily by consuming less absolutely."¹

Mill's third theorem on capital is that:

"Although saved, and the result of saving, (capital) is nevertheless consumed. The word saving does not imply that what is saved is not consumed (nor even necessarily that its consumption is deferred), but only that (if consumed immediately) it is not consumed by the person who saved it."²

Both 'saving' and 'spending' are, initially, acts of consumption. In the case of spending, the matter stops there; that particular amount of the produce of labour has disappeared, and there is nothing left.³ The saving person, though allowing his capital-goods to be consumed, has employed labourers, who will "replac(e) with an increase, the equivalent of what has been consumed."⁴ And the "fund" of capital, once accumulated, will allow of the repetition of the cycle in perpetuity without any additional act of saving. Cannan commented on this passage, "Exactly, and so we cannot properly say 'capital is consumed' any more than we can say 'population dies'. The persons of whom the population is composed at any given time die, or the things of which the capital is composed at any given time, or some of them, are consumed, but the population and capital remain."⁵

1. Mill, J.S., op. cit., I, v, 4.
2. Ibid., I, v, 5.
3. Ibid.
4. Ibid.
5. Ibid.

J.S. Mill's fourth and final theorem on capital is that, "Demand for commodities is not demand for labour."¹

"We now pass to a fourth fundamental theorem respecting Capital, which is, perhaps, oftener overlooked or misconceived than any of the foregoing. What supports and employs productive labour, is the capital expended in setting it to work, and not the demand of purchasers for the produce of the labour when completed. Demand for commodities is not demand for labour. The demand for commodities determines in what particular branch of production the labour and capital shall be employed; it determines the direction of the labour; but not the more or less of the labour itself, or of the maintenance or payment of the labour. These depend on the amount of the capital, or other funds directly devoted to the sustenance and remuneration of labour."²

Schumpeter considers Mill's proof of the proposition that, "Demand for commodities is not demand for labour" to be a "confused and embarrassed discussion that has puzzled followers not less than opponents."³ Under the systems of Say and others who held that "production and distribution reduce to an exchange of services",⁴ suggests Schumpeter in proposing an interpretation of Mill's fourth proposition on capital, it was postulated that an industrial employer's demand for labour is derived from the consumer's demand for the products. Exchange, Mill believes is only a means by which labourers, capitalists and landowners select the desired forms in which each will possess his income;

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1. Cannan, op. cit., p. 83.
 2. Mill, op. cit., I, v, 9.
 3. Schumpeter, op. cit., p. 644.
 4. Ibid.

explicitly, exchange is not "the source of the remuneration itself."¹ Say's viewpoint and vision is the juxtaposition of Mill's, and while Say was, within his system, justified in the use of the phrases such as 'Demand for commodities is demand for labour', Schumpeter cautions, "But the reasoning should never have been used--as it has been--for an attack upon Mill's position."² Schumpeter rests his attempt to interpret the meaning of Mill's last theorem concluding:

"... the fact should be taken into account that the consumer's payment for a commodity does not in general pay for the labour that entered into the latter's production. At most, the consumer's payment enables the manufacturer to replenish his capital, normally with an addition. For this actually to come about, a distinct decision must intervene in the process, namely, the manufacturer's decision to save or at least not to dissave. It is this decision--and it should not be taken for granted--which may be said to 'benefit' labour at the next turn of the wheel and not simply the consumer's decision to buy."³

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1. Mill, op. cit., I, v, 9.
 2. Schumpeter, Ibid., p. 644.
 3. Ibid.

B. Early Marginal Productivity Theorists' Conceptions of Capital.

John Bates Clark rejected the 'triad' of production requisites in his formulation of the marginal productivity theory of wealth distribution, and especially that of Mill which granted the status of 'requisite' to capital, but at the same time denied it the status of a 'primary' requisite. For Clark, capital included land as a particular species of capital-good, and labour and capital shared the role of 'requisites'.¹

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1. Clark says of the question of nomenclature, "It is also necessary to have a term for all kinds of concrete goods in which this permanent fund (capital) consists; and we shall call these things, including land, capital goods", and further observes of his inclusion of land as capital-good:

"It will be seen that this is not calling land, capital. When land is referred to, it will be called by its ordinary name. There is a constant necessity for referring to the total fund of permanent productive wealth that is embodied in land and in artificial instruments. When this is thought of, in practical life, as 'money invested in business,' it is designated by the term capital; and in this work it will be so called. The objection to calling land one variety of capital-good vanishes, if it is admissible to call all productive wealth, 'in the abstract', capital."
(Clark, Distribution of Wealth, p. 191, and fn.)

"There are. . . two permanent entities combined in the industry of the world. The one is capital, or the wealth that continues forever by casting off and renewing material bodies--capital goods. The other is labour, which continues in a similar way. It is represented to-day by one set of men, and tomorrow by another."¹

Explicit in the above passage is the distinction between capital and capital-goods; "Social capital," says Clark "is a fund of wealth fixed in amount, though invested in a shifting list of things."² In dynamic state, the fund of social capital may grow or diminish; its essential characteristic in static state, which Clark is here analyzing, is that of 'permanence'. It is this essential characteristic which distinguishes social capital from capital-goods, though land is a sole exception to it as land is not (necessarily) destroyed in the process of production. Indeed, capital-goods must perish to maintain the fund in perpetuity.

"The point of sharpest contrast between capital and most capital goods is, indeed, the permanence of the one, as compared with the perishability of the other. Land is the only kind of capital-good that does not need to be destroyed, in order that the fund of wealth embodied in it may continue."³

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1. Clark, Ibid., p. 158.
 2. Clark, Distribution as Determined by a Law of Rent, p. 301.
 3. Clark, Distribution of Wealth, p. 119.

To say that the fund of social capital is permanent or that it has a continuous existence is to state an abstract quality, as it is only a transient existence that the concrete manifestations of that fund have. Nonetheless, capital is not objectively an abstraction.

"When one set of bodies perishes and another one replaces it, we say that capital continues, and yet it is only an abstraction that has literally a continuous existence. The concrete embodiments of the abstraction have only transient existences. With this understanding, pure capital might be termed capital in abstract, though it is never objectively an abstraction. It is value embodied in goods the identity of which is perpetually changing, so that any affirmation that may be made of the permanent fund applies to-day to one set of bodies, to-morrow to another, etc. Here is the kernel of the logical distinction."¹

1. Ibid.

II. Interest, the Profits of Stock and Entrepreneurial Profits.

A. Classical Theories

In the previous section on capital it was established that the classical economists, following Barbon's lead, considered capital to be virtually identical to capital-goods--a real rather than monetary concept. Thus the 'profits of stock' rather than 'interest' came to dominate discussion of capitalists' incomes, though rather late in the period, analysis became concerned with entrepreneurial profits; later still the monetary concept of capital started its ascension as a focal point of analysis.

"The most significant development to notice in the interest theory of the period (Beginnings to About 1790) is the emergence, and all but universal acceptance of the propositions (1. that interest on business loans is nothing but normal business profit transferred to lenders, and (2. that normal business profit itself is nothing but the return on the physical means of production, labour's means of subsistence included."¹

However, before the classical economists, the scholastic doctors, had, in their doctrines on usury, considered an essentially monetary concept of capital, as did many English writers before Barbon and Adam Smith. Petty held that a premium was justified for a lender's selling the use of money and for the lender's inconvenience in not having its use for a period of time: The quantity of money is held to determine the rate of interest.²

1. Schumpeter, History of Economic Analysis, p. 328.

2. Ibid., p. 329.

The analysts who followed Barbon made a substantial simplification of the role of capital and the capitalist. They assumed that the return obtained by the capitalist is a reward for lending goods, not money. This ignores the fact that the manufacturer or trader who uses the capital-goods does not obtain the capital-goods from capitalists, but from self manufacture or purchase from manufacturers.

"If interest is the return on 'wrought stock'--produced means of production--exactly as rent is the return on 'unwrought stock'--natural agents of production--then it is goods of some kind or other that the lender 'really' possesses. As a matter of fact, it is the manufacturer or trader who possesses such goods, and he gets them from other producers and not from the capitalist or lender."¹

In Turgot's work concerning capital, a part of the profits of 'industrial men' is handed over to capitalists through the competition of the former for capital, and this share is determined by the demand and supply of loanable funds. These funds are useful to the demander because "(capital) bridges the temporal gap between productive effort and the product".² The rate of interest is held to be negatively related to the rate of saving, and measures the relative scarcity of capital-goods.³

Adam Smith laid aside the monetarist concepts, and the theory of interest gave way to the theory of the profits of stock, or the rent of 'wrought' means of production. Capitalists "really" did loan capital-goods. "What the lender really supplies", says Smith, "is not the money, but. . . the goods which money can purchase."⁴ Nor is there an inverse (or any other) correlation

1. Schumpeter, op. cit., p. 330.

2. Ibid., p. 333.

3. Ibid.

4. Smith, op. cit., BkII, ch. 4.

between the quantity of specie or money and the rate of interest.¹ Adam Smith believed that interest on loans in the money market was "simply the shadow of the 'rate of profit on real capital'--the latter being 'lent in the form of money' as the later slogan has it--and that quantity of money, had nothing at all to do with it."² And 'profits' meant not all kinds of gain in securing which an expense or risk is incurred, but those only which are obtained owing to the possession of stock or capital.

In the minds of laymen during Smith's time, profits were commonly considered to include the wages for the labour performed by the capitalist in working his concern, and the wages of overseeing its management, profits and wages thereby being "confounded". Where the capitalist performs some of his own labour or management:

"What remains of the crop, after paying rent, therefore, should not only replace to them their stock employed in cultivation, together with its ordinary profits, but pay them the wages which are due to them, both as labourers and overseers. What remains, however, after paying the rent and keeping up the stock, is called profit. But wages evidently make a part of it. . . . The farmer by saving these wages must necessarily gain them. Wages, therefore, are in this case confounded with profit."³

Smith was insistent that such confounding be eradicated.

"The profits of stock, it may perhaps be thought, are only a different name for the wages of a particular sort of labour, the labour of inspection and direction. They are however, altogether

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1. Schumpeter, op. cit., p. 334.
 2. Schumpeter, op. cit., p. 720.
 3. Smith, op. cit., p. 33.

different."¹ The 'profits of stock' are, in fact, to Smith "a real deduction from the natural wages of labour."²

"And profit is another deduction motivated not by the productivity of capital-stock 'advanced' to the labourer--but solely by the power of its owner to insist upon it, a power that is much enhanced by the ease with which these owners can combine against the poor and helpless labourers who 'must either starve or frighten their masters into immediate compliance with their demands.' "³

Schumpeter is not as antipathetic to the Smithian formulation of the opposition of the profits of stock to wages as a deduction as he is to the Ricardian formulation of the opposition as a residual, the 'leavings of wages'. "(A. Smith) went exactly as far in stating the antagonistic tendency of wages and rate of profit as fact and common sense (but not the Ricardian conceptualization) will warrant", says Schumpeter.⁴ But why do labourers not reject the appropriation of a part of their 'natural' product?; why do they not work for themselves, and decline to be employed as labour? Cannan concludes:

"We may say, then, that to Adam Smith profits appeared to be a deduction from the produce of labour, to which the labourer has to submit because he had no means of support, and no materials of production."⁵

This deduction theory is frequently held to be the inspiration behind the subsequent 'exploitation' theories held by Ricardo and Marx. The exploitation theory is inherent in Smith's

1. Ibid., p. 48.
2. Cannan, op. cit., p. 158.
3. Schumpeter, op. cit., p. 268.
4. Ibid., p. 654.
5. Cannan, op. cit., pp. 158-159.

concept of the 'master', who was "... simply a capitalist who furnished the workers with tools, materials, and means of subsistence and for the rest did very little, received these 'advances' back with a profit that was evidently part of the result of the workers' 'industry'."¹

Lauderdale was the first to reject the Smithian doctrine of profits as a deduction, posing in its place the 'productivity of capital' doctrine. Profits arise because the capital supplants labour, or does what labour cannot; it is a payment for capital's usefulness.

"Lauderdale definitely asked the question, 'What is the nature of the profits of stock?, and how does it originate?' He objected to Adam Smith's representation of profit as a deduction from the wages of labour. If Adam Smith were right, he says, profits would be a derivative and not an original source of revenue, 'being only a transfer from the pocket of the labourer into that of the proprietor of stock'. Profit arises, he thinks, because the capital which yields the profit supplants labour, or does what human labour could not do. In short profit exists because capital performs a useful service; the payment of profit is to be put on the same basis as the payment of wages."²

Smith's primary proposition on the profits of stock was that the rate of profit declined as stock or capital was accumulated, and that this resulted from the competition of capitalists for the investment of their capital in a limited number of sufficiently rewarding opportunities, and the competition of the capitalists considered as employers for labour with which to exploit their opportunities, and not merely as the result of the greater abundance of capital.

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1. Schumpeter, op. cit., p. 648.
 2. Cannan, op. cit., pp. 159-160.

"As capitals increase in any country, the profits which can be made by employing them necessarily diminish. It becomes gradually more and more difficult to find within the country a profitable method of employing any new capital. There arises in consequence a competition between different capitals, the owner of one endeavouring to get possession of that employment which is occupied by another. Their competition raises the wages of labour and sinks the profits of stock. But when the profits which can be made by the use of a capital are in this manner diminished, as it were, at both ends, the price which can be paid for the use of it, that is, the rate of interest, must necessarily be diminished with them."¹

Ricardo, we shall see, rejected the Smithian notion that it was the competition of capitalists for limited investment opportunities in the domestic markets of advanced economies which was the governing cause of the falling rate of profit. Ricardo stressed that the demand-supply apparatus of analysis applied by Smith was incapable of explaining the phenomenon of the historical decrease observed in the rate of profit. Dobb wrongly suggests that the Smithian argument "... relied on a questionable generalization of what tends to happen in a single trade to the macro-level of all trades."²

Ricardo was not concerned with the abstract question of the nature and origin of profits. Cannan states that the term, though undefined in Ricardo's work, was well understood in the 'concrete'. There is no evidence that Ricardo had in any way been influenced by Lauderdale's 'productivity' theory. Ricardo did not treat profits as a deduction (which implies an effective degree of power held by capitalists to enforce the

1. Smith, A., Wealth of Nations, p. 336.

2. Dobb, M., Theories of Value and Distribution, p. 52.

appropriation from the labourer of a part of his 'natural' wages). Ricardo makes profits a residual which capitalists claim from net revenue remaining after labour's 'natural' wages had been paid; Ricardo, ". . . looked upon them as a surplus over and above natural wages."¹

"The surplus exists according to (Ricardo), because the worst land actually under cultivation, or rather the least productive agricultural labour depends on the amount of capital, and capital never will be accumulated to such an extent as to reduce the productiveness of the least productive agricultural labour so low that the produce would only suffice to pay the wages. The motive for accumulation will 'diminish with every diminution of profit, and will cease altogether' when the profits are so low as not to afford the farmer and the manufacturer 'an adequate compensation for their trouble, and the risk which they must necessarily encounter in employing their capital productively'."²

Dobb sums up Ricardo's theory of the origin of profits as "essentially a surplus theory. . . It was to the effect that Profits depended upon the difference between the product of labour at the margin of cultivation and the subsistence of that labour; both being expressed in Corn. Profit was accordingly expressed as a simple product-ratio to Wages: a ratio which fell as the margin was extended and the product of a day's labour declined."³

Given the tendency towards a uniform rate of profit between industries including manufactures and agriculture, Ricardo's agriculturally based, 'Corn' theory of profit had to incorporate an additional assumption that agricultural profits

1. Cannan, op. cit., p. 162.

2. Ibid. (Ricardo citation from Principles, 1st ed., p. 136.)

3. Dobb, M., op. cit., p. 69.

'governed' manufacturing profits. Dobb states that to ensure uniformity of profit rates between industries, ". . . the brunt of adaptation must fall on the prices of manufacturers"¹ since, ". . . the ratio of profit to wages in agriculture was given by the conditions of production there."², by that meaning the causes which affect the location of the margin of cultivation. In defending his belief that the rate of profits in agriculture governed profits in manufactures, Ricardo was obliged to formulate a theorem to show how the prices of those other commodities moved (if at all) when the cost in labour of corn increased. Ricardo turned to the Labour-quantity theory of value for this theorem.

"Ricardo in effect was substituting Labour for Corn as the quantity in terms of which product, wages and surplus were alike expressed. Profit was now conceived as the surplus, or residual difference, between the amount of labour required to produce subsistence for the labour force and the total labour force: in the language of the Principles as depending upon the 'proportion of the annual labour of the country. . . directed to the support of the labourers'. . . . As soon as it was thus stated in terms of value, the proposition that profits fall because of a falling productivity of labour in terms of corn becomes translated into: profits fall because of the rising value of corn, and hence of wages, relatively to other products."³

Ricardo, then, through the Law of Diminishing Returns in agricultural production, makes the rise of wages the sole cause of the falling rate of profit, explicitly rejecting Adam Smith's theory of competition between capitalists for

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1. Ibid., p. 70.
 2. Ibid.
 3. Ibid., p. 75.

opportunities and labour as capital was accumulated.

"... no accumulation of capital will permanently lower profits, unless there is some permanent cause for the rise of wages. . . If the necessities of workmen could be constantly increased with the same facility, there could be no permanent alteration in the rate of profit or wages to whatever amount capital might be accumulated. Adam Smith, however, uniformly ascribes the fall of profits to the accumulation of capital and to the competition which will result from it, without ever adverting to the increasing difficulty of providing food for the additional number of labourers which the additional capital will employ. . . . (H)owever abundant capital may become, there is no other adequate reason for a fall of profit but a rise of wages, and further it may be added, that the only adequate and permanent cause for the rise of wages is the increasing difficulty of providing food and necessities for the increasing number of workmen."¹

Cannan comments that the Ricardian school, "... misled by their habit of looking on profits as a mere surplus remaining to employers after they have paid wages, totally rejected Adam Smith's explanation of the historical fall of profits, and preferred to attribute it to a cause which has no existence, the supposed diminution in the productiveness of agricultural industry."²

While maintaining that the law of Diminishing Returns made the increase of wages and decrease of profit inexorable, Ricardo also believed that result might be temporarily staved off by improvements in machinery and in the science of agriculture. "This tendency", Ricardo writes, "this gravitation as

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1. Ricardo, op. cit., p. 219.
 2. Cannan, op. cit., p. 219.

it were of profits, is happily checked at repeated intervals by the improvements in machinery connected with the production of necessaries, as well as by discoveries in the science of agriculture which enable us to relinquish a portion of labour before required and therefore to lower the price of the prime necessary of the labourer."¹

Malthus was more supportive of the Smithian doctrine of competition as the cause of the fall in the profit rate. He believed that while it is certain that the operation of the Law of Diminishing Returns in agriculture would eventually, in and of itself, cause the rate of profit to fall, the action of competition is a much more immediate cause of that phenomenon. Thus Malthus makes the growing abundance of capital "very much more"² the cause of the historical decline of profits than the fertility of the land on the agricultural margin.

Regardless of the cause thought to be responsible for the historic decline of profits, either competition or diminishing returns, the consequence of the accumulation of capital is a fall in the 'share of profit', or more accurately, the rate of profit percent. Real wages fall and landowners are the "only real gainers", as the value of the produce composing the rent 'share' and the landlord's share both increase.

"When the accumulation of capital, however, becomes very great. . . it will be so distributed that a less value than before will be appropriated to

1. Ricardo, op. cit., p. 141.

2. Malthus, Political Economy, p. 316; quoted in Cannan, op. cit., p. 229.

() profits, while that which is devoted to rent and wages will be increased. . . . Wages would rise because more labourers would be employed, in proportion to capital; and each labourer would receive more money wages; but the condition of the labourers. . . would be worse, in as much as he would be able to command a less quantity of the produce of the country. The only real gainers would be the landlords; they would receive higher rents, first, because produce would be of a higher value, and secondly, because they would have a greatly increased proportion of that produce."¹

Or, as he more concisely put it, ". . . almost the whole produce of the country, after paying the labourers, will be the property of the owners of land and the receivers of tithes and taxes."²

Senior elaborated the Smithian doctrine of 'parsimony' into the Abstinence theory of profit. Abstinence is the ". . . psychic cost of saving, or. . . of the capital-goods in which past saving has been invested."³ Senior's definition also encompassed what has been called 'Waiting', or the fact that various capital-goods, ". . . have different rates of turnover or that their products become available or 'mature' after lapses of time of different lengths, which. . . intrude into the lists of costs of production."⁴ Senior holds that land and labour are the original or primary factors of production, but that ". . . they require the concurrence of a third Productive Principle to give them complete efficiency. To this Third Principle. . . we

1. Ricardo, op. cit., pp. 143-144.

2. Ibid., p. 141.

3. Schumpeter, op. cit., p. 639.

4. Ibid.

() shall give the name of Abstinence."¹ Abstinence is the origin of profit and "stands in the same relation to Profit as Labour does to Wages."² This is qualified however by the realization that ". . . for all useful purposes, the distinction of profit from rent ceases as soon as the capital from which a given revenue arises has become, whether by gift or by inheritance, the property of a person to whose abstinence and exertions it did not owe its existence."³ Cannan comments on this passage, ". . . in modern civilized and wealthy communities, inherited property is far greater than the property which has been acquired by the savings of living persons."⁴ Dobb notes, "It is, perhaps, not surprising that this qualification should have received so little emphasis from those who in the wake of Senior, have 'justified' profit and interest in terms of abstinence. . . and have sought to assimilate profit and wages as payments for 'real costs'; for the qualification leaves precious little of the justification behind it."⁵

J.S. Mill found in the Essays on Some Unsettled Questions, little 'unsettled' as regards the theory of profits--Ricardo reigned and his theory was ". . . the most perfect form in which the

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1. Senior, An Outline of the Science of Political Economy, p. 58; quoted in Dobb, M., op. cit., p. 104.
 2. Ibid.
 3. Senior, Ibid., p. 129.
 4. Cannan, op. cit., pp. 155-156.
 5. Dobb, Theories of Value and Distribution, p. 105.

laws of profits seems 'to have been yet exhibited',¹ and, "... the basis of the true theory of profits."² In 'proving' that "profits depend upon wages; rising as wages fall, and falling as wages rise"³, the Ricardian doctrine of profits and wages, Mill defines capital to be the means to possess "labour, and the various articles which labour requires as materials, or of which it avails itself as aids", and then defines the rate of profit to be "The ratio between the price which he has to pay for these means of production, and the produce which they enable him to raise". Since capital conceptualized is embodied labour, and concretely manifested as the wages of the labour embodied in the capital goods, labour is "the only essential of production",⁴ and, "Consequently, the whole of the surplus after replacing wages is profits."⁵, and the Ricardian proposition is 'proved'.

"Labour alone is the primary means of production; 'the original purchase-money which has been paid for everything'. Tools and materials like other things have originally cost nothing but labour, and have a value in the market only because wages have been paid for them. The labour employed in making the tools and materials by the aid of tools, the sum-total gives the whole of the labour employed in the production of the completed commodity. In the ultimate analysis therefore, labour appears to be the only essential of production. To replace capital is to replace nothing but the wages of the labour employed. Consequently, the whole of the surplus

1. Mill, J.S., Essays on Some Unsettled Questions, pp. 94-95, quoted in Dobb, op. cit.
2. Mill, J.S., Ibid., p. 98.
3. Mill, J.S., Ibid., p. 95; quoted in Cannan, op. cit., p. 236.
4. Ibid.
5. Ibid.

after replacing wages is profit. From this it seems to follow that the ratio between the wages of labour and the produce of that labour gives the rate of profit. And thus we arrive at Mr. Ricardo's principle that profits depend on wages; rising as wages fall and falling as wages rise."¹

Mill did make one alteration during the Essays in Ricardian orthodoxy regarding nature of profits by including "the profits advanced as well as the wages advanced"² in the costs of production which governed wages and therefore the residual profits. Mill concludes his study of profit in the Essays by stating, "Mr. Ricardo's principle that profits cannot rise unless wages fall is strictly true, if by low wages he meant not merely wages which are the produce of a smaller quantity of labour, but wages which are produced at less cost, reckoning labour and previous profits together."³ This belief that past profits advanced should be included in the costs of production of labour, is repeated in the Principles and profit is made the reward of meritorious conduct, abstinence, but profits are not wholly functionally determined; the Ricardian residual concept is retained in part.

"The return for abstinence is Profit. And Profit. . . is not exclusively the surplus remaining to the capitalist after he has been compensated for his outlay, but forms, in most cases, no unimportant part of the outlay itself. . . Profits therefore, as well as wages enter into the cost of production which determines the value of produce."⁴

1. Ibid.
2. Dobb, M., op. cit., p. 127.
3. Mill, J.S. Essays, p. 104.
4. Mill, J.S. Principles, III, iv, 4.

In the Principles, Mill departed from Ricardian orthodoxy by postulating a 'minimum necessary rate of profit', which is, "... the lowest that will induce the people of that country and time to accumulate savings, and to employ those savings productively."¹ The minimum, for a particular place and time is determined by (a) "the strength of the effective desire of accumulation"² and (b) "the degree of security of capital engaged in industrial operations."³

Mill expects that the minimum necessary rate of profit will decline with social progress, not necessarily through an increased desire to accumulate but more likely through weakening the obstacles to accumulation.

"In proportion as life has fewer vicissitudes, as habits become more fixed, and great prizes are less and less to be hoped for by any other means than by long perseverance, mankind becomes more willing to sacrifice present indulgence for future objects. . . . The present kind of social progress, however, decidedly tends though not perhaps to increase the desire of accumulation, yet to weaken the obstacles to it, and to diminish the amount of profit which people absolutely require as an inducement to save and accumulate."⁴

However, in countries which are advanced in respect of the growth of industry and population, the rate of profit will have fallen to a practical minimum, i.e., "when profits have fallen so much below what they are elsewhere, that, were they to fall lower, all further accumulations would go abroad "⁵

1. Mill, J.S. op. cit., IV, iv, 3.

2. Ibid.

3. Ibid.

4. Mill, J.S., Principles, IV, iv, 3.

5. Ibid., IV, iv, 8.

long before the absolute minimum is reached, and while accumulation in such an old country will not cease, savings will be directed abroad unless improvements in production including production of wage goods prevents the rate of profit from falling below a 'practical minimum'.

Cannan comments of Mill's belief in a 'minimum necessary rate of profit', "His supposition of capital increasing at its present rate till the rate of profit falls to a particular figure, and then, suddenly ceasing to increase at all, can scarcely be considered a happy one."¹

On the question of the causes of the historical tendency of the rate of profit to fall with the 'progress of society', Mill rejects Adam Smith's and Malthus' arguments concerning the competition of capitalist-employers for limited investment opportunities and labour as capital accumulated, stating that the fall of price resulting from competition would reduce the rate of profits to a particular producer, but such is not true for producers considered as a whole, over all commodities; ". . . when all things have fallen, nothing has really fallen, except nominally; and even computed in money, the expenses of every producer have diminished as much as his returns."² Mill also chides Smith for neglecting the influence of the demand for goods, and that as long as "the money in the hands of the community destined to be laid out in commodities does not diminish in

1. Cannan, op. cit., p. 241.

2. Mill, J.S., op. cit., IV, iv, 1.

proportion to commodities there will be no fall in general prices. He then assumes such a change in proportion will not occur because the "quantity of money will be augmented in an equal ratio with the quantity of commodities". This assumption is held by Mill to be justifiable because "if money. . . perpetually acquired increased purchasing power, those who produced or imported it would obtain constantly increasing profits; and this could not happen without attracting labour and capital to that occupation from other employments."¹ Mill then gives his statement of the Ricardian orthodoxy; that it is the Law of Diminishing Returns in agriculture which is ". . . the true cause of the fall of profits usually consequent upon increase of capital."²

"The doctrine, therefore, that competition of capital lowers profits by lowering prices, is incorrect in fact, as well as unsound in principle. . . . Occasionally, (Adam Smith) seems to think that the mode in which the competition lowers profits, is by raising wages. And when speaking of the rate of profits in new colonies, he seems on the very verge of grasping the complete theory of the subject. 'As the colony increases, the profits of stock gradually diminish. When the most fertile and best situated lands have been all occupied, less profit can be made by cultivators of what is inferior both in soil and situation'. Had Adam Smith meditated longer on the subject, and systematized his view of it by harmonizing with each other the various glimpses which he caught of it from different points, he would have perceived that this last is the true cause of the fall of profits usually consequent upon increase of capital."³

1. Ibid.
2. Ibid.
3. Ibid.

J.S. Mill considered there to be a number of counter-vailing influences on the tendency of the rate of profit to fall, and that these "maintain a tolerably equal struggle"¹, preventing the rate of profit from falling to the 'necessary minimum' rate. The first countervailing influence is termed "considerable", but not "principal", and is "the waste of capital in periods of over-trading and rash speculations, and in the commercial convulsions by which such times are always followed."² The second countervailing influence is "improvements in production" which ". . . in the production of almost any commodity, tend in some degree to widen the interval which has to be passed before arriving at the stationary state: but this effect belongs in a much greater degree to the improvements which affect the articles consumed by the labourer, since these conduce to it in two ways; they induce people to accumulate for a lower profit and they also raise the rate of the profit itself."³ The third influence checking the fall of the rate of profit is the ". . . acquisition of any new power of obtaining cheap commodities from foreign countries,"⁴. The fourth and last countervailing influence is the outflow of savings from the mother country to colonies, or foreign countries in pursuit of more rewarding opportunities to profit. This is said, by Mill, ". . . to have been for many years one of the principle causes by which the decline of profits in England has been arrested."⁵, concluding:

1. Mill, J.S., op. cit., IV, iv, 5.

2. Ibid.

3. Ibid., IV, iv, 6.

4. Ibid., IV, iv, 7.

5. Ibid., IV, iv, 8.

"It is to the emigration of English capital, that we have chiefly to look for keeping up a supply of cheap food and cheap materials of clothing, proportional to the increase of our population; thus enabling an increasing capital to find employment in the country without reduction of profit, in producing manufactured articles with which to pay for this supply of raw produce."¹

B. Marginal Productivity Theories of Profit and Interest.

Ten years before J.S. Mill published his Essays on Some Unsettled Questions, the marginal productivity theory of the rate of profit had been successfully formulated by Longfield.

Cannan comments on Mill's modified Ricardian theory of profit:

"That Mill was here, as often, far behind his time, is shown by the fact that ten years before he published his Essays, and fourteen before he published his Principles, the little known Dublin professor, Mountifort Longfield, had approached far nearer to a true appreciation of the causes which determine the rate of profit. Rejecting altogether the Ricardian doctrine that the historical fall of profits is due to the declining productiveness of the last employed agricultural industry, he puts forward a theory that the general rate of profit depends upon the labour saving efficiency of the least efficient capital employed, and took as his type of capital, machinery instead of wages-fund."²

Or as Longfield phrases it:

"Thus the sum which can be paid for the use of any machine has its greatest limit determined by the efficiency in assisting the operations of the labourer, while its lesser limit is determined by the efficiency of that capital, which, without imprudence, is employed in the least efficient manner."³

1. Ibid.

2. Cannan, op. cit., p. 243.

3. Longfield, Lectures on Political Economy, p. 450; quoted in Cannan, Ibid.

In addition to Longfield, John Bates Clark had another predecessor as formulator of the marginal productivity theory of distribution, he being Von Thunen. Schumpeter writes that Von Thunen constructed the theory, "somewhat more correctly"¹ than had Longfield, but that to Von Thunen, the fundamental idea was ". . . almost a secondary element"². A contemporary reviewer of Clark's work noted Von Thunen's contribution to the theory of distribution, and notes that the latter's 'imprecise formulation' of the principle was due to a failure to distinguish the "permanent fund of social capital" from its temporal manifestation as an array of capital-goods, a distinction Clark made the focal point of his theory of capital, and its earnings, interest.

"Again Clark has placed every student of the problem of distribution under obligations by his masterly exposition of Von Thunen's suggestion that interest and wages are set by the product of the last dose of capital and labour or by their marginal productivity. Entire clearness on this point was impossible in Von Thunen's times because the distinction between capital and capital-goods, or between abstract and concrete labour, had not as yet been clearly worked out. Once this distinction was clearly established, it became manifest that it is the earnings of the abstract funds of capital and labour that are set by their marginal productivity. . . . In a word, it is the least profitable or marginal employment of capital that fixes its earnings in all employments. Any excess above this that may be derived from a particular investment is retained by the entrepreneur against all claims of the capitalist. In brief, then, interest is the earnings of capital as a 'permanent social fund,' and is fixed by the marginal productivity of that fund."³

1. Schumpeter, op. cit., p. 467.

2. Ibid.

3. MacFarlane, C.W. Distribution by a Law of Rent, pp. 156-157.

Before proceeding to consider the formulation of the marginal productivity theory of interest, there are two matters which require comment. Firstly, Clark's model is not an 'advance' model as were most classical models; it is a 'synchronization' model. 'Advance' models are characterized by the idea that "... the fundamental flows of goods (and money) that constitute the economic process consist of a flux and an (augmented) reflux of 'advances'".¹ The classical economists seized on this concept, but replaced the Physiocratic notion that the agricultural order was the origin of the advances with the belief that capitalist-employers 'advanced' a "Wage-Fund" of goods destined to support and sustain labour during the period of production. In Clark's system, production and consumption are synchronized by capital, and society lives 'as if' on current production. Hence there is no need for a "Wages-Fund." Schumpeter defines such models as:

"... all analytic patterns that do not in a stationary process assign any fundamental role to the fact that what society lives on at any given moment is the result of past production, on the ground that once a stationary process has been established, the flow of consumption goods and the flow of productive services are synchronized so that the process works as if society did live on current production."²

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1. Schumpeter, op. cit., p. 564.
 2. Ibid., p. 565.

Clark states his concept of the synchronized process as:

"If the existence of the natural world and human wants and powers be assumed, man has only to work and wait in order to create wealth. But with capital already on hand, and rightly coordinated, labour and its fruits become synchronous."¹

The second aspect of Clark's treatment which requires preliminary comment is that the analysis is explicitly 'static'. Neither the 'fund of social capital' nor that of 'abstract labour' may be augmented; both perpetuate themselves into the future at the current magnitude, although the capital goods of which the fund of capital is composed are constantly shifting identity, and the original labourers which composed the fund of labour are succeeded by others of the same productive ability. Entrepreneurial gains, commonly termed 'profits' are in a state of static equilibrium competed away, leaving the entrepreneur only the 'wages of management'--only in 'dynamic' state do entrepreneurial profits remain in the hands of the entrepreneur. Thus 'wages' and 'interest', ". . . together make up the whole static income of society."² Clark writes:

"The true method of obtaining a law of distribution is not, therefore, first to eliminate from the earnings of society the element of ground rent, and then to try to find principles that will account for the remaining elements: it is to eliminate what is not rent, namely, pure profit,--by reducing society to a static condition, and then by the use of the rent law, to account for all that remains."³

1. Clark, J.B. Distribution of Wealth, p. 308.

2. Ibid., p. 201.

3. Clark, J.B. Distribution by a Law of Rent, p. 330.

Elsewhere, Clark states, "We know that, by our hypothesis of perfect competition, and a complete static adjustment, there is no profit realized by the entrepreneur."¹ For the moment we shall restrict consideration to Clark's static system, and his theory of 'pure interest', the return on the fund of social capital, leaving his and others' theories of entrepreneurial profits aside.

"What, then, is interest?", asks Clark, and replies, "Is it not a fraction of itself that a permanent fund of wealth annually earns?"² Clark then draws a distinction between the earnings of capital-goods, and the earnings of the social fund of capital. The latter's earnings are 'interest' while those of the former are termed 'rent'. Given Clark's explicit acceptance of a 'static' situation, it is possible to regard both as 'interest' in accord with Marshall's dictum, "... the income derived from capital already invested in particular things, such as factories, or ships, is properly a quasi-rent and can only be regarded as interest only on the assumption that the capital value of the investment has remained constant."³ Clark holds that: "Rent and interest describe the same income in different ways. Rent is the aggregate of the lump sums earned by capital goods; while interest is the fraction of itself that is earned by the permanent fund of capital."⁴

1. Ibid., p. 331.

2. Clark, op. cit., p. 123.

3. Marshall, Principles, VI, ii, 4.

4. Clark, op. cit., p. 124.

In order to establish the rate of interest and the aggregate amount of 'all-interest', Clark imagines a fixed 'fund of social labour' and successively adds increments of 'social capital' to it. The Law of Diminishing Returns is assumed to have come into force and each successive equal addition of capital adds less to total product. The product of the marginal unit of capital equals the rate of interest, while 'all-interest' is the arithmetic product of the rate of interest and the amount of capital employed. Each unit of capital employed before the marginal unit receives an amount of remuneration equal to that of the marginal unit because capital is homogeneous and subject to competition. Since total product in static state is exhausted by the share of labour and the share of capital, entrepreneurial profits having been competed away in equilibrium, total product minus 'all-interest' must equal 'all-wages'. Both components of total product are represented as 'differential product', or 'rents'.

"Let labour be the fixed element and let social capital enlarge, changing its forms of course, in the enlarging.

ABCD is the total product. AB is the product of the first unit of capital, A'B' the product of the second, A''B'' that of the third and DC that of the last. A unit of capital, adding itself with no new labour to the productive combination, enlarges the product by the amount DC. So much can be attributed to any unit of capital separately considered. The effective importance of every one of the units of capital is the same. While capital-goods are not interchangeable, true capital is completely so; and all parts of it are, therefore, on a plane in their earning capacity. . . .

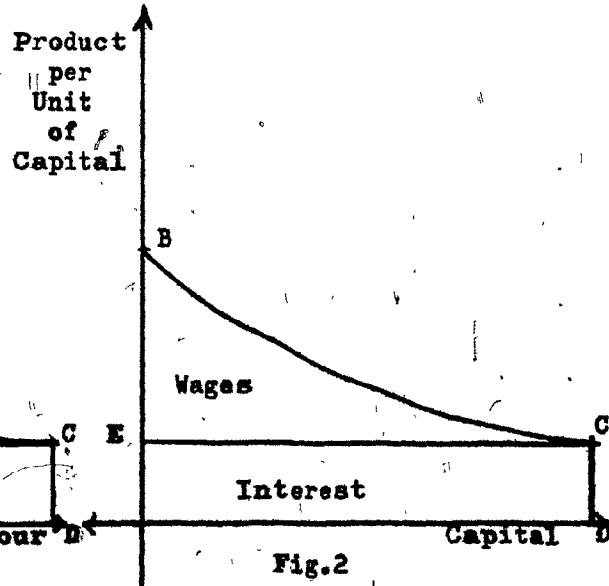
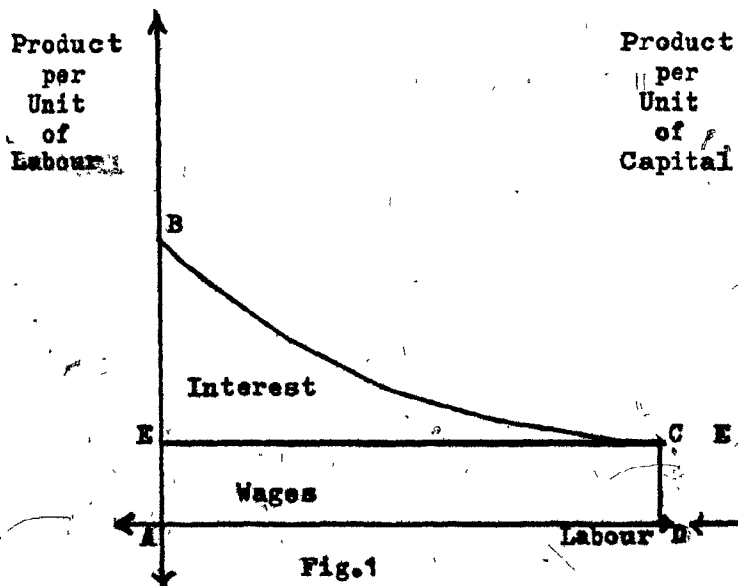
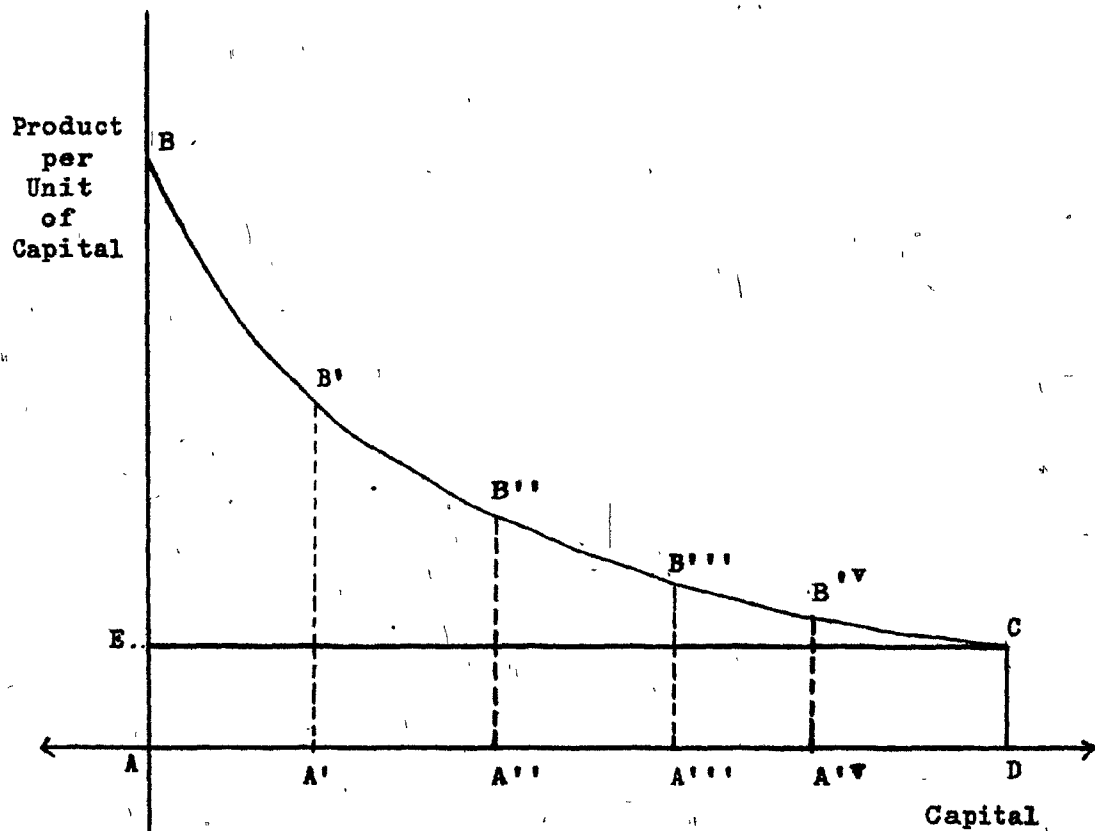
If the final unit of capital produces the amount DC, it will get that amount as interest; and certainly no other unit can get any more. AECD will be the total amount of interest, and EBC will be a surplus; but it will be a surplus that is causally attributable to labour, and to labour only. The difference between the product that is solely due to capital and that which is due to capital and another

agent in combination is the effect of the presence and the work of the other agent.

If we were to apply the term rent to all such surpluses, we should say that EBC is the rent of the force of labourers that is at work in connection with capital. This amount is made up of a series of differential products. Apparently AB-DC is the difference between the products of the first unit of capital and that of the last, A'B'-DC is the difference between the product of the second unit of capital and that of the last, etc. The rent of labour, if we use that expression, is the sum of the surplus products connected with the earlier units of capital but not attributable to them as a cause. The labourers seem to get a part of what the earlier units of capital produce: whereas, in reality, this is the difference between what capital and labour jointly produce and what capital alone contributes to the product of the combination. EBC is, therefore, the amount that is imputable to labour only.

One law governs wages and interest--the law of final productivity. By one mode of statement of the law (fig. 1), we get wages as an amount directly determined by this principle: it is the area AECD of our diagram. Arithmetically stated, the earnings of all labour equal the product of the final unit of labour multiplied by the number of the units. In fig. 1, in which wages are thus determined, interest is a surplus that is of the nature of rent. By another mode of stating the law (fig. 2), we get interest as the amount that is positively fixed by the final productivity law, and wages are now the surplus that is akin to rent. These amounts together make up the whole static income of society."¹

1. Clark, op. cit., pp. 199-200.



The classical economists held that two considerations distinguished land from other factors of production. Firstly, the quantity of land is effectively fixed, and secondly, "the earnings of the land consist in the differential quantities obtained by comparing the yield of good land with that of the poor. 'The rent of a piece of land', says the definition, in effect, 'is what it produces, minus the product of the poorest land in use that is tilled or otherwise utilized by the application of the same amount of labour and capital.'"¹ Clark then focuses on the second distinction, that rent is a differential surplus, and establishes that the earnings of capital may be represented as being differential surpluses, or are of the nature of rents.² Contrary to Ricardo and Mill, "The return that capital of any kind can secure for its owner are determined directly, and not residually."³ Critical to Clark's argument is the assumption that the Law of Diminishing Returns applied to production both when an increasing amount of labour was applied to a fixed amount of capital, and when an increasing amount of capital was applied to a fixed amount of labour. Clark's method of proving that 'all-interest' is a rent or differential surplus, is to consider a fixed fund of social capital, invested partly in artificial instruments and partly in land to which increments of labour are conceptually applied. The Law of

1. Ibid., p. 345.

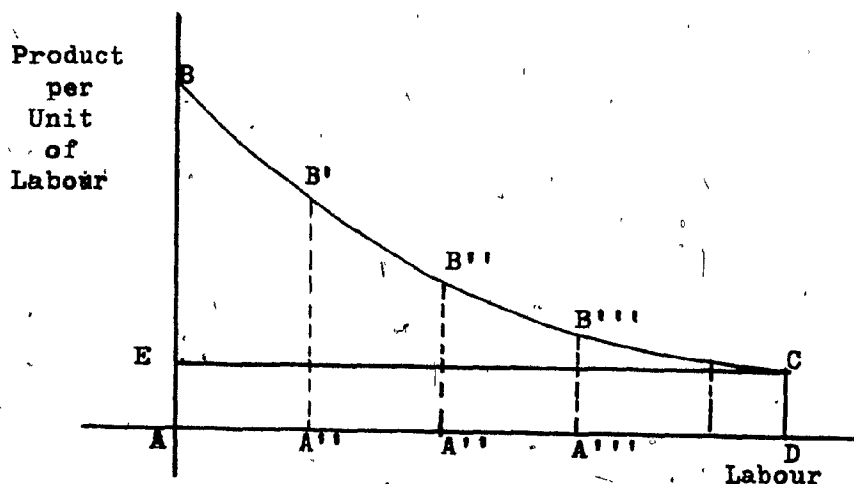
2. "... the Ricardian formula, which describes what is earned by a piece of land, may be used to describe what is earned by the whole fund of social capital: all interest may be made to take the form of a differential gain, or surplus.", Ibid.

3. Ibid., p. 345.

() Diminishing Returns is operative, and a few men using a large fund per worker create a large product, but new men joining the work force add progressively less and less to the total product. The sum of the series of differences between the product created by the addition of the final or marginal unit of labour and that created through the employment of each preceding unit of labour, is the 'rent of the fund of social capital'. This differential quantity of product is equal to 'all-interest' and is claimed as remuneration by capital owners since it is the difference between what capital and labour jointly produce, and what labour alone contributes to the product of the combination.

C "We can now make the really important application of the principle of diminishing returns, which fixes both marginal productivity and rent. . . . For a fixed area of land read, now, a fixed fund of permanent social capital. It is at this moment an exact sum; and it will, as it were, (if we) prolong the conditions of this moment, remain at exactly its present size. The artificial instruments are, of course, perishing and renewing; but, if there is no need of changing the form of the capital, a worn out instrument will be replaced by another like it. A hoe will replace a hoe, and a ship will succeed a ship; and the new instruments of production will be exact duplicates of the old. This would be clear in a completely static condition. We are, however, to introduce labour, increment by increment, into this general field of industry; and this, of course, compels such change in the forms of capital. . . . The amount of capital remaining fixed, the instruments become more numerous and cheaper, as the force of labour enlarges.

C Labour, applied to the whole fund of capital in land and all other instruments, is now subject to the law of diminishing returns. The first unit produces the amount AB, the second produces the amount A'B', the third creates the quantity A''B'' and the last the quantity DC. This last amount sets the rate of wages.



It leaves the amount expressed by the area EBC as the rent of the fund of social capital. All interest is thus a surplus, entirely akin to the rent of land, as that is expressed by the Ricardian formula: it is a concrete product, attributable to the agent that claims it as income.

This rent is, moreover, made up of a series of genuine differential gains. It is not like the rent of a farm. . . which really depends on the rate of wages that prevail elsewhere. The rent of the whole fund of social capital is the sum of a series of differences between certain products and a final or standard product. True differentials lie between different products, and not between products and wages. The line DC, which sets the rate of wages expresses primarily the product of the last unit of labour. We have set all the men in the society working, we have measured the amount created by the last addition to the force, and we have measured the surplus that each earlier unit of labour creates above this amount. The surplus is, in each case, a true differential product; since it is not merely a remainder that is left over after paying wages, but is a difference between one product and another. It is the difference between the product of aided labour and that of the labourer that is virtually unaided, and the sum of all these differences is the rent of the social fund of labour."¹

'All-interest' then may be seen to equal the arithmetic product of the rate of interest or the marginal product of capital and the amount of capital employed in conjunction with a fixed amount of labour. 'All-interest' may be seen to be a differential surplus of product, a rent, by holding the amount of capital fixed and increasing the amount of labour employed

1. Clark, op. cit., pp. 197-199.

with it.

The marginal or 'final' unit of the variable factor set the standard of remuneration of that factor in accord with the marginal unit's contribution to the output of the co-operating agents.

"... there is a single principle which locates this margin everywhere--which determines how poor a grade of land it will pay to cultivate, how poor instruments it will pay to use, and how poor a quality of labourers it will be profitable to employ. The product of any productive agent is, in fact, just what it can add to the marginal product of capital and labour. If the groups are in a normal condition, these marginal earnings are uniform in all of them and are the standards of social wages and interest. The product of any specific agent is what it can add to the product of the labour and the capital that work with it, when these products are thus computed on a marginal basis."¹

The addition to the product made by the marginal unit of the agent governs the recompense of all owners of factors employed before the margin of utilization is reached, despite these owners' claims to having created an addition to output greater than that of the standard, 'marginal' unit. This is so, Clark tells us because, "Capital is... completely transmutable in form. Society can quit one kind of investment and make another. Capital goods are, then, interchangeable; and while this is so, no increment of capital can ever secure for its owner more than the final increment produces."² So all allegations of 'exploitation' are laid to rest, substitutability and 'competition' having done their duty.

1. Clark, Ibid., p. 346.

2. Ibid., p. 187.

From our study of natural resources rent in the preceding chapter, the reader will recall the Ricardian doctrine that differential rents do not enter into the costs of production which govern the exchange value of produce, and that J.S. Mill accepted this doctrine with the amendment that scarcity rents might, at some then distant time, exercise an important influence on exchange value, much as a monopoly does. Clark's theory of the distribution of income holds that interest and wages, as the aggregate incomes of capitalists and labourers, may be considered to be differential surpluses, or rents, not scarcity rents as Hobson considers wages and interest above the factor's subsistence costs; therefore Clark might, if the Ricardian doctrine of the influence of differential rents on exchange value were valid, be open to reductio ad absurdum on the grounds that both interest and wages, being differential rents, could not influence exchange value and hence distribution. Clark holds that the Ricardian doctrine could be validly upheld if by it were meant that, ". . . the identity of persons who receive this income is immaterial as affecting prices."¹ He believes that it is the existence of these incomes of real product which determines that wages of labour (and management), the rent of land and other natural agents and the interest of capitalists will each be an element of the costs of production, which govern exchange value, or are 'price determiners', despite each being a differential surplus.

"If there is any sense in which land is not an element in price, then, in the same sense wages are not an element. The important kernel of truth in both these statements is the insistence upon the fact that the identity of the persons who receive

1. Ibid., p. 365.

this income is immaterial as affecting prices. It is not true, however, that the existence of these rewards is thus unimportant. On the contrary, rent of land, rent of concrete instruments and rent of men are all components of the supply of goods--that is, are price determiners."1, 2

We have already seen that Clark's model is a 'synchronization' model. This being so, what is the need for abstinence? First, Clark considers that 'waiting' would be a reasonable concept if consumers' goods actually became available only after the completion of a period of necessary non-consumption. This, however, is not economic reality, and Clark rejects the 'waiting doctrine'.

"This resolving of abstinence into waiting for consumer's goods, through the economic lifetime of particular instruments of production, would be reasonable, if consumer's goods actually came in that periodic way; but they do not. They come continuously; and they begin to come from the moment when the instrument begins to act at all:"3

1. Ibid.

2. The classical economists held that the relative price of agricultural products would be unaffected were land rents returned to the tenant farmers by the landlords because the marginal cost of producing corn would not be altered by such a transfer since land on the margin of production was 'rentless'. Thus it could be said the 'identity' was immaterial.

"From the notion that rent does not enter into price, that rent is not a payment for using resources, the classical economists drew the practical corollary that it would make no difference if the landlords were thrown to the wolves. The expropriation of rents by the state would not affect production, provided of course, it were only pure economic rents that were confiscated. Similarly, if rents were remitted from landlords to tenants, the price of agricultural products and the average rate of profit in agriculture would be exactly the same because the transfer of income would not affect the marginal costs of producing corn." (Blaug, op. cit., p. 85.)

3. Clark, op. cit., p. 130.

Clark states, "It has been customary to regard abstinence as an 'economic merit' and to justify interest on the ground of it. In our view, such an argument is not necessary. If we reduce society to a static state and keep it so, every bit of capital that society owns will have inherent power to create wealth."¹ In other words, interest in the static state is founded on capitals' productivity, not on the abstinence of capitalists. Abstinence attains importance in the dynamic state as it ". . . originates new capital"²; it is "the relinquishment, once and for all, of a certain pleasure from consumption and the acquisition of a wholly new increment of capital."³ He who abstains ". . . has abandoned (the enjoyment of some consumers' goods) forever; and, as an offset for it, he will get interest."⁴

However:

"Once the abstaining is done, no further diverting of income is involved. The keeping up of the series of capital-goods is, in a sense, automatic. The mill, the ship, etc., virtually replace themselves as they are worn out; and these facts signify that, in a static condition, capital goods would be created forever in limitless variety and number, but that no capital would be created. No net addition to the fund of productive wealth could then be called into existence. This takes place wholly under dynamic conditions."⁵

1. Ibid., p. 135.

2. Ibid., p. 134.

3. Ibid.

4. Ibid.

5. Ibid.

C. Entrepreneurship and Profit

While the economists subsequent to Mill sharpened the distinction between entrepreneurial gains and interest, most clung to the earlier theory which lumped the two concepts together under the 'profits of stock'. In 'theory', Mill demoted capital from the Triad to the position of a lower level 'requisite' than labour or the powers of nature, while in actuality the entrepreneurial order emerged largely from and superceded the capitalists as the 'directors' of industry; but this new actuality was little reflected in 'theory'.

"The displacement of capital from the triad of productive requisites and its relegation to the same rank as organization, knowledge, mental and muscular power, would not, perhaps, have been of much importance if it had not been represented as the most active element in the triad. As it is, the change is immense. No longer is capital supposed to decide whether industry shall be set in motion or not and whether it shall flow into this or that channel when it is set in motion. Capital takes its proper place as an inanimate stock of goods and machinery which it is found useful to maintain. The normal amount of industry in the world and in each country of the world is seen to depend not upon the stock of consumable goods and machinery therein, but upon the number of people and their ability and willingness to work. The power of 'managing' industry is attributed not to mute and inanimate capital, but to a particular class of workers - the 'entrepreneurs'. . . ."¹

J.R. Commons was a major contributor to the study of entrepreneurship. He held that while the labourer "deals directly with the forces and materials of nature, and produces utilities by changing the places of things."², the entrepreneur organizes

1. Cannan, op. cit., p. 314.

2. Commons, Distribution of Wealth, pp. 172-173.

labour and other requisites in the exploitation of economic opportunities. While the labourer is "conservative", and "takes few risks"¹, the entrepreneur ". . . is the speculating, progressive, organizing, inventive, economising agent of industry."² Entrepreneurial profits are a "contingent surplus" which depend upon "the ability and good fortune of the entrepreneur in discovering and utilizing favourable opportunities"³ and explicitly are not proportional to the amount of capital employed. The entrepreneur is "the 'residual claimant' in any single undertaking or round of production."⁴, because "He contracts with the representatives of the other elements (requisites of production) for their services at a stipulated price, and he takes the risk of obtaining for their united efforts a surplus of value above his stipulated payments."⁵ If any such surplus remains the entrepreneur may claim it.

We have already seen that interest and wages exhaust net product in Clark's static world--it is only in dynamic state that entrepreneurial gains or 'pure profits' can remain in the hands of entrepreneurs; in static state they are competed away by entrepreneurs vying for opportunities. Pure profit is a residual which 'exists' only in dynamic state. While Mill and others postulated that the capitalist-entrepreneur gained the wages of

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1. Ibid.
 2. Ibid.
 3. Ibid.
 4. Ibid.
 5. Ibid.

management in connection with the entrepreneurial function which would take the income out of the strictly residual category, Clark's profit is purely a residual. The function (of the entrepreneur) in itself includes no working and no owning of capital: it consists entirely in the establishing and maintaining of efficient relations between the agents of production."¹ Elsewhere, however, he affirms that the "wages of directive labour" are a part of 'pure profits' and that like other wages, are, in fact, differential rents:

"In the above study we first excluded pure profit from consideration, on the ground that it is a dynamic income. What is commonly and loosely termed profit is partly the wages of directive labor; and this labor is included in the social fund of human energy that we have studied. The earnings of the work of management are, therefore, rent in the same sense as are the earnings of other labor."²

Clark attributes 'pure profit' to "an unbalanced condition of industrial groups"³ and "friction" (such as barriers to entry and exit). Situations of what would later be termed 'excess demand', the results of natural or contrived scarcity, and "discoveries" such as inventions which lower production costs, effect excesses of market price over 'natural' or cost price of commodities or goods, or an excess over interest and wages (including management wages) which are "pure profits". Competition, however, in a static state in equilibrium (which is "never practically reached") will annihilate the pure profits which arose from the dynamic disturbance. The pure profit which may exist in dynamic state or states of non-equilibrium in static

1. Clark, Distribution of Wealth, p. 3.

2. Clark, Distribution as Determined by the Laws of Rent, p. 313.

3. Ibid., pp. 313-4.

4.

worlds is "the one part of actual social income not governed by a law of rent - it is strictly a residual".¹

Similarly, in the Distribution of Wealth, Clark relies on the assumption of pure competition to ensure that in static equilibrium, market prices are identical to natural or cost prices and that profits are annihilated.

"Normal prices are no profit prices. They afford wages for all the labour that is involved in producing the goods; including the labour of super-intending the mills, managing the finances, keeping the accounts, collecting the debts and doing all the work of directing the policy of the business. They afford, also, interest on all the capital that is used in the business, whether it is owned by the entrepreneur or borrowed from someone else. Beyond this there is no return, if prices stand exactly at their normal rate; and the reason for this is that entrepreneurs compete with each other in selling their goods, and so reduce prices to the no-net-profit level.

Prices, however, seldom remain long at the exact cost rates. There are fluctuations that carry them at one time above the rate, and then cause them to subside toward it. The no-profit level of price is thus normal; because it furnishes, not the rate at which things continue to be, but the one toward which prices are forever gravitating, where competition is free. Wherever there is an entrepreneur's net profit, some article is, for the time being, selling for more than this normal price. The tendency of competition is to annihilate the profit; and that is the same thing as bringing actual prices to what, in accepted economic theory as well as in common experience, is their 'natural' level. The friction that this movement toward the natural level encounters is a subject for later study²; but we already see that the pure profit of an entrepreneur could never exist."³

1. Ibid.

2. Not in the Distribution of Wealth but in a planned and uncompleted study of dynamics.

3. Clark, Distribution of Wealth, pp. 110-111.

At the time when Clark was writing, large trusts, consolidations and combines were beginning to dominate American industrial life, and many were concerned that competition was an institution that had had its day. To one who had constructed a theory of distribution based on competition, this posed the dilemma of reconciling reality with theory. Clark assures us that a study of dynamics will disclose that competition "... is an inextinguishable force".

"One difficulty in the way of the theory is, however, more serious. To many persons any theory based on competition may seem to have somewhat the character of a theoretical romance. Will not competition itself soon be a thing of the past? There are forming on every side trusts and other consolidations of capital that threaten to extinguish competition and to introduce a regime of monopoly within much of the business field. Have we, then, completed the theory of competitive distribution, only to find that the fact on which the whole of it is predicated has ceased to be? If, when competition was at its best, theories of natural values, natural wages and natural interest seemed to have a character of unreality, what is to be said of them when competition appears to be a vanishing element?

It remains for economic dynamics to show that competition is an inextinguishable force."¹

Clark became less optimistic that competition was an inextinguishable force, as is illustrated by two subsequent works, The Problem of Monopoly which carried the subtitle "A Study of a Grave Danger and the Natural Mode of Averting It" published in 1904, and later in 1914, The Control of the Trusts. The perception and solutions offered to control the problem of monopoly are summarized in the following passage from the earlier work.

1. Ibid., p. 440.

2. Clark, The Problem of Monopoly, Preface, vi.

"The industrial system which developed under a regime of freedom and competition has become perverted by the presence of monopoly; and the thing to be accomplished is not to revolutionize the system by the method of state socialism, nor yet to cause it to reverse its natural development by resolving the great corporations which now dominate it into their constituent elements, as crude anti-trust legislation would try to do, but rather to retain the corporations for their efficiency while taking from them their power of oppression. Nature has shown us how to accomplish this, by revealing forces which now partly accomplish it, though without some action by the state they do their work imperfectly. We have to clear away the obstacles that interfere with these natural forces. The policy is not destructive but preservative, since it demands that we do not kill the industrial monsters which threaten and injure us, but tame them and convert them into useful servants. It is monopolies in general, and not merely the so-called trusts, that we have to deal with, and it is a condition of freedom which we have to restore."¹

Clark recalls an earlier time in which competition had assured society of prices which covered the wages and interest costs of production - no 'super-normal' profit was possible under a regime of competition. Under his contemporary conditions, it was clear, however, that lack of competition assured the entrepreneur in static state equilibrium of a surplus over necessary wages (including his own wages of management) and interest, both to pay the capitalist who loaned command over resources to him and at least the opportunity cost of using the fruits of his own abstinence in his current industry.

"I know of no more startling and disquieting tendency of recent times than the growth of those great corporations which have gathered to themselves, each in its own field, nearly all the business that is there transacted. . . .

1. Clark, The Problem of Monopoly, Preface, vi.

There was a time when the prices of goods were near to their natural standards as these were fixed by the cost of making them. Where there are many competitors making something - shoes, cotton goods, woolen cloth, steel or what not - they compete with each other vigorously for business, and if the price of anything is high - if it yields much more than is necessary to pay the wages of all the labor and the interest on all the capital that are employed in making it - there is a chance for somebody to make a profit by going into that business. Then it is that everyone who has a small mill wants to make it larger, and people who are in other lines of business want to go into this line where a good profit is realized. It thus comes about that the prospect of a special gain draws additional labor and capital to the point where profit is realized, more and more goods are made and, in the end, they have to be sold at natural prices. If there is a 'boom' in cotton goods, more and more of them are put upon the market, lower and lower go the prices and all special profit vanishes. The goods are still sold for about enough to pay the wages of all the labourers, the salaries of all the managers, the insurance against all risks, and the interest on all the capital at the ordinary rate; but that does not leave a net surplus that will attract any more capital. This was our old philosophy of prices, and it was a very good one under the old conditions. In a way it is good in principle still; but not all prices now hold at that rate at which nobody makes any net profit out of them. Do you think that when you pay the bill for some article manufactured by a trust you do not put into somebody's pocket more than the wages of labor and the interest on capital have taken out of it?"¹

Clark's solution to the problem was to combine with legislation controlling price discrimination in transportation (used so 'successfully' by Standard Oil to gain control of crude petroleum production and refining before the turn of the century) and reductions in tariffs, the active encouragement of the 'independent producer' to ensure that the 'survival of the most efficient' outcome of a competitive system which had been almost extinguished by the aggressively acquisitive behavior of large and often inefficient 'consolidations of capital' with replete

1. Ibid., pp. 3, 5-6.

coffers, would again rule industry.¹

"The interests of the public itself are now threatened by the destruction of competing producers. This is because it is no longer the inefficient only who are in danger of being crushed. It is often not the unfit, but the particularly fit that fail to survive. The competing power that threatens to destroy them depends, as we have said, not on economy in production, but on special and unfair fighting powers which great size gives. The really efficient producer, the man who can make goods even more cheaply than the trust can make them, is now in peril; and it is this man who must at all hazards be kept in the field. We, the people, must use the law to protect him, as he uses his economic power to protect us."² (Emphasis added)

It will be recalled that J.R. Commons held the entrepreneur to be the agent who looks out for opportunities for profitable investment and then, with the promise of a share of that endeavour's product, enlists capital, labour, and land in the supplying of human needs and wants. For these services, the entrepreneur has a claim to be the recipient of the profits which remain after payment of interest and wages. Commons identifies three types of profit; 'necessary profits', 'personal profits' and 'permanent or monopoly profits'. 'Necessary profit' is not a "contingent surplus, but a part of the true costs of production, just as much as wages and interest".³ 'Necessary profits' are a "compensation mainly for risk and trouble of management".⁴

1. J.B. and J.M. Clark, The Control of Trusts, pp. 82-84.

2. Ibid.

3. Commons, op. cit., pp. 191-2.

4. Ibid.

'Personal profits' are temporary profits. They are due to "price fluctuations, fortunate coincidences, and to the ability of the entrepreneur"¹, and will disappear when prices return to "a normal level", when the circumstances which had fortunately coincided, diverge, or when the entrepreneur dies. These are personal to the entrepreneur, not a possession of "fixed and certain social opportunities for the sale of products" and therefore, "cannot be capitalized and disposed of by the entrepreneur to other parties; it follows the person of the entrepreneur himself".²

'Permanent profits' arise out of monopoly privileges. "They depend on the nature of the business (natural monopolies, trusts), the possession of natural resources or opportunities (land), long established relations to the community, inspiring confidence and popularity (good will)."³ These possessions and opportunities are vendable, leasable and capable of being used as security to obtain the services of capital.

However, the entrepreneur, if not the owner of the opportunity, will not be able to retain permanent profits due to competition between entrepreneurs for them. But the entrepreneur will nevertheless retain his 'personal profits':

"Permanent profits now become a part of his expenses, but over and above them still remains a margin where by the display of extra abilities, he can secure true personal profits."⁴

1. Ibid., pp. 198-200.

2. Ibid.

3. Ibid.

4. Ibid.

In discussions regarding the justifiability of entrepreneurs' profits, one should keep in mind that what Commons believes is that in early industrial history, entrepreneurial profits were largely 'personal profits', and as time passed, temporary monopolies disappeared, while permanent ones became "fixed":

"... the element of risk gradually lessens, and with its diminution there is a corresponding increase in the permanent profits and the capitalization of same. The heads of industry are no longer the independent Napoleons of finance; they find their sphere as high salaried managers and legal advisors, while the successors of the entrepreneurs proper, the original purchasers and promoters of enterprise, are simply the commonplace, idle recipients of the permanent profits and the wildly fluctuating temporary profits."¹

But, Commons reasons,

"Though profits may often be higher than a just distribution may warrant, yet on the whole the justification of profits cannot be questioned."²

In particular, Commons held that society should encourage the use of superior entrepreneurial abilities, but when profits become 'permanent', based on "certain fixed social relations and rights"³ and the recipients are "idlers and drones", society should tax them away, the real entrepreneurs having become the "salaried chiefs and advisers".

1. Ibid., pp. 235-7.

2. Ibid.

3. Ibid.

J.A. Hobson developed what Schumpeter termed a "bargaining power" theory of distribution and believed that while the growth of ability in industry should result in an increase in entrepreneurial profits as a share of production, there is no reason to believe that the increased share taken in profits represents "any true measure of the increased utility of this work"¹. "On the contrary", he says, "their strong strategic position in the industrial system makes it tolerably certain that a large share of their income represents, not a necessary cost, a natural stimulus to the production and display of such ability, but a scarcity rent or increased income which they take because their superior bargaining power enables them to extract it."²

1. Hobson, J.A., The Industrial System, p. 134.

2. Ibid.

Chapter 4
Labour and Wages

A. Classical Theories.

Cannan categorizes the theories explaining labour's income, wages (meaning wages per capita), held by the classical economists and their successors, as the Subsistence theory, the Supply-Demand theory, and the Produce theory. The Subsistence theory, Cannan explains, is based upon the assumption that labour's per capita wage is 'naturally' seldom greater than necessary to allow labour to maintain its existence in terms of satisfying physiologic necessity and perpetuating its existence as a 'fund of labour'. The Supply-Demand theory of wages Cannan held to be based on the "erroneous idea"¹ that labour is a commodity traded in a market system. The Produce theories of wages Cannan describes are not true 'productivity' theories of wages because while wages are said to depend upon the "productivity of industry", the profits of stock and natural resources rent are still 'deductions' or 'residuals', rather than themselves being governed by their productivity.²

Schumpeter, however, rejects such a categorization asserting that the minimum of existence, or Subsistence theory is not a theory of wages but rather "a theorem on the long run equilibrium level of wages"³. Cannan believed that the Supply-Demand theory was invalid because it was premised on the erroneous idea that labour is a commodity", while Schumpeter

1. Cannan, op. cit., p. 182.

2. Ibid.

3. Schumpeter, op. cit., p. 663.

considers that "the Supply-Demand apparatus is necessary for any wage theory whatsoever and does not identify any particular one.¹, and urges rejection of the contention that 'commoditization' of labour is involved in the application of the Supply-Demand apparatus to labour.

"There was indeed some opposition to applying the supply and demand apparatus to labour on the ground that it involved treating human beings like commodities--on the Continent, especially the English 'classics' were sometimes indicted for this outrage to human dignity. Nothing of the sort is, of course, involved in this application of the concepts of supply and demand."²

That Schumpeter, the champion of the Supply-Demand theory of exchange value and the consequent conceptualization of Distribution as "factor pricing" should reject the criticism of 'commoditization' is not unexpected. It is not, however, sufficient to say 'of course it's false', especially in view of Ricardo's statement made when treating of labour's natural and market price, "Labour, like all other things which are purchased and sold. . .³, and that of Torrens who held, "The proper way of regarding labour is as a commodity in the market."⁴

The Ricardians, drawing on Smith's inclusion of "goods destined for the support of labour" in the array of goods owned and loaned by capitalists, fostered a specific form of the Supply-Demand theory called the 'Wages-Fund' doctrine. For the most part, the classical doctrines on wages per capita consisted of various mixtures of the Subsistence and 'Wages-Fund' doctrines.

1. Ibid.

2. Ibid.

3. Ricardo, Principles, p. 115.

4. Quoted in Cannan, op. cit., p. 192.

Longer run normal wages, under the Supply-Demand analysis are determined as a minimum of existence theorem, and the 'Wage-Fund' doctrine governs shorter run deviation around the normal rate.¹

Some writers in this period, however, used a supply-demand analysis in which 'productivity of labour' is "visible in the picture but only dimly."² the demand function being "a schedule that simply describes the quantity of labour taken by employers at varying wage rates."³ which "implies an embryonic marginal productivity theory."⁴ And as for 'productivity', it, like the demand-supply apparatus, is considered by Schumpeter to be part of any complete wage theory and therefore is not to be identified with any particular one.

It has been established that Smith's Natural Law attributed to labour the whole produce of nature, society and its possessions. It follows after the appropriation of land and the accumulation of capital had commenced, that profits and rents were considered 'deductions' from the natural wages of labour. But how much deduction can labour sustain without destruction of the permanent fund of labour? For Smith, in the stationary state, the minimum of existence theory is "a condition of the supply being equal to the demand"⁵ and in "the advancing and the declining state he put forward the supply and demand theory."⁶ In the non-stationary state, wages may be considerably above the subsistence-for-a-family level. In the stationary state, however, the masters "upon all occasions have the advantage in disputes",

1. Schumpeter, op. cit., p. 664.

2. Ibid., p. 663.

3. Ibid.

4. Ibid.

5. Cannan, op. cit., p. 186.

6. Ibid., p. 185.

and labourers will be forced into compliance with their terms, because the masters are few in number and not prohibited by legal sanction from combining against labour, (on the contrary, labour was generally forbidden concerted action against the 'masters') and because labour has few stocks of commodities with which to sustain itself should labour attempt to withdraw its services from 'co-operation' in production.

"A landlord, a farmer, a master manufacturer or a merchant, though they did not employ a single workman, could generally live a year or two upon the stocks which they have already acquired. Most workmen could not subsist a week, few could subsist a month, and scarce any a year without employment."¹

Hence masters may force wages to the physical minimum of existence. Smith believes that the masters will allow an amount sufficient to permit the labourer to support a family, thereby sustaining the 'fund of social labour.'

"A man must always live by his work, and his wages must at least be sufficient to maintain him. They must even upon most conditions be somewhat more; otherwise it would be impossible for him to bring up a family, and the race of such workmen could not last beyond the first generation."²

Cannan asks; why should the masters "leave the labourers enough to support a family?" He agrees with Smith that the work force could not perpetuate itself beyond the first generation, but wonders, ". . . but why should the masters of the present generation concern themselves about that? Trade rings usually adopt the motto, 'After us the deluge'. The individuals who form a combination of masters at any time desire to serve their own personal interests, and there is little ground for ascribing to them the enlightened corporate self-interest which might induce

1. Smith, op. cit., p. 30 (I, vii).
2. Smith, op. cit., I, vii, p. 31.

them to provide a stock of labourers for the next generation."¹

In non-stationary state with capital stock accumulating rapidly, though the stock itself might not be large in absolute terms, "the scarcity of hands occasions a competition among masters, who bid against one another in order to get workmen, and thus voluntarily break through the natural combination of masters not to raise wages."², assuming population and labour-force increase less quickly than the "funds destined for the maintenance of labour". If the growth of the labour force is greater than that of the 'wage-fund', "the competition of the labourers and the interest of the masters would soon reduce them to this lowest rate which is consistent with common humanity."³

We have noted in the chapter on capital that Adam Smith did not explicitly include the "funds destined for the maintenance of labour" in his definition of circulating capital, but he always argued as if he had. The economists who succeeded Smith virtually identified circulating capital with the goods which composed the wage-fund: with not a few, all capital excluding machines was thought to be wage-fund.

". . . much of the capital in money with which a corn-growing farmer⁴ was supposed to begin business was expended on wages. Owing to these facts the economists of the period came to look upon circulating capital as the most important part of 'capital', and on 'the funds for the maintenance of labour' as almost the only component of the circulating capital. Fixed capital was sometimes so completely forgotten that 'capital' could be used to indicate the funds for the maintenance of labour only; machinery being put in a separate category."⁵

1. Cannan, op. cit.

2. Smith, A., op. cit., I, viii, p. 31.

3. Ibid., p. 32.

4. Not the landlord who owns the land and most of the fixed capital which he leases to the farmer with the land.

5. Cannan, op. cit., pp. 88-89.

The Ricardians, including J.S. Mill, explicitly employed the 'Wage-Fund' doctrine in their wages theory. If we assume we are concerned with only labour from which profit is expected (omitting Smith's unproductive labour', such as domestic servants and 'civil' servants), and further assume with the classics, that:

"... There is always the given supply of labour represented by a given number of labourers: there is no shifting between labourers and self employed; no variation in the age at which labourers enter or leave the labour market; no change in hours per day or week; and no reserve price below which labourers refuse to accept employment,"¹

then, the supply of labour will not be a schedule, but rather a given quantity, as will the demand for labour. This latter quantity is "a sum in real terms-- wage-goods, means of subsistence, variable capital--that capitalists have decided to spend on labour."² Under the equilibrium condition that the quantity of labour demanded must equal that supplied, "... we have an 'equation' that will uniquely determine a magnitude that is called the average wage rate."³ This theory of wages, Schumpeter calls "the short run wage-fund theory"⁴. In the long run, labour supply was governed by "either Malthusian Law or else simply the 'habits of the working class' "⁵, while variation in the 'Wage-Fund' and hence demand for labour was governed by parsimony, and saving. "Therefore, given the productive efficiency of the economic process, the course over time of real wage rates and of per capita real income of the working class depends upon

1. Schumpeter, op. cit., p. 665.

2. Ibid., p. 666.

3. Ibid.

4. Ibid.

5. Ibid.

the latter's rate of propagation and, upon the community's rate of saving"¹.

In our chapter on capital, we have seen that the classical systems were 'advance' models, not 'synchronized' models; what was 'advanced' were the goods contained in the 'Wage-Fund'. The capitalist had saved these goods through abstinence, and then as employer-entrepreneur employs labour in industry by advancing to labour these goods to sustain itself during the productless period of production. The capitalist-employer-entrepreneur is therefore entitled to 'the leavings of wages', the profits of stock, as the 'price' of his abstinence and wages of management, or as Cannan puts it: "In the old biograph of production the student was first introduced to an eighteenth century British farmer standing on a prairie beside a stack of wheat and a table covered with loaves. He raps upon the table, and there enter from nowhere in particular some hungry labourers, who immediately consume the loaves, and are set to work by the farmer's promise to divide the stack among them in the course of a year."²

In our chapter on rent we saw that Ricardo viewed 'value' and 'distribution' from the margin of agricultural production where land is held to be 'rentless'. Ricardo then reasons that wages are not really a variable either because, in the long run, real wages, or labour's natural price will be "roughly equal to what is necessary to enable labourers, one with another to subsist and to perpetuate their race without either increase or diminution."³

1. Ibid., p. 667.

2. Cannan, op. cit., p. 314.

3. Schumpeter, op. cit., p. 569.

This, of course, left the profits of stock a residual.

"That theory of rent having fulfilled its only purpose, which is to get rid of another variable in our equation, we are left, on the margin of production, with one equation and two variables--still a hopeless business, but, so it occurred to Ricardo, wages are not really a variable either, at least within that equation. He thought he knew from external consideration, what they will be in the long run: here the old Quesnay theory comes in, re-inforced by Malthus' law of population--the wages will be roughly equal to what is necessary to enable 'the labourers, one with another, to subsist and to perpetuate their race without either increase or diminution'. And so we reach the blessed goal at last: profit, the only variable left, is determined too."¹

Wages may, and do, fluctuate around the natural price of labour, or the minimum of existence. They may, for an extended period be held above that level, and for short periods, may fall below it. The natural price itself might change in the progress of society depending as it did upon the "habits and customs" of labourers and upon the costs of production on the agricultural margin which govern the exchange value of raw produce, the major wage-good upon which labour expends its income. In Ricardo's theory of wages, real wages may increase due to the rate of capital accumulation exceeding the growth rate of population which causes competition among the capitalists as employers. The increasingly severe operation of the Law of Diminishing Returns, in agriculture would also drive up the cost of wage goods production and the minimum-of-existence wages. Real wages might fall if population were to grow at a faster rate than capital could be accumulated, or if the productivity of the requisites employed in the production of wage-goods increased through advances in technology which were reflected in a falling raw

1. Ibid.

produce price.¹

In his Essays on the Influence of a Low Price of Corn on the Profits of Stock, Ricardo holds that variation in real wages is conceivably due to either variation in the relative growth rates of capital and population, or to variations in the price of raw produce, but Cannan holds that Ricardo here did not permit variations in the prices of wage goods to affect real wages, and that he frequently assumed that capital and population would grow at the same rate, and that real wages were constantly equal to the minimum of existence. By the time Ricardo started his Principles, he had been influenced by Torrens who had relied on the Demand-Supply apparatus to explain labour's market price, but made labour's 'natural price' a function of the "nature of the climate" and the "habits" of the labourers.

"The proper way of regarding labour is as a commodity in the market. It therefore has, as well as everything else, its market price and its natural price. The market price of labour is regulated by the proportion which, at any time and any place, may exist between the demand and the supply; its natural price is governed by other laws, and consists in a quantity of the necessaries and comforts of life, as from the nature of the climate and the habits of the country are necessary to support the labourer, and to enable him to rear such a family as may preserve in the market an undiminished supply of labour."²

In the Principles, Ricardo expresses similar concepts, with one important modification: while Torrens' natural wages turn out to be "the wages to which the labourer has grown accustomed"³, Ricardo's natural wages, though governed by what

1. See Cannan, op. cit., p. 238.

2. Torrens, Essay on the Corn Trade, p. 62; quoted in Cannan, op. cit., p. 192.

3. Cannan, op. cit., p. 194.

has become essential to the labourers by habit, are also "the wages which will just, and only just, keep the population of labourers stationary"¹.

"Labour, like all other things which are purchased and sold, and which may be increased or diminished in quantity, has its natural price and market price. The natural price of labour is that price which is necessary to enable the labourers, one with another, to subsist and to perpetuate their race, without wither increase or diminution."²

And the natural price of labour "depends on the price of food, necessities, and conveniences required for the support of the labourer and his family."³ With the progress of society, the natural price of labour, "has a tendency to become dearer, from the greater difficulty of producing it"⁴, so long as there are no improvements in agricultural technology or no new sources of cheaper imported food.

Ricardo identifies 'market wages' as "the price which is really paid for it, from the natural operation of the proportion of the supply to the demand."⁵ Market price, due to the operation of competition, "has, like (that of) commodities, a tendency to conform to the natural price."⁶ If there are a sequence of advances of capital-goods from the 'Wage-Fund', market wages may "for an indefinite period, be constantly above the natural wage."⁷

1. Ibid.

2. Ricardo, Principles, p. 115.

3. Ricardo, op. cit., p. 115.

4. Ibid.

5. Ibid., p. 116.

6. Ibid.

7. Ibid., p. 117.

Seldom, however, is such a fortunate situation the longer term expectation of society. Cannan notes:

"The gloomy character which has always been attributed to Ricardo's theory of wages owes its origin chiefly to the fact that he thought that though market wages might long continue above this minimum, they have a tendency to conform to it."¹

The accumulation of capital and the series of advances upon which a continued excess of market wages over the natural wages of labour depended was governed by the rate of profit which itself depended on the expected diminished productiveness of the labour and land employed on the margin of cultivation.

Thus, to this point, Ricardo employs a Supply-Demand analysis to the theory of the wage per capita. He soon, however, cast this tool aside to assume that real wages are in fact constant at or near the subsistence level, even though as population increases, recourse to more niggardly land was necessary and the Law of Diminishing Returns operates with progressively increasing severity forcing up the exchange value of raw produce, the chief wage-good. As the cost of labour's subsistence increases, Ricardo assumes that capitalists will increase the money wages offered to labour to compensate for the rising price of raw produce, because he argues, if capitalists did not, "the labourer would be doubly affected, and would soon be totally deprived of subsistence."² Cannan holds as valid Ricardo's belief, if not his argument, that money wages would be increased to compensate for the increase in wage-good prices.³

1. Cannan, op. cit., p. 195.

2. Ricardo, quoted in Cannan, op. cit., p. 196.

3. Cannan, op. cit., p. 202.

Ricardo tied his 'natural price of labour' to the price necessary for the labourers "to subsist and perpetuate their race, without either increase or diminution." The link between labour's natural price and labour supply was supplied by Malthusian population growth theories. The first of these theories was published by Malthus in 1798 under the title An Essay on the Principle of Population, as it Affects the Future Improvement of Society. Cannan notes that the purpose Malthus had in mind at that stage was, "that the necessity of checks to the growth of population could be used as an argument against the possibility of society ever arriving at the state of perfection dreamt of by Godwin and Condorcet."¹ Malthus argued that all checks on population were necessarily productive of "misery or vice", so that if such checks were always necessary, society would always find "misery or vice" to exist, thereby denying that the "perfectibility of society" is possible. Cannan states that Malthus was unable to prove that "misery or vice", meaning "poverty, pestilence, war, and such like misfortunes and calamities" were "the only actual and the only possible checks."² He was not able to prove that "abstention from marriage or postponement of marriage led to vice or constituted misery."³ In the second edition of the essay on population⁴, Malthus conceded that there existed a third check on population growth, "moral restraint" or, "virtuous abstention from marriage, either temporary or permanent, and not accompanied by 'misery'."⁵ Malthus dropped

1. Cannan, op. cit., p. 103.

2. Ibid.

3. Ibid., p. 104.

4. Entitled, An Essay on the Principle of Population; or, A View of its Past, Present, and Future Effects on Human Happiness.

5. Cannan, op. cit., p. 104.

his interest in the question of 'perfectibility' and devoted his Principles of Population to questions of economic theory. What, then, is Malthus' 'Principle'? In the first edition, Malthus states, "there is a principle in human society, by which population is perpetually kept down to the level of the means of subsistence."¹, concluding, "Is it not a degree of misery, the necessary and inevitable result of the laws of nature, which human institutions, so far from aggravating, have tended considerably to mitigate though they can never remove?"² As to why such checks are necessary, Malthus notes only that "the power of population is indefinitely greater than the power in the earth to produce subsistence for man"³, thinking of the then present, not some remote future.

"His reason for believing it impossible to increase the production of food as fast as unchecked population was that 'population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio.'"⁴

Cannan does not disagree with the proposition as applied to the growth of population, but held Malthus to be "completely wrong in saying that subsistence 'increases' or can be increased, only in an arithmetical ratio"⁵, an error which in Cannan's opinion, reduced the 'Principle of Population' to "a chaos of facts collected to illustrate the effect of laws which do not exist."⁶ Cannan denies Malthus based his 'Principle' on the Law of Diminishing Returns.

1. Ibid., p. 106.

2. Ibid.

3. Ibid.

4. Ibid., p. 108.

5. Ibid., p. 109.

6. Ibid., p. 113.

"But to imagine that the Essay on the Principle of Population was ever based on the law of diminishing returns is to confuse Malthusianism as expounded by J.S. Mill with Malthusianism as expounded by Malthus."¹

Cannan notes, however, one passage in which Malthus in his second edition expresses thoughts which might have led other writers to place the Law of Diminishing Returns in agricultural industry as the cornerstone of population growth theory. Here Malthus is commenting on a work by Anderson concerning the then scarcity of grains in Britain, and in particular upon the consequences of an "accidental depopulation" of an industrious country. Malthus suggests that the now-diminished population may cultivate principally the more fertile land whereas before, recourse to "ungrateful soil" was necessary.

"When an accidental depopulation takes place in a country which was before populous and industrious, and in the habit of exporting corn, in the remaining inhabitants be left at liberty to exert, and do exert, their industry in the same direction as before, it is a strange idea to entertain that they would then be unable to supply themselves with corn in the same plenty; particularly as the diminished numbers would of course, cultivate principally the more fertile parts of their territory, and not be obliged, as in their more populous state, to apply to ungrateful soils."²

Cannan commented on this:

"In the last sentence of this passage, Malthus introduces quite casually, and as a mere subsidiary argument, the theory that a smaller population has an advantage over a greater one in the fact that it need cultivate the more fertile land. This theory is the 'law of diminishing returns' in a rudimentary form. Malthus little dreamt in 1803 that in less than three-quarters of a century a casual argument which he

1. Cannan, op. cit., p. 114.

2. Ibid., p. 115.

introduced with the word 'particularly' would have become accepted as the foundation of the 'Malthusian' theory of population, to the entire exclusion of the geometrical and arithmetical ratios on which he himself declared all his principal conclusions to have been founded."¹

Senior offered a theory of real wages which posited that wages depended "on the Extent of the Fund for the maintenance of labourers, compared with the numbers of Labourers to be maintained."² The size of the Fund depended on "the productiveness of labour in the direct or indirect production of the commodities used by the labourer", and "on the number of things for the use of the labourers, compared with the whole number of labouring families."³

J.S. Mill adopted Ricardian doctrines in explaining real-wage determination, and in particular, the younger Mill held that wages were determined by the working of the Supply-Demand Apparatus in competitive markets for the commodity labour. This he says is summed up in the proposition that Wages depend on the proportion between population and capital.

"With all its faults, (Senior's) theory of wages was a suggestive one, and might have been expected to lead to something valuable when considered and amended by other minds. J.S. Mill, however, paid no attention to it, and simply adhered to the ideas of his boyhood. He begins with the proposition that wages depend chiefly on competition, and boldly leaping an enormous logical gap, proceeds to infer from this that 'wages, then depend upon the demand and supply of labour, or as it is often expressed, on the proportion between population and capital.'"⁴

1. Ibid.
2. Senior, N. Outline of Political Economy, p. 154; quoted in Dobb, op. cit., p. 105.
3. Ibid.
4. Cannan, op. cit., p. 212.

But Mill meant by 'population', "all those available for hire"¹, while capital, ". . . does not mean capital, but only circulating capital, and not even the whole of that, but only the part which is expended in the direct purchase of labour."² To the 'Wage-Fund' which is truly part of capital must be added the remuneration of 'unproductive' labour. In Mill's theory:

"By the statement. . . that wages depend on the proportion between population and capital we are to understand that wages depend on the proportion between the number of those who work for hire and the amount of the part of capital which is expended in the direct purchase of labour together with the other funds which are paid in exchange for labour."³

Cannan notes "that while it is possible to form an aggregate of the annual wages of 'productive' labour and the annual wages of 'unproductive labour', it is not possible to add to a part of capital, the 'Wage-Fund', which is a stock at a point in time, an income, the remuneration of 'unproductive labour', which is a flow, and expect to obtain a meaningful aggregate.

"You might as well try to give an idea of the magnitude of the Rhone by adding together the number of gallons which flow past Lyons in an hour and the number of gallons contained at a given moment in the Lake of Geneva."⁴

However, since Mill believed that the remuneration of 'unproductive labour' was a small part of all wages, Mill held that the above distinction may be ignored for all practical purposes, Mill's conclusions regarding the causes which determine the real wages per capita of labour are:

1. Ibid., p. 213.

2. Ibid.

3. Ibid.

4. Cannan, op. cit., p. 215.

"Wages, then, depend upon the demand and the supply of labour; or, as it is often expressed, on the proportion between population and capital. By population here is meant the number only of the labouring class, or rather those who work for hire; and by capital, only circulating capital, and not even the whole of that, but the part which is expended in the direct purchase of labour. . . . Wages cannot rise, but by an increase of the aggregate funds employed in hiring labourers, or a diminution of the number of competitors for hire."¹

Competition among labourers will insure that real wages are such as to exhaust the 'Wages-Fund' and that if and only if "laws and opinions" fix wage rates above the competitive level, unemployment will result.

"Since therefore the rate of wages which results from competition distributes the whole wages-fund among the whole labouring population: if law or opinion succeeds in fixing wages above this rate, some labourers are kept out of employment."²

Competition also keeps wages up, because competition between labourers for employment generates competition between capitalists for employees.

"It is a mistake to suppose that competition merely keeps down wages. It is equally the means by which they are kept up. . . . Wages can only be lowered by competition until room is made to admit all the labourers to a share in the distribution of the wage-fund. If they fall below this point, a portion of capital would remain unemployed for want of labourers; a counter-competition would commence on the side of the capitalists and wages would rise."³

In response to the question, "Is there really any such fund? Is there any specific portion of any single individual's capital which the owner must necessarily expend upon labour?", as Thornton asked in his book, On Labour, J.S. Mill recanted the

1. Mill, J.S., op. cit., I, ii, 11.

2. Ibid.

3. Ibid.

'Wage-Fund' doctrine in his review of Thornton's book declaring:

"There is no law of nature making it inherently impossible for wages to rise to the point of absorbing not only the funds which he (the employer) had; intended to devote to carrying on his business, but the whole of what he allows for his private expenses beyond the necessities of life. The real limit to the rise is the practical consideration of how much would ruin him, or drive him to abandon the business, not the inexorable limits of the Wages-Fund."¹

B. Early Marginal Productivity Theories of Wage Determination.

Schumpeter has said that behind some of the classical economists' Demand-Supply theories of wages determination lay embryonic 'productivity' theories of wages determination. J.B. Clark made it quite explicit, "The main thesis of the theory of wages (is): the pay of labour in each industry tends to conform to the marginal product of social labour employed in connection with a fixed amount of social capital."² It appears clear that Clark is not open to Bohm-Bawerk's admonition of 'naive productivity theories' to the effect that "Physical productivity is not enough to prove its value productivity", as Clark implies that he means 'the value of the marginal product' in the formulation of his marginal productivity theory of wages.

"It is by assuming perfectly free competition among employers that we are able to say that the man on the intensive margin of an agricultural force of labourers will get, as pay, the value of his product. When such a man offers himself to an employer he is virtually offering an addition to the farmer's crop. If one farmer will not pay the market price of the

1. Mill, J.S. "Fortnightly Review", May, 1869; quoted in Dobb, op. cit., p. 134.
2. Clark, J.B. Distribution of Wealth, p. 116.

additional produce, another will pay it, provided that competition does its work quite perfectly. Friction is, however, always an element to be taken into account; for adjustments like this are not perfect in any society. Our sole present inquiry is, nevertheless to determine the standard to which wages tend to conform--the standard to which they would conform in a frictionless society. Our answer is that wages conform to the product that is attributable to marginal labour."¹

It will be recalled that Clark regarded capital as a permanent fund embodied in specific forms -- capital-goods -- at a specific point in time, and that as time passed the composition of the goods composing the fund changed. So too with labour; "It is a striking fact that labour also is a permanent force -- a fund of human energy that never ceases to exist and act. Men are as perishable as are capital goods but labour is as permanent as is capital."²

"Abstractly regarded, labour is this fund of pure energy itself, as changeful in its forms as is pure capital. As a fund, it is kept intact by the young generation of workers who come upon the scene and take the places of the older ones who depart. Labourers are perishable, but social labour is continuous. This permanent fund of human energy ready to take shape in such concrete working acts as the needs of industry may require, is the second generic element with which a philosophy of distribution has to deal. The parallelism between capital pure and concrete, on the one hand, and labour pure and concrete, on the other is a fact of primary importance."³

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1. Ibid.
 2. Clark, op. cit., p. 157.
 3. Ibid., p. 303.

In static state, the fund of labour "continues forever, without addition or diminution"¹, while the individuals who compose it are ceaselessly changing. Technology is invariant. There is no building up of the labour force from a small size to observe the productivity of labour. "Yet", says Clark, "the earnings of the men are fixed by the law of final productivity."² He asserts that in order to understand the forces which govern wages it is necessary to engage in a mental process which is "imaginary"³ of adding to the labour force more labourers until it reaches its size in the static state under analysis, and observing that:

"(the process) illustrates two principles that together control the fortunes of labouring humanity, namely: (1) At any one time wages tend to equal the product of the final unit of labour, and (2) this product becomes smaller or larger as, other things remaining the same, the force becomes larger or smaller."⁴

The former, Clark identifies as a static principle, while the latter is a dynamic principle. Elsewhere Clark sums up the marginal productivity doctrine saying,

"We are to get what we produce--such is the dominant rule of life and what we are able to produce by means of labour, is determined by what a final unit of mere labour can add to the product that can be created without its aid."⁵

The static principle may be discovered by employing "a bit of imaginary dynamics"⁶ in setting men to labour in succession, but the static equilibrium wage rate is, nonetheless, thereby determined. Clark states:

1. Ibid., pp. 166-167.
2. Ibid.
3. Ibid.
4. Ibid.
5. Ibid., p. 181.
6. Ibid.

"So long as the labour and the capital continue unchanged in amount, and produce the same things, by the same process and under an unchanging form of organization, wages will continue at the rate that this test establishes."¹

In terms of metaphysics, Clark is attempting to develop a theory of wages to counter Adam Smith's tenet that rent and interest or the profits of stock are deductions from the produce of labour when land has been appropriated and capital accumulated. Clark says that labour not only should but would be paid the value of its contribution to the final product, "... if competition could do its work perfectly", but that this is not the whole product of industry, since capital shares in the production of that product and its remuneration is, as we have seen, also determined in Clark's model by the principle of final or marginal productivity.

"'The produce of labour', said Adam Smith, 'constitutes the natural recompense or wages of labour. In that original state of things which precedes both the appropriation of land and the accumulation of stock the whole produce of labour belongs to the labourer. He has neither landlord or master to share with him'. There follows in the same chapter the statement that modern industry has changed this natural condition, that wages are now paid out of the employer's capital and that they do not consist in the product of labour itself. It was in Adam Smith's view, the presence of the landlord and the master that has made this radical change.

* What we have claimed is that, in modern life as well as in primitive life, the identity of wages with the product of labour is, in a general and approximate way, maintained, and that this product furnishes the standard about which wages for short periods fluctuate. It is clear, indeed, that the whole product of industry does not go to the worker. If the entire joint product of labour and capital be what we have in mind, the men who furnish land, tools, buildings, materials, etc., get a share of it. If what we mean is that a part of this total is attributable to labour itself, it is certain that he would get it all, if competition could do its work perfectly--that is, if the static standards of wages were realized."²

1. Ibid.

2. Ibid., p. 83.

The wage rate is determined by the productivity of the marginal labourer employed in conjunction with a fixed fund of capital. Due to competition between labourers for employment, each worker's wage for all labourers before the marginal labourer is equal to the rate determined by the marginal labourer's productivity. 'All wages' is therefore equal to the arithmetic product of the wage rate and the number of labourers. 'All wages' is a differential product, 'the rent of the social fund of labour', as was noted in our chapter on Capital and Interest. Clark imagines a static situation in which the fund of labour is fixed and increments of capital are successively employed by the labourers. 'All wages' was seen to be equal to the sum of the "difference(s) between the product that is solely due to capital and that which is due to capital and another agent in combination (and) is the effect of the presence and work of the other agent"¹ as successive increments of capital are employed by the labourers composing the fixed fund of labour. It is "the sum of the surplus products connected with the earlier units of capital but not attributable to them as a cause."² and "the amount that is imputable to labour only."³ Clark concludes:

"We are now able to see that wages and interest though they are determined by the law of final productivity, are also capable of being measured exactly as ground rent has been measured. That is to say, the Ricardian formula, which describes what is earned by a piece of land, may be used to describe what is earned by the whole fund of social capital: all interest may be made to take the form of a differential gain or surplus. Again the Ricardian formula may be employed to describe the earnings of the whole force of social labour; for wages, in their entirety

1. Ibid., pp. 199-200.

2. Ibid.

3. Ibid., p. 191.

are a differential gain. It is one of the most striking of economic facts that the income of all labour, on the one hand, and that of all capital, on the other, should be thus entirely akin to ground rent. They are the two generic rents, if by that term we mean differential products; and the earnings of land constitute a fraction of one of them."

1. Ibid., p. 83.

C. Labour as a Commodity and the Process of Reification

Earlier, we noted Cannan's belief that the Demand-Supply theory of per capita wages was invalid because it was premised on "the erroneous idea that labour is a commodity"¹.

Polanyi in his work The Great Transformation, a study of the European industrial revolution subsequent to the 1780's, held that as industrial production became more complicated with the introduction of the factory system of manufacturing, it became essential to safeguard the requisites of production and to assure their continued availability to entrepreneurs. The way this was accomplished was to promote the formation and integration of exchange markets for the requisites in which they would become commodities produced for sale. But labour is not a commodity produced for sale, says Polanyi. "Labour is only another name for a human activity which goes with life itself, which is in its turn not produced for sale but for entirely different reasons, nor can that activity be detached from the rest of life, be stored or mobilized."

"But the more complicated industrial production became, the more numerous were the elements of industry the supply of which had to be safeguarded. Three of these, of course, were of outstanding importance: labour, land and money. In a commercial society their supply could be organized in one way only: by being made available for purchase. Hence, they would have to be organized for sale on the market--in other words, as commodities. The extension of the market mechanism to the elements of industry--labour, land and money--was the inevitable consequence of the introduction of the factory system in a commercial society. The elements of industry had to be on sale.

1. Cannan, op. cit., p. 182.

This was synonymous with the demand for a market system. We know that profits are ensured under such a system only if self regulation is safeguarded through interdependent competitive markets. As the development of the factory system had been organized as part of a process of buying and selling, therefore labour, land and money had to be transformed into commodities in order to keep production going. They could, of course, not be really transformed into commodities as actually they were not produced for sale on the market. But the fiction of their so being produced became the organizing principle of society. Of the three, one stands out: labour is the technical term used for human beings, in so far as they are not employers but employed; it follows that henceforth the organization of labour would change concurrently with the organization of the market system. But as the organization of labour is only another word for the forms of life of the common people, this means that the development of the market system would be accompanied by a change in the organization of society itself. All along the line, human society had become an accessory of the economic system."¹

Adam Smith was the first to base his philosophy of value on the supposed universality of 'Economic Man' and exchange in markets. This doctrine sprang from Smith's observation of man's 'propensity to barter, truck and exchange one thing for another'. Polanyi disagrees that 'Economic Man' and exchange markets ever were any society's guiding institutions prior to the 'Industrial Revolution', noting that on the basis of his study of economic history and anthropology, ". . . previously to our time no economy has ever existed that even in principle, was controlled by markets"², and (that "Though the institution of the market was fairly common since the late Stone Age, its role was no more than incidental to economic life"³ prior to the Industrial Revolution. He stated of Smith's supposed universality of Economic Man, "In retrospect it can be

1. Polanyi, The Great Transformation, p. 72.

2. Ibid., p. 75.

3. Ibid., pp. 43-44.

said that no misreading of the past ever proved more prophetic of the future".¹ The commoditization of labour and the extension of the market system to labour in replacement of the feudal serfdom system became the dominant characteristic of society's economy with the advent of the Industrial Revolution.

Smith's higgling and bartering 'Economic Man' subjected² men who lacked capital or land to either destitution or selling under the compulsion of hunger their labour for what their strength and ability might bring in markets where competition between relatively homogeneous men grew more intense as a growing population pressed upon the means of subsistence. Economic man regarded labour as a commodity, subject to the laws of supply and demand.

"Capitalism was not simply a system of production for the market--a system of commodity production. ... --but a system under which labour-power had 'itself become a commodity' and was bought and sold on the market like any other object of exchange. Its historical pre-requisite was the concentration of ownership of the means of production in the hands of a class, consisting of only a minor section of society, and the consequential emergence of a propertyless class for whom the sale of their labour-power was their only source of livelihood."³

1. Ibid.

2. See historical accounts of the English 'enclosure' and Scottish 'clearance' movements in which substantial portions of the population were forced out of subsistence agriculture and into industrial labour markets by 'improving landlords'.

3. Dobb, M. Studies in the Development of Capitalism, p. 7.

Chapter 5

Conclusions

A. The Requisites of Production and the Distribution of Wealth.

Adam Smith's simplification of history contained in his concept of the 'early and rude state of society before the appropriation of land and the accumulation of capital', and that state which came to be after the passing of the 'early and rude state', serves the useful function of reminding us that only when labour is the sole scarce and requisite participant in the process of production can the value of products be determined solely by the relative amounts of labour required for their production, and labour secure as its income the whole of society's produce. After the passing of the 'early and rude state' when other agents are both scarce and requisite to production, the owners will demand and secure a share of the produce as the price of their co-operation in production.

The only sense in which one particular requisite can meaningfully be regarded as the 'original' or 'primary' requisite is in the historical evolution of society. Accumulations of wealth obtained by production (rather than by plunder) were largely derived as rents from the surplus realized in the exploitation of land and other natural resources.

"The historical foundation of capitalism is rent, the product of labour upon land over and above what is requisite to maintain the labourers; this surplus accrues by political or economic forces to the king, feudal superior, or land owner and can be consumed or stored by him."¹

1. Hobson, The Evolution of Modern Capitalism, p. 4.

Although the generation of an agricultural surplus remained a major source of wealth accumulation even beyond the birth of the manufacturing economies during the 'Industrial Revolutions' of Europe in the 18th and 19th centuries, the pursuit of profit on merchant capital very much earlier had assumed a role of increasing importance. By the end of the 13th century, urban centres had arisen in the predominantly feudal agricultural-militaristic societies of Europe. While one important source of wealth accumulation during the growth of the towns was certainly the sale or leasing for 'rent' of land in the urban areas, Dobb notes that "the essential basis of urban society" was a system of production of 'handicrafts' which "... was carried on by small producers, owners of their own instruments of production, who traded freely in their own products."¹ He concludes, however, that such handicrafts production offered "little scope for capital accumulation apart from windfall gains"², because labour's productivity and the unit of production, typically the craftman's home, were both too small. Dobb identifies the dominant contemporary source of capital accumulation as "the rise of a privileged class of burghers who, cutting themselves adrift from production, began to engage exclusively in wholesale trade."³ It was not, however, the usefulness of commerce, by widening markets and making an increased variety of agricultural commodities and handicrafts goods available to consumers in places and in seasons when or where they had not

1. Dobb, Studies in the Development of Capitalism, p. 86.

2. Ibid.

3. Ibid.

previously been available, that afforded the basis of the substantial difference in the wealth that was accumulated by the merchant capitalists above that afforded by handicrafts production. Dobb attributed the differential to the exploiting of political advantage and to the quickness with which the merchants acquired monopoly powers--". . . monopoly was the essence of economic life in this epoch."¹

"The explanation which we are seeking is evidently twofold. In the first place, so much commerce in those times, especially foreign commerce, consisted either of exploiting some political advantage or scarcely-veiled plunder. Secondly, the class of merchants, as soon as it assumed any corporate forms, was quick to acquire powers of monopoly which fenced its ranks from competition and served to turn the terms of exchange to its own advantage in its dealings with producer and consumer. It is evident that this two-fold character of commerce at this period constituted the essential basis of early burgher wealth and the accumulation of merchant capital."²

The profit of the merchant capitalists was gained from the margin between two sets of prices--those at which the merchant bought from the farmers and craftsmen were to be held down while those at which the merchant sold were to be jacked up. The merchant capitalists and major craftsmen-traders established 'Guilds' which secured both the political and economic power in the urban centres to control the markets in which they participated and maximize their incomes through devices and regulations which restricted competition severely. Dobb notes that "the essential purpose of guild monopoly had always been to create as far as possible a situation of excess supply in the market of purchase

1. Ibid., p. 89.

2. Ibid., p. 88.

and excess of demand in the market of sale by maintaining a privileged bottleneck in between."¹ Rigid control was maintained by apprenticeship regulations over the number of master craftsmen, the conditions of sale pertaining to those masters from other towns in the guild's town market, and because it was "...the manifest interest of every particular class of them (traders and artificers), to prevent the market from being overstocked. . . which is in reality to keep it always understocked"², combines were formed to cause situations of contrived scarcity. Suppressing competition in both buying and selling was the means by which the income gained by the merchant capitalists was maximized.

Dobb points out that 'industrial capital' began to supplant merchant capital when "a private relationship of dependence between a private clientele of craftsmen and a merchant-employer who 'put-out' work for them to do"³ arose. This new group of manufacturer-traders apparently originated among the craftsmen rather than the merchant burghers. Dobb concludes that "the domestic industry of this period (later Stuart). . . was in a crucial respect different from the guild handicraft from which it had descended: in the majority of cases it had become subordinated to the control of capital, and the producing craftsman had lost most of his economic independence of earlier times."⁴ This system, called 'Verlag' or 'putting out',

1. Ibid., p. 127.

2. Smith, op. cit., p. 124.

3. Dobb, op. cit., p. 128.

4. Ibid., p. 143.

was much closer to manufacturing than earlier handicrafts production--the craftsman's status approached that of a wage-earner, even though factory production was not then common because machines were not yet complex. Dobb points out that ". . . the growing hegemony of capital over industry at this period was very far from being merely a parasitic growth"¹ on the craftsmen because a substantial increase in productivity was realized through the progressive integration of the stages of production, and division of labour was extended. The division of labour created demand for productivity-increasing machines and provided fertile ground for the inventions of the next period.² The main source of 'industrial' capital accumulation at this time was the surplus made possible by increased labour productivity owing to the improved integration of production and division of labour under the Verlag system, though the same increase in productivity made it necessary to seek expanded markets beyond the highly monopolized domestic markets, and sources of cheap raw materials--the continued accumulation of 'industrial' capital required the expansion of merchant capital, and a guiding geist or spirit: a doctrine known as 'Mercantilism'.

Stuart Britain drew upon the explorations of the 'New World' and the Orient by the Elizabethans and had sought to profit from them by establishing colonies as sources of specie, captive markets for the manufactured products of the industrial capitalists and as sources of raw materials reserved for the

1. Ibid., p. 144.

2. Ibid., p. 145.

exclusive use of 'metropolitan' manufacturers. The geist of the age was one which relied upon regulation to achieve both favourable balances and¹ terms of trade. The form of regulation was that used to organize the domestic markets: monopoly grants from the Crown to individuals or companies to exploit colonial opportunities.

"But monopolistic regulation was now also to be directed externally in relation to colonial areas, which were to be kept as cheap suppliers of agricultural products for the benefit of the growing industry of the metropolitan economy. Its raison d'etre lay in its influence to create enhanced opportunities of profit for industrial capital by raising the price-level of industrial products and depressing the price-level of agricultural products within the controlled economy of the metropolis and colony: an influence to which. . . the achievement of an export surplus from the metropolis might contribute by draining the colonial country of gold and increasing the flow of gold into the metropolis."²

The institutions under which labour was performed had been significantly changed during the transformation of medieval society to capitalist society. Medieval society was organized under a feudal system--"an obligation (was) laid on the producer (artisans or peasant cultivators) by force and independently of his own volition whether these demands take on the form of services to be performed or of dues to be paid in money or in kind."³ These institutions concerning the performance

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1. ". . . while stating their (the Mercantilists') theory in terms of a favourable balance of trade, they were equally if not more concerned with the advantages of favourable terms of trade--of buying cheap and selling dear." (Dobb, op. cit., p. 202).
 2. Ibid., p. 207.
 3. Ibid., p. 35.

of labour, termed serfdom, characterized the economic sphere of feudal society, and it might be said that the feudal superiors who owned the essential requisite of production in predominantly agricultural societies, the land, received an income deducted from the produce the serf raised on the 'demesne' (wholly the feudal superior's produce) and on the 'common' (this had to suffice for the serf's subsistence). The evolution of labour institutions was towards legally recognizing the property right of each man over his ability to labour, the organization of markets for labouring ability and the sale of it to employers for wages, as one might sell any commodity he possessed. Since productivity in agriculture was low due to rudimentary technology, the only means for feudal superiors to actually secure the increased surplus they were driven to claim due to their support of 'unproductive labour' was to deduct even more labouring time from that available to the serfs for cultivating the 'common' for their own subsistence. The result was "... not only to exhaust the goose that laid golden eggs for the castle, but to produce from sheer desperation, a movement of illegal emigration from the manors."¹ The depopulation of the manors created demand for hired labour to cultivate the desmesne. As the exchange economy expanded, feudal superiors came to prefer money revenues so they commenced leasing^{'''} their land and substituting money payments for direct labour obligations. The result was growth of an increasingly mobile force of labour available for hire to feudal superiors still cultivating their

1. Ibid., p. 43.

own land, the tenant farmers of those lands which were leased, and the expanding handicraft industries of the urban areas. Nonetheless, even as feudalism was disintegrating, legal compulsion remained a characteristic of the institutions under which labour was performed.

It was not solely the substitution of money payments for compulsory labour service, the number of 'run-away' serfs, or the high birth rate of the times that swelled the labour force available for hire, but also the effects of the substitution of capital for labour in cultivation and the substitution of less labour-intensive products (commonly sheep grazing for grain cultivation) in the farmers' production programs. With increasing frequency the commons from which the serfs earned subsistence was 'enclosed' by the 'improving landlords' and the serfs, rendered redundant by the new products being raised or the new technological requirements pertaining to the ratio of capital to labour were forced off the land, having no recourse but to offer their labouring ability for wages. The enclosures of Tudor times had a relatively moderate impact in comparison to those of the 17th and 18th centuries. Dobb notes ". . . in the later period the total amount of land enclosed was some eight or nine times as large as that involved in the earlier period, and embraced about one-fifth of the total acreage of the country."¹ However, while the aggregate numbers of persons forced to seek wages as a result of the earlier enclosures was small by modern standards, ". . . the result was large in proportion to the demand for hired labour at the time."²

1. Ibid., p. 226.

2. Ibid.

The rise of the handicraft guilds in the urban areas increased the demand for wage labourers, and "the tightening of entrance requirements, the exaction of fees and payments as price of setting up as a master, the elaborate requirements of a 'masterpiece', all served to bar the man without means from ever rising above the rank of journeyman."¹

While the tools of handicraft trade embodied an amount of capital which was within the means of potential masters and did not bar entry to the handicrafts industry, the rise of manufacturing as a major means of accumulating wealth was associated with an increase in the capital required to establish 'going concerns'. This replaced the monopolistic controls over men who aspired to become masters. "Eventually," says Dobb, "with the growth of technique, the road to advancement to the journeyman or even the small master was all but blocked, without any deliberate restrictions on the freedom of entry to a trade, simply by the size of the capital required to initiate production."²

All of the above factors figured significantly in securing the transition of the institutions governing the performance of labour from the legal compulsion of labour services under feudalism to a legal state in which the labourer possessed property rights in his own labouring ability and the freedom (under the compulsion of avoiding starvation) of selling that labouring ability under conditions of near monopsony and the increasing competition of a growing number of fellow would be wage-earners.

1. Ibid., p. 229.

2. Ibid., p. 230.

Such, briefly, is the historical evolution of the roles of the requisites of production.

B. Doctrines of Wealth Distribution

In preceding chapters, we have identified four major doctrines concerning distribution. Adam Smith conceptualized distribution as a series of 'deductions' from the rightful wages of labour after the passing of the 'early and rude state of society'. Ricardo relied upon the elimination of 'differential rents' from exchange value and incomes so as to preserve the labour quantity theory, while wages were determined according to the subsistence doctrine, and profits were the residual claimed by capitalists. J.S. Mill adhered closely to the Ricardian formulation of distribution, though he modified the theory of value by relying more heavily on demand-supply analysis, and to the 'real cost' of labour he added the equally 'real cost' of the abstinence required to accumulate the capital used in production. Thus while profits remained largely determined as a residual, Mill provided for their partial determination as a function of 'Abstinence'. Clark offered a productivity theory of wages and interest, rent having been merged with the latter, which made 'All-wages' and 'All-interest' differential surpluses or rents. Hobson rejected Clark's version of marginal productivity determination of the wage rate and the interest rate and substituted a 'bargaining power' theory in which income shares depended on the relative scarcity of requisites and the degree of competition in their markets. Alfred Marshall supported the doctrine of marginal productivity

as ruling the demand-price of factors of production, but stressed that it could not be a theory of wages, or interest in itself because other considerations determined the price at which factor owners would offer to supply their services. Marshall's study of distribution focuses on the forces which govern the wages of different industrial groups rather than on the general wage rate as did the classical economists, and was but little concerned with Clark's concepts of 'all-wages' or 'all-interest', and the respective ratios to national dividend, or income shares. He rejects Clark's belief that the manifold applications of the laws of rent can form the basis of a theory of income distribution because such a formulation does not allow sufficient scope for the prevailing influences of supply governing forces upon value and distribution. Marshall offers considerably more insight than Clark into the role of entrepreneurial ability and places the study of entrepreneurial profits on a much stronger analytic base by focusing on the relation between risk and profit than had Clark in his use of the residual claimant doctrine. However Marshall does not satisfactorily meet Hobson's objection that market prices, determined in imperfectly competitive markets, not normal prices, govern distribution in the long run, and that scarcity rents are a major, in some cases governing component of factor prices, and persist into the long run. Marshall identifies, inter alia, ". . . modern developments of combination and monopoly" as aspects, the lack of his consideration of which allowed him to reach only "very few practical conclusions"¹ on the question of distribution and promised that he would address himself to the implications of such developments for the distribution of incomes and wealth in a subsequent but unfinished volume. The following

1. Marshall, A., Principles, VI, xiii, 15.

subsections will offer an appraisal of the virtues and defects of these doctrines of distribution.

B-1. Distribution as a Series of Deductions

Adam Smith conceived of distribution after the appropriation of land and acquisition of capital as a series of deductions from society's product, in his belief, the whole of which was labour's 'rightful reward', the first deduction being land rent and the second being the profits of stock.

While the ability of the land to produce a surplus of product above what was necessary to sustain the labour assured that rent could be borne, Smith believed that the creation of property rights in land and the monopolization of these rights by landlords gave them the power to demand and receive a share of the produce (or its value) that labour could raise or collect from the land. "The rent of land", says Smith, "considered as the price paid for the use of land, is naturally a monopoly price"¹, which is not proportional to either the landlord's investment in the land or "to what (the landlord) can afford to take", but equals "what the farmer can afford to give". Rent is not a function of the productivity of land but rather the creation and monopolization of property rights in land. We have seen that in the history of Europe, the feudal legal status of serfs permitted their superiors to claim and receive a substantial proportion of the serf's product on manorial lands. Even if during this period there was no monopoly of land, the extraction of a surplus by legal compulsion would warrant the

1. Smith, op. cit., p. 145.

use of the 'deduction' concept. Neither Smith nor any of the succeeding classical economists dealt in detail with the emergence of property rights in land, but there appears to be concurrence that the unequal distribution of these rights resulted from the interplay of military conquest and the political machinations of the aristocracy prior to and during the feudal period, and was perpetuated by the common institutions of primogeniture and 'entails' or the legal prohibition of alienating land by sale.

"During the continuance of those confusions (the over-running of the Roman empire by the Germans and Scythians), the chiefs and principal leaders of those nations acquired or usurped to themselves the greater part of the lands of those countries. A great part of them was uncultivated; but no part of them, whether cultivated or uncultivated, was left without a proprietor. All of them were engrossed, and the greater part by a few great proprietors.

This original engrossing of uncultivated lands, though a great, might have been a transitory evil. They might soon have been divided again, and broke into small parcels either by succession or by alienation. The law of primogeniture hindered them from being divided by succession: the introduction of entails prevented their being broke into small parcels by alienation."¹ (Emphasis added)

The scarcity of land occasioned by the monopoly of "a few great proprietors" and its perpetuation through primogeniture was not the natural scarcity of more fertile lands resulting from the 'niggardliness of Nature'--it was institutionally contrived scarcity. The effects of this monopoly were buttressed by the natural one over the sale of products resulting from the remoteness of the various manors and associated urban areas from one another and attendant high transportation costs.

1. Ibid., p. 361.

The institution of compulsory labour during feudal times, the monopoly of "a few great proprietors" and natural monopolies of site characterize the predominantly agricultural societies of Europe up to the dawn of the Industrial Revolution of the later 18th century, and are sufficient cause to justify Smith's use of the 'deduction' concept in explaining the role of rent in distribution during that period, though the strength of the justification wanes as compulsory labour obligations were eliminated, as the feudal and clerical estates were alienated by sale, frequently to the emerging town burghers and merchant capitalists, and as infrastructure improvements broke down monopolies of site and promoted domestic trade.

As to the profits of stock, which Smith states are "a second deduction from the produce of labour"¹ employed both on the land and in manufacturing, the 'deduction' concept is valid during the period up to the Industrial Revolution and subsequent to it when monopoly again came to characterize industry. In the first section of this chapter we have presented evidence that "... monopoly was the essence of economic life. . ."² from the emergence of merchant capital and the formation of corporate Guilds until the end of Mercantilism before the dawn of the first Industrial Revolution. We have seen that merchant capitalists derived the surplus which was the source of their accumulation of capital from the margin between the price at which they acquired trade goods and labour and the price which they received from consumers for the goods. To

1. Ibid., p. 65.

2. Dobb, op. cit., p. 89.

maximize the margin, merchant capitalists monopsonized the input markets, especially that of labour, and monopolized the product markets of the towns through combination--"People of the same trade", says Smith, "seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices."¹ Smith believed that corporation laws under which traders and artificers were organized permitted the extraction of monopoly prices² from the landlords, farmers and agricultural labourers, and while these laws excluded the competition of domestic traders and artificers, ". . . other regulations secure them equally against that of foreigners."³ In the emerging labour markets, a substantial differential existed between the ease with which masters might combine and labourers might combine in the establishing of contracts for labour services. Two immediate causes of this difference were statute law which prohibited combinations of labourers and tacitly condoned combinations of masters, and the fact that labourers lacked accumulations of produce capable of sustaining themselves and relied upon the advances of capitalists which they would withhold when confronted with attempts by labourers to combine.

"The masters, being fewer in number, can combine more easily; and the law, besides, authorizes, or at least does not prohibit their combinations, while it prohibits those of the workmen. We have no acts of parliament against combining to lower the price of work; but many against combining to raise it. In all such disputes the master can hold out much longer.

1. Ibid., p. 128.

2. Ibid., pp. 123 & 127.

3. Ibid., p. 127.

A landlord, a farmer, a master manufacturer, or merchant, though they did not employ a single workman, could generally live a year or two upon stocks which they have already acquired. Many workmen could not subsist a week, few could subsist a month, and scarce any a year without employment."¹

The incomes of the merchant capitalists were, says Dobb, "... a deduction from the product that would otherwise have accrued to the producers themselves or else as a feudal revenue to the aristocracy"², although the cause was monopoly and monopsony rather than the "... exploitation of a dependent proletariat"³ for its 'surplus value' as advanced by Dobb.

As 'industrial capital' began to supplant 'merchant capital' as the major mode of accumulating wealth, we have seen that the economic policy contained in the doctrines of Mercantilism were predicated on monopoly over colonial markets for mother country manufacturers and traders, and monopsony over the raw materials supplied by the colonies.

"The maintenance of this monopoly (of the colonial trade) has hitherto been the principal, or more properly the sole, and end purpose of the dominion which Great Britain assumes over her colonies. . . . The monopoly is the principal badge of their dependency, and is the sole fruit which has hitherto been gathered from that dependency."⁴

Smith concludes the monopolistic system of the Mercantilists "... raises the rate of mercantile profit, and thereby augments somewhat the gain of our merchants", but, "... it hinders the sum of profit from rising so high as it would otherwise

1. Ibid., p. 66.

2. Dobb, op. cit., p. 87.

3. Ibid.

4. Smith, op. cit., p. 580.

do."¹, because, "a small profit upon a great capital generally afford(s) a greater revenue than a great profit upon a small one."², and monopolistic restriction limited the amount of capital employed.¹ The increase in the rate of mercantile profit occasioned by the monopoly over colonial trade "discourages the improvement of land" because the artificially high rate of profits in trade draws capital to that endeavour and away from investment in agriculture and this has the effect of retarding "the natural increase of. . . the rent of land."³ With respect to wages in the mother country, since the monopoly diminishes the 'sum of profits' relative to what it would have been in the absence of monopoly, the capital available for and destined to support productive labour is thereby diminished, and, as Cannan's paragraph heading states, "the monopoly reduces wages in the mother country", or as Smith stated it, "one great original source of revenue. . . the wages of labour, the monopoly must necessarily have rendered at all times less abundant than it otherwise would have been."⁴

The "undermining of the monopolies of the craft guilds", and "the need for nascent industrial capital itself to be emancipated from the restrictive monopolies in the sphere of trade in which merchant capital is entrenched", are the two essential conditions for the growth of 'industrial capital' according to Dobb⁵. The opening of the 17th century saw the

1. Ibid., pp. 577 & 578.

2. Ibid.

3. Ibid., p. 577.

4. Ibid.

5. Dobb, op. cit., p. 161.

commencement of a struggle by English manufacturers against the granting of 'letters patent' conferring monopoly by the Crown.. In 1604, a parliamentary bill was introduced which, had it been passed into law, would have abolished all monopolistic privileges in foreign trade. The British Statute of Monopolies was passed into law in 1624 and was the first statute law (as opposed to common law) directed at curbing monopolies, though "... it was based not on a preference for competition, but on constitutional objections to the power which the Crown presumed in granting monopolies and the arbitrary reasons for which it had granted them."¹ While the Statute voided all monopolies, charters and letters patent granted before and after its enactment, a section specifically prohibited its application to cities, guilds, and chartered trading companies and "any manner of new manufacture within this realm"². These exempted organizations continued to exercise their powers to exclude others from trade. The Statute was not successful even in achieving its limited purposes: one member of Parliament could say, in 1640, that "better laws could not have been made than the Statute of Monopolies against projectors, and yet, as if the law had been the author of them, there have been during these few years more monopolies and infringements of liberty than in any year since the Conquest."³ The persistence of monopoly granting by the Crown was among the chief causes of the first English political revolution against the Stuart dynasty.

1. Letwin, Law and Economic Policy in America, p. 31.

2. Dobb, op. cit., p. 168.

3. Quoted in Dobb, op. cit., p. 168.

While the emerging industrial capitalists voiced support for "freedom of trade", and waged war on the monopolistic privileges which limited their markets, they subsequently ". . . showed themselves to be not at all adverse to the acceptance of economic privilege and State regulation of trade in their own interests. . . ." ¹

"In the nineteenth century, again, especially in England, the new factory industry raised the banner of unfettered access to markets and to labour supplies, and claimed the right to compete on equal terms with older established rivals, in order to give headroom to its remarkably enhanced productive powers. But except in the specially favourable circumstances of England as pioneer of the new technique, this enthusiasm for freedom of trade was seldom unqualified; and by the end of the century competition was once again to yield place to monopoly, and free trade to retire before the dawn of what has been termed an era of neo-Mercantilism." ²

Smith's 'Adding-Up-the-Components' theory of exchange value which relies on Demand-Supply analysis of requisite markets, makes the exchange value of goods and commodities the sum of the price of labour, the wage rate, the rate of profit and the price of land per acre. Smith believed that ". . . his theory of prices and his observations on wages, profit and rent made a very good theory of distribution." ³ Consequently, he makes "the whole annual produce of labour" or its aggregate exchange value resolve itself into the same components as determine the exchange value of each individual commodity.

He confuses aggregate wages with the wage rate, aggregate profits with the profit rate and aggregate rent with

1. Ibid., p. 25.

2. Ibid.

3. Cannan, op. cit., p. 148.

rent per acre, a difficulty not remedied until Clark conceived of the aggregates as differential surpluses. While Smith makes the market price of commodities (including labour) depend on the relation of demand to supply, the relation is presented as a proportion, rather than an equation, a defect not corrected until J.S. Mill did so. Ricardo did not explore the matter, mainly because he erroneously believed that the cost of production, the quantity of labour required, governed the exchange value of commodities, and that the relation of demand to supply could have only a temporary effect on market prices; further, Ricardo identified the Smithian doctrine relying on the demand-supply apparatus as "... the source of much error in that science (of political economy)"¹.

It was common to Smith and the succeeding classical economists that market price was determined by the operation of the demand-supply apparatus through competition. Unlike his successors, however, Smith explicitly makes his 'natural price', towards which the market prices of commodities "are constantly tending"², "... the price of free competition."³ Though the market price may tend towards the natural, competitive price where there is "perfect liberty", for many commodities, "regulations of police" cause the market price to remain for long periods above the normal price. These regulations are identified as "enlarged monopolies" by Smith, who specifically lists examples as "the exclusive privileges of corporations, statutes of apprenticeship", and "laws which restrain, in particular employments, the competition to a smaller number".⁴

1. Ricardo, op. cit., p. 375.

2. Smith, op. cit., p. 58.

3. Ibid., p. 61.

4. Ibid.

Such enlarged monopolies hold the market price above the natural price for as long as the 'regulations of police' last, and "maintain both the wages of labour and the profits of stock employed about them somewhat above their natural rate"¹.

Smith's formulation allows ample scope for the influence of monopoly and monopsony on the exchange values which underlie distribution when the incomes of all depend on the sale of some commodity, but the identification of the normal competitive price as the average or ordinary price is to assume tacitly what Ricardo assumed explicitly: that the ordinary state of markets is competitive. This appears to fly in the face of fact--except for a brief period of a century during the early stages of the transition to mature capitalism in the 19th century, the ordinary state of industry was one of very imperfect competition in product and requisite markets.

In conclusion, Adam Smith's formulation of distribution as a series of 'deductions' is reasonable when distributive 'shares' are determined either according to institutional arrangements requiring compulsory rendering of services or their monetary equivalents, or when imperfect competition characterizes markets. It would, however, be mistaken to believe that the deductions are wholly at the expense of what Smith believed to be labour's rightful product. Monopolistic prices charged by merchants and manufacturers are deductions from the incomes of all orders who consume their products, be they landlords, other capital owners, or labourers and are analogous to the deductions for rent accruing to monopolistic landlords.

1. Ibid.

B-2. Residual Claimant Doctrines of Distribution

The most influential member of the family of residual claimant theories of distribution is that of Ricardo and his followers including J.S. Mill. These writers make the income owners of capital receive a residual surplus that remains after labour's wages are paid, rent having been eliminated from the problem by maintaining that marginal land, the costs of production on which governed the exchange value of the produce, was, in fact, 'rentless', so that, "The whole value of their (farmers on marginal land and manufacturers) commodities is divided into two portions only: one constitutes the profits of stock, the other the wages of labour."¹ Consequently, a law of distribution was derived that implied an excessive degree of opposition between the interests of capitalists and labourers-- ". . . profits would be high or low in proportion as wages were low or high"², and all were opposed to the interests of the owners of non-marginal land who received differential rent for their possession of land, taken costlessly from nature, which was more fertile & better situated than land on the margin of cultivation. Differential rent was a mere transfer to the landlords from other requisite owners.³ Thus profits were thought to be inversely

1. Ricardo, op. cit., p. 130.

2. Ibid.

3. "It must then be admitted that Mr. Sismondi and Mr. Buchanan, for both their opinions are substantially the same, were correct, when they considered rent as a value purely nominal, and as forming no addition to the national wealth but merely as a transfer of value, advantageous only to the landlords, and as proportionally injurious to the consumer." Ricardo, op. cit., p. 392.

proportional to wages, and wages, naturally tending towards subsistence level, depended on the price of necessities which was itself governed by the price of food: ". . . profits depend on high or low wages, wages on the price of necessities, and the price of necessities chiefly on the price of food, because all other requisites may be increased without limit."¹ Since as population grew, the consequent increased demand for food necessitated recourse to land of inferior fertility or site, the cost of production on marginal land increased, forcing the exchange value of raw produce, and wages, upwards in the absence of technological improvements in agriculture. Profits must, according to Ricardo, naturally tend to fall. "The natural tendency of profits is to fall; for in the progress of society, the additional quantity of food required is obtained by the sacrifice of more and more labour."² Thus diminishing returns in agriculture, which were encountered as population grew, forced the cost of production on the marginal produce price governing land up, and caused a tendency for wages to increase. The inverse-residual theory of profit held that as wages rose, profits fell. Landlords were "doubly benefited": "First, (the landlord) obtains a greater share and secondly, the commodity in which he is paid is of greater value" as differential rents increase, reflecting the increasingly severe operation of the Law of Diminishing Returns.³

1. Ricardo, op. cit., p. 139.

2. Ibid., p. 140.

3. Ibid., p. 106.

There is a grain of truth in the residual theory of profit, as is recognized by Smith who noted that "... whatever part (of the price of any commodity) remains after paying the rent of land and the price of the whole labour employed in raising, manufacturing and bringing it to market, must necessarily be profit to somebody".¹ But Ricardo's formulation of the residual theory depended upon a fallacious doctrine of rent when it was applied to 'distribution'. The Ricardian doctrine of differential rents as it applied to exchange value and society's income when all concerned in production depend for their remuneration on the price of a particular commodity, was intended to validate the 'labour quantity' theory of exchange value 'after the appropriation of land', and the passing of Smith's 'early and rude state'. Differential rent could not be a cost of production or a 'component of price', as Smith believed rent to be.

"But that corn which is produced by the greatest quantity of labour is the regulator of the price of corn; and rent does not and cannot enter in the least degree as a component of its price. Adam Smith, therefore, cannot be correct in supposing that the original rule which regulated the exchangeable value of commodities, namely, the comparative quantity of labour by which they were produced, can be at all altered by the appropriation of land and the payment of rent."²

Since differential rent did not enter into exchange value, or society's income, it seemed to follow that since natural wages were at a subsistence level, profits would be determined as a residual, 'the leavings of wages', and that profits varied inversely with the 'independent variable', wages. However, if

1. Smith, op. cit., p. 52.

2. Ricardo, op. cit., p. 101.

rent were a component of price and part of the income of society, as Smith considered it to be because rent was determined by the monopoly landlords held over land, or for some other reason, it would not have been possible to resolve the equation, net output equals rent plus wages plus profit, into a residual theory of profit, as Ricardo did. It is solely the Ricardian's assumption regarding land, which held that while the total supply of land is fixed by Nature, only the more fertile and better situated land is scarce, which assures that all land rent is differential rent and does not influence exchange value. J.S. Mill realized that if society attempted, because population grew, to demand a level of raw produce output beyond the capacity of the fixed amount of cultivatable land when fully utilized, 'scarcity rents' would constitute an increasingly important component of exchange value and society's income. So intent was Ricardo to preserve his labour quantity theory of exchange value that even where he allowed that rent was the result of "partial monopoly", he maintained that it was not among the costs of production which govern exchange value, a 'component of price' in Smith's terms: "I always consider it as the result of a partial monopoly, never really regulating price but rather as the effect of it"¹, says Ricardo.

Ricardians were "misled by their habit of looking on profits as a mere surplus remaining to the employers after they have paid wages"², and totally rejected Smith's explanation of the historical tendency for profits to fall. Ricardo was bound to maintain that profit fell because wages rose, reflecting the increase in wage-good price caused by the increasingly severe

1. Ibid., p. 287.

2. Cannan, op. cit., p. 219.

effect of the Law of Diminishing Returns. He denied that Smith's explanation, which focused on competition between capitalists for labour and opportunities to profit which "become gradually more and more difficult to find",¹ played any role in causing the tendency of profits to decline. In this error he was supported by J.S. Mill who, though he had taken profits out of the category of the pure residual by his belief that 'abstinence', the reward for which is profit, is a real cost of production, still retained the Ricardian residual doctrine of profit. Mill pronounces the Smithian explanation of competition as "incorrect in fact as well as unsound in principle"², and posits that the decline in profits is caused by the increase in wages, which is itself a reflection of the increased price of raw produce caused by the increasingly severe effects of the Law of Diminishing Returns in agriculture. Ricardo, while denying that the degree of competition was the cause of the tendency of profits to fall, nonetheless invokes his assumption of competitive markets to assure us that the residual claimed and retained by the capitalists as profit is proportional to the value of the capital employed--profit is not merely a residual claimed and retained by capitalists because they occupy a strategic position, it is a residual to which they are entitled because they advance capital, and profits are, through competition, proportional to what was advanced.

"It is competition which so adjusts the exchangeable value of commodities, that after paying the wages for the labour necessary to their production, and all other expenses required to put the capital employed in its original state of efficiency, the remaining value or overplus will in each trade be in proportion to the value of the capital employed."³

1. Smith, op. cit., p. 336.
2. Mill, op. cit., IV, iv, 1.
3. Ricardo, op. cit., p. 114.

Ricardo's theory of distribution was flawed because it rested upon a misapplication of a useful theory of differential rent to the determination of exchange value--an error which occurred in consequence of his determination to maintain that the 'labour quantity' theory of exchange value was valid even after the appropriation of land, which it could not be if rent were, as Smith believed, a component of exchange value, not merely a "nominal value", as Ricardo contended. Ricardo should have taken more seriously the difficulties he experienced when he attempted to prove that the production of goods and commodities with differing proportions of fixed to circulating capital did not alter the law of value that the comparative quantities of labour required determine exchange value, and found instead that such differences occasioned "a considerable modification" of that law. These considerations spell out a clear need for a fundamental rather than "considerable" modification of the theory of exchange value. Smith's demand-supply analysis of exchange value, so blithely rejected by Ricardo as a "source of much error", though promoted by Malthus, was not accorded sufficient importance as a determinant of exchange value for many years.

Mill's contributions to the theory of exchange value are useful; he undid the confusion Ricardo had made between Smith's labour quantity theory and 'toil and trouble' theory, proposing a 'real cost' theory of exchange value which also made 'abstinence' a 'real cost' of production in the same way labour was a 'real cost'. Nonetheless, Mill retained the Ricardian residual doctrine

of profit, because, despite his recognition that in 'some distant future', scarcity rents would arise and become an increasingly important component of exchange value, he, like Ricardo, was convinced that rent was not a cost of production, or a component of price because all rent was differential rent, and land ownership was not monopolized. As early as the Napoleonic wars, the limitation on raw produce production imposed by the fixed supply of cultivatable land, and not merely the diminishing returns as marginal land was brought into cultivation from a practically limitless supply of such land, resulted in substantial investment in England and some European countries intended to 'drain the fens' and reclaim land from the sea in order to augment Nature's 'fixed supply of cultivatable land'--it was not in 'some distant future', as Mill would have it, that scarcity rent would become an increasingly important component of exchange value; it had been such for decades before Mill wrote.

B-3. Early Marginal Productivity Doctrines of Distribution

John Bates Clark rejected Smith's doctrine that labour's 'natural' wage was the total product of society, and that after the passing of the 'early and rude state', rent and profits would constitute 'deductions' from wages. He sought to prove that in a society in which competition operated without 'friction', each requisite, capital (which included land as a species of capital good) and labour, would receive "the amount of wealth which that agent creates"¹, if the wage rate were determined by the productivity of the marginal labourer employed in conjunction with a fixed stock of capital, and the interest

1. Clark, op. cit., Preface.

rate determined by the productivity of the marginal unit of capital employed by a fixed 'fund of labour', when a state of static equilibrium had been reached. Rejecting also the Ricardian doctrine of distribution in which rent is first eliminated from exchange value, and profits of stock treated as a residual, varying inversely with wages, Clark holds that to derive a law of distribution, one must first eliminate what is not rent, pure entrepreneurial profits, by "reducing society to a static condition"¹, in which entrepreneurial profits above the wages of management are 'annihilated' through the competition of entrepreneurs for 'opportunities', capital and labour. Having eliminated entrepreneurial profits, society's income consists only of wages and interest including land rent. 'All-wages' and 'All-interest' are then shown to be differential surpluses or rents. 'All-wages', the arithmetic product of the wage rate determined by the marginal productivity of labour and the amount of labour employed, is "a surplus that is causally attributable to labour and labour only."² It is the sum of the difference between the joint product of capital and labour produced by each earlier increment of capital when employed by the fixed fund of labour, and the product of the marginal unit of capital which is "what capital alone contributes to the product of the combination"³. 'All-wages' is therefore a differential surplus, which Clark calls "the rent of labour", and is the only part of society's income in static state "that is imputable to labour alone"⁴. By a similar reasoning, Clark concludes that 'All-interest' is also a differential surplus or rent, the only part

1. Ibid., p. 330.

2. Ibid., p. 199.

3. Ibid.

4. Ibid., p. 365.

of society's income attributable to capital alone in static state. Together, 'All-wages' and 'All-interest' exhaust society's income in static state, and Clark concludes that "One law governs wages and interest--the law of final productivity"¹, because "free competition tends to give to labour what labour creates, to capitalists what capital creates and to entrepreneurs what the co-ordinating function creates"² under that law.

Clark opened himself to considerable criticism from his contemporaries, because in seeking to replace Smith's 'natural law', Clark himself wrote in terms of 'natural law':

"It is the purpose of this work to show that the distribution of the income of society is controlled by a natural law, and if this law worked without friction, would give to every agent of production the amount of wealth which that agent creates."³

Why should it be considered true that the different orders of men naturally get what each creates? That some 'get something for nothing' as do Smith's landlords who reap where they have not sown while others 'get nothing for something' as do Smith's labourers, might, not without historical justification, be considered as the 'natural law of distribution'. However, Clark's methodology has been too hastily rejected by some critics as mere "capitalist apologetics"⁴. Even if we agree that men should 'get what they create', does the principle of marginal productivity really measure what Clark says it does, "... the amount of wealth which that agent creates"?

1. Ibid., p. 200.

2. Ibid., p. 3.

3. Ibid., Preface.

4. Schumpeter, op. cit., p. 870.

Firstly, Clark states that the product of the marginal unit of capital (or labour) is "what capital (or labour) alone contributes to the product of the combination."¹ Hobson, with good reason, believes that this is not so, because the marginal unit of capital is co-operating with both the fixed fund of labour and the previously employed capital, and that this invalidates Clark's 'separatist doctrine of productivity'--the marginal product of capital is not what capital alone creates. Says Hobson, ". . . the productivity of the last dose of capital is not a separate or separable amount but can only be treated as a fraction of the productivity of the complex of co-operative units of capital"². And the same is true when capital is held fixed and labour successively employed.

"... the organic co-operation of the factors in a business. . . precludes the attribution to any factor, or a part of any factor, of any particular product or any fixed proportion of the total product of business."³

Hobson holds that it is not the principle of productivity that should be abandoned--only the 'separatist doctrine of productivity' which attributes the marginal product of the variable factor solely to the variable factor as "what (it) alone contributes to the product of the combination", should be abandoned in favour of a theory which explicitly recognizes the co-operative nature of production. Hobson states that while the 'separate productivity' used by Clark "furnishes the upper limit"⁴

1. Clark, op. cit., p. 199.

2. Hobson, The Industrial System, p. 116.

3. Ibid., p. 106.

4. Ibid., p. 116.

of wages and interest, the lower limit will be established by the factor's opportunity and subsistence costs. Where, within the range of rewards established by the upper and lower limits, actual requisite rewards settle, depends on the degree of competition, and the relative scarcity, either natural or contrived, of the various requisites.

"The separate payments which are in fact made to the owners of particular factors in a particular business must indeed be considered to have reference to the utility imputed to the factor in question; but that utility in its turn must be interpreted, not by any separate productivity rendered by the factor, but by its services as a member of a co-operative group, those services being enhanced or diminished by the action of the other members of the group. That payment. . . cannot be less than what is economically necessary to maintain the factor in its current efficiency; but how much more it may be will depend not on any separate productivity, real or imputed, but upon the degree of pressure which its scarcity relative to that of the other factor of production enables it to exercise in demanding its share of the product of the business as an organic whole."¹

Secondly, other reviewers of Clark's theory of distribution reject it because Clark's use of "a bit of imaginary dynamics"², the incremental addition of units of 'variable factor' to a fixed fund of the other factor, when strictly speaking Clark has assumed static conditions, introduces 'pure profit' into 'All-wages' and 'All-interest' for which Clark fails to account. The two latter incomes will not exhaust society's income in static state equilibrium.

"Is it at all allowable for us to add successive increments of labour to a fixed fund of capital, and yet continue to say that our diagram includes nothing but wages and interest? In a word, does not the re-introduction of dynamic conditions compel us to find some place in our diagram for that 'pure profit' whose 'existence is precluded' only under the assumption of static conditions?"³

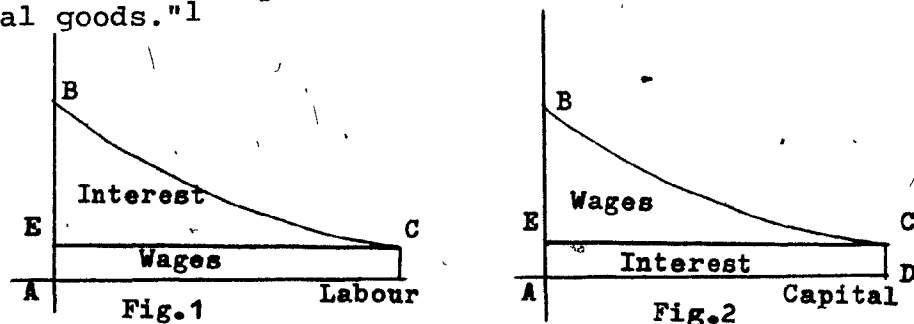
1. Ibid., p. 107.

2. MacFarlane, Distribution by a Law of Rent, p. 163.

3. Ibid.

MacFarlane writes that if the 'variable' factor is increased relative to the fixed factor, pure profit will arise and become part of the fixed factor's income, because the fixed factor will obtain "a monopoly advantage".

"If Fig. 1 and 2 are the diagrams of a dynamic society it follows that they must somewhere contain that 'pure profit' which Clark has declared to be the sign and token of such a society. We have seen that a disturbance of the normal ratio (of capital to labour) gives to the scarcer factor a monopoly advantage. Hence in Fig. 1 where labour is added in successive increments, it is capital that enjoys this monopoly advantage or in some way secures that 'pure profit' which is always to be found in a dynamic society. Now as Clark has elsewhere written, monopoly inheres in the concrete forms, but not in the abstract or permanent social fund. Hence if ECB represents the entire earnings of the capital employed, it must at least include the 'pure profit' or the monopoly surplus secured by all those who control particular concrete forms of capital goods."¹



For the moment we shall leave aside the consideration that the 'natural law of distribution' formulated by Clark would give to each agent what it creates only if it worked without friction, ie., if the requisite and product markets were competitive. Clark's 'separatist doctrine of productivity' and his introduction of dynamic considerations into the division of static incomes

1. Ibid.

with the result that either 'All-wages' or 'All-interest' will contain elements of monopoly profit accruing to the owners of the factor made relatively scarce by the 'bit of imaginary dynamics', provide sufficient cause to seek a theory of distribution grounded in requisite productivity giving scope to both natural and contrived scarcity.

B-4. Bargaining Power Doctrines of Distribution

J.A. Hobson, in his work The Economics of Distribution, was significantly influenced by Mill's observation that while differential rents would not enter into the costs of production on marginal lands which govern the price of raw produce, scarcity rents would do so eventually as population grew, demanding an output greater than the capacity of Nature's 'fixed' endowment of land to supply when fully utilized.

"Suppose that an increase in the population and the demand for wheat brings into cultivation all the land available, the worst land in use may or must pay an actual rent. This will not be a differential rent, but a forced or scarcity rent limited in its rise only by the pressure of the need for land and representing the power of the stronger bargainer in the final pair that determine market price. Such forced rent would evidently be reckoned as an expense incidental to all portions of the wheat supply and would enter into prices".¹

Hobson elaborates the observation into a theory of distribution by generalizing natural resources scarcity rents into the 'Law of Three Rents', under which the owners of requisites

1. Hobson, The Economics of Distribution, p. 118.

through natural or contrived scarcity appropriate scarcity rents reflected in prices as a surplus above the requisites' necessary subsistence costs when employed on the margin of utilization.

"In every process of production where capital, labour and land are employed, one or the other, whether by organized contrivance of its owners, or else by what may be termed accident, is apt to be in relatively short supply; in such cases, the whole supply of this factor will take a price containing a 'surplus' element."¹

To Hobson, "Distribution consists in, or is conducted by, the process of fixing market-prices. . ."², and "the proportion which falls to each of the three claimants [is] determined by the operation of the law of supply and demand upon the margin of employment in the three requisites of production respectively."³

It will be recalled that Clark contended that the law of marginal productivity would give to each requisite 'what it creates'--"if this law worked without friction", meaning that if all requisite markets and product markets were freely competitive. Though Clark was clearly concerned about the validity of distribution theories based on such assumptions due to the "forming on every side [of] trusts and other consolidations of capital that threaten to extinguish competition and to introduce a regime of monopoly within much of the business field "⁴, it is equally certain that through the use of the word 'friction' Clark intended to convey that such imperfections in competition

1. Hobson, The Industrial System, p. 355.
2. Ibid., p. 359.
3. Hobson, Distribution by the Law of Three Rents, p. 280.
4. Clark, Distribution of Wealth, p. 440.

were neither characteristic of industry nor the cause of any need to alter fundamentally the laws of distribution. Hobson does not agree--"To treat natural and contrived scarcity and the forced gains which proceed therefrom as mere 'friction', of which account can be taken afterwards, is an unscientific method of procedure."¹ The market prices of the requisites, which govern the distribution of income, will reflect the "composition of consumption" on the demand side, and natural scarcity of the factors of production, the degree of competition between buyers and between sellers, and the asymmetry in 'bargaining power' held by buyers and sellers on the supply side--an approach similar to Adam Smith's in explaining wage rates as a function of the relative ease with which capitalist-employers and labourers might combine, and the consequent superior position in the wage bargain held by the former.

Capital owners, like owners of land receiving 'scarcity rents', could, and did in the course of 'normal' business life, appropriate a payment in excess of the minimum necessary cost through limiting free competition in requisite and product markets.

"Capital, by various processes limits free competition; price lists and other trade agreements regarding price and wages rates, corners and other temporary coups, syndicates, amalgamations and trusts are all endeavours to enable capital in a given market to obtain a rate of profit above the necessary minimum, by raising prices, reducing wages, or both. So far as capital succeeds, these higher profits are represented in market prices which exceed the economically necessary money costs of production."²

1. Hobson, The Industrial System, p. 119.

2. Ibid., p. 355.

Labour organizations, like those of capital seek to appropriate rent-like surpluses through the restriction of competition among labourers.

"But trade organizations in most skilled trades are evidently devoted not merely to protective policy, but to a strengthening of their capacity for bargaining by restricting competition in the labour market, so that they may obtain in higher wages or increased leisure a surplus corresponding to the higher profits of capital."¹

Hobson concludes that in situations of imperfect competition, the "actual conditions of industry", and where the requisites of production are limited in supply through "accident" or contrivance, the owners extract rent-like surpluses by threatening to withdraw the consent necessary for co-operation in production.

"But the actual conditions of industry. . . are widely different from this 'free competition'. In every process of every industry, some one or the other of the factors is relatively scarce, either by nature or human contrivance, and can extort a piece of 'surplus' payment over and above that payment for which its owners would consent to apply it in production, if they would not get this surplus."²

The economists of the 'real cost' school and Clark considered that although market price variation in the first instance might guide income 'shares', market prices tended to conform to 'natural prices' which were composed of only the minimum necessary costs of capital and labour employed on the 'land-rentless' margin. Hobson denies that there is a tendency for market prices of products produced with requisites subject to natural scarcity or "durable contrivances" to be composed of only the minimum necessary costs of production on the margin of

1. Ibid.

2. Ibid., p. 136.

utilization, noting, "The fluctuation of market prices round normal prices cannot cancel, as is sometimes supposed, the major gains derived from the strong positions held by the owners of (such) factors."¹ Indeed, ". . . the distinction between normal and market prices has. . . no clear logical validity"², because many of the rents of land, capital, and labour ". . . are based upon fairly permanent restrictions of supply or competition."³

"And so it comes to pass that instead of an exchange and distribution based on minimum costs of production, we have an exchange in which the costs are weighted by varying amounts of 'surplus' which express themselves in value through price."⁴

Hobson's 'Law of Three Rents' is summed up in his conclusion that ". . . the proportion of the aggregate product which is paid as the rent of land, of capital and of labour, varies with the difficulty of keeping in economic use the quantity of each requisite of production required to maintain the rate of current production."⁵ Under conditions of constant proportions (though not necessarily constant cost) in production, three cases arise, depending on the relative "difficulty of procuring each piece of additional (requisite) supply."⁶

1. Ibid., p. 154.

2. Ibid.

3. Ibid.

4. Ibid., p. 136.

5. Hobson, Distribution by the Law of Three Rents, p. 282.

6. Ibid., p. 283.

- "1.If there exists an indefinite quantity of each of the requisites of production just below the margin of employment, of almost equal quality to that upon the margin, an increase in production will neither alter the proportion of distribution among the owners of the three requisites nor appreciably raise the rent of each unit of a requisite above the margin.
- 2.If there is not a sufficient quantity of any of the requisites of production easily available for new supply, and the difficulty of procuring each piece of additional supply is equal in the case of each requisite, the rent of each rent-paying unit of land, capital and labour, will rise, but the proportion of distribution of the aggregate product will remain unchanged.
- 3.If there is a difference in the amount of difficulty of procuring the increased supply of the three requisites, that difference will be accurately measured by the relative rise in rent of the rent-paying portion of each requisite, and by a corresponding alteration in the proportion of the aggregate product which falls to each; i.e., if it is desirable to increase by 20 per cent the quantity of each requisite of production in order to increase the product and it is twice as difficult to procure the increased quantity of land as of capital and labour, one-half of the increased product will go as rent to land, one-quarter as rent to capital, one quarter as rent to labour."¹

Where production is conducted under technical conditions of variable proportions, one would have to enter into "an elaborate calculation", says Hobson, to determine firstly, "the precise amount of land, capital and labour required to take part in the new production and the proportion each addition bears to the quantity in previous use", and secondly, "the extent of the fall in the margin of employment necessary to furnish in the case of each requisite the desired increase."² Nonetheless, contends Hobson, one would find that changes in the proportionate share of

1. Ibid.

2. Ibid., p. 284.

product "will depend on the relative strength of two forces: first, the relative growth in the demand for each requisite signified by the increased product; secondly, the relative difficulty of supplying that demand."¹ While Hobson gives insufficient consideration to the role a requisite's productivity plays in demand for the requisite, and grants an excessively important role to requisite owners' appropriation of 'unearned' surpluses through contrivance, his recognition that distribution was based on market prices, exhibiting little tendency toward either Smith's 'natural price', the price of 'free competition' or the 'real cost'- economists' necessary costs of production on the rentless margin of utilization--and was determined by the operation of the demand-supply apparatus in imperfectly competitive markets within economies where the endowment of natural resources is rapidly approaching full capacity utilization, is certainly relevant to any modern theory of wealth distribution.

1. Ibid.

B-5. Marshall's Doctrines of Distribution

Alfred Marshall grounds his doctrines of distribution, the topic Book VI of his Principles in the laws of demand and supply. He first traces the classical doctrines of distribution from those of the physiocrats who postulated an "iron law of wages", or that "there was a natural law of population according to which the wages of labour were kept at starvation level"¹, and a natural or necessary level of profit, through Smith's recognition that demand and supply governed wages, and that wages frequently were greater than dictated by the 'iron law', and profits too might be long above the 'natural level' necessary to prevent capital from going out of existence, or emigrating, to Ricardo's (and J.S. Mill's) belief that while wages would tend towards that level determined by the "iron law", they were not fixed or unalterable because they were "determined by the local conditions and habits of each place and time"², though Ricardo frequently seemed to forget this latter consideration and argue as if the "iron law" governed wages. Marshall does not comment upon Smith's use of the 'deduction' concept for rent and profits or Ricardo's and Mill's concept of profits as a residual.

Marshall briefly studies an "imaginary world" in which everyone owns the capital they use, labour is assumed to be perfectly mobile and population is stationary. In such cases "the value of each thing corresponds closely to the amount of labour spent upon it; and. . . the earnings of everyone are governed simply by the bounty of nature and by the progress of

1. Marshall, A. op. cit. VI, i, 2.

2. Ibid.

the arts of production"¹. When population is assumed to grow (not as a function of wages, but of custom) in such "an imaginary world", the "tendency to diminishing returns" in agriculture will eventually outgrow improvements in the arts of population. He then attempts to "approach much nearer to the actual condition of life" by assuming labour is not perfectly mobile, there being different grades of labour, any member of a grade being mobile within it, but cannot move to another grade. In such a case the distribution of income will be unequal between the different grades, and governed by demand. He concludes that the "... share of those in any industrial compartment will be the higher, the more extensive and urgent the needs which they are able to satisfy on the part of those who are themselves drawing large shares of the national income"² without explaining how the latter gain their "large shares".

Marshall then analyses 'our own world' in which capital is not owned by those who directly apply it to production, maintaining the assumption that the earnings of each agent of production do not affect its supply. This leads through elaboration of the principle of substitution (a mode of competition) to the principle that the employment of each agent is adjusted by "businessmen" such that in each agent's marginal application, the agent's remuneration equals the additional net product resulting from its use, or what Clark called wage rate (and interest rate) determination by the principle of marginal

1. Ibid., VI, i, 4.

2. Ibid., VI, i, 6.

productivity. Marshall rejects that the principle of marginal productivity constitutes a theory of wages (or interest) saying:

"This doctrine has sometimes been put forward as a theory of wages. But there is no valid ground for any such pretention. The doctrine that the earnings of a worker tend to be equal to the net product of his work, has by itself no real meaning; since in order to estimate net product, we have to take for granted all the expenses of production of the commodity on which he works, other than his own wages."¹

The principle of marginal productivity governs demand for an agent, but demand alone does not govern value or distribution; the balance between demand and supply does. The principle of marginal productivity does not offer any insight into those factors which govern the supply of agents and "cannot be made into a theory of interest any more than into a theory of wages, without reasoning in a circle"². However, that principle "throws into clear light the action of one of the causes which govern wages"³ and interest.

Chapter ii of Book VI is devoted to "a study of the reflex influence of remuneration on the supply of different agents of production. Marshall noted that Ricardo was criticised for neglecting the elements of demand and utility on value and distribution, and that subsequent economists such as Clark reacted by placing too much stress on demand factors, neglecting the forces of supply, "the study of which is the more important and involves the greater difficulty".⁴

1. Ibid., VI, i, 7.

2. Ibid., VI, i, 8.

3. Ibid., VI, i, 7.

4. Ibid., VI, ii, 1.

"In the reaction, too much insistence has been laid on the fact that the earnings of every agent of production come from, and are for the time mainly governed by the value of the product which it takes part in producing; its earnings being so far governed on the same principle as the rent of land, and some have even thought it possible to constitute a complete theory of Distribution out of manifold application of the law of rent. But they will not reach that end."¹

Though Marshall from the foregoing might be thought to believe normal value to be governed more by the forces of supply than demand, such a conclusion would be erroneous as he compares normal value to the keystone of an arch, ". . . balanced in equilibrium between the contending pressures of its two opposing sides; the forces of demand press on the one side, and those of supply on the other."² "Thus again we see that demand and supply exert co-ordinate influences on wages; neither has a claim to predominance; any more than has either blade of a pair of scissors, or either pier of an arch. Wages tend to equal the net product of labour; its marginal productivity rules the demand-price for it; and, on the other side, wages tend to retain a close though indirect and intricate relation with the cost of rearing, training, and sustaining the energy of efficient labour. The various elements of the problem initially determine (in the sense of governing) one another; and incidently this secures that supply-price and demand price tend to equality; wages are not governed by demand-price nor by supply-price, but by the whole set of causes which govern demand and supply."³

1. Ibid.

2. Ibid.

3. Ibid., VI, ii, 3.

Having considered the influence of demand in the previous chapter, Marshall then devotes several succeeding sections of this chapter to the consideration of the influence of an agent's remuneration on longer-run supply of the agent, introducing backwards bending supply functions as a caveat to the general rule that "increased remuneration causes an immediate increase in the supply of efficient work."¹

We have observed that in speaking of a requisite's share of society's net product, classical economists were concerned with, wages per capita, not the ratio of 'all-wages' to national dividend, and the rate of profit or interest per cent not "all-interest" relative to the national dividend. In the former case, that of wages, Marshall denies the existence of any general wage level and focuses attention on forces which determine the wages of various labour groups. The study of income distribution to Marshall is the application of the Principle of Substitution and demand-supply analysis, within groups of labourers, and between labour and capital, the former being stressed.

"A word should be said as to the common phrase 'the general rate of wages', or 'the wages of labour in general'. Such phrases are convenient in a broad view of distribution, and especially when we are considering the general relations of capital and labour. But in fact there is no such thing in modern civilization as a general rate of wages. Each of a hundred or more groups of workers has its own wage problem, its own set of special causes, natural and artificial, controlling the supply-price, and limiting the number of its members; each has its own demand-price governed by the need that other agents of production have of its services."²

1. Ibid., VI, ii, 2.
2. Marshall, Ibid., VI, ii, 3.

Marshall questions skeptically the concept of the general rate of interest, stressing that the remuneration derived from capital-goods is properly not interest, but quasi-rent, and that in his subsequent study of 'the interest rate' he analyses only "anticipated net earnings from new investments of free capital"¹, the later being determined by the forces of demand and supply in capital markets. Incomes derived from the possession and employment of capital-goods, are governed by the same laws as land rent: "In each case the income tends to equal the value of the marginal net product of the agent: in each case this is governed for the time by the total stock of the agent and the need that other agents have of its aid."²

Land rent differs from wages, interest, and quasi-rents, in that the latter are rewards to agents of production which have a supply-price and the supply of which is a function of that supply-price in the long-run, while land-rent is the return to those who possess a factor of production which is strictly limited in supply and whose supply is virtually unresponsive to any effort or sacrifices men might undertake to secure an enlarged aggregate supply of it.

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1. Ibid., VI, ii, 4.
 2. Ibid., VI, ii, 5.

To recapitulate Marshall's doctrine of distribution, national dividend is both the aggregate net product of, and the sole source of remuneration of all the requisites of production. The earnings of the owners of land and of capital and those of labour suppliers are governed by the value of the requisite's marginal product and factors which determine the supply of each factor. Together, the earnings of the requisites exhaust the national dividend, and it is divided between them in proportion to the marginal need people have of their services. Any increase in a particular requisite's rate of remuneration is likely to expand the supply of that requisite even if slowly, and reduce the 'share' of that requisite. Assuming no substantial changes in the general economic condition of society and in the arts of production, the supply of each requisite will be regulated by that requisite's cost of production, including in the cost of production, those of 'conventional necessities' which constantly expand as the national dividend grows.¹

In the subsequent chapters of Book VI, Marshall investigates (1)". . . how far the general theories of the relations between the value of an appliance for production and that of the product, which it helps to make

are applicable to the incomes earned by natural abilities, or by skill and knowledge acquired long ago, whether in the ranks of the employers, the employed, or the professional classes"¹, (2) the theory of profit and interest, and (3) some particular considerations relative to the producers' surplus from land cultivation and its division between the land owner and the tenant.

(i) The Earnings of Labour

Firstly, Marshall stresses that the statement "... economic freedom and enterprise tend to equalize wages in occupations of the same difficulty and in the same neighbourhood"² must be qualified by measuring earnings in terms of 'efficiency earnings' or "... with reference to the exertion of ability and efficiency required of the worker".³ Then 'economic freedom and enterprise', or competition will cause a tendency to equality of efficiency earnings in the same district, and the tendency will be stronger (a) the greater the mobility of labour, (b) the less specialized labour is, (c) the more sensitive parents are to the net advantages of various occupations and the more parents direct children to the occupations of greater net advantage, (d) the more rapid adjustments to changes in the economic environment are made by labourers and (e) the slower and less violent such changes are.⁴ Marshall then qualifies this argument with a correction:

1. Ibid., VI, iii, 1.

2. Ibid., V, iii, 2.

3. Ibid.

4. Ibid.

supporting his belief that where a high proportion of fixed capital is employed, employers would gain by raising the time wages of the more efficient workers more than in proportion to their efficiency.

Marshall then affirms that Smith's dictum "The labour is rich or poor, is well or ill rewarded, in proportion to the real, not to the nominal, price of his labour,"¹ and investigates the influence on real wages of patterns of consumption of different grades of labour, trade expenses of different grades, income in kind, uncertainty of success, and inconstancy of employment, concluding that ". . . the attractiveness of a trade depends on many other causes besides the difficulty and strain of the work to be done in it on the one hand, and the money earnings to be got in it on the other", and that the supply-price of a grade of labour depends upon not merely the earnings of that grade but upon the net advantages of its occupation.

Marshall next investigates several "peculiarities" in the action of the demand for and supply of labour. These are:

(a) "The worker sells his work, but he himself remains his own property; those who bear the expenses of rearing and educating him receive but very little of the price that is paid for his services in later years."²

(b) ". . . when a person sells his services, he has to present himself where they are delivered"³,

1. Smith, A., op. cit. p. 33.

2. Ibid., VI, iv, 2.

3. Ibid., VI, iv, 5.

(c) ". . . labour power is 'perishable',

(d) ". . . the sellers of (labour power) are commonly poor and have no reserve fund, and they cannot easily withhold it from the market."¹

(e) ". . . the length of time that is required to prepare and train labour for its work, and in the slowness of the returns which result from this training."²

The consequence of the first peculiarity is that the investment of capital in a labourer is limited by the means, the forethought and the unselfishness of his parents, and that these differ among the various grades of labour -- parents in the higher grades are frequently better able to forecast the future and "discount it at a low rate of interest" and are willing and able to incur the substantial costs of providing the requisite training. He stresses that the ill effects of the relative lack of foresight and ability and willingness to bear the high costs of providing human capital that are evident in the lower paid grades of labour are cumulative, ". . . the less fully their own facilities are developed, the less will they realize the importance of developing the best facilities of their children, and the less will be their power of doing so."³

1. Ibid., VI, iv, 6..

2. Ibid., VI, v, 7.

3. Ibid., VI, iv, 2.

The second peculiarity, that the seller of labour must deliver it himself implies that not only the wage but the conditions of work influences the supply of labour. Labour immobility is the primary manifestation of this peculiarity and it hinders the adjustment of the supply of labour to the demand for it, but is not as "broad and deep"¹ an influence as that which the first peculiarity exercises.

Marshall in analysing the effect of the third and fourth peculiarities of labour power (that it is perishable, and that labour sellers are generally poor and have seldom any reserve fund and cannot withhold it from the market) introduces an argument that is very similar to Smith's that labour markets are monopsonies. However the degree to which the peculiarities are manifest in an unequal distribution of bargaining power between buyer and suppliers differs from labour group to labour group. The detrimental effects of the peculiarity on labour suppliers are firstly, lower wages which lowers their efficiency as workers and the nominal value of their work, and secondly, they increase the chance that suppliers will sell their labour at less than its normal value.²

Subsequently, Marshall states that if both employers and employees each combine against the other in the wage bargain ". . . the solution of the problem of wages becomes indeterminate",³ and ". . . there is nothing but bargaining to decide the exact shares".⁴ The lower limit of wages is that level below which

1. Ibid., VI, iv, 5.

2. Ibid., VI, iv, 5.

3. Ibid., VI, viii, 10.

4. Ibid.

labour would transfer to other markets. The lower limit must be sufficiently high to induce the younger generation of labourers to offer their skills on that market. The upper limit of wages is that level above which capital and business ability would transfer to other endeavours.

However Marshall believed normal wages could not be raised by combinations of employees. The higher market price of labour which might be secured by a successful combination of employees will induce an increase of those who wish to supply labour in that market, and if the restriction of competition continues long enough, new methods of satisfying those wants of consumers will be invented, thereby diminishing or eliminating demand for their services--wages will fall to or below the original level.¹ Wages can be raised permanently only by increasing the efficiency of the labour co-operating with capital. He notes that the argument that wages can be permanently raised by contriving labour scarcity rests on the assumption of a fixed work fund or "a certain amount of work which has to be done, whatever the price of labour".² This Marshall denies, pointing out that demand for work originates in the national dividend itself and, "... the less work there is of one kind, the less demand there is for work of other kinds; and if labour were scarce, fewer enterprises would be undertaken."³ Secondly, capitalists would migrate either abroad or

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1. Ibid., VI, xiii, 2.
 2. Ibid., VI, xiii, 4.
 3. Ibid.

to different domestic endeavours: ". . . an attempt to raise wages by anti-social contrivances for stinting output, is certain to drive abroad well-to-do people in general; and especially just that class of capitalist whose enterprise and delight in conquering difficulties is of the most importance to the working class."¹

The last substantial difference between demand and supply of appliances of production and that of labour is the long period of training necessary for most trades and the slowness with which returns come to those who undertake the necessary training for a trade. This is the domain of parents' foresight and unselfishness in directing their children to occupations. Frequently, though parents seek to exercise foresight, significant changes in the economic environment may be only dimly or not at all visible, with the consequence parents predict a continuation of the status quo. This results in ". . . the supply of labour in a trade in any one generation tend(ing) to conform to its earnings not in that but in the preceding generation" which of course makes the adjustment of supply of labour to that trade to demand for it both slower and more imperfect.

1. Ibid., VI, xiii, 5.

(ii) Interest of Capital

In his preliminary survey of distribution in Book VI Marshall holds that the forces which govern demand for capital and those which govern its supply mutually determine the rate of interest, and that in the long run, interest will tend to the equilibrium level at which aggregate demand equals aggregate supply.

"... (I)nterest, being the price paid for the use of capital in any market, tends towards an equilibrium level such that the aggregate demand for capital in that market, at that rate of interest, is equal to the aggregate stock forthcoming at that rate."¹

Marshall had explained in Book II that the chief demand for capital "... arises from its productiveness, from the services which it renders"², while the supply of capital is controlled by the fact that, "... in order to accumulate it, men must act prospectively: they must 'wait' and 'save', they must sacrifice the present to the future."³

Marshall notes that gross interest, which includes insurance against risk and the earnings of management must be distinguished from net interest or, "the earnings of capital simply, or the reward of waiting simply."⁴

Risks are divided into two classes, trade risks and personal risks. The trade risks "... arise from fluctuations in the markets for their raw materials, and finished

1. Ibid., VI, ii, 4.

2. Ibid., II, iv, 8.

3. Ibid.

4. Ibid., VI, vi, 4.

goods, from unforeseen changes of fashion, from new inventions, [and] from the incursion of new and powerful rivals into their respective neighbourhoods."¹ Such risks are particular to the trade in which businessmen operate, and are common to both those businessmen who work their own capital and to those who work with borrowed capital. Personal risks however must be borne by only those who borrow capital: "For he who lends capital to be used by another for trade purposes, has to charge a high interest as insurance against the chances of some flaw or deficiency in the borrower's personal character or ability."²

Competition does not make gross interest on equal capitals lent tend to equality as insurance against risk and the earnings of management vary among the different trades in which the equal capitals are worked.

"The tendency of competition is therefore not towards equalizing this gross interest: on the contrary, the more thoroughly lenders and borrowers understand their business, the more certainly will some classes of borrowers obtain loans at a lower rate than others."³

Net interest, or the 'reward of waiting' gained on loans of capital does, however, tend to equality through the competition of lenders and borrowers.

Marshall stresses⁴ that the rate of interest applies only and strictly to new investments only, while the value of capital invested in capital goods or appliances of production is

1. Ibid.

2. Ibid.

3. Ibid.

4. Ibid., VI, vi, 6.

governed by the earnings of the appliances, their 'quasi-rents' or the aggregate discounted value of their estimated incomes, net of capital replacement or depreciation charges. Marshall had previously decomposed "the supply of business power in command of capital" into (a) the supply of capital; (b) the supply of business power to manage it, and (c) the supply of organization by which the two are brought together and made effective for production¹. The earnings of (b) and (c) together are identified as 'gross earnings of management' while the earnings of (b) alone are 'net earnings of management'.

In attempting to prove that "the rewards of every business undertaker tends to be proportionate to the direct services he renders to the community"². Marshall considers the adjustment of rewards (through the principle of substitution) of the services rendered by ordinary workmen, by foremen, and by employers of different grades. He notes the disadvantage those who work borrowed capital must bear due to personal risk in some trades" which move slowly and in which it is necessary to sow a long time before one reaps".³ Personal risk is not so onerous in industries whose product is based upon cheaper reproductions of costly wares.⁴

Marshall concludes that modern methods of business organization because of their variety (proprietorships, partnerships, joint stock companies etc.) and the scope they offer to business ability having no self-owned capital, "render possible

1. Ibid., VI, vii, 1.

2. Ibid., VI, vii, 1.

3. Ibid., VI, vii, 5.

4. Ibid.

a much closer correspondence between the earnings of undertaking and management and the services by which those are got"¹, than was realized under "the primitive system" in which none but capitalists were entrepreneurs. Under the modern methods of business:

"... that share of the normal expenses of production of any commodity which is commonly classed as profits, is so controlled on every side by the action of the principle of substitution, that it cannot long diverge from the normal supply price of the capital needed, added to the normal supply price of the ability and energy required for managing the business, and lastly the normal supply price of that organization by which the appropriate business ability and the requisite capital are brought together."²

Elsewhere, in chapter xi--General View of Distribution--Marshall elaborates on the workings of the principle of substitution. It "... works blindly, or rather wastefully"³, wrecking many competitors who though able did not obtain the custom of buyers at first, and in conjunction with the tendency to increasing returns, "it strengthens those who are strong, and hands over the business of the weak to those who have already obtained a partial monopoly."⁴

However, unlike Hobson who believed that "The fluctuation of market prices round normal prices cannot cancel... the major gains derived from the strong positions held by the owners of... factors"⁵ subject to natural scarcity or 'durable contrivances',

1. Ibid., VI, vii, 7.

2. Ibid.

3. Ibid., VI, xi, 2.

4. Ibid., VI, xi, 2.

5. Hobson, The Industrial System, p. 154.

Marshall believes that the "forces which tend to break up old monopolies" constantly increase¹, as do the forces which create openings for capital-less entrepreneurs in both new and established undertakings and concerns, and that together these forces tend to cause the normal expenses of production classed as profits to converge upon the sum of the normal supply price of the capital needed, the normal supply price of the required ability and energy of management, and the normal supply price of the organization by which the ability and the capital are combined in production.

(iii) The Rent of Land

Marshall defines differential rent to be "... the excess of the value of the total returns which capital and labour applied to land do obtain, over those which they would have obtained under circumstances as unfavourable as those on the margin of cultivation".² The position of the margin of cultivation is determined by "... the general conditions of demand and supply"³. Demand for raw produce is determined by the size of the consuming population, the intensity of their need for it and their means of paying for it, while supply is determined by the extent and fertility of cultivatable land, and the number and resources of those who can cultivate it. Therefore, the amount of rent does not govern the price of raw produce "but is itself governed by the fertility of the land,

1. Marshall, op. cit., VI, xi, 3.

2. Ibid., V, x, 1.

3. Ibid.

the price of the produce, and the position of the margin."¹

Marshall notes that if the costs of production were estimated for parts of the produce above the margin, a charge for rent would have to be included in such estimates, but, if one were to include such a charge among the causes which govern raw produce price, ". . . then the reasoning would be circular"², because ". . . that which is wholly an effect, would be reckoned up as part of the cause of those things of which it is an effect".³ Only the cost of production on the margin of cultivation can be ascertained without reasoning in a circle. The price of the whole produce tends towards the cost of production on the margin: this cost does not govern price, "but it focusses the causes which do govern price."⁴

It will be recalled from our chapter on rent that Marshall concluded that "there is a continuous gradation from the true rent of those free gifts which have been appropriated by man, through the income derived from permanent improvements of the soil, to those yielded by farm and factory buildings, steam engines and less durable goods".⁵ This is the doctrine of 'quasi-rents'; like land rent, quasi-rents "do not. . . directly enter into the normal supply prices of produce for periods of

1. Ibid.

2. Ibid.

3. Ibid.

4. Ibid.

5. Ibid., VI, ix, 1.

moderate length."¹ Hobson, with whom I agree in this matter, believes Marshall is mistaken: "quasi-rents are analogous, not to differential rents of land, but to scarcity rents"², says Hobson, adding, "the quasi-rent is a direct measure of the pressure of scarcity which is as much, and in the same sense, a determinant of value and of price as the utility measured by demand".³ Marshall does not appear to believe any fundamental distinction exists between differential rents and scarcity rents⁴, and that therefore, neither enters into 'normal' product prices.

In Marshall chapters on land rent in Book VI, the study of distribution adds little of analytic value to the study of rent developed in Book V, on value, except to consider the division of the net income from the land under the English system of tenure between land owners and tenant, concluding:

"In other words, that part of the income derived from the land which the landlord obtains, is governed, for all periods of moderate length, mainly by the market for the produce, with but little reference to the cost of providing the various agents employed in raising it; and it therefore is of the nature of a rent. And that part which the tenant retains, is to be regarded, even for short periods, as profits entering directly into the normal price of the produce; because the produce would not be raised unless it were expected to yield those profits."⁵

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1. Ibid., VI, ix, 5, fn.
 2. Hobson, Economics of Distribution, p. 341.
 3. Ibid., p. 347.
 4. Marshall, op. cit., V, ix, 5.
 5. Ibid., VI, ix, 5.

The remainder of Book VI's work on land-rent concerns the consequences of different institutional arrangements regarding tenure.

(iv) Marshall's Contribution

Alfred Marshall's major contributions to the theory of marginal productivity wage rate and interest rate determination, that the marginal factor's product determines only the demand-price offered for the factor's services, while other considerations determined the supply-price of the factor, and that the forces of demand and supply mutually govern the factor's remuneration, were significant analytical advances on the doctrine as formulated by J.B. Clark. However Clark's attempt to discover the laws which regulate 'All-Wages' and 'All-Interest', as well as those which regulate the general wage rate and general interest rate is clearly more pertinent to the study of the classical concept of income distribution than is Marshall's study of the wage rate in various labour groups. Even though Smith had devoted some consideration to the wages of various groups, he did not fail to direct the central part of his analysis to the laws which regulate general wages (wages per capita) and the general interest rate. Though as Cannan suggests, the study of such variables is really the study of 'Pseudo-Distribution', Cannan and Marshall were mis-directed to focus their analysis of distribution on group wages, important though such studies are. Marshall in particular should be faulted for denying the reality of a 'general wage rate' and a 'general interest rate'.

Marshall's adoption of the Smithian argument on the wage bargain, that the perishability of labour and the labourers' lack of a reserve fund place labour at a disadvantage in the wage bargain is appropriate, though Marshall essentially ignores "in this volume" Smith's tenet that employers may combine against labour more easily than labourers against employers (not necessarily true nowadays.) His recognition that the wage bargain is 'indeterminate', depends on the bargaining ability of each side and may require a 'labour court' to settle the matter equitably is 'food for thought' for doctrinaire marginal productivity theorists. Marshall is probably correct in holding that contrived scarcity of labour (or capital) cannot permanently raise labour's wages (or capitalist's interest), due to the supply effects of such restrictions and the unreality of supposing a fixed fund of work (or investment opportunities); and that only increases in the efficiency with which labour (and capital) are applied to production can generate sustained increase in factor remuneration.

This is not true of the factor 'entrepreneurship'. The gains secured by 'cornering the market', price fixing, cartelization, and other durable contrivances of entrepreneurs are not cancelled by variation in price around a 'normal price'. Hobson is correct in believing that market price, not 'normal' price governs distribution, and that durable contrivances are responsible for a significant proportion of what entrepreneurs claim as their profits of reasonable earnings of management, by introducing scarcity rents which do enter into value.

(.) In concluding, it should be remarked that perhaps the most significant insight in terms of guidance for future work on distribution is provided in Marshall's concluding paragraph of Book VI. He notes that he has reached "very few practical conclusions", and that such would not be forthcoming until analysis had incorporated, inter alia, ". . . modern developments of combination and monopoly", which he had reserved to a later, but unpublished volume.

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