CHAPTER I

A THEORETICAL CASE FOR PROFIT-SHARING WITH EMPLOYEES.

Economic theory in its traditional form, has primarily been one of static equilibrium. It was concerned with the pricing of a collection of goods and services, the unknown of the problem being determined by the required number of known constants. It was argued that in an unchanging frictionless world, static laws determine the remuneration for various productive agents. In such a situation, all factors get their imputed marginal products and receipts exactly equal costs. No surplus accrues to the owner. But in the dynamic world of facts, however, a surplus income in excess of contractual costs does arise. It is only gradually eliminated by the forces of competition and continually repeats itself under the stress of changes and new frictions. J.B. Clark was the first economist to develop such a view of profit. "An invention" he says "makes it possible to produce something more cheaply. It gives first a profit to entrepreneurs......then adds something to wages and interest. This is equivalent to a creation of new wealth. It has made a definite addition to the income of the society, and from the moment when the improved method has been put into operation the static standard of wages (that is the worker's productivity) has been higher."
The rate towards which the pay of the labourer is now tending is not what it was before the invention was applied, but it is a new and higher rate. Wages now tend to equal what labour can produce and this more than that it could formerly produce. When the full fruits of invention shall have diffused themselves throughout society, the earnings of labour will equal the new standard rate (through the working of the competition for labour.). Let another invention be made, that also effects an economy in production. It also creates a profit; and this profit like the first, is an elusive sum which entrepreneurs grasp but cannot hold. This sum, like the former one, slips in time through their fingers and bestows itself on all members of society.¹

Though the theory recognises certain dynamic elements in the economy, it is essentially static in

¹ J.B. Clark. "Distribution of Wealth". p. 405. op.cit.

To Clark, profit, in another sense, is the consequence of 'friction'. The interval between the actual wages and the Static Standard is the result of friction; for if competition worked without let or hindrance, pure business profit would be annihilated as fast it could be created. Ibid. p. 410. 'Were it not for that interval, entrepreneurs as such would get nothing, however, much they might add to the world's productive power. Ibid. p. 411.
nature. Modern business devices like restrictive practices, product differentiation, advertising technique etc., may make it possible to prolong the temporary gains of a quasi-monopolistic sort arising from successful innovations. It is these inventions which play a predominant part in the "dynamic theory" of J.B. Clark.

Marshall balanced the matter rather differently. Where Clark has emphasised a tendency for abnormal profits to disappear, Marshall devoted more attention to short-period in which they existed and his concept of "Quasi-rent" was the result. In the short-period, in his view, returns from the employment of productive factors were in the nature of rents, being price-determined rather than price-determining. In the long period, however, returns segregated themselves into normal factor prices sufficient to call forth the necessary supply of the agents of production concerned and rents resulting from permanent monopolistic situations. Anything in the way of permanent profit, not resolvable into wages, interest or rent had no place in Marshall's system.

According to Marshall, the cost to which prices tended to correspond in the long-run was the marginal cost; that is, that is the cost of the most expensive increment of the product obtained by utilising inefficient

* The theory though it is called dynamic, does not fit into the time honoured definitions of dynamism. For example vide the definition "Economic dynamics is the study of economic phenomenon in relation to preceding and succeeding events". (Quoted in "Economics Dynamics" by William J. Baumol. p. 2.)
factors of production or by working others intensively and at great expense. Whenever price was in excess of marginal cost, expansion of output was encouraged. New firms were attracted to the industry and existing business stimulated to produce a greater quantity. Conversely, when prices fell below marginal costs, there was an inducement to contract output. Inefficient firms or plants might shut down and others operate on a reduced scale.

The following diagrams will clearly illustrate Marshall's short-run and long-run prices.

**Fig. (I)**

In figure (I), M.P. is the price of the output OM and HM is its average cost. The industry is not in equilibrium. It is earning a large profit which in Marshall's terminology is called "Quasi-rent."
In figure (II), the firm is in full equilibrium since AR is tangent to AC. There is only normal profit, which is earnings of management.

Under competitive condition, it is argued that a producer will bring forth an output of such size that marginal revenue equals marginal cost and average revenue equals average cost. That producers will carry their production as far as the point where the revenue from the marginal increment of output just covers the cost of this increment is the basic assumption of the marginal theory. But if in the case of the least efficient firm in the industry, average revenue is less than average cost, then the firm concerned is incurring a loss and must ultimately go out of business. This brings about a fall in the supply of commodity. The price, therefore, rises increasing the average revenue of the remaining firms. On the other hand, if the average revenue for the marginal or least efficient firm in the industry is greater than average cost, new firms will enter lowering prices and therefore bring down average revenues. But what about the firms that are more advantageously situated? Clearly they owe their advantage to some non-competitive situation such as a more favourable location, better business management etc. The extra-returns which result from these superiorities are surplus or rent, so that it can be said that if
rents are included in costs, then all firms are in the position of the least efficient firm with respect to balancing of average revenue and average cost. And under the influence of competition such advantages are non-existing and that marginal revenue equals marginal cost and average revenue equals average costs. In more technical parlance, prices are from the standpoint of the individual firm, not variables but parameters and where this is so, there exists a state of equilibrium in which all outputs are at their maximum and all factors fully employed and rewarded according to their marginal productivity. But Marshall was careful to point out that even in the long run, when marginal cost equals marginal revenue and average cost equals average revenue, there is what is called "normal profit". This he designates as "earnings of managements", which is an element of cost.

At this stage, it is necessary to enquire and find out whether competition of the type envisaged by Marshall obtains at present in the actual world of realities. Traditionally, it had been admitted that where competition was displaced by absolute monopoly or something approaching it, the price was determined by the will of the monopolist. Therefore, the cost principle no longer applied to what was now a deliberately contrived scarcity. But in all intermediate situations, where sellers and buyers are numerous, elements which rendered the market imperfect
and caused it to depart from the abstract ideal of competition were simply treated as "frictions". These frictions, it was argued only muddled and at times diverted, but did not check the great underlying current which was towards a competitive equilibrium. Given that equilibrium, there was a presumption that economic resources would be employed with maximum satisfactions. Sraffa vigorously attacked the assumption that the "frictions" were in fact a secondary and fugitive phenomenon. He argued that they were stable and indeed cumulative and yielded a solution consistent not with competition, but monopolistic equilibrium. Hence he contended that monopoly, and not free competition, was the more appropriate assumption in the market theory.  

This point of view was later developed by Joan Robinson and Professor Chamberlin. The latter has especially dealt with "Product differentiation" by brands and advertisements. As he has said, "Wherever selling costs are incurred - and they are incurred in some measure for almost all commodities - the

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"Monopolized institutions which we shall have to examine are a different sort. They have in fact traits of monopoly, they confer monopolistic power. But at the same time, they are subject in other directions to the pressure of competition or are otherwise restricted. They are .... intermediate forms, lying midway between monopoly and competition .... Mixtures of this sort ....... have great practical and even theoretical significance, but it will be best to distinguish them from monopolied institutions proper."

price problem in terms of competitive demand and cost curves is not merely inaccurate, it is impossible........
Under condition of pure competition, there would be no selling costs........In summary, the competitive cost curve which includes selling costs is inconsistent with itself, it is useless, it is misleading and it is of very limited meaning. In other words, the beneficient type of competition is replaced by monopolistic competition.

In the above conditions, equilibrium is very difficult to attain; even if eventually attained, it does not ensure either full employment or maximum output in the sense of perfect competition. It may exist without full employment. It is bound to exist at a level of output much below the maximum mark, because profit conserving strategy imposes itself. This practically implies that factors are rewarded less than their marginal productivity and profits contain always an element of direct monopoly gain; that is gain acquired by restriction. The important element of "good-will" in all business valuations is seem largely to represent a capitalisation of such monopoly gains. There is monopoly


Compare A.R. Burns "Decline of Competition" p. 152, Elements of Monopoly have always been interwoven with competition, but monopoly elements have increased in importance. They can no longer be regarded as occasional and relatively unimportant aberrations from competition. They are such an organic part of the industrial system that it is useless to hope that they can be remedied by law and the industrial system brought into conformity with the idea of perfect competition.
element in profit in a capitalist economy.

The extent to which elements of monopoly or monopolistic competition in the market of commodities reduce the real earnings of the workers can be stated with a certain degree of precision. It is usually said that a factor of production is exploited if it is employed at a price which is less than its marginal net productivity. It is in the interest of every employer to use such an amount of each factor of production that its marginal cost is equal to its marginal net productivity to him. If marginal productivity were greater than the marginal cost of labour, he would find it profitable to increase the number of men employed, if it is less, to diminish, the number. Accordingly, 'exploitation' of labour in the sense that it is paid less than marginal net productivity to the employer is impossible so long as the market for labour is perfect. There is, however, a type of "exploitation" which arises as a result of imperfection in the market for commodities, entirely aside from the question of whether there is perfect competition in the purchasing of labour. When the selling market for commodities is perfect, the marginal revenue to the firm which is the addition to total revenue produced by

selling an additional unit of output, is equal to the
price of the commodity and the marginal productivity of
labour is therefore equal to the value or price of the
marginal physical unit. In other words, the average
price and the marginal revenue are the same under
conditions of perfect competition, in the market for
commodities. This follows from the fact that increases
in the output of individual firms, under the market
circumstances, here assumed do not lower price. The
amount that each seller can offer is such a small part
of the total supply of the commodity that variations do
not affect price and he can dispose of as such as he
can offer at the ruling price. If there is perfect
competition, in the market for labour workers will be paid
their marginal physical products times marginal revenue,
which coincides with price.

When, however, the selling market is characterised
by imperfect or monopolistic competition, marginal revenue
will be less than price, or average revenue and since
workers are paid under the assumption of perfect
competition in the market for labour, their
marginal physical product times marginal revenue to
average revenue or price, is the measure of exploitation
attributable to imperfection in the selling market.

7. Harry A. Mills and Royale E. Montgomery. "Labours'
Progress and some Basic Labour Problems." p. 196.
What is actually meant by exploitation is, usually, that the wage is less than the marginal physical product of labour valued at its selling price.\footnote{Professor Pigou "Economics of Welfare" p. 594. Macmillan & Co. London June 1920. Vide the definition of Mrs. Robinson "Economics of Imperfect Competition" p. 283. "We shall say that a group of workers are being exploited when their wages is less than the marginal physical product that they are producing, values at the marginal product that it is being sold".}

The reason why marginal revenue is less than average revenue under condition of imperfect competition, whereas the two are identical when competition is perfect is not difficult to discover. Under perfect competition, each additional unit the individual producer offers brings the same price. Total revenue, therefore, increases by the price received for the additional unit, and so long as average revenue remains constant with an increasing output marginal revenue and average revenue will coincide. But under imperfect competition, the demand for the product of the individual producer is not perfectly elastic. Additions to output lower price or average revenue and this fall in price affects all units sold, not merely the final or marginal products. The net addition to total revenue produced by selling an additional unit is the price received for that unit minus the loss on all previous units due to the fact that their prices have been forced down by the increase in output. Patently, then, marginal revenue is less than average revenue under imperfect competition. Average revenue is total revenue
divided by the number of units. Marginal revenue is the net change in total revenue and is affected not only by the loss on previous units when successive ones must be sold at a lower price. Each producer may be assumed to regulate his output in such a way that the addition to his total revenue from selling an additional unit just equals the addition to his costs from selling that unit (since if he sold one unit less, he would lose more of revenue than he saved of cost and if he produced one unit more, he would incur more of cost than he gained of revenue); and under conditions of imperfect competition, production will be carried to that point where marginal cost equals marginal revenue which is less than price, the difference between the two going into enterprise. The demand curve for labour (demand curve and productivity curve being assumed to correspond because of competition in the buying of labour) under imperfect competition in the market for commodities is marginal to, that is below, the demand curve under perfect competition, since the marginal productivity of labour to the individual firm is the marginal physical product of labour multiplied by the marginal revenue to the firm, and marginal revenue to the firm is less than price. Hence "exploitation" in the sense that labour is paid less than its marginal physical product valued at its selling price, would obtain,
eventhough the wage equalled marginal revenue to the firm.

In the above figure, if the amount of the product is increased from OA to OB by the addition of another unit of labour, the value of the marginal product is ABQH, the value of the marginal revenue product is QBQN — OAPM or ABQH — NHPM. The marginal revenue product may be defined by the use of the marginal revenue curve. It is the marginal physical product multiplied by the marginal revenue. If RR is the marginal revenue curve, it is ABEF. If DD is the demand curve for the product under imperfect competition, and an additional unit of labour increases the product from OA to OB, the value of his marginal product is ABQH. His marginal revenue product is ABQC—NHPM. Since in adding more labour, the entrepreneur is guided by the marginal revenue product rather than by marginal
product, it follows that he will pay the marginal unit of labour only ABEF, though it is producing the marginal product ABQH. Therefore, FEQH is the measure of exploitation.

The accumulation of profits which contain elements of such direct monopoly gains by employers will not be taken to happily by the worker. A man who feels that he is not getting a fair share of his contribution to society because somebody else is getting a bigger slice is naturally an angry man. Noble thoughts are denied to him because he feels the sense of injustice done to him. Sooner or later, this will tend to develop a psychology of discontent and criticism among the ranks of labour. One of the greatest advantages enjoyed by the nineteenth century enterprisers was that they were able to maintain effective and personal contact with their employees, since they were concentrating both ownership and control in the same hands. But such a phenomenon has become a thing of the past in the face of immense impersonal corporations where management is totally divorced from ownership. If the managements were composed of persons who were owners of large absolute amounts of capital, even though a small portion of the whole, their individual interest as owners might lead them to act generally in the interest of the owners. But in a number of respects the interest of these in control may
substantially diverge from that of the owners. The management may even be in a position to benefit by the bankruptcy of the corporation.

Such managements who are out to feather their own nests rather than safeguarding the interest of the owners will not and cannot take to the discontent of the labour rather seriously. The consequence will be ill-feeling and tension which would eventually lead to strikes, lock-out etc. Though strike is a unilateral action, strikes entail loss of wages to workers, profit to the managements, goods and services to the consumers and last but not least morale to public. In short, the life of a modern community is profoundly affected by the forms of production and the relationships at work which go on within it. The following statistics prepared by the I.L.O. Delhi Branch, shows that the number of strikes and lock-outs have increased since the war in the leading countries of the world.


10. This is one of the basic assumptions of the "Duke of Edingurgh's Study Conference on the Human Problems of Industrial Communities" within the Common-wealth and Empire, which opened at Oxford on July 9, 1956. Ref. Indian Labour Gazette, July, 1956, p. 42.
Mondays lost annually per thousand workers.

<table>
<thead>
<tr>
<th>Countries</th>
<th>1940 - 1944</th>
<th>1945 - 1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>313</td>
<td>1147</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>509</td>
<td>2899</td>
</tr>
<tr>
<td>Denmark</td>
<td>47</td>
<td>1062</td>
</tr>
<tr>
<td>Switzerland</td>
<td>12</td>
<td>123</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>178</td>
<td>288</td>
</tr>
<tr>
<td>India</td>
<td>337</td>
<td>601</td>
</tr>
</tbody>
</table>

This state of affairs is highly inimical to the present system of production and to the industrial structure at large. Therefore, in order to preserve industrial peace and to increase the tempo of production, it is necessary that labour should be given a stake and a status in the industry in the form of profit-sharing. This will tend to create a feeling in the worker that he is not a mere appendage of the machine, a mere automaton which is expected only to obey, but an integral part of the industrial system. As a prominent American businessman has put it, "In a democratic capitalism such as ours, one way to broaden the capitalistic system is to see that more people have a stake in it".11

Besides this, arguments supporting labour's claim to share industry's profits gather around an investment analogy. The labouring man's investment in the business is his job. The employee, it is said, invests his time and energy in the success of his company. No risks of unemployment, accident and old age disutility in serving his employer through the years. He is therefore entitled to participate in profits resulting, in part, from his investment and risk. William Green, American Federation of Labour President, testifying before the Senate Committee investigating profit-sharing, declared: "In reality, labour is a partner in production not from the investment of capital, but from the investment of experience and work ability."12

The resulting Senate Report depreciated the business claim that labour is not entitled to share profits. Pointing to the fact that the person who buys a share of stock in a corporation shares its profits even though he does not 'labour' enough to sign his proxy vote for the annual stock-holders meeting, the report argued that the labouring man, through his work, actively helps create profits. Therefore, the employee should share in the profit produced by his efforts.

It is found that in spite of a progressive increase in the net values produced by labour, the annual earnings of the worker has been moving in a remarkably constant ratio. The production census of the United States of America, Canada and the United Kingdom amply bears out this fact. Although the figures for U.S.A. Manufacturing run back to 1859, the years are not strictly comparable, since the method in the compilation of the census of Manufactures has been changed from time to time. The total period, 1859 to 1939 is divided into four sections.

(1) 1859-89. This period included small domestic and hand industries omitted from 1890 onward. It shows that the percentage of net productions paid to labour at each census.

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1859</td>
<td>44.4 per cent</td>
</tr>
<tr>
<td>1869</td>
<td>44.7</td>
</tr>
<tr>
<td>1879</td>
<td>48.3</td>
</tr>
<tr>
<td>1889</td>
<td>44.91</td>
</tr>
</tbody>
</table>

1879 was a year of extreme depression. With this exception, the percentages over the 40 years are remarkably uniform.

(2) 1899-1927. This period covers a time of enormous economic expansion, employment was nearly doubled, the industrial wage bill rose from 1.8 to 10.1 million dollars; wage rates and prices soared to dizzy heights in the boom years of 1919-20, and then fell rapidly. The whole period was characterised by a revolution in
mechanisation. But, despite these conditions, the labour percentage of the net production shows an astonishing degree of uniformity:

<table>
<thead>
<tr>
<th>Year</th>
<th>1899</th>
<th>1904</th>
<th>1909</th>
<th>1914</th>
<th>1919</th>
<th>1921</th>
<th>1923</th>
<th>1925</th>
<th>1927</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40.1%</td>
<td>40.4%</td>
<td>39.3%</td>
<td>40.2%</td>
<td>40.4%</td>
<td>43.2%</td>
<td>41.3%</td>
<td>38.9%</td>
<td>38.3%</td>
</tr>
</tbody>
</table>

From 1899-1919, the maximum variation was only 1.4%. With the sudden drop in prices between 1920 (index 151) and 1921 (index 104), the percentage rose to the abnormal level of 43.0%. The years 1925 and 1927 show an altogether lower level. But this time, post-war reorganisation had been well established, and one of its characteristics was the large growth of the white collar worker who probably absorbed a much larger share of the net product in the form of staff salaries, thus altering the rates of productive wages.

(3) 1929-33

<table>
<thead>
<tr>
<th>Year</th>
<th>1929</th>
<th>1931</th>
<th>1933</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>36.4%</td>
<td>37.0%</td>
<td>36.1%</td>
</tr>
</tbody>
</table>
This period covers very wide fluctuations in trade; employment fell from 8.3 millions in 1929 to 5.8 millions in 1933. Wholesale prices from index 95 to 71; wage rates from 109 to 87. Despite these, the ratio again remained remarkably uniform.

(4) 1935-39 (last year of census).

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1935</td>
<td>39.41%</td>
</tr>
<tr>
<td>1937</td>
<td>39.31%</td>
</tr>
<tr>
<td>1939</td>
<td>39.41%</td>
</tr>
</tbody>
</table>

The following figure represents the whole period in four sections. It showed the ratio of the average annual earnings to the average net production per worker employed. During these years:

Wage-rates moved from 39 to 260 (index 1913 = 100) Whole-sale prices from 61 to 150 and back to 37. The total wage bill from £. 372 mil. to £. 2000 millions.

The increase in mechanisation and the revolution in organisation cannot be measured numerically. Yet, through these great changes, booms and slumps, and in spite of strikes, lockouts and the economic turmoil of war, the annual earning of the worker is seen to move in a remarkably constant ratio to the net value he produces.
U.S.A. All Manufacturing.

1. Percentage of Net production paid out in wages.

2. Logarithmic graph of the ratio of wages to net productions per worker employed.

British Manufacturing.

The only years for which statistics afford a comparison are 1924, 1930 and 1935, the years of the census of production. The London and Cambridge Economic Service has computed the total wage bill for operations only which, on the figures of net production given in the census of production, show the following percentages:

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1924</td>
<td>45.9%</td>
</tr>
<tr>
<td>1930</td>
<td>46.8%</td>
</tr>
<tr>
<td>1935</td>
<td>45.19%</td>
</tr>
</tbody>
</table>

Sources: The calculations are made from the summary at the beginning of volume 1, U.S. census of Manufactures, 1939.
The evidence is quite scanty, but, so far as it goes, it all points to the same conclusion.

**Canadian Manufacturing.**

Far more complete figures for Canadian Manufacture are available, and the results are plotted in the following figure. Although the figures tend to show a greater variation in the percentages than is the case in U.S.A. Manufacturing, for considerable periods, the constancy is noticeable, for instance between 1929 and 1940 (The census is taken each year).

<table>
<thead>
<tr>
<th>Year</th>
<th>Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>... 34.3%</td>
</tr>
<tr>
<td>1930</td>
<td>... 34.6%</td>
</tr>
<tr>
<td>1931</td>
<td>... 33.2%</td>
</tr>
<tr>
<td>1932</td>
<td>... 33.7%</td>
</tr>
<tr>
<td>1933</td>
<td>... 32.3%</td>
</tr>
<tr>
<td>1934</td>
<td>... 32.7%</td>
</tr>
<tr>
<td>1935</td>
<td>... 34.6%</td>
</tr>
<tr>
<td>1936</td>
<td>... 34.0%</td>
</tr>
<tr>
<td>1937</td>
<td>... 34.8%</td>
</tr>
<tr>
<td>1938</td>
<td>... 34.9%</td>
</tr>
<tr>
<td>1939</td>
<td>... 34.0%</td>
</tr>
<tr>
<td>1940</td>
<td>... 35.0%</td>
</tr>
</tbody>
</table>

Recovery
Canadian Manufacturing.

1. Percentage of Net production paid out in wages.

2. Logarithmic graph of the ratio of annual earnings to net production per worker employed.

The above figures clearly indicate that though the share of labour has been increasing in the absolute sense, the ratio of their earnings to Net production has been remaining almost constant. This shows that so long as the workers are rewarded by the wage-system alone, their progress is bound to be slow. Profit-sharing, if introduced will not only supplement their wages, but will also give them a stake in the concerns in which they are working. Besides this, the concentration of such a considerable part of the production in the hands of the higher income group has been regarded as one of the fundamental causes of Trade Cycle. It is believed that a general adoption of profit-sharing in industry will not only serve to reduce the inequality in the distribution of wealth but also tend to minimise the swings of the business cycles by channelling purchasing power to the lower wage group whom Keynes considered as having a "high propensity to consume".

Source: Calculated from the figures supplied in the Canada year book, 1943-44. p. 405.