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THE MARGINAL THEORY OF DISTRIBUTION: A REPLY TO PROFESSOR CARVER

The supreme difficulty of every controversy upon economic theory consists in getting to an agreed statement of the real issue. This is well illustrated in the discussion as to the worth of the "marginal theory in distribution." In a somewhat elaborate paper, published in the September (1904) issue of this *Journal,* I set forth a number of reasons for rejecting this theory. Professor Carver, writing in the March (1905) issue, exhibits a totally complete misunderstanding of the central point to which my criticism of the theory was directed.

In attempting a brief restatement of that central point, I wish to accept the statement of the "marginal theory" as given in Professor Carver's own illustration, of a farm containing a given amount of land and a given equipment in the form of tools and working capital:

Number of Laborers	Total Product (Bushels)	Average Number of Bushels per Laborer	Marginal Product (Bushels)
1	500	500	...
2	900	450	400
3	1,200	400	300
4	1,400	350	200
5	1,500	300	100

The law of diminishing returns, as ordinarily interpreted, is shown in the third column; and if one was to base his theory of distribution upon this column alone, Mr. Hobson's contention would be sound. If, for example, the product of the fifth laborer were conceived to be 300 bushels, and if he were to get that product; and if, moreover, each of the other four were to get the same, obviously the wages of the five men would take the total product. But, on the other hand, if the fifth man were thought to be worth only as much as he could add to the product of the other four, or if any one of the five were thought to be worth only as much as five men could produce over and above what four could produce, then each man would get only 100 bushels, leaving 1,000 bushels to the owner of the farm. This is the real marginal theory of distribution. (P. 261.)

Now, my criticism centers upon the fact that our knowledge that the fifth man receives a wage of 100 bushels, and that this represents the increased productivity of working the farm on a five-man basis instead of a four-man basis, contributes nothing to a theory of distribution.

It would contribute something very important if we were justified in saying: "The actual product of the fifth man is 100 bushels; so the fifth man gets the whole of what he produces; and since the fifth man produces as much as any of the other four, and they all get the same wage, viz., 100 bushels, therefore labor as a whole gets that part of the aggregate produce made by labor as a whole." If this train of reasoning were correct, no "profit" would accrue to the employer from the exploitation of labor in a "static" society, and Professor Clark would be right in his identification of "profit" as an abnormal temporary gain arising from an industrial improvement out of which the employer takes the first share. "Wages tend to equal what labor can produce" is the conclusion of the reasoning which Professor Carver, in common with Professor Clark, approves.

Now, I think I am right in suggesting that the whole matter turns upon the answer to this question: Are we justified in assuming that in a five-man working of this farm the product of one man is 100 bushels? The actual case that confronts us is this: by changing from a four-man basis to a five-man basis of working an increased productivity of the farm amounting to 100 bushels accrues. I argued in my article that the addition of the fifth man increased the productivity of the whole complex of units of land, capital and labor, or, regarded from the labor standpoint, that it increased the efficiency and co-operative productivity of the other four laborers.

Professor Carver seems partly to recognize the truth of this, but appears to hold that we are justified in setting that addition to the general productivity of the complex mass a part of the particular product of the marginal laborer. He does not say this with the definiteness of Professor Clark, but I cannot find any other meaning for his classification of 100 bushels as the "marginal product" than one which makes it "the product of the marginal" or "fifth" laborer.

Now, I suggest that all that happens in his illustration is consistent with the hypothesis that on a five-man basis labor as a whole produces 600 units instead of 500, and that, if a separate equal productivity be applied to the laborers, each laborer, including the fifth or marginal laborer, produces 120 bushels, instead of 100.

No doubt in the given case 100 bushels represents the maximum (or rather more) that a laborer can earn working for himself instead of entering this employment. If he enters this employment, he is more productively employed than working alone, because his labor gets the advantage of co-operation with other labor and with units of capital under skilled organization. If we suppose the difference between working alone and entering this employment on a five-man basis is 20 bushels, the employer will be able to get this man's services (worth to him 120 bushels) for 100 bushels wages. The fact that a comparison between a four-man basis and a five-man basis appears to make this man worth only 100 bushels is quite irrelevant. The supposition of the four-man basis is that of a wasteful economy in which the farmer fails to get the best use of the units of labor, capital, and land he already controls; the notion that any light can be thrown upon "the theory of distribution" by an assumption of such folly as a basis of comparison is utterly fallacious. What happens actually is this: The farmer finds laborers who will work for 100 bushels, this sum measuring their productivity as solitary workers; he puts them to work together under conditions in which all and each works more productively (producing an aggregate which divides at, say, 120 bushels per laborer); he gets for himself the difference between the 100 bushels and the 120.

The farmer fixes on a five-man basis because he reckons that the aggregate profit of the co-operative working is greatest on this basis.

While, then, it is quite true that the fifth man gets as his wages just what his presence adds to the product on a four-man basis, this knowledge has no bearing on a theory of distribution, for the four-man basis is a thoroughly uneconomic conception; it is as unwarranted in theory as it is alien from practice.

If we took the false illustration given by Professor Carver, and supposed the farmer to be himself the first laborer, first working by himself and producing 500 bushels, then adding laborer after laborer until he came to the fifth, what happens is this: Whereas the second laborer appears to grow less and less productive by the addition of subsequent laborers, the farmer (or first laborer) appears to grow more productive. At the end of the process one farmer, whose productivity when alone was 500 bushels, has grown to 1,000 when he employs four others to help him.

Now, my hypothesis (which takes a most generous view of the productivity of the farmer, crediting his personal productivity and that of the capital with the greater part of the increased aggregate product arising from employing a larger number of laborers) supposes that the real average productivity of a laborer on the five-man basis is 120. This supposition is itself only a concession to the point of view of Professor Carver, the whole idea of a separate product for a marginal or any other laborer in a business plexus being unscientific. But on this supposition a laborer may receive a wage of 100 bushels when "he is worth" to the employer 120. It will be objected: "How can that be? The competition of employers, driving down profits, will raise the wage to 120." This objection is valid if we assume no superiority of bargaining power in employers; viz., if the competition of employers is as full and as free as of laborers. But those who admit that profit, as distinct from interest, wage of management, remuneration of rent, etc., accrues to employers, are obliged to admit that such profits come in large part from superiority of bargaining in buying labor. Now, this must mean that the so-called marginal laborer, and every laborer, is paid less than he is worth to the employer; in other words, that there is a profit got out of the so-called product of the marginal laborer.

Professor Carver, in his *Distribution of Wealth,* analyzes with considerable skill the origin and nature of profit, and concludes:

> The share which resulted from the business man's superior bargaining powers cannot be called the *product* of the business man, for superior bargaining produces nothing. . . . In the last analysis, the profits of the superior bargaining of business men, as a class, comes out of the wages, rent, or interest, of the labor, land, or capital which they hire. (P. 261.)

This is true, but it is wholly inconsistent with Professor Carver's acceptance and explanation of "marginal productivity" as a basic conception in distribution. Profits, so far as got by bargaining with labor, consist of the difference between the co-operative productivity of the body of laborers and the addition of the productivity of the same laborers working separately. Of course, only a strong monopolist can hold the whole of this difference as profits, but even in competition employers can hold a good deal of it, their power to do so implying that competition is commonly less full and free among employers than among laborers.

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