## Professor Rolph on the Discounted Marginal Productivity Theory

f current schools of economic thought, the most fashionable have been the econometric, the Keynesian, the institutionalist, and the neo-classic. "Neo-classic" refers to the pattern set by the major economists of the late nineteenth century. The dominant neoclassical strain at present is to be found in the system of Professor Frank Knight, of which the most characteristic feature is an attack on the whole concept of time preference. Denying time preference, and basing interest return solely on an alleged "productivity" of capital, the Knightians attack the doctrine of the discounted MVP and instead advocate a pure MVP theory. The clearest exposition of this approach is to be found in an article by a follower of Knight's, Professor Earl Rolph.

Rolph defines "product" as any *immediate* results of "present valuable activities." These include work on goods that will be consumed only in the future. Thus, "workmen and equipment beginning the construction of a building may have only a few stakes in the ground to show for their work the first day, but this and not the completed structure is their immediate product. Thus, the doctrine that a factor receives the value of its marginal product refers to this immediate product. The simultaneity of production and product does not require

[Reprinted from Man, Economy, and State (1962; Auburn, Ala.: Ludwig von Mises Institute, 1993), 1, app. B, pp. 431–33.]

<sup>1</sup>Earl Rolph, "The Discounted Marginal Productivity Doctrine" in *Readings in the Theory of Income Distribution*, W. Fellner and B.F. Haley, eds. (Philadelphia: Blakiston, 1946), pp. 278–93.

any simplifying assumptions. It is a direct appeal to the obvious. Every activity has its immediate results."

Obviously, no one denies that people work on goods and move capital a little further along. But is the immediate result of this a product in any meaningful sense? It should be clear that the product is the end product-the good sold to the consumer. The whole purpose of the production system is to lead to final consumption. All the intermediate purchases are based on the expectation of final purchase by the consumer and would not take place otherwise. Every activity may have its immediate "results," but they are not results that would command any monetary income from anyone if the owners of the factors themselves were joint owners of all they produced until the final consumption stage. In that case, it would be obvious that they do not get paid immediately; hence, their product is not immediate. The only reason that they are paid immediately (and even here is not strict immediacy) on the market is that capitalists advance present goods in exchange for those future goods for which they expect a premium, or interest return. Thus, the owners of the factors are paid the discounted value of their marginal product.

The Knight-Rolph approach, in addition, is a retreat to a real-cost theory of value. It assumes that present efforts will somehow always bring present results. But when? In "present valuable activities." But how do these activities become valuable? Only if their future product is sold, as expected, to consumers. Suppose, however, that people work for years on a certain good and are paid by capitalists, and then the final product is not bought by consumers. The capitalists absorb monetary losses. Where was the immediate payment according to marginal product? The payment was only an investment in future goods by capitalists.

Rolph then turns to another allegedly heinous error of the discount approach, namely, the "doctrine of nonco-ordination of factors." This means that some factors, in their payment, receive the discounted value of their product and some do not. Rolph, however, is laboring under a misapprehension; there is no assumption of nonco-ordination in any sound discounting theory. As we have stated above,

all factors—labor, land, and capital goods—receive their discounted marginal value product. The difference in regard to the owners of capital goods is that, in the ultimate analysis, they do not receive any independent payment, since capital goods are resolved into the factors that produced them, ultimately land and labor factors, and to interest for the time involved in the advance of payment by the capitalists. Rolph believes that noncoordination is involved because owners of land and labor factors "receive a discounted share," and capital "receives an undiscounted share." But this is a faulty way of stating the conclusion. Owners of land and labor factors receive a discounted share, but owners of capital (money capital) receive the discount.

The remainder of Rolph's article is largely devoted to an attempt to prove that no time lag is involved in payments to owners of factors. Rolph assumes the existence of "production centers" within every firm, which, broken down into virtually instantaneous steps, produce and then implicitly receive payment instantaneously. This tortured and unreal construction misses the entire point. Even if there were atomized "production centers," the point is that some person or persons will have to make advances of present money along the route, in whatever order, until the final product is sold to the consumers. Let Rolph picture a production system, atomized or integrated as the case may be, with no one making the advances of present goods (money capital) that he denies exist. And as the laborers and landowners work on the intermediate products for years

<sup>2</sup>Rolph ascribes this error to Knut Wicksell, but such a confusion is not attributable to Wicksell, who engages in a brilliant discussion of capital and the production structure and the role of time in production. Wicksell demonstrates correctly that labor and land are the only ultimate factors, and that therefore the marginal productivity of capital goods is reducible to the marginal productivity of labor and land factors, so that money capital earns the interest (or discount) differential.

Wicksell's discussion of these and related issues is of basic importance. He recognized, for example, that capital goods are fully and basically coordinate with land and labor factors only from the point of view of the individual firm, but not when we consider the total market in all of its interrelations. Current economic theorizing is, to its detriment, even more preoccupied than writers of his day with the study of an isolated firm instead of the interrelated market. Wicksell, Lectures on Political Economy (London: Routledge and Kegan Paul, 1934), 1, pp. 148–54, 185–95.

without pay, until the finished product is ready for the consumer, let Rolph exhort them not to worry, since they have been implicitly paid simultaneously as they worked. For this is the logical implication of the Knight-Rolph position.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup>Rolph ends his article, consistently, with a dismissal of any time-preference influences on interest, which he explains in Knightian vein by the "cost" of producing new capital goods.