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The Monetary Explanation of Distribution: A Critique of Pivetti

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In the Sraffian system, either the real wage or the rate of profit can be taken as the independent variable. In fact, as noted by Garegnani, there are certain advantages associated with choosing the rate of profit as the independent variable, with the real wage then determined within the system.[1] According to Sraffa, the profit rate, in turn, is "susceptible of being determined ... by the level of the money rates of interest".[2] Garegnani argues that while the classical economists opted for the first alternative (an independently derived real wage), Sraffa's position is equally consistent with the surplus approach of the Neo-Ricardians. Pivetti[3] presents a theory of distribution along these lines, in which the interest rate is taken as the independent determinant of the rate of profit, which then determines the real wage.

Pivetti argues that the long-term interest rate rules the normal long-term profit rate by regulating the ratio of prices to nominal wages. The interest rate is taken as an autonomous determinant of production costs, which must be incorporated within the normal rate of profit. Thus, the normal rate of profit equals the long-term interest rate plus the "normal profit of enterprise". As the normal profit of enterprise is taken to be stable, it is a change in the long-term interest rate which causes a change in the

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[1] P. Garegnani, "Value and Distribution in the Classical Economists and Marx", *Oxford Economic Papers*, 36, 1984, pp. 291-325. If the wage includes a share of the surplus, it can't be defined until the prices of commodities are determined, while the profit rate is independent of prices (p. 320).

[2] P. Sraffa, *Production of Commodities by Means of Commodities*, Cambridge, Cambridge University Press, 1960, p. 33.

[3] M. Pivetti, "On the Monetary Explanation of Distribution", *Political Economy: Studies in the Surplus Approach*, 1 (2), 1985, p. 73. Page numbers in the text refer to the page in Pivetti's article from which the material was obtained.

normal rate of profit. Finally, changes in the interest rate can be attributed to monetary factors, including central bank monetary policy, and to changes in the degree of integration of international economies.

The basis of Pivetti's argument that the interest rate determines the rate of profit is that changes in the interest rate cause changes in the distribution of income. Competition among capitalists ensures that the price of a commodity equals its normal cost. As the interest rate is part of the normal cost (either a direct financing cost or an opportunity cost), it must be included in the price. Thus, a change in the interest rate will lead to a change in the normal cost and thus to a change in price. When the price level changes, this causes a change in the real wage, and, thus, in the distribution of income. Therefore, a change in the interest rate causes the profit rate to change in the same direction (pp. 82-83).

In footnote 27 (p. 83), however, Pivetti notes that a change in the interest rate will not only change the general price level, but will also change relative prices because interest costs enter to a different extent into the cost of production of different commodities. Pivetti does not explain, however, why general price-level effects and relative price effects would move in conjunction to ensure that the distribution of income would change in a predictable pattern.

For example, in the extreme case where interest costs enter only into the production of investment goods, a rise in interest rates will increase the price of investment goods, but will not directly affect the price of wage goods. Thus, the rise in interest costs will not change the distribution of income, as real wages are not affected even though the general price level rises. However, since investment goods are used to produce consumption goods, we would expect that the distribution of income will eventually be affected. At the other extreme, a rise in interest rates might increase only the price of wage goods and leave the price of investment goods unchanged. Thus, real wages would apparently fall, so that the distribution of income would shift away from workers.

However, at this point, a general weakness of the model becomes apparent. A rise in interest costs forces consumption sector capitalists to increase the price of wage goods by increasing the markup over wages.[4] The nominal income of investment sector capitalists and workers has not been affected, since the price of investment goods in this case is constant. Thus, consumption sector capitalists will be unable to sell all the consumption goods produced to workers or to investment sector capitalists. That is, profits will rise in the consumption sector only if consumption sector capitalists increase their own consumption. More generally, an increase in interest rates can only result in an increase in capitalist income if capitalists increase

[4] Alternatively, the rate of profit would be lower in the consumption sector than in the investment sector. It is unclear what ramifications this might have. See Note 5.

spending. As Kalecki argued, capitalists get what they spend. Thus, capitalists increase their income by increasing their spending — whether that increase comes at the expense of worker's income or as an addition to the current level of income.

Even if it can be shown that a change in the interest rate will affect the rate of profit, this does not prove that it is the interest rate which determines the rate of profit. Bad weather may adversely affect profit rates, but weather conditions do not determine the rate of profit. Pivetti must show, first, that profit rates do not determine the interest rate, second, that factors which influence the rate of interest do not directly influence the rate of profit, but only indirectly influence it through changes in the rate of interest, and third, that the rate of profit is not substantially affected by factors other than those which operate through the interest rate. That is, he must show that the interest rate is a consistently independent variable. It will be argued that Pivetti is unclear as to the determinants of the interest rate, and that he has not provided a convicing argument in support of his hypothesis that the interest rate determines the rate of profit.

Pivetti is unclear about the determinants of the interest rate. At one point, he argues that management of the government debt and circumstances "connected with any one country's position *vis-à-vis* the rest of the world" ensure that a country's interest rate policy cannot be unconstrained (p. 78). At another point, he argues that the interaction between wage bargaining and monetary policy is the primary channel through which class relations affect the distribution of income, and, presumably, the rate of interest (p. 94). Thus, it appears that the interest rate is primarily (or at least significantly) affected by central bank policy. If so, then in his view, the determination of the rate of profit comes down to central bank policy. As Pivetti is concerned with the long-term interest rate and the long-term normal rate of profit, it must be the long-term central bank goals (or the long-term effects of short-term goals) which govern distribution.

According to Pivetti, the nominal wage determines the price level, given a nominal interest rate. However, the long-term interest rate determines the ratio of the price level to nominal wages, while the real wage depends on the ratio of nominal wage to price level[5] (p. 94). Thus, the monetary authority sets an interest rate (not, however, through control over monetary aggregates since nominal expenditures determine the money supply — see p. 97), and wage bargaining then determines a nominal wage rate, which determines the price level. The real wage and distribution of income between

[5] As discussed below, the interest rate plus a given "normal profit of enterprise" determine the rate of profit. Presumably, competitive pressures ensure equalization of the "normal profit of enterprise" across capitals. Does competition equalize the rate of profit (which includes the interest rate)? Clearly the interest rate paid should be equal across industries, but interest costs enter to a different extent among industries. It is not obvious that the interest rate can be equal and at the same time that the profit rate can be equalized.

wages and profits is thus determined by the interest rate set by the authorities. As it turns out, the interest rate determines the markup of prices over nominal wages. How the authorities set the interest rate without determining the quantity of money is unclear, unless Pivetti's is a non-monetary theory of the interest rate. However, Pivetti does believe his to be a monetary theory of the rate of interest (p. 81).

In the preceeding paragraph, one could substitute "normal rate of profit" in place of "long-term interest rate" with no significant alteration in meaning. If, indeed, the interest rate determines the profit rate, and not vice versa, it must be due to the central bank's ability to set the interest rate but not the rate of profit. Pivetti does not analyze how the authorities set the long-term interest rate, so it is impossible to evaluate their ability to determine either the interest rate or the normal rate of profit.[6]

Finally, Pivetti argues that the normal rate of profit is comprised of two elements: the pure remuneration of capital and the normal profit of enterprise (p. 86). The pure remuneration of capital is taken to be the interest rate, while the normal profit of enterprise is a remuneration for risk and trouble. According to Pivetti, the normal profit of enterprise can be taken as given. Fluctuations in the pure remuneration of capital cause fluctuations in the normal rate of profit.[7]

Pivetti has described the view taken by an individual capitalist who has borrowed money to undertake an investment project: his rate of profit must be sufficient to cover interest costs with a remainder large enough to induce him to undertake the pain and risk involved in managing the project. However, as Keynes and Marx often showed, individual perspectives can be misleading.[8]

[6] Alternatively, we could substitute widgets for interest rates in Pivetti's analysis. The price of widgets (but not quantity?) is set by the authorities. Widgets are used in many production processes, so enter into the determination of the cost of many commodities. Firms which don't need to purchase widgets can charge off an opportunity cost in terms of widgets, and thereby receive a profit rate which is notionally equivalent to firms which do purchase widgets. The normal rate of profit must include the price of widgets. Thus, workers cannot determine the distribution of income, but only determine the nominal wage which then sets the general price level by a widget price markup. What has been said of widgets could, of course, be said of any number of commodities commonly used in production (eg: energy).

[7] Pivetti's decomposition of the rate of profit into a portion attributed to trouble and risk and a portion due to the interest rate is strikingly similar to that of neoclassical theory. Entrepreneurs earn profit due to the pain of investing, while money capitalists earn interest due to waiting. This view seems inconsistent with the surplus approach, in which profits arise in production because labor is able to produce a greater quantity of commodities than required to reproduce itself. Furthermore, Pivetti has incorporated the interest rate within the rate of profit. This ignores the possible conflict between rentier and entrepreneurial interests. A treatment of interest rates should include analysis of a third party in addition to the capitalist and the worker. Clearly, rentier interests are not necessarily identical to those of capitalists. Pivetti is able to ignore this issue by assuming a "normal profit of enterprise".

[8] For example, in Keynesian theory, the paradox of thrift. Keynes also argued that one can't transfer the analysis of individual firms to an economy as a whole. For example, see J. M. KEYNES, *The General Theory of Employment, Interest, and Money*, New York, Harcourt Brace Jovanovich, 1964, pp. 258-259 and 292-293.

Pivetti's analysis does not explain how profit (or interest) arises, nor does it provide a satisfactory explanation of the rate of profit or of interest. Resorting to a portfolio balance approach, as Pivetti does (p. 85) may explain individual behavior given a profit rate (interest rate), but it doesn't explain how this rate is set. Pivetti has merely divided the normal rate of profit into two components (pure remuneration of capital and normal profit of enterprise) and argued that one of these components determines the size of the whole. He has asserted, but not shown, that the "pure remuneration of capital" is determined by the interest rate, which is then added to the "normal profit of enterprise" to establish the normal rate of profit. A case can be made (as Marx did) that it is the "normal rate of profit" which sets the limit for the sum of the "pure remuneration of capital" and "normal profit of enterprise". The division between financial and industrial capitalists then depends on various institutional and socio-economic factors including the degree of development of the credit system, the importance of credit in financing expenditures unrelated to production, and policies of the central bank.

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