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**The Structure of Class Conflict  
in a Kaleckian-Keynesian Model**

by

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Working Paper No. 21

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## THE STRUCTURE OF CLASS CONFLICT IN A KALECKIAN-KEYNESIAN MODEL

John Maynard Keynes's vision of the problems and prospects of capitalism, though at times voiced in terms of the distribution of income or wealth among different classes of income recipients (e.g., Keynes, 1971 [1923], Chap. 1; 1971 [1930], Book III), was not largely concerned with class conflict. To the extent that Keynes did see problems in or caused by the inequalities of distribution, he felt that the reforms which could be undertaken on the argument of his General Theory would take care of these problems easily enough within the existing institutions of capitalism and without calling for any serious expropriation of property. To be sure, his support for progressive income taxation to increase the propensity to consume and for low interest rates and "a somewhat comprehensive socialization of investment" to provide sufficient investment and bring about the "euthanasia of the rentier," (Keynes, 1964 [1936], Chap. 24) have appeared threatening to some.

Michal Kalecki's version of the theory of effective demand was cast in a two-class model of accumulation and distribution. Economists with a relation to the Marxian tradition, such as Kalecki or Paul Sweezy, who accepted the importance of effective demand, have also held that full employment and/or redistributive policies threaten capital and that capital will fight back. (See Kalecki, 1971 [1943], Chap. 12, and Sweezy, 1970 [1942], Chap. 19.) In Kalecki's models, however, the class conflict on one level is severely attenuated in that wages and profits are not strictly, nor

even very much at all actually, inversely related to one another. (See Kalecki, 1971, Chap. 14.)

This paper seeks to explore this issue of the existence and nature of class conflict within a picture of the economy that could be called Kaleckian-Keynesian. Though the particular model we will use owes somewhat more to Kalecki than Keynes, it hopefully does not violate the spirit of Keynes very much, and in fact it relies rather heavily on Keynes's appreciation of the rentier aspect of capitalism, a matter not discussed much by Kalecki. In addition, combining the ideas of Kalecki and Keynes we will find leads us to insights beyond what each saw by himself.

Most models of class conflict in a capitalist economy identify the struggle over wages v. profits as the conflict. Adam Przeworski and Michael Wallerstein (1982b) have argued that Keynesianism denied the necessity of class conflict, at least when the economy is operating below full employment. They then analyze (Przeworski and Wallerstein, 1982a, 1988) the structure of class conflict between wage-earners and profit-earners without any consideration for the problem of effective demand, presumably because class conflict emerges again once the "Keynesian" underemployment problem is no longer the issue. (See Przeworski and Wallerstein, 1982b, pp. 58-60.) The fact that class conflict may be different at v. below full employment, however, doesn't mean that one can ignore effective demand and similar "Keynesian" considerations simply because one is starting at full employment.

Samuel Bowles, David Gordon, and Thomas Weisskopf (1989) in

a discussion of the effects of the conservative ascendancy in the U.S. since 1979 show that even if one is considering the issue of profits v. wages, one has to examine the effects of redistributive policies with some regard for their effects on overall demand as well as one group v. the other. Bowles, Gordon, and Weisskopf in fact show that the conservative agenda did damage to both profits and wages. Their argument, however, assumes that the damage done to profits was done in order to damage wages in the interest of a longer-term turnaround in profitability. This may be so, but perhaps this was not really what the game was about. The Kaleckian-Keynesian model by emphasizing the rentier aspect of the capitalist economy may make the strategies of the past several years appear in a different light. After all, we know that though industry was hit along with labor, finance has done rather well.<sup>1</sup>

I hope this analysis then will shed new light on the economic and political problems of liberal and social democracy in the postwar years as the effort to carry out the Keynesian program of full employment and redistribution came to grief. We will close the paper with a discussion of the prospects and problems of possible reforms of the Keynesian program.

#### **A Kaleckian-Keynesian Model**

The model is a variation on and extension of a model of Donald Harris (1974). Similar models have been constructed by A.

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<sup>1</sup>Bowles, Gordon, and Weisskopf (1989, p. 130) do allow that perhaps the regressive redistribution of income and wealth that occurred in this period was what the game was all about.

Asimakopulos (1975) and G.C. Harcourt (1972, pp. 210-214). We have the following equations and inequalities:

$$(1) \quad pY = W + \Pi.$$

$$(2) \quad W = \bar{w}L.$$

$$(3) \quad L = bY.$$

$$(4) \quad pI = s_{\Pi}\Pi + s_w W.$$

$$(5) \quad p = \bar{\phi}\bar{w}b.$$

$$(6) \quad pI = pI_0 + a\Pi_E.$$

$$(7) \quad \Pi_E = \Pi - \bar{i}D.$$

$$(8) \quad R = \bar{i}D + G.$$

$$(9) \quad s_{\Pi} > s_w.$$

$$(10) \quad s_{\Pi} > a.$$

$$(11) \quad \bar{\phi} > 1.$$

$$(12) \quad pI_0 > a\bar{i}D.$$

Even though we will want to discuss the relation of the state to the economy, we will be able to abstract from an explicit state sector for reasons that will become more apparent below. Equation (1) thus provides that the aggregate price level,  $p$ , times real national income,  $Y$ , equals the aggregate wage bill,  $W$ , plus aggregate money profits,  $\Pi$ . Equation (2) separates the wage bill into the money wage,  $\bar{w}$ , times the level of employment,  $L$ .  $L$  in turn is determined in equation (3) by  $b$ , the ratio of employment to national income or output, times  $Y$ . Equation (4) gives the Keynesian saving-investment macroeconomic equilibrium, wherein aggregate demand determines aggregate supply, or investment

determines saving by changing the level and distribution of national income, as in Nicholas Kaldor (1956). Thus we have the price level times the level of real investment spending,  $I$ , equal to the propensity to save out of profits,  $s_{\pi}$ , times money profits, plus the propensity to save out of wages,  $s_w$ , times the wage bill. Equation (5) tells us that the price level is determined by the mark-up,  $\bar{\phi}$ , times the index of labor cost,  $\bar{w}_b$ , as we are assuming a fully integrated economy, so that labor is the only non-produced input. Equation (6) gives us our investment function. The level of nominal investment spending,  $pI$ , equals  $p$  times exogenous real investment plus a linearly increasing relation, given by  $a$ , to  $\Pi_E$ , "profit of enterprise," to use Karl Marx's term, which in equation (7) is seen to equal total money profits minus interest income,  $\bar{i}$  times outstanding debt,  $D$ . Equation (8) tells us that rentier income,  $R$ , equals interest income plus capital gains,  $G$ .

Inequality (9) provides the usual assumption that the propensity to save out of profits exceeds the propensity to save out of wages, on the grounds, as you like, of profit-earners on the whole being wealthier than wage-earners or of a large part of profits being retained as saving by firms. Inequality (10) holds that the propensity to save out of profits exceeds the influence of profits (though not strictly the propensity to spend out of profits) on investment. This assumption is likely most of the time but not necessarily so all of the time, and we will discuss the effects of a reversal in this inequality where appropriate. Inequality (11) simply ensures that we have less than "perfect"

competition, as is appropriate in a Kaleckian picture of the economy, in which the accumulation of more than "zero" or "accounting" profits in firms which may or may not be reinvested is important to the story of effective demand determination of economic activity. Finally, as can be seen from substituting equation (7) into equation (6), inequality (12) states that nominal investment spending will be positive even if profits (or their influence on investment) are zero. Since we are talking about gross investment, this is certainly plausible, and it is necessary to ensure that national income is always positive.<sup>2</sup>

We take  $p$ ,  $Y$ ,  $W$ ,  $\Pi$ ,  $L$ ,  $I$ ,  $\Pi_E$ , and  $R$  to be endogenous. We thus have a short-period model for which equilibrium quantities of the endogenous variables can be solved given the values of the exogenous variables. The short-period (no change in the capital stock within the period) assumption is more Keynesian than Kaleckian. Though adding Kaleckian dynamics, involving relations among investment, profits, and the capital stock,<sup>3</sup> is relevant to our concerns, we will leave it for an extension of the present work, and we will use the method of comparative statics to tackle the question of class conflict in this paper.

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<sup>2</sup>Actually we shall see that this condition will also ensure that total profits are positive. Profit of enterprise of course can be negative to the extent that firms can absorb losses out of prior accumulation or by capitalizing interest rather than having to declare bankruptcy.

<sup>3</sup>Actually, relations among investment, profits, and debt, as in Hyman Minsky (1975, 1977) would be more straightforward to discuss in this particular model. See Marc Jarsulic (1988) for a mathematical example of such relations.



The model is Kaleckian in that emphasis is placed on profits as the key to saving and investment. Kalecki generally assumed  $s_w = 0$ , which would greatly simplify our derivations but would also omit some results which I think are very significant and relevant to the problem of relations among the classes of income recipients. The key Kaleckian elements in the model then are the Kaldorian saving function in which  $s_\pi > s_w$ , the positive mark-up on wage costs (or "degree of monopoly" in Kalecki's terminology), and the role of profits in the investment function. In this way Kalecki demonstrated a mutual dependence between income distribution on one hand and effective demand and so output and employment on the other hand.<sup>4</sup>

The investment function requires deeper examination. The role of profits could simply be justified as representing the incentive for investment spending. Here then we should properly have expected profits, and actual profits would serve as the best proxy. Kalecki (1971 [1937], Chap. 9), however, offers another justification for the influence of profits on investment. This is his "principle of increasing risk," which holds that the availability of finance for investment is a function of the level of profits, both as a source of finance itself and as an attraction for external sources of finance. The argument is that the marginal risk of any particular investment increases with the percentage of

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<sup>4</sup>In this way Kalecki also represents a fusion of "Marxian" and "Keynesian" concerns. See Kalecki (1971) for the major pieces of Kalecki's work on the capitalist economy.

one's funds sunk. Therefore, the more internally generated funds there are, the lesser the risk of a particular size of investment and the greater the likelihood that borrowed funds will be repaid.<sup>5</sup>

Substituting equation (7) into equation (6) gives us

$$(6') \quad pI = pI_0 + a\Pi - a\bar{i}D.$$

We see that investment is an increasing function of total profits and a decreasing function of interest times debt. Of course the idea that interest has a negative influence on investment as the cost of external funds is not novel here, but the way in which it enters into our investment function is according to the principle of increasing risk, since its effect is due to decreasing the amount of total profits going to enterprise. This type of treatment of interest income moreover is in the spirit of Keynes's concern for the rentier aspect of capitalism, which he saw as the source of much of capitalism's problems. (See Keynes 1964 [1936], Chaps. 16 and 24.) As interest or debt increases, investment will

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<sup>5</sup>Kalecki's proposition became controversial following the publication of Franco Modigliani and Merton Miller (1958), which holds that no shareholder should be concerned about the particular mix of debt and equity held by any firm on the grounds that he or she could always "roll his [or her] own" leverage by his or her own purchases of the firm's debt or borrowing to purchase more shares. A simple counterargument to this follows, as Modigliani and Miller themselves admitted, if bankruptcy risk of the firm affects the security of the firm's debt. In recent years argument having to do with asymmetric information and moral hazard have also called into question the "Modigliani-Miller theorem." See Steve Fazzari, Glenn Hubbard, and Bruce Petersen (1988b, pp. 146-152) for a summary of these arguments. In any event, the Modigliani-Miller theorem does not obviate the relevance of profits for investment as a proxy for expected profits but only as a limit on the availability of finance.

decrease.

To the extent that investment can be taken to be a good thing for society as a whole and at least for wage- and profit-earners, the recipients of rentier income have an interest opposed to that of the rest of society. An interesting point related to this which follows from the way that our investment function is constructed is that a higher price level will increase real investment by lowering the burden of debt in real terms. A paradox, however, which I will argue has profound social implications, arises from the fact that, since both wage- and profit-earners save, both are the recipients of the rentier income. Thus we have opposing interests within each of the working and capitalist classes--perhaps within the same individual!

In the spirit of Kalecki and Keynes we do not allow saving to represent fundamentally anything more than that part of income not consumed, except for the influence of profits on the financing of investment. We say that because there is debt created, savers have a claim on part of total profits. We do not, however, specify any necessary connection between the flow of saving and the level of debt.<sup>6</sup> Nor do we let the level of saving affect the interest rate. In other words, we don't have a loanable funds theory of interest. We do allow the actions of rentiers to affect the rate of interest, either through their direct decisions to shift funds out of lending or through their ability to influence monetary policy. This,

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<sup>6</sup>This may become important in a future dynamic treatment of the issues discussed here.

though, is accordance with Keynes's liquidity preference theory, in which the level of savings is not important but rather the availability of finance by means of private or public actions is what matters. We have no money demand or money supply function in this model but merely take the interest rate as the resultant of the actions of the rentiers in allocating their wealth, if not offset by monetary policy.

We also simply take the level of debt as an historical datum, though of course we could perform comparative statics exercises on the effects of changes in the level of debt. Decisions about the division of profit of enterprise between retention in the firm and distribution to shareholders will be taken to be subsumed in the saving propensity,  $s_{\pi}$ . We also ignore any consumption out of capital gains, holding it to be a second-order effect compared to the decision to consume or not out of wages and profits.

### **Comparative Statics Results**

In the Kaleckian and Keynesian visions of the economy the actions of social classes are rather circumscribed by competition among the individuals and firms composing each class. To be sure, we do not have "perfect" competition, at least for Kalecki, but a world of oligopoly and trade unionism. Still, we don't have "perfect" collusion, either. Differences between a Kaleckian picture of class struggle and a "purer" Marxian one on one level have merely to do with greater emphasis in the Kaleckian story on competition in the product market v. the labor market. This comes from the importance in Kalecki's and Keynes's eyes of the wage

bargain being in the first instance a bargain over a money wage, not a real wage. In our model the real wage,  $\bar{w}/p$ , =  $1/\bar{\phi}b$ . The only control Kalecki gives the workers over  $\bar{w}/p$  is some influence of trade union strength on  $\bar{\phi}$ , due to a limit on the ability of firms to pass along higher wage costs in product prices (Kalecki, 1971, Chaps. 5 and 14).

A more fundamental issue, arising from the recognition of the significance of the level of effective demand on output below full employment, is that even if capitalists could collude as a class in their dealings with workers, they would not benefit greatly from raising  $\bar{\phi}$  at the expense of  $\bar{w}/p$ . Conversely, even if workers could collude as a class in their dealings with capitalists, the capitalists would not be greatly harmed by increases in  $\bar{w}/p$  at the expense of  $\bar{\phi}$ . To be sure, there can be a fallacy of composition at work here. That is, any one capitalist will benefit from higher mark-ups and lower wages in his or her own business to the extent that his or her workers do not affect the overall level of demand much. In the aggregate, however, we shall see the small magnitude of such an effect.

In our model the weapons of each class are not even always under their own control and when they are, they involve merely incremental changes in  $\bar{\phi}$ ,  $\bar{w}$ , and  $\bar{t}$ . Let us now examine the results of such incremental changes in these variables, which we will call our "distributional variables." First, we shall solve the model for the equilibrium values of real national income,  $Y$ , real total profits,  $\Pi/p$ , real wage income,  $W/p$ , real rentier income,  $R/p$ , and

real profit of enterprise,  $\Pi_E/p$ .

$$(13) \quad Y = \frac{\bar{\phi} \bar{I}_0 - a \bar{i} \bar{D} / \bar{w} \bar{b}}{(s_{\Pi} - a)(\bar{\phi} - 1) + s_w}, \text{ or } \frac{\bar{\phi}(\bar{I}_0 - a \bar{i} \bar{D} / p)}{(s_{\Pi} - a)(\bar{\phi} - 1) + s_w}.$$

$$(14) \quad \frac{\Pi}{p} = \frac{(\bar{I}_0 - a \bar{i} \bar{D} / \bar{\phi} \bar{w} \bar{b})(\bar{\phi} - 1)}{(s_{\Pi} - a)(\bar{\phi} - 1) + s_w}, \text{ or } \frac{(\bar{I}_0 - a \bar{i} \bar{D} / p)(\bar{\phi} - 1)}{(s_{\Pi} - a)(\bar{\phi} - 1) + s_w}.$$

$$(15) \quad \frac{W}{p} = \frac{\bar{I}_0 - a \bar{i} \bar{D} / \bar{\phi} \bar{w} \bar{b}}{(s_{\Pi} - a)(\bar{\phi} - 1) + s_w}, \text{ or } \frac{\bar{I}_0 - a \bar{i} \bar{D} / p}{(s_{\Pi} - a)(\bar{\phi} - 1) + s_w}.$$

$$(16) \quad \frac{R}{p} = \frac{\bar{i} \bar{D}}{\bar{\phi} \bar{w} \bar{b}} + \frac{G}{\bar{\phi} \bar{w} \bar{b}}.$$

$$(17) \quad \frac{\Pi_E}{p} = \frac{(\bar{I}_0 - a \bar{i} \bar{D} / \bar{\phi} \bar{w} \bar{b})(\bar{\phi} - 1)}{(s_{\Pi} - a)(\bar{\phi} - 1) + s_w} - \frac{\bar{i} \bar{D}}{\bar{\phi} \bar{w} \bar{b}}, \text{ or}$$

$$\frac{(\bar{I}_0 - a \bar{i} \bar{D} / p)(\bar{\phi} - 1)}{(s_{\Pi} - a)(\bar{\phi} - 1) + s_w} - \frac{\bar{i} \bar{D}}{\bar{\phi} \bar{w} \bar{b}}.$$

It may be useful to note that the expression for  $Y$  can be reduced to the familiar Keynesian one of  $\bar{I}/s$ , where  $\bar{I} = \bar{I}_0 - a \bar{i} \bar{D} / p$ , or that part of real investment not a function of  $\Pi/p$ , and  $s = s_{\Pi}(\alpha) + s_w(1 - \alpha)$ ,  $\alpha =$  the share of profits in national income. If  $s_w = a = 0$ ,  $\Pi/p = \bar{I}_0/s_{\Pi}$ , which of course is the "Cambridge" equation for profits, or Kalecki's "the capitalists get what they spend, the workers spend what they get," or Keynes's "widow's cruise" theory of profits in his Treatise on Money (1971 [1930]). Adding positive saving out of wages and an influence of profits on investment complicates this basic structure, but in ways that hopefully give interesting and important results.

Now let's see what happens to the levels of income of the economy as a whole and each of the classes of income recipient when

changes occur in  $\bar{\phi}$ ,  $\bar{w}$ , and  $\bar{i}$ . First, taking partial derivatives of  $Y$  with respect to those three variables, we get the expressions which follow.

$$(18) \quad \frac{\partial Y}{\partial \bar{\phi}} = \frac{(s_{\pi} - a)(a\bar{i}D/\bar{w}b - I_0) + s_w I_0}{[(s_{\pi} - a)(\bar{\phi} - 1) + s_w]^2}$$

From inequalities (10) and (12),  $(s_{\pi} - a)(a\bar{i}D/\bar{w}b - I_0)$  is most likely negative. The entire expression is probably negative, though a low  $s_{\pi}$  or a high  $s_w$  or a combination of the two could make the expression positive. The economic reasoning here is that an increase in  $\bar{\phi}$  redistributes income from wage-earners, a group with a high propensity to consume, to profit-earners, a group with a lower propensity to consume. With a given level of investment spending, an increase in  $\bar{\phi}$  thus decreases effective demand and so national income. If  $a = 0$ , this clearly would happen. But with  $a > 0$ , investment is not given. Redistribution of this type lowers consumption but increases investment. Indeed, if  $a$  were  $> s_{\pi}$  but not so great as to make  $(a\bar{i}D/\bar{w}b - I_0) > 0$ ,  $\partial Y/\partial \bar{\phi}$  would be unambiguously positive. The spirit of the Kaleckian and Keynesian approaches, however, support its being negative.

$$(19) \quad \frac{\partial Y}{\partial \bar{i}} = \frac{-aD/\bar{w}b}{(s_{\pi} - a)(\bar{\phi} - 1) + s_w}$$

This expression is clearly negative, as is surely no mystery, since the influence of higher  $\bar{i}$  on investment is negative.

$$(20) \quad \frac{\partial Y}{\partial \bar{w}} = \frac{a\bar{i}D/\bar{w}^2 b}{(s_{\pi} - a)(\bar{\phi} - 1) + s_w}$$

Here we see that an increase in the money wage equally passed along in the price level increases national income. Inflation is expansionary in this model because of its lightening of the burden of debt. Why don't creditors, who obviously suffer from inflation, demand higher interest, at least when inflation is anticipated? Well, perhaps they do, but we leave that to a discussion of the ability of rentiers to influence  $\bar{i}$  in their favor.

When we turn to the effect of our three distributional variables on real wage income, we get the following results.

$$(21) \quad \frac{\partial (W/p)}{\partial \bar{\phi}} = \frac{(s_{\pi} - a)(2a\bar{i}D/\bar{\phi}\bar{w}b - I_0) + a\bar{i}D/\bar{\phi}^2\bar{w}b(s_w + a - s_{\pi})}{[(s_{\pi} - a)(\bar{\phi} - 1) + s_w]^2}.$$

As with  $\partial Y/\partial \bar{\phi}$ , this result is ambiguous. Again, a combination of a low value for  $s_{\pi}$ , a high value for  $s_w$ , and a high, but not too high, value for  $a$  could make the expression positive. It is more likely than it is for  $\partial Y/\partial \bar{\phi}$ , however, that  $\partial (W/p)/\partial \bar{\phi}$  is negative because here we have the direct negative effect of a higher mark-up on the real wage as well as the effect on employment through effective demand, which, as we have seen, could perhaps be positive.

$$(22) \quad \frac{\partial (W/p)}{\partial \bar{i}} = \frac{-aD/\bar{\phi}\bar{w}b}{(s_{\pi} - a)(\bar{\phi} - 1) + s_w}.$$

$$(23) \quad \frac{\partial (W/p)}{\partial \bar{w}} = \frac{a\bar{i}D/\bar{\phi}\bar{w}^2b}{(s_{\pi} - a)(\bar{\phi} - 1) + s_w}.$$

These two expressions clearly are respectively negative and



positive, and the economic reasoning behind these results is identical to that in the cases of  $\partial Y/\partial \bar{i}$  and  $\partial Y/\partial \bar{w}$ .

To examine the effects of our distributional variables on rentier income, we need to say something more about the matter of capital gains. We have defined rentier income to be fixed-interest income plus capital gains on fixed-interest securities. Since, however, we have taken the interest rate on these securities to be exogenous in our model, when would capital gains occur? If we divide the interest rate into a short-term and a long-term rate, and take the short-term rate to be determined by monetary policy and the long-term rate to be affected by policy but also by actions of borrowers and lenders in response to expectations about future movements in rates, concern for default risk, and the like, then we have a way for capital gains to occur even if the short-term rate remains unchanged. Of course, this also goes a way towards making our variable  $\bar{i}$  endogenous. I will leave this for future work and get around it in this paper by assuming  $\bar{i}$  to be the short-term rate.

Capital gains (and losses) of course are merely a revaluation of, in this case, financial wealth. They are not part of national income because they are just this revaluation of claims and do not represent any production of goods and services. We have not allowed them to affect demand for goods and services, since we are ignoring any consumption out of capital gains and any effect of their providing finance for investment spending. Capital gains, however, of course are important components of rentier income.

Thus we do need to see how they are affected by changes in our distributional variables as we take the comparative statics derivatives for rentier income, which follow.

$$(24) \quad \frac{\partial (R/p)}{\partial \bar{\phi}} = - \frac{\bar{i}D}{\bar{\phi}^2 \bar{w}b} + \frac{\bar{\phi}(\partial G/\partial \bar{\phi})}{\bar{\phi}^2 \bar{w}b} - G.$$

The negative effect on rentier income from an increase in  $\bar{\phi}$  is due to the decrease in real terms of a given amount of money income with a higher price level. Thus we have the negative signs on the levels of interest income and capital gains. The level of capital gains and the derivative  $\partial G/\partial \bar{\phi}$ , the change in capital gains as the mark-up changes, of course could themselves be either positive or negative quantities--in other words, we could have capital losses. Since we know that a rise in  $\bar{\phi}$  probably causes a fall in  $Y$  and we will see that it should also cause a rise in  $\Pi/p$ , both the level of and change in capital gains should be positive. This is because a fall in  $Y$  should be associated with an expectation of a fall in  $\bar{i}$  and so perhaps in long-term rates and an increase in  $\Pi/p$  may also cause long-rates to fall because of lower default risk. The overall value of  $\partial (R/p)/\partial \bar{\phi}$  should be negative unless the capital gain is large enough so that  $\bar{\phi}(\partial G/\partial \bar{\phi}) > \bar{i}D + G$ .

$$(25) \quad \frac{\partial (R/p)}{\partial \bar{i}} = \frac{D}{\bar{\phi} \bar{w}b} + \frac{\partial G/\partial \bar{i}}{\bar{\phi} \bar{w}b}.$$

This expression is clearly positive unless there is a large capital loss following the rise in  $\bar{i}$ .

$$(26) \quad \frac{\partial (R/p)}{\partial \bar{w}} = - \frac{\bar{l}D}{\bar{\phi}\bar{w}^2b} + \frac{\bar{w}(\partial G/\partial \bar{w}) - G}{\bar{\phi}\bar{w}^2b}.$$

Since we have argued that an increase in  $\bar{w}$ , other things being equal, is expansionary, it is likely that  $\partial G/\partial \bar{w}$  and  $G$  will be negative. The effect of a higher price level on  $G$ , here the level of the loss, will diminish the overall effect, but it is clear that the overall effect will be negative.

Finally, let's examine the effects of changes in our distributional variables on real profit of enterprise.

$$(27) \quad \frac{\partial (\Pi_E/p)}{\partial \bar{\phi}} = \frac{s_w(I_0 - a\bar{l}D/\bar{\phi}\bar{w}b) + (a\bar{l}D/\bar{\phi}^2\bar{w}b)(\bar{\phi} - 1)[(s_\pi - a)(\bar{\phi} - 1) + s_w] + \frac{\bar{l}D}{\bar{\phi}^2\bar{w}b}}{[(s_\pi - a)(\bar{\phi} - 1) + s_w]^2}.$$

This expression clearly is positive, as would be expected, but note that if  $s_w = 0$ , the expression would become  $\frac{a\bar{l}D/\bar{\phi}^2\bar{w}b}{s_\pi - a} + \frac{\bar{l}D}{\bar{\phi}^2\bar{w}b}$ , so that the only increase in  $\Pi_E/p$  from an increase in  $\bar{\phi}$  would be due to the effects of the lowered burden of debt on investment and the lowered level of rentier income as a share of total profits. This is because even though an increase in the mark-up increases profits per unit of sales, by raising  $p$  relative to  $\bar{w}$  it also cuts the volume of sales. If wage-earners spend all their income, the increase in margins and decrease in volume exactly cancel out. Apart from the effects of higher prices on debt and the rentier

share of profits then, the only reason that raising mark-ups does profit-earners any good is, paradoxically, because of workers' saving.

$$(28) \quad \frac{\partial (\Pi_E/p)}{\partial \bar{i}} = - \frac{(aD/\bar{\phi}\bar{w}b)(\bar{\phi} - 1)}{(s_\Pi - a)(\bar{\phi} - 1) + s_w} - \frac{D}{\bar{\phi}\bar{w}b}.$$

$$(29) \quad \frac{\partial (\Pi_E/p)}{\partial \bar{w}} = \frac{a\bar{i}D/\bar{\phi}\bar{w}^2b(\bar{\phi} - 1)}{(s_\Pi - a)(\bar{\phi} - 1) + s_w} + \frac{\bar{i}D}{\bar{\phi}\bar{w}^2b}.$$

These expressions are obviously negative and positive respectively. That higher interest hurts profit of enterprise is not surprising. That higher money wages increase profits may be surprising, but here the higher  $\bar{w}$  is being fully passed along in prices, and it is the effects of higher prices on the burden of debt and on the share of rentier income in total profits that are raising profit of enterprise.

The last comparative statics exercise we want to perform involves redistributive taxation. "Keynesian" employment expansion policy we can examine with what we already have. Monetary policy is simply changing  $\bar{i}$ . Fiscal policy, or at least a change in the level of the government budget deficit by changing government spending, would be identical to a change in  $I_0$ . A redistributive tax, however, adds a few complications. First, we need to alter some of the basic equations of our model, which now looks as follows.

$$(30) \quad \Pi_A = (1 - \bar{t})\Pi_B.$$

$$(1') \quad pY = W + \bar{t}\Pi_B + \Pi_A.$$

- (2')  $W = \bar{w}L + \bar{t}\Pi_B.$
- (3)  $L = bY.$
- (4')  $pI = s_{\Pi}\Pi_A + s_w W.$
- (5)  $p = \bar{\phi}\bar{w}b.$
- (6)  $pI = pI_0 + a\Pi_E.$
- (7')  $\Pi_E = \Pi_A - \bar{t}D.$
- (8)  $R = \bar{t}D + G.$

We are taxing total profits at the tax rate,  $\bar{t}$  ( $0 < \bar{t} < 1$ ), and simply giving the proceeds to wage-earners.<sup>7</sup> Thus we have a new equation, (30), which specifies the relation between before-tax profits,  $\Pi_B$ , and after-tax profits,  $\Pi_A$ . This in turn necessitates altering equations (1), (2), (4), and (7), which are accordingly marked by "'".

This need not be the only tax we analyze, but it is the most interesting one at this point in the paper. Taxing wage income for redistribution within the wage-earning class would not be very interesting (See Kalecki, 1971 [1937], pp. 37-38.), and taxing wages for redistribution to profit-earners could be analyzed simply by making  $\bar{t} < 0$ . A tax on interest income and capital gains would be relevant to our concerns, but its implications are so straightforward that we will leave discussion of it until we take up policy recommendations near the end of the paper.

What is the effect of changes in  $\bar{t}$  on national income and the

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<sup>7</sup>The redistribution of course need not be in the form of cash payments. It could easily represent social benefits like medical or housing payments or relief for the unemployed.

incomes of each of our three classes?

$$(31) \quad \frac{\partial Y}{\partial \bar{t}} = \frac{(\bar{\phi}I_0 - a\bar{t}D/\bar{w}b) \{ [(1 - \bar{t})(s_{\pi} - a) + s_w\bar{t}](\bar{\phi} - 1) + s_w(1 + \bar{t}) - (1 + \bar{t})[(a - s_{\pi} + s_w)(\bar{\phi} - 1) + s_w] \}}{[(1 - \bar{t})(s_{\pi} - a) + s_w\bar{t}](\bar{\phi} - 1) + s_w(1 + \bar{t})}.$$

Not surprisingly, the results here turn out to be rather similar to those obtained when considering the effects of a change in  $\bar{\phi}$ . From inequalities (10) and (12) the expression should be positive. If, however,  $s_w$  and  $a$  were large enough and  $s_{\pi}$  small enough, the expression could conceivably become negative.

The profits tax under our assumptions has no effect on rentier income. As regards wage income, taking the derivative,  $\partial(W/p)/\partial\bar{t}$ , results in a very complicated expression, which, however, is roughly positive under the same conditions as  $\partial Y/\partial\bar{t}$  is positive. With profit of enterprise,  $\partial(\Pi_E/p)/\partial\bar{t}$  also gives a very complicated expression, which is roughly negative under the conditions when these other derivatives are positive. These results are surely not surprising, but what is interesting to note is that if  $s_w = 0$ ,  $\partial Y/\partial\bar{t}$  and  $\partial(W/p)/\partial\bar{t}$  become unambiguously positive and  $\partial(\Pi_E/p)/\partial\bar{t}$  becomes zero. This is a well-known result of Kalecki (1971 [1937], Chap. 4), but we will place some importance upon the changes in the result brought about by  $s_w > 0$  later.

### The Structure of Class Conflict

Let us now go over the implications of changes in our four distributional variables for class conflict. Increases in  $\bar{\phi}$  help profit-earners some and hurt wage-earners and rentiers. They probably decrease  $Y$  and contribute to inflation ( $\partial p$ ). Increases in  $\bar{v}$  help rentiers, though there may be an associated capital loss for them. They hurt wage-earners and profit-earners, and they decrease  $Y$ . Increases in  $\bar{w}$  help wage-earners and profit-earners some, while hurting rentiers. They increase  $Y$  some and contribute to inflation. Increases in  $\bar{w}$  that cut equally into  $\bar{\phi}$  help wage-earners and are neutral to rentiers. They hurt profit-earners some and increase  $Y$ . Increases in  $\bar{t}$  have similar effects to increases in  $\bar{w}$  that cut equally into  $\bar{\phi}$ . Remember, if  $s_w$  and  $a$  are large and  $s_{\pi}$  is small, the effects of  $\partial \bar{\phi}$  and  $\partial \bar{t}$  on some of the variables can be reversed.

The normal results of our comparative statics exercises are summarized in the table below. We add to the list results of the effects of changes in the distributional variables on  $p$ , which can be immediately drawn from equation (5). We also add a new "distributional" variable,  $\partial I_0$ , which can be used to give results for a change in government deficit spending as well as in autonomous investment spending, since these results should be identical. The results again are immediately apparent from inspection of equations (5), (13), (15), (16), and (17).

	$\partial Y$	$\partial p$	$\partial (W/p)$	$\partial (\Pi_E/p)$	$\partial (R/p)$
$\partial \bar{\phi}$	-	+	-	+	-
$\partial \bar{t}$	-	0	-	-	+
$\partial \bar{w}$	+	+	+	+	-
$\partial \bar{w} = -\partial \bar{\phi}$	+	0	+	-	0
$\partial \bar{c}$	+	0	+	-	0
$\partial I_0$	+	0	+	+	0

This summarizes the gains and losses to society as a whole and to each class of income recipients from changes in the distributional variables. To what extent, however, in the Kaleckian-Keynesian framework is any class able to exert control over a particular variable and engage in strategic behavior? For Kalecki (1971 [1943], Chap. 5) the main determinants of  $\bar{\phi}$  were the level of concentration of industry, the degree of non-price competition, the level of overhead costs, and the strength of trade unions. The first two of these are matters of competition among firms, and the third is largely, even if not purely, a technological determinant. These would leave little room for strategic behavior on the part of profit-earners as a whole against other groups. A high level of concentration may give profit-earners a freer hand to change  $\bar{\phi}$  strategically, though this is more likely to be on an industry rather than economy-wide level. My feeling is that in a Kaleckian framework most of the inter-class action over  $\bar{\phi}$  should occur in the conflict between workers and firms over  $\bar{w}$ . Kalecki (1971, Chap. 14) attributes the ability of



unions to eat into  $\bar{\phi}$  to result from the fact that there is some limit to the ability of firms to pass along increased money wages in higher prices.

Where does this limit come from? If we were talking about a national economy in an interdependent world economy, we could say from foreign competition. Even in a closed economy, though, we see that the rentier class will be the ones most directly hurt by a wage-price spiral. Of course inflation is not costless to anyone in terms of its adding inconvenience to calculation and planning, its damage to the liquidity property of money, and its interference with the relative price mechanism. What weapons does the rentier class have at its disposal? Monetary policy determines at least the short-term interest rate. To some extent rentiers are dependent upon enlisting political support in the central bank to help them out, but they can shift their funds into real assets or abroad. This of course also worsens the inflation, though protecting them from it somewhat, by raising the prices of housing, etc., and putting downward pressure on the foreign exchange rate of the domestic currency. This then can in turn help them gain support to the extent that others also dislike the costs of inflation.

What about the behavior of the wage-earners towards  $\bar{w}$  and  $\bar{t}$ ? The interests of profit-earners and rentiers are opposed to those of every other group and society as a whole. Wage-earners' interests, however, coincide with that of society as a whole at least with respect to effects on national income and always

coincide with one of the other two classes. Profit-earners and rentiers should always run into a fight from the rest of society. Can wage-earners avoid this?

Remember now who the rentiers are in our model. We created a separate category of rentier income as a share of total profits, but we don't have a separate class of rentier individuals. Thus profit-earners and wage-earners receive the rentier income, and, as remarked above, the struggles between income recipients occur within each class and within some of the same individuals. These people can say with Walt Kelly, as he wrote in the old Pogo comic strip, "We have met the enemy, and he is us!"

Remember also that it is the existence of  $s_w > 0$  that gives wage-earners rentier income and perhaps profit of enterprise income as well. Positive  $s_w$  is also the major cause of  $\partial(\Pi_E/p)/\partial\bar{\phi} > 0$  and  $\partial(\Pi_E/p)/\partial\bar{t} < 0$ . And, the higher  $s_w$  is, the more likely it is, other things being equal, that  $\partial Y/\partial\bar{\phi}$  and  $\partial(W/p)/\partial\bar{\phi} > 0$  and  $\partial Y/\partial\bar{t}$  and  $\partial(W/p)/\partial\bar{t} < 0$ . Positive  $s_w$  gives wage-earners "more to lose than their chains!"

Demonstrating a narrow economic interest that might be helped by advocating certain policies, however, may not be nearly as important as revealing the susceptibility to an ideological commitment to these policies that transcends narrow self-interest but rather presents itself as encompassing the general interest. If we were just discussing strategic action by a group of individuals engaged in bargaining over the size of their paycheck, narrow and direct self-interest might be sufficient. When we are

talking about the need to influence the political process, however, some appeal to the general interest at least must be made.<sup>8</sup>

Earlier in this century Nikolai Bukharin (1972 [1919]) argued that marginalist economics was "the economic theory of the leisure class." He held that the emergence of a large group who were divorced from direct interaction with the production process, living as rentiers and so concerned solely with purchasing consumption goods, explained the creation of the marginal utility theory. While this has perhaps received some unwitting support from Piero Sraffa's (1960, pp. 7-9) demonstration that in a model of the production of commodities by means of commodities only the prices of "non-basics," or "luxury" goods, which do not enter into the reproduction of goods other than themselves, can be explained by supply and demand, in its purest form it may be too extreme a claim. It may be, however, that the Weltanschauung of the rentier mentality does include the idea that wage and price inflation are an unwanted interference with the economic system and that therefore high interest rate and other austerity policies are warranted to stop inflation, apart from any narrow economic gain to the advocates of such policies.

An important matter to note about anti-inflationary policies is how they work in this model. As we have seen,  $\partial p / \partial \bar{v}$  and  $\partial p / \partial I_0$  (below full employment) = 0. Raising  $\bar{v}$  in the first instance is not a means to lower  $p$  but just to raise  $R$  to fight back against

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<sup>8</sup>A concise discussion of this point is found in David Levine (1988, pp. 1-4).

rising  $p$ . It works to lower  $p$ , just as lowering  $I_0$  does, by lowering aggregate demand, which above full employment lowers  $p$  generally and at or below full employment lowers primary commodity prices, which we have not included in the model and which in Kalecki's (1971, pp. 43-44) terms are "demand-determined," as opposed to finished goods prices, which are "cost-determined." The fall in primary commodity prices then feeds into finished goods prices by lowering materials costs and perhaps by lowering  $\bar{w}$ , as wage-earners feel both less need to cover rising prices with wage increases and less ability to gain higher wages with increasing unemployment and so competition for jobs.<sup>9</sup>

With the element of capital gains in rentier income of course the rentiers like high and falling interest rates even better than high and rising rates. This makes their opposition to the interests of the rest of society even more patent, since the scenario of high and falling rates is most likely to be found in recessions.

I don't want to oversight the true inconvenience and uncertainty that inflation adds to the economic system, but without some explanation for the desirability of anti-inflation policy to economic and ideological interests, I feel it would be hard to

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<sup>9</sup>Wilfred Beckerman and Tim Jenkinson (1986) demonstrate statistically that most of the deceleration in inflation in the OECD countries between 1980 and 1982 can be attributed to a fall in primary commodity prices rather than unemployment. Remember that in our model  $\partial \bar{w}$  does not affect the level of employment negatively but positively, as the only real balance effect we have works in reverse of the traditional argument by lowering the burden of debt.

explain the apparent willingness in the body politic to put up with the costs of these programs. The interesting thing that I think our model brings out that transcends even Kalecki and Keynes is the importance of the conflict between debtors and creditors. The beneficial effects of inflation and the high costs of anti-inflation policies come out very clearly in this model.<sup>10</sup> The predisposition of a "Keynesian" system to inflation, foreseen by Joan Robinson (1937), is also clearly brought out, since the only existence of any negative trade-off between money wages and employment comes from the actions supported by the rentier point of view.

Kalecki (1971 [1943], Chap. 12) thought that the class conflicts in a "Keynesian" world would work themselves out cyclically, according to his well-known theory of the political business cycle. The interesting idea from that which is relevant to this paper is a notion that the profit-earners would switch sides with the cycle, allying with the wage-earners in favor of stimulation in the down phase and joining with the rentiers in favor of austerity as full employment approached. This was because, though profit-earners benefit from high aggregate demand, full employment could lead to a breakdown in labor discipline, as workers had perhaps little to fear from being fired. Fighting this, however, means that profit-earners have to hurt themselves. Certainly there is a qualitative change once we hit full employment

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<sup>10</sup>These effects of inflation and of anti-inflation policy have also been emphasized recently by William Greider (1987).

because from there on no more expansion in real output is possible. Whether at this point profit-earners are willing to hurt themselves in order to discipline labor is another question. If they feel a threat to  $\bar{\phi}$ , they may find accepting lower demand desirable.

Kalecki's story brings out clearly of course the problem of using increases in  $I_0$  through government deficit spending. On the face of it this would seem to be the optimal policy vehicle, since an increase in  $I_0$  increases national income and helps both wage- and profit-earners. But this is only true below full employment. Once we have reached full employment of course all the stimulus does is to raise prices, hurting rentiers and whichever wage- and profit-earners can't keep up with the inflation.

### **Policy Recommendations**

The main policy recommendation which has historically emerged from this school of thought has been that of the "incomes policy." The utility of such a policy is straightforward in our model. If society could construct an agreement to link money wage increases to increases in labor productivity and to restrain the ability and so desirability of wage- and profit-earners to struggle with one another in ways that set off a wage-price spiral, we could perhaps keep them from setting off the kind of anti-inflation policy that hurts them. Practically, achieving such an agreement outside of wartime price controls has seemingly been impossible.

Another way to go then might be instead of keeping wage- and profit-earners from hurting themselves by stirring up the rentiers rather to keep the rentiers from having cause to be stirred up.

That is, institute what has now come to be called a system of "Islamic banking," following the injunctions in the Koran and the Bible which prohibit the taking of interest.<sup>11</sup> Instead, returns on loans would be contracted to be a share of the profits. Of course all along through this paper, the reader may have wondered why the rentiers didn't invest in business equity if concerned about inflation, anyway. And, the usual answer has been that business equity has proved to be a poor inflation hedge. There have been a number of stories advanced attempting to explain this.<sup>12</sup> The most recent explanation comes from David Ely and Kenneth Robinson (1989), who attribute the troubles of the stock market as inflation gets stronger to anticipation of the effect of anti-inflation policy on profits. So, again the enemy is self-created. However, it still may not be possible to get a social agreement on giving up interest in favor of profit-shares due to the extra risk naturally inherent in profits returns even if they became a good inflation hedge.<sup>13</sup>

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<sup>11</sup>This would also serve as a device to keep "the rate of interest" automatically from exceeding "the marginal efficiency of capital," which is why Keynes (1964 [1936], Chap. 23) praised such things as usury laws and "stamped money." Pervez Tahir (1980, p. 2) notes that "Keynes is frequently quoted as an authority in the recent attempts in the Islamic world to establish a zero interest rate order."

<sup>12</sup>See Burton Malkiel (1985, pp. 294-306) for a summary of the major proffered explanations.

<sup>13</sup>While encouraging rentiers to participate in a "share economy," like the proposal of Martin Weitzman (1984), our model does not encourage such for wage-earners. This is because the share economy scheme makes real wages fall in a downturn, and since in our model the propensity to spend out of wages is higher than the propensity to spend out of profits under such conditions, this

The more modest proposal of a "cash-flow tax," which would tax corporate profits minus investment spending, would enable firms to finance more of their investment from internally-generated funds and encourage them to do so and thus decrease the level of debt, which gives rentier interests their leverage over the rest of society.<sup>14</sup> And, finally, just taxing interest income and capital gains on interest-bearing securities at a higher rate than other forms of income would serve wage- and profit-earners with a way to recoup some of the costs of feeding the rentier interests.

### **Conclusions**

As opposed to models of class conflict wherein the conflict is between wages and profits, this paper has presented a model of class conflict based on the ideas of Kalecki and Keynes in which wages and profits are not strongly inversely related. The conflict then becomes among wage-earners, profit-earners, and rentiers. To some extent we end up with much the same conclusions as Kalecki (1971 [1943], Chap. 12) did about the political business cycle in which there is a cyclical tradeoff between unemployment and inflation and profit-earners switch from supporting fighting unemployment in the slump to help profits and to supporting creating unemployment in the boom in sympathy with the rentiers to help maintain labor discipline. We do, though, bring out the importance of Keynes's idea that the functionless rentier is the

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would exacerbate the slump.

<sup>14</sup>See Fazzari, Hubbard, and Petersen (1988a) for a discussion of tax considerations when firms favor the use of internal finance.



major anti-social element in the capitalist economy for explaining the embracing of anti-inflation policies with their severe social costs. And, we extend Kalecki's and Keynes's analysis to show that the major class conflict is between debtors and creditors and that it is the existence of creditor-rentiers among the wage-earning class that leads to the schizophrenia of the modern "Keynesian" economy, with its "stop-go" or political cycle pattern.

The Keynesian-populist ideology of low interest rates, inflation, and the evils of the rentier aspect of capitalism is reminiscent of David Ricardo's attack on the landlord class in his debate with Thomas Malthus on the Corn Laws. (See, e.g., George Zinke, 1967, pp. 29-77.) Just as in Ricardo's view high rents redistributed income to the spendthrift landlords from the thrifty, but reinvesting in economic growth, capitalists, in our Kaleckian-Keynesian model high interest redistributes income to the functionless rentiers from the demand-creating and demand-fulfilling wage- and profit-earning classes. Malthus's allies today then would be the monetarists and new classicals who preach that fighting inflation should be our number one priority.<sup>15</sup>

The argument that monetarism is the ideology of the rentier has been made by Amit Bhaduri and Josef Steindl (1985). Steindl (1982) has also discussed the problem of the rise in household saving in the OECD countries in the years of post-war prosperity.

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<sup>15</sup>This is certainly a switch on Keynes, who considered himself because of Malthus's concern for effective demand problems to be allied with Malthus against Ricardo!

The problem Steindl mentions there is the old Keynesian one of insufficient demand absorption. If we add to this the problem we have identified here of the rentier support for demand-killing policy, we now have two reasons why saving is bad in a "Keynesian" conception. This is the fundamental economic problem of postwar Keynesian liberal democracy--prosperity destroys itself by breeding the conservatism which kills it.

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