

The Relevance of Kalecki: The Useable Contribution

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1. Introduction

The importance of studying and understanding our ancestors in the discipline is that they provide the shoulders of giants on which we can stand as we try to understand and hopefully affect for the better the world in which we live. The fifty years and more that have passed since Kalecki's early and perhaps most perceptive contributions have seen great strides in formal economic analysis, as well as the emergence of an understanding of the shortcomings of those branches of economic theory that are designed to demonstrate the validity of Adam Smith's invisible hand conjecture and which rest upon the assumption that money is neutral.

The past fifty years include not only the years of depression and war, but also the forty years since World War II. These forty years, and in particular 1946-1967/70, are the most successful epoch of capitalist history. The countries of Western Europe, the United States and Japan have achieved a level of income that far surpasses anything that was achieved in earlier epochs. This success can be attributed to something that has not happened – we have not had a deep and protracted depression. A deep and long depression impoverishes both workers and capitalists.

Somehow the big government and interventionist capitalism of the years since 1945 has been more successful than the small government

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non-interventionist capitalism of earlier times. This success confounds the left and the right: the left because capitalism has been successful and the right because it was a set of big government, interventionist capitalisms that were successful. The success of the past four decades is not an endorsement of *laissez-faire*.

There is a special private purpose behind this paper. Some years ago, in a conference, I used the Kalecki profit equations to explain how big government has effectively stabilized profits. In the discussion that followed Robert Solow remarked, “Kalecki cannot carry the weight.” I interpret Solow’s remark to mean that Kalecki cannot be the full basis of an alternative to neo-classical theory. In some sense I may agree with Solow, for much of Kalecki’s price theory is obsolete and his treatment of money is fragmentary, although it is insightful. However there are aspects of Kalecki’s way of approaching the analysis of capitalism that provide a foundation for understanding economies with sophisticated and complex modern financial structures. This is especially true of the way profits are the foundation of the analysis of income and the implication of this approach to price level determination.

2. What is stabilized?

In many of the capitalist economies of the 1980s high rates of unemployment, low growth rates in productivity and low ratios of capacity utilization seem to be tolerated and consistent with stock market booms and even waves of euphoria. When rather unfeeling Republican spokesmen and academic apologists are confronted with the high 7% unemployment rates in what is called a boom, the reply is that “7% unemployment means that 93% are employed.” However this is not the full explanation of the tolerance for mediocre performance. The full explanation requires an understanding of how crises have been contained and why we haven’t had a major depression in the post-war epoch.

This relatively weak performance of the economy since 19 [*illegible year, presumably 1980s*] or so has been accompanied by recurring, and recently almost continuous, threats of serious financial disturbance.

Questions of financial fragility and what determines the vulnerability of the financial structure to a serious break are topics that engage even orthodox economists these days.

One obvious answer to the tolerance that has been shown for both unemployment and the vulnerable financial structure is that at no time in the period of deteriorated performance has there been a substantial decline in overall gross profits. There has been a tradition in Economics of analyzing and formulating stabilization policies. The basic claim of the monetarist school is that if you stabilize the quantity of money, or its growth rate, the economy will be stabilized. But the issue of what is stabilized by stabilization policy is rarely precisely answered.

In the contemporaneous analysis of the Great Depression a great deal of weight was placed on the burden of indebtedness as a cause of both the depression and why it was prolonged. It was noted that the burden of indebtedness was greater in 1933 than in 1929, even though firms had tried to get out of debt during the depression. The reason was that the burden of indebtedness is a relation between the flows of relevant incomes and the flows committed on debts. The decline in profits was the cause of the rise in the burden of debt. The ratio rose because the denominator in the ratio fell.

In the period since the business cycle became more pronounced – the years since 1967 – there has not been a significant decline in aggregate gross profits. At no time has the burden of indebtedness increased for business as a whole because the flow of profits decreased. With aggregate profits sustained, any overall fall in private investment will lead to an improvement in the debt structure, for firms will use the sustained cash flows to decrease their indebtedness, to decrease debts. This means that the conditions for the resumption of private investment are soon put in place. The side effect of the stability of profits is that unemployment and output do not worsen without limit after the initial decline.

The Kaleckian profit equation $Profits = Investment$ in its simplest form can be transformed into the orthodox Keynesian $Y = C + I$, or the more complete $Y = C + I + G$, with little difficulty. The complete Kaleckian formula for profits that allows for behavioral relations is the serious basis for analysis. This formula,

$$\textit{Profits} = \textit{Investment} + \textit{government deficit} + \textit{balance of payments surplus} \\ + \textit{consumption out of profits} - \textit{savings out of wages}$$

fully allows for profits being determined by the way output is divided among the several demand components. Kalecki's emphasis is upon profits being determined by social conditions, by the way demand is determined. The Kaleckian profit equation opens up the way to relate the performance of the economy in terms of employment and profits to the liability structure of businesses and households.

3. Financial structure

The Kaleckian view that plants profits at the center of the analysis of the behavior of a capitalist economy becomes of central importance once it is established that what we are studying is the behavior through time of an economy with an elaborate, convoluted and layered financial structure. In such an economy, normal functioning requires that the debt structure be validated by each period's income flows. In particular, if it is the behavior of such an economy that is the object of study, then business profits must be large enough to meet the payment commitments on debts and have enough left over so that the equity owners (the owners of the common shares, the true residual claimants to business profits) are well enough compensated so that the price of shares, together with prices in the appropriate markets of the debts, validates the prices that were paid in the past for the capital assets of the firms.

The financial structure makes precise that the subject is an economy with a past, a present and a future. Once the relation between the profit flows and the liability structure is identified, then the Kaleckian view that income is determined by the way an economy operates and not by the technical conditions of production becomes of critical importance. The answer to why we have not had another traumatic depression after the Second World War is that the deficits that big government runs whenever investment has declined has prevented a fall in profits.

The Kaleckian emphasis upon profits and the recognition that profits

are the cash flow that enables business debtors to meet their commitments means that the integration of financial structures into the determination of the basic behavior of the economy is natural. Financial contracts are explicitly exchanges of money today for money tomorrow and investment is also an exchange of money today for money tomorrow. The basic investment decision is a result of the evaluation by businessmen and their bankers (generically defined to include the entire spectrum of banking organizations) of future prospects.

In a modern economy money itself is the liability of banks and central banks. It arises out of the debt structure. As Keynes once put it, money is a type of bond and the owner of money is financing some activity or some ownership interest. One aspect of the money supply of a modern economy is that the fulfillment of commitments to banks destroys money even as new commitments lead to the creation of money. Money is not some abstract medium of exchange that eliminates the need for the double coincidence of wants; money is the result of the financing that is taking place.

As liabilities, debts are commitments to make payments; the debt structure sets up a vast complicated lattice of payment commitments. But this complicated structure is like an inverted pyramid; the point upon which it rests, that which carries the largest load, consists of business profits. However in our world, which is financially much more complicated than that of Kalecki's time, there is also a vast structure of household debts and the various governments of the capitalist world are much greater debtors than earlier in the capitalist epoch. Thus in our world there are several points upon which various interrelated inverted pyramids rest: household incomes and government taxation have become of greater importance.

Thus Kalecki's emphasis upon profits and their determination leads quite naturally to the study of financial structures and their relation to the cash flows that will validate the structures. Once the financial structure is integrated into the analysis and the emphasis is upon cash flows, then the fact that cash can be obtained by selling or pledging assets becomes relevant. The relation between cash flows from income related activities and the commitments on debts by income earning sectors are critical

determinants of system behavior. The distinction between what I have called hedge, speculative and Ponzi finance, which relates payment commitments to profits and to the other ways cash can be raised, means that the Kaleckian way of looking at profits leads quite clearly to a consideration of the determinants of the stability or even the viability of a financial structure. The lead into the analysis of an economy that is capable of endogenously generating crises is clear. [*illegible handwritten sentence added to typescript here*]

4. Price levels

Kalecki's view of profits leads directly into a model of the determination of prices. In the orthodox view prices are the terms upon which alternatives are available. However in a capitalist economy, prices are the way businessmen recover their costs and in a world with financial commitments prices are the carriers of profits. In the recent more stressful period in America the primacy of prices as the carrier of profit became evident when the courts allowed firms to abrogate labor agreements because of the pressure on profits.

Let us return to the simplest profit equals investment relation and recognize that in this case profits equals total revenues minus wage costs. Furthermore, profits in the production of consumer goods equal wages in the production of investment goods, that is

$$P_C \cdot Q_C - W_C \cdot N_C = W_I \cdot N_I \quad (1)$$

where P_C is the price level of consumer goods, Q_C is the quantity, W_C the wage rate in consumer goods and N_C the number [*of workers*] employed [*in the consumer goods sector*]. W_I and N_I are defined in a similar manner [*for the industrial sector*].

From the above we get that¹

¹ *Editor's note:* in the equations below, Av_c stands for the average productivity of labor in the production of consumer goods.

$$\begin{aligned}
 P_c &= \left(1/Q_c\right) \cdot (W_c \cdot N_c + W_I \cdot N_I) = \\
 &= \left(\frac{W_c \cdot N_c}{Q_c}\right) \cdot \left(1 + \frac{W_I \cdot N_I}{W_c \cdot N_c}\right) = \left(\frac{W_c}{Av_c}\right) \cdot \left(1 + \frac{W_I \cdot N_I}{W_c \cdot N_c}\right)
 \end{aligned} \tag{2}$$

if $W_c = W_I$ then

$$P_c = \left(\frac{W_c}{Av_c}\right) \cdot \left(1 + \frac{N_I}{N_c}\right) \tag{3}$$

I find the above simple equation revealing. The price level in consumer goods production is directly related to the wage rate in consumer goods production, inversely related to the average productivity of labor in the production of consumer goods and directly related to the ratio of employment in the production of investment goods to the employment of labor in the production of consumer goods. First of all the markup is not controlled by the producers independently of the structure of demand. Monopoly power will affect the mark up only as it reduces employment in consumer goods production.

The simple fact that increasing the ratio of employment in investment goods production relative to employment in consumer goods production² leads to a rise in prices for any given wage rate and any given productivity of labor, needs to be noted. Policy interventions that aim to raise the level of investment will be inflationary. Investment has to increase the productivity of labor if it is to offset this effect, and the simple fact that investments have long gestation periods mean that as was known long ago, the price payoff lags the investment process. An investment bias in policy will mean that investment employment rises as a percentage of employment for a period of time. If in a strong trade union environment a rise in prices leads to a rise in wages, then an open inflation can be set off.

However the path that the Kaleckian analysis of the determination of profits leads to does not halt with the simple profit equals investment model. We can interpret equation (3) as stating that the workers

² *Editor's note:* the original typescript reports here "producers goods production".

producing consumer goods cannot buy that which they produce. The price system enforces the distribution of output among those who produce consumption and investment goods. In a similar way employment in the production of government outputs and exports have to be included. Furthermore it needs to be recognized that transfer payments and profits finance consumption goods demand and workers save part of their incomes. If we ignore foreign trade, we get that

$$P_c = \left(\frac{W_c}{Av_c} \right) \cdot \left(1 + \frac{W_I \cdot N_I + W_g \cdot N_g + Tr - T \cdot W \cdot (W_n) - s \cdot (W \cdot N)}{W_c \cdot N_c} + cn \right) \quad (4)$$

The Kaleckian price equation leads directly to the analysis of how markets function and the impact of policy, as well as of what I choose to call an economy's style [*illegible words added to typescript here*]. First of all there is the labor market, which is of special significance with regard to the inflation barrier. When an economy goes into a business cycle expansion, the mark up, which is governed by the labor force employed in the production of investment output, rises. In the more complex model, which is a closer approximation to today's reality, a rise in transfer payments or an increase in the deficit or, to raise a point I will get back to later, a rise in the consumption coefficient out of profits, will raise the mark up. The inflation of the 1970s and the first part of the 1980s in the United States can be best understood by looking at the behavior of the components of the mark up. In particular the rise in state and local government spending, the explosion of transfer payments and the large amount of long gestation investment activity were important in generating inflation. The wage increases were to a large extent defensive, a reaction to the decrease in real wages brought about by the rapid increase of the other sources of financing demand for consumer goods.

Foreign trade enters the price formula by means of the supply of consumer goods through imports and the support of demand for consumption goods by the wage bill in export production. The flood of consumer goods into the United States in the 1980s helps explain why inflation was contained.

At first glance the Kalecki approach leaves no room for money in

the explanation of inflation. However everything that happens in a capitalist economy has to be financed, in particular employment in investment goods production and the spending of government require financing. The Keynesian theory of investment, in which liquidity preference is defined as the determinant of the price level of capital and financial assets, is fully compatible with a Kaleckian emphasis upon profits and the theory of prices that follows. In the Keynesian theory of investment, money enters in the determination of the price levels of capital assets and in the financing of investment output: the Kaleckian model deals with the price level of consumer goods. In the simple Kaleckian model, the role of money in the determination of the price level is clearly important, even as money is not the ultimate explanation of inflation in the price level.

As the model is opened, the inflationary significance of the government deficit is clear. Whereas investment financed by money creation holds the promise of more consumption goods later, government spending, especially in the 'approved' directions of military and transfer payments, do not hold such promise. Whereas investment spending is financed on the basis of a more or less precise calculation of the prospective cash flows, government spending is not subject to such discipline.

5. The substance of profits

Kalecki's emphasis on profits forces us to rethink what is meant by profits in both Kalecki and in a modern economy that is characterized by a complex financial structure. Inasmuch as profits are the cash flow that enables business debtors to fulfill their commitments on debts, interest income and the part of profits that would be characterized as gross are part of profits. The concept is really that of gross capital income.

Thus interest, rent of business and the funds that are available³ to

³ *Editor's note:* in the original typescript the word is erased and substituted with an illegible one.

repay principle are all allocations of gross capital income. Insofar as contracts to pay interest or to repay part of the principle outstanding are predetermined as far as current period decisions, they are predetermined allocations of funds. These funds may not be forthcoming as anticipated when these commitments were entered into. Units with such determined commitments and uncertain income flows are likely to want both a margin of safety in their cash flows and to be possessed of instruments that can be used to force a cash flow in its favor. They will hold liquid assets that are superficial to the needs of their sales and operating expenses, but which are related to their liability structure.

However, interest and repayment of the principle component of the committed cash flows does not exhaust what has to be included in the profit concept. Much if not most of what is spent on advertising by those who use advertising most efficiently is aimed at creating market power for the firm; it is a form of investment. Investment can be defined as the use of current resources in order to generate future profits. This investment by extending activity is an allocation of profits, equally with the use of current earnings to finance tangible investments.

However this is not all. In a modern corporation the remuneration of many executives is based upon performance. To a large extent the performance is measured by profits earned; a good part of the compensation of the modern corporation's executive suite is best viewed as an allocation of profits.

In the conventional cost curves of economic theory, various layers of expenses that need to be funded can be added to the basic 'production function' concept of costs. These expenses, that revenues must cover if the firm is to do well, can be thought of as predetermined and thus independent of current output. Only after the event profit sharing arrangements are not predetermined.

These predetermined fund flows enable us to add fixed sums to the average variable cost curve. The result is a set of average variable 'cost' curves which are nested on a unique and common marginal cost curve. The points 'inside' each cup are price and quantity pairs that satisfy the commitments in the relevant average cost curves. The wage bill of Kalecki enters into the average variable and marginal costs. All other

wage and salary income is an allocation of profits. The data on wage and salary earning is corrupted by containing compensations that are deemed to be wages, but are really an allocation of profits.

The workers in advertising, research and development, as well as the top executives of companies, have to 'eat' and typically they eat well. This consumption is in reality consumption financed by profits. Because consumption out of profit income raises profits, the high income, high spending units that receive such distributions of profit spend their income on consumer goods at the same or perhaps an even higher rate than industrial workers.

The consumption out of the extended profit concept is a marked feature of the present economies. The standard view of what is wage income cannot cope with the facts of economies in which so-called white-collar employment is a major part of total employment. If there is any meaning at all to the production function concept, it does not cover the way wage incomes are divorced from production and how the spending on consumer goods that are financed out of the extended profit concept tends to feed back into and finance the gap between the costs that need to be recovered in price, because of the technical conditions of production and those costs that reflect the style of an economy, which also have to be recovered in revenues.

6. Conclusion

The useable contribution of Kalecki is large and significant. It provides an essential ingredient to an analysis of a financially sophisticated capitalist economy. It provides a format which enables us to dig deeper into price level formation and which integrates prices with the financial structure.

Although Kalecki worked on National Income Accounts, his contribution becomes much more useable once the data correlative of the argument becomes a flow of funds account, which takes into account the payment commitments embodied in liability structures.

The question of Kalecki's priority over Keynes with respect to the construction of useable macroeconomics is of secondary importance. What is important is that both Kalecki and Keynes provide elements that are essential components for understanding the behavior of economies with complex financial structures. This is the measure of Kalecki's greatness.