

Shareholder value orientation and the investment–profit puzzle

Abstract: *Shareholders have increased their ability to influence management decisions significantly over the past two decades. This paper proposes an extension of the Post Keynesian theory of the firm proposed by Lavoie (1992) to analyze the effects of this change in shareholder power on investment decisions. This microeconomic analysis is complemented by a Kaleckian macroeconomic model. Shareholder power is found to reduce investment and output, while increasing profits, which is consistent with the stylized facts of the neoliberal era.*

Key words: *corporate governance, financialization, investment, wealth effect.*

Financial markets have experienced a range of changes in the past two decades. Recently collapsing share prices—namely, of technology shares—has awakened a broad public from the dreams of a “new economy” with ever-rising share indices. Currency crises have shaken whole regions in the mid and late 1990s. One of the changes has been less spectacular but steady and, possibly, no less important: the rise of shareholder power. Since the 1970s, shareholders, which, in most cases, means institutional investors, have increased their influence on management behavior substantially. “Creating shareholder value” has become an aim that corporate companies have to pursue. Often the pay packages of modern day managers are such that they personally benefit from an increase in share prices.

However, the “shareholder revolution” has received mixed critiques. Whereas some economists hail it as an increase in efficiency, others worry that it will create a bias against employment and growth. Labor unions as well as the communities where corporations operate fear that

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the consequences of policies are directed toward the needs of financial markets rather than at those of the people directly involved, often called stakeholders. Indeed, if shareholders have gained power, they must have done so at the expense of someone else.

This paper contributes to our understanding of the economic effects of the shareholder revolution. It proposes a model based on the Post Keynesian theory of the firm to analyze firms' behavior. At the core of the model is the firm's objective function that is determined by the institutional setting and the power relations within the firm. This microeconomic argument is then incorporated into the Kaleckian macroeconomic model to analyze the macroeconomic effects.

To clarify, the aim of this paper is not to assess the relative importance of the shareholder value revolution in explaining stylized macroeconomic facts. Rather, and more modestly, it will be investigated whether the shareholder value revolution can potentially explain the stylized facts. In other words, no substantial claim is implied that the shareholder value revolution is the ultimate cause of the recent developments. Rather the claim is that, in the model to be presented, the shareholder value revolution has the potential to explain these developments. Thus, its empirical significance warrants further research.

Stylized facts

In this section, some stylized facts on macroeconomic trends regarding the development of investment, output, and profits will be established. Five-year averages are used to smooth cyclical fluctuations. In addition, the "Fordist era" (1960–74), the period of crises (1975–84), and the "neoliberal era" (1985–99) will be distinguished. These periods serve as a convenient way to summarize macroeconomic data. Similar periodizations have been used by theorists of the French regulation school (e.g., Boyer, 1990; 2000) and Setterfield and Cornwall (2002). Not by coincidence, the periodization coincides with the shift from Keynesian economic policies (loosely defined) to monetarist or neoliberal policies. From the empirical point of view, it is desirable to single out the years from the mid-1970s to the mid-1980s as a separate period in order not to distort the "Fordist" and the "neoliberal" periods. As apparent, the beginning and end dates of the periods are chosen with an eye on convenience and symmetry rather than for historical accuracy. However, nothing of importance hinges on this periodization.

We first take a look at gross domestic product (GDP) growth. Since the Fordist period, which was characterized by high growth rates (and low

Table 1
Growth of business GDP

	France	Germany	Italy	United Kingdom	United States
1960–64		4.63	6.22	3.14	4.78
1965–69	5.95	4.05	7.30	2.07	4.18
1970–74	4.78	2.91	4.28	3.03	3.90
1975–79	3.69	4.07	4.92	3.26	5.28
1980–84	1.43	0.89	1.30	2.31	3.26
1985–89	3.67	3.15	3.34	4.79	3.80
1990–94	0.60	1.62	0.97	1.99	2.59
1995–99	2.66	1.86	1.89	3.16	4.53
2000–02	3.29	2.11	2.12	2.76	3.49
1960–74	5.63	3.79	5.77	3.04	4.16
1975–84	2.42	2.09	3.18	2.18	3.73
1985–99	2.34	1.54	2.17	3.14	3.45

Source: OECD Employment Outlook data set.

Notes: Germany adjusted for unification; UK starts 1961, France 1963.

unemployment), growth rates have fallen significantly and recessions have become more severe. Table 1 summarizes the rates of growth of business GDP for major European countries and the United States. Growth rates show significant variation over time. For most countries, they exhibit a declining trend from the 1960s to the mid-1980s or the early 1990s and increase thereafter without reaching the postwar level again. The only country where growth in the neoliberal era exceeded that of the Fordist era is the United Kingdom. But even there it does so only by a tiny margin. In all other countries, growth was higher in the Fordist era than in the neoliberal one. This is the case—even for the United States, which experienced spectacular growth rates in the second half of the 1990s—that has often been heralded as the “new economy.” By historical standards, these growth rates are high, but hardly spectacular. Indeed, those in 1960–64 and 1975–79 were higher (see also Pollin, 2000). Moreover, the growth in the neoliberal era is overestimated, because the recession of the early 2000s is excluded from our sample.

The growth rates of nonresidential business capital stock give a similar picture. They reached the lowest points in the first half of the 1980s in most countries. In the European countries, accumulation recovers thereafter but does not reach the levels of the Fordist era. The United States experienced a period of fast growth in the second half of the 1990s, whereas accumulation rates reached their lowest point in the first half of the 1990s (Stockhammer, 2004b).

Table 2
Profit share in the business sector

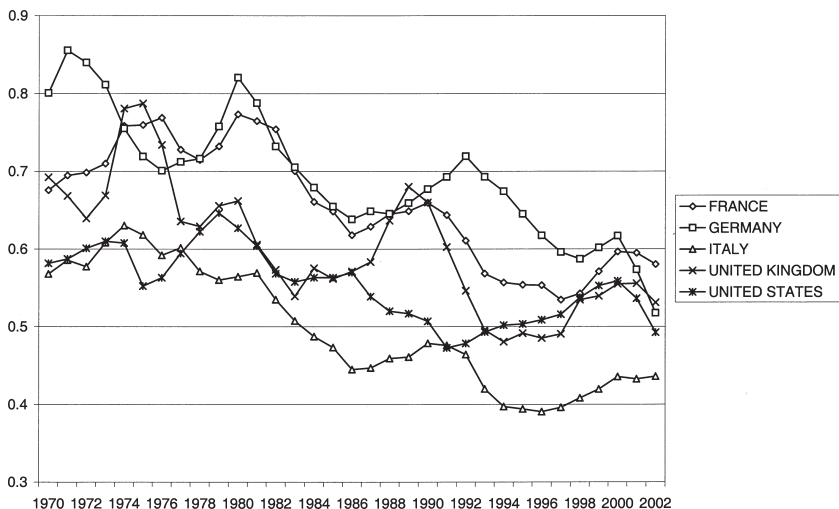
	France	Germany	Italy	United Kingdom	United States
1960–64		36.27		30.97	28.15
1965–69	33.11	36.02		30.66	30.74
1970–74	33.46	33.05		29.172	30.61
1975–79	29.17	32.45	28.68	28.898	32.59
1980–84	28.04	31.86	29.46	29.884	32.21
1985–89	33.41	35.32	33.16	32.030	33.06
1990–94	36.92	33.66	33.40	31.166	33.44
1995–99	38.96	35.85	38.65	33.050	35.12
2000–02	39.15	35.88	38.98		34.59
1960–74	33.29	35.11		30.27	29.83
1975–84	28.60	32.15	29.17	29.39	32.40
1985–99	35.16	34.66	33.28	32.08	33.25

Source: OECD Employment Outlook data set.

Notes: Germany 1985–90 and 1991–94 because of break due to unification; UK profit share of total economy.

Next we turn to profitability. The discussion of growth and accumulation would suggest that economies are caught in a state of semi-crisis. While this is partly true, it would also be a misleading diagnosis. For parts of the population, the current situation is best described by the word *crisis*: for the 20 million or so people that are unemployed in European countries and for the majority of wage earners in the United States who have seen their incomes decrease in the past decades (Gordon, 1996). However, this is only half of the story, because, for other parts of society, the crisis certainly is over. Profit incomes have recovered to levels well above the Fordist era. Table 2 summarizes the development of profit share for the United States and major European countries. Profitability starts out with high levels in the Fordist era, falls in the 1970s, and reaches its lowest values in the first half of the 1980s.¹ Since then it has recovered in all countries and has reached levels higher

¹ Profit shares are only one measure of profitability. Profit shares have the advantage in that they compare the capital stock, rather than national income, to profits, which is arguably of more interest for the capitalist class. However, profit rates are hard to measure because of the many problems in measuring the capital stock. Profit shares are statistically more reliable and readily available. It is interesting to note that the OECD Economic Outlook data set has discontinued both series, presumably because of measurement problems, while, at the same time, including now a nonaccelerating inflation rate of unemployment (NAIRU) estimate that theoretically, as well as empirically, stands on much more shaky grounds.

Figure 1 The investment–operation surplus ratio in advanced economies

than in the 1960s in all countries except Germany, which is because of the break in the series due to unification.

So we notice an interesting puzzle in macroeconomic trends: the ratio of investment to profits, depicted in Figure 1, shows a declining trend. In Germany, in 1970, investment amounted to 80 percent of profits, whereas, in 2000, the value had fallen to around 60 percent. All countries show a similar trend. While this is a logical consequence of the development of investment (falling) and profits (rising) discussed above, it raises some interesting questions that have received curiously little attention so far. The first question is: Why do firms not invest their profits? One might call this the *Marxian question*, because Karl Marx, as well as other classical economists, took for granted that profits would be reinvested. For a Keynesian economist, this is less of a puzzle, because Keynesians assume no such automatism. Rather, investment will depend on profit expectations that, among demand and various institutional factors, are based on “animal spirits.” For Keynesians, the question may be restated in the following way: What systematic change occurred in investment behavior such that an ever smaller share of profits gets reinvested? However, for Keynesians, the falling investment–profit ratio raises another question: How can high profits be realized in the face of low investment expenditures? This might be called the *Kaleckian question*. According to Kalecki, “workers spend what they earn and capitalists earn what they spend.” In fact, this second question arises as a puzzle to any Keynesian

who assumes a savings differential between wage and profit income— notably Nicholas Kaldor and Joan Robinson.

The transition from the Fordist era to the neoliberal era implied changes in many areas, most notably in labor relations, in the policies pursued by monetary authorities, gradual cutbacks in welfare states, and changes in the financial structures. Thus, various answers have been suggested as to what we labeled the Marxian and the Kaleckian questions. The following sections investigate one specific aspect of these changes: the increase in power of shareholders. An analytical framework within the Post Keynesian tradition will be proposed to analyze these changes and to demonstrate that they offer an explanation for the stylized facts.

The shareholder revolution

One of the features of the neoliberal era has been the changes it has inflicted on corporate behavior in the name of creating “shareholder value.” An Organization for Economic Cooperation and Development (OECD) study summarizes these developments as follows:

One of the most significant structural changes in the economies of OECD countries in the 1980s and 1990s has been the emergence of increasingly efficient markets in corporate control and an attendant rise in shareholders’ capability to influence management of publicly held companies. In particular, owing to the expanded possibilities for investors to use the capital market to measure and compare corporate performance of corporations and to discipline corporate management, the commitment of management to producing shareholder value has become perceptibly stronger; this represents a significant change in the behavior of large corporations. (1998, p. 15)

While one may doubt whether the market in corporate control is “increasingly efficient,” the quotation summarizes the widespread sentiment that financial markets have become more effective in controlling managerial behavior. In the immediate postwar era, often called Fordism, the role of shareholders in firms was restricted. In part as a reaction to the spreading of a financial crisis onto the real sector, laws were established in various countries that insulated the real sector from the financial sector, in one form or another, and that curtailed the role of financial markets. Financial transactions were heavily regulated, capital flows controlled, and interest rate ceilings were in place.

Under these conditions, the ability of shareholders to influence management behavior was limited. However, this changed in the 1970s, when financial liberalization, deliberate or through the erosion of financial

regulation, allowed for the invention of new financial instruments. In particular, junk bonds, a high-risk and high-return security, were used in hostile takeovers. These were instrumental in the establishment of “a market for corporate control,” which means that management could be replaced by shareholders if they had been dissatisfied with the firm’s performance.

There is little disagreement now that shareholder value orientation has had a significant effect on corporate behavior. There is less agreement, however, on what its effects are. The strongest theoretical praise for shareholders was sung by Jensen and Meckling (1976). They analyzed the conflict of interest between management and shareholders in a principal-agent framework and concluded (among other things) that autonomous management would engage in wasteful activities and that tighter control by the shareholder would improve efficiency. This is because managers would be guided by their own utility maximization rather than by that of the owners of the firm. Similarly, the already quoted OECD study notes:

Among the manifestations of this lack of control over management were the pursuit of market share and growth at the expense of profitability, the creation of complex conglomerates and the rapid growth of compensation of top corporate executives, even when the performance of the company was mediocre. (1998, p. 17)

This quotation, which is representative for the arguments in the debate, is worth analyzing in some detail. Three consequences are noted. First, management would overinvest—“market share and growth” would be pursued “at the expense of profitability.” This argument and its macroeconomic consequences will form the centerpiece of the Post Keynesian analysis offered below. The argument will be that, in a situation of underemployment, investment will have a growth externality through the multiplier effect. In other words, “overinvestment” may be a good thing, because a private market economy may suffer from a shortfall of effective demand. Second, it is argued by the OECD that autonomous management will lead to a growth of conglomerates. It is a fact that conglomerates were regarded as an efficient solution to business problems in the 1960s. There may indeed be efficiency losses here, however, they will cavalierly be ignored in our model. Third, the OECD notes the disproportionate “growth of compensation of top corporate executives.” This can only be called ironic. The big pay raises of CEOs—contrary to what principal-agent models will tell you—took place during the reign of shareholders in the 1980s and 1990s, rather than in the earlier period.

However, the shareholder revolution was not welcome by everyone. A frequent strategy in hostile takeovers was to buy a conglomerate, break it up into pieces, and thereafter sell those pieces. Before that, the firms are usually downsized—that is, the employment of the firm is reduced. Downsizing thus became a critical key word for the negative social consequences of shareholder value orientation. Lazonick and O’Sullivan summarized these developments as follows:

In the name of creating “shareholder value,” the past two decades have witnessed a marked shift in the strategic orientation of top corporate managers in the allocation of corporate resources and returns away from “retain and reinvest” and towards “downsize and distribute.” (2000, p. 18)

While this may sound polemic, its analytical substance has to be taken seriously. Financial markets reward firms that downsize rather than those that expand (the obvious exception being the high-tech boom, where growth was rewarded as an end itself). Farber and Hallock (1999) find that “reduction in force”—that is, firing—announcements have a positive effect on share prices. Unfortunately, though perhaps not surprisingly, the critical analysis of shareholder value orientation has largely been ignored by mainstream economics. However, as we shall see in the next section, Post Keynesian economics has also had little to say about shareholder value.

The Post Keynesian theory of the firm

Since the 1960s and 1970s, Post Keynesians have claimed to have a more realistic theory of the firm than mainstream theory. Galbraith (1967) and Eichner (1976) offered a rich institutional analysis of the modern corporation and concluded that these firms were setting prices rather than taking them as a given and that their pricing strategy would be part of their investment plans. Like modern corporate governance literature, the starting point for Post Keynesian analysis is the separation of ownership and control. To Post Keynesians, this separation implied that the firm’s behavior would be determined by management’s interests.²

² In his seminal 1992 overview of Post Keynesian economics, Lavoie goes so far as to argue that the separation of control and ownership is secondary, because the objective of the firm will be growth and power; in any case, “there is no need to emphasize that divorce. Whether the owners are still in control or not is irrelevant: those individuals taking decisions within the firm are in search of power; and their behavior and motivations will reflect that fundamental fact” (Lavoie, 1992, pp. 101–102).

While Post Keynesians have repeatedly insisted that a realistic theory of the firm has to take into account (1) the fundamentally uncertain (nonergodic) nature of the future and (2) the specific organizational forms of modern corporations (Crotty, 1992; Gordon, 1992; Vickers, 1992; Williams, 1993), the models they propose offer curiously little insight into the question of what effects an increase in shareholder power has on investment. After a stinging criticism of neoclassical theory, Gordon (1992) bases his Post Keynesian model on a proprietor firm. The goal of the firm is, according to Gordon, maximizing the probability of long-run survival. Vickers (1992) highlights the unpredictability of investment decisions. Crotty (1992) argues that firms develop and adopt conventions to deal with fundamental uncertainty. They will pursue growth and safety as goals rather than profit maximization. Williams (1993) takes the discussions of various institutional arrangements furthest, but the Keynesian investment model he proposes is a version of a rationing model where investment is determined by available funds given a targeted debt ratio. In case attractive investment opportunities arise, the constraints will be successively (and temporarily) relaxed in a fashion similar to the pecking order theory of investment finance.

The Post Keynesian debate on investment expenditure has focused on two issues in the recent past: the role of fundamental uncertainty and the role of internal finance. As to the first point, there has been an intense debate on the question of whether fundamental uncertainty and asymmetric information are complementary or contradictory (Crotty, 1992, 1996; Dymski, 1993; Fazzari and Variato, 1994, 1996; Gordon, 1992; van Ees and Garretsen, 1993; Vickers, 1992). While most of the debate was theoretical, some contributions also used measures of uncertainty in empirical research (Ferderer, 1993; Glezakos and Nugent, 1996–97). The key role that fundamental uncertainty plays in Post Keynesian investment theory has also been highlighted by Poitras (2002). Dunn (2000) criticizes transaction costs economics and proposes fundamental uncertainty as the explanation of the existence of the firm in the long run. The second major issue in Post Keynesian investment research has been the question of the role of internal finance (not the least in opposition to the 1958 Modigliani–Miller theorem). The pioneering work has been by Fazzari and Mott (1986–87), but there have been numerous contributions since. For example, Down and Pan (1992) present evidence that cash flow matters (based on accounting data), as do Mahdavi et al. (1994), based on Granger causality analysis and aggregate data. Hay and Louri (1995) present evidence for risk-averse managers that base investment decisions on the balance sheet structure of the firm based on UK data.

Seguino (1999–2000) shows for Korea that the specific structure of firms and government interactions led to an overall negative relation between the profit share and investment.

Most of the authors quoted above agree that the goal of the modern corporation is not profit maximization but long-run survival and growth. Shareholders play no important role in investment decisions. This is succinctly put by Lavoie:

Managers mitigate the fluctuations of dividends in the attempt to keep the shareholders happy and the stock market quiet. Managers usually keep constant the level of dividends or have them slowly increasing, assuming that shareholders do not object to the existing level of dividend payment or dividend ratio. (1992, p. 108)

[Consequently,] in the Galbraithian and post-Keynesian firm, shareholders play a purely passive role. (*ibid.*, p. 107)

History could hardly have disproved Lavoie more strongly. As discussed in the previous section, shareholders played a rather active role during the 1980s. However, the point of view taken here is not that Post Keynesian theory should thus be discarded—far from this, we suggest that the Post Keynesian theory of the firm, in particular, the model that Lavoie proposes, can easily be extended to analyze the effects of the shareholder revolution and that such an extension provides valuable insights that confirm the various criticisms of shareholder value by means of a formal model.

There are two reasons why an extension of Post Keynesian theory is useful and important. First, Post Keynesian theory emphasizes the institutional setting of the firm. “An acceptable investment theory requires the specification of the firm as a partially independent or semiautonomous agent with a preference function of its own” (Crotty, 1992, p. 491). As an institution, the firm is subject to changes according to the social structures and institutional arrangements that it is based on. The social structures include the relative power positions of labor (and other stakeholders), management, and shareholders. Second, as the historical record of persistent unemployment in capitalist economies documents, the Keynesian theory, according to which a lack of effective demand is a pervasive feature of decentralized market economies, is indispensable for an understanding of macroeconomic dynamics.

The shareholder revolution and the firm’s desired investment

The starting point of a Post Keynesian analysis of the firms has to be nonaxiomatic, but institutional. The firm has no inherent aim, rather it is

composed of different social groups with different interests, and it operates in an environment that imposes various constraints. Shareholders, managers, workers, the sales department, the research and development department, and the personnel department may all aim for different things. Most obviously, shareholders will first be interested in high profits and rising share prices. Workers, on the other hand, will be interested in high wages and a high level of employment. Managers occupy an intermediate class position. They manage the firm on behalf of the owners, but they are themselves employees. In Marxist terminology, they exercise power, but they do not own the means of production. Nowadays, their income reflects their complex class position. Typically, they receive wage-like payments as well as payments linked to profits and share prices (e.g., stock options).

Because we are interested in the macroeconomic effects of an increase in shareholder power, a simple model, building on Stockhammer (2004a), will suffice. Assuming the extreme case where management as well as other stakeholders are interested only in growth and shareholders are interested only in profits, the firm's objective function may be expressed in a Nash bargaining situation:

$$u = u(g, r) = I^{1-\beta} R^\beta, \quad (1)$$

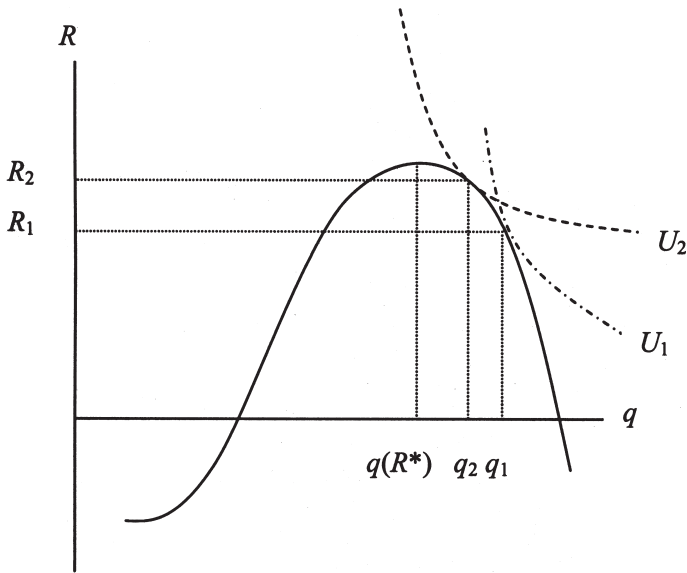
where β is an index of shareholder power (vis-à-vis management and stakeholders). If there were no trade-off between output and profits, there would be no conflict over how much to produce. However, common sense, as well as the usual assumptions in microeconomic textbooks, give a concave profit function (as shown in Figure 2). Thus, there will be one profit-maximizing level of output. Beyond this point, there will be a trade-off between profits and growth.

Because we assume that profits as well as growth enter the firm's objective function, the firm will always "overinvest" with respect to the profit-maximizing investment level. Therefore, it will always operate in the region where there is a trade-off between profits and growth.³ To simplify analysis, assume a linear growth–profit trade-off:

$$R = I_R - tI. \quad (2)$$

³ Crotty (1992) highlights a growth–safety trade-off. This can be regarded as the flip side of the growth–profit trade-off, because higher profits can only be obtained at higher risk.

Figure 2 A concave profit function



The profit-maximizing level of investment (I_R) will depend, accelerator-like, on the level of aggregate demand (Y). We will write $\partial I_R / \partial Y = \gamma$. γ will depend on the income elasticity of demand, on the price elasticity of demand, and on the cost function of the firm.

Lavoie (1992) does not use an objective function like Equation (1) but posits that the firm's objective is growth in any case. However, the firm will, in general, not be free to choose the level of growth it desires because of lack of access to finance. Thus, Lavoie uses a finance constraint, which gives the possible rate of growth, given a certain level of profits.

Here, a different strategy is pursued. Rather than being constrained by access to finance, we are interested in the desired level of growth by the firm, given a certain level of relative power between management and shareholders. Maximizing Equation (1) subject to Equation (2), optimal investment and profits are⁴

$$I^* = (1 - \beta) I_R(Y) / t \tag{3}$$

⁴ Note that Equations (2) and (3) are derived from the firm's maximizing behavior. The resulting optima are denoted by an asterisk, whereas goods market equilibrium values will be denoted by the superscript IS .

$$R^* = \beta I_R. \quad (4)$$

The comparative statics with respect to a change in shareholder power, the trade-off, and demand are:

$$\frac{\partial I^*}{\partial \beta} = \frac{-I_R}{t} < 0, \quad \frac{\partial I^*}{\partial t} = \frac{-(1-\beta)}{t^2} < 0$$

and

$$\frac{\partial I^*}{\partial Y} = \frac{1-\beta}{t} \gamma > 0.$$

An increase in shareholder power will decrease desired investment, and an increase in the trade-off will decrease investment, and an increase in demand will increase investment. Among these, the effect of an increase in shareholder power is the most interesting. Figure 2 presents a graphical analysis.

U_1 and U_2 present two different objective functions of the firm. U_2 is the result of an institutional setting, where shareholders are more powerful than in a situation that gives rise to U_1 . If shareholder power goes toward unity, the “iso-goal” curves become horizontal lines. Facing the same growth–profit trade-off, the firm will invest less *given a certain level of demand* if shareholder power increases.

Macroeconomic effects of shareholder power

A decrease in firms’ investment expenditure will have an effect on aggregate demand via the multiplier. That may sound trivial, but it is not. One of the reasons why defenders of shareholder value are able to defend their position is that they assume the full employment equilibrium that is standard in neoclassical economics. If the level of output is given by full employment, a reduction in investment will not have undesired effects. It is not the level of output that will be affected, only its allocation. “Overinvestment” will be reduced, without having a negative effect on output. In a Keynesian world, however, it is hard to conceive of a reduction of investment that would not have negative effects on output, because investment is independent of savings decisions in the first place. The next step thus is to embed the firms’ behavior into an explicit Keynesian macroeconomic model.

The previous section derived the investment function of the representative firm. Greatly simplifying the complexities of any actual economy,

we assume that the economy consists of n identical firms. The aggregate investment function is given by adding up these firms:

$$I = n \frac{1-\beta}{t} \gamma Y. \quad (5)$$

To allow for the analysis of a macroeconomic equilibrium, the investment function needs to be complemented by a savings function. We shall analyze two savings functions. We first follow Kalecki and Kaldor in assuming that only recipients of capital income save. Thus, aggregate savings is given by

$$S = s\pi Y - c_0, \quad (6)$$

where s is the savings rate out of capital income, π is the profit share, and c_0 is exogenous consumption.

From Equations (5) and (6), the equilibrium income is

$$Y^{IS} = \frac{c_0}{s\pi - n(1-\beta)\gamma/t}. \quad (7)$$

Some comparative statics are standard in a Kaleckian macro model:

$$\frac{\partial Y^{IS}}{\partial s} = \frac{-c_0\pi}{[s\pi - n(1-\beta)\gamma/t]^2} < 0$$

and

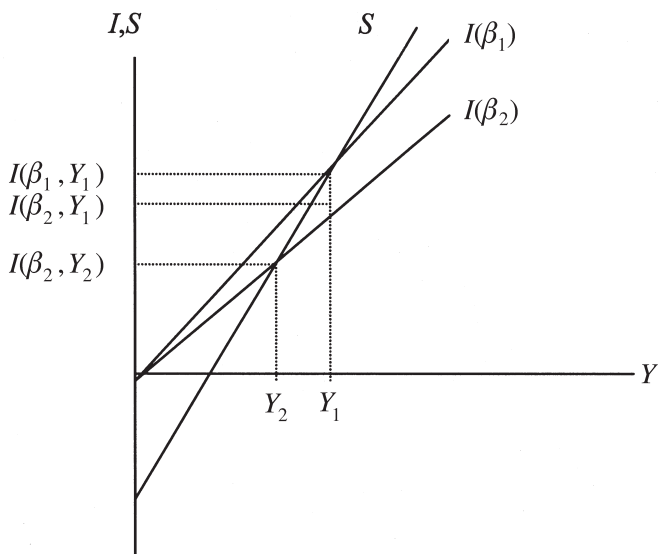
$$\frac{\partial Y^{IS}}{\partial \pi} = \frac{-c_0s}{[s\pi - n(1-\beta)\gamma/t]^2} < 0.$$

An exogenous increase in the savings propensity will lower income, and so will an increase in the profit share. The effect of a change in shareholder power is

$$\frac{\partial Y^{IS}}{\partial \beta} = \frac{-(c_0/t)n\gamma}{[s\pi - n(1-\beta)\gamma/t]^2} < 0. \quad (8)$$

Thus, an increase in shareholder power will decrease output. Unlike the effect of an increase in shareholder power on the firm's investment, the effect on equilibrium income will depend not only on the growth-profit

Figure 3 Macroeconomics of shareholder power



trade-off but also on various macroeconomic parameters, in particular, the profit share and the savings propensity.

Figure 3 presents a graphical analysis of the macroeconomic effect of an increase in shareholder power. An increase in shareholder power is expressed in a downward rotation of the investment function from $I(\beta_1)$ to $I(\beta_2)$. Interacting with the savings function, the resulting equilibrium income is Y_1 and Y_2 . The amplification of the original effect of the increase in shareholder power from β_1 to β_2 can be readily seen. The change from $I(\beta_1)$ to $I(\beta_2)$ can be decomposed into the change $I(Y_1, \beta_1)$ to $I(Y_1, \beta_2)$, which is the direct effect and the change from $I(Y_1, \beta_2)$ to $I(Y_2, \beta_2)$, which is the amplification of the effect through the multiplier effect.

Our presentation has so far assumed that only investment, and not savings, is affected by the degree of shareholder power. This is incomplete, because one effect of the increase in shareholder power, arguably, is that management policies will be directed toward increasing shareholder value and thus share prices. If the consumption propensity out of financial wealth is economically significant, then an increase in shareholder power should simultaneously affect investment and savings.

Allowing for such a wealth effect gives the following savings function:

$$S = s\pi Y - c_0 - \omega A, \tag{9}$$

where ω is the consumption propensity out of wealth, and A is wealth. The above model needs to be complemented by a theory of asset pricing. A serious discussion of asset price determination, however, is well beyond the scope of this paper. We will thus merely add a simplistic asset price rule, assuming that share prices (A) are a linear positive function of profits and note some possible extensions.

$$A = a_0 + a_1 nR. \quad (10)$$

Although this suffices for our purposes, this equation would hardly satisfy a financial economist. Everything that is interesting about asset prices, one is tempted to say, is going on in the shift parameter of Equation (10). While the “efficient market hypothesis” is still adhered to by mainstream economists and many policy makers, there exists a rich literature proposing and elaborating alternative approaches, ranging from the “noise trader theory” (Shleifer and Summers, 1990) and “behavioral finance” (Shiller, 1999) to contributions more openly based on Post Keynesian economics. Among these, Minsky (1986) highlights the instability of the market due to endogenously changing expectations and what is considered an acceptable level of risk. Bernstein (1996; 1997–98; 1998) emphasizes the role of fundamental uncertainty, which gives rise to the need for liquidity. Liquidity, however, can only be achieved for financial investors, whereas the firms of which the financial assets are traded face irreversible costs in physical investment decisions. For Bernstein, (the search for) liquidity is the problem as much as the solution, because capital markets, while undoubtedly irrational at times, enhance the risk-diversifying ability of the economy overall. Thompson et al. (2003, especially ch. 5) and Findlay and Williams (2000–2001) offer an excellent summary of the Post Keynesian criticisms of the efficient market hypothesis. Their core argument is that the distinction between uncertainty and risk has been eroded, and both are usually proxied by the variance of past data. Furthermore, proponents of the efficient market hypothesis have failed to specify reliable reasons for the adjustment of asset prices to their fundamental values. All of these contributions aim at taking into account fundamental uncertainty about the future, allowing observable, but possibly irrational, behavioral regularities and analyzing the development of asset prices over time. Here, our aim is much narrower and more modest. We want to allow for a positive effect of stock prices on consumption.

From Equations (5), (9), (10), and (4), we obtain the equilibrium income:

$$Y^{IS} = \frac{c_0 + \omega a_0}{s\pi - \omega a_1 n \beta \gamma - n(1 - \beta)\gamma/t}. \quad (11)$$

Again, some comparative statics are straightforward and exhibit the properties familiar from Kaleckian macro models:

$$\frac{\partial Y^{IS}}{\partial s} = \frac{-(c_0 \omega a_0) \pi}{[s\pi - \omega a_1 n \beta \gamma - n(1 - \beta)\gamma/t]^2} < 0$$

and

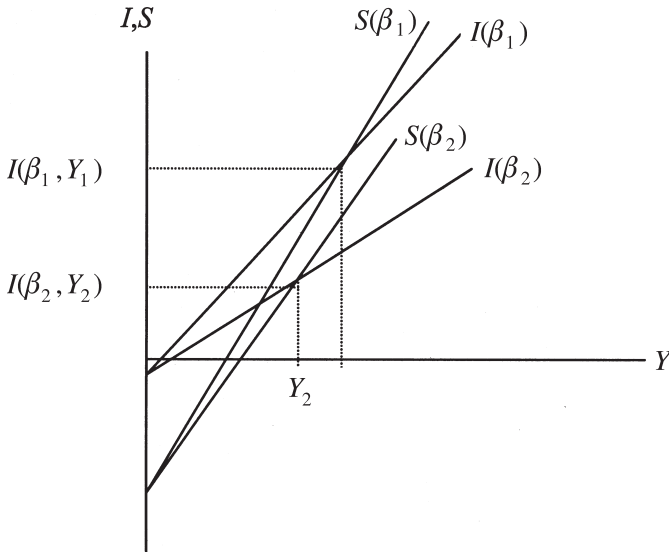
$$\frac{\partial Y^{IS}}{\partial \pi} = \frac{-(c_0 \omega a_0) s}{[s\pi - \omega a_1 n \beta \gamma - n(1 - \beta)\gamma/t]^2} < 0.$$

The effects of an increase of the savings propensity and of the profit share are unambiguously negative. This is not so with the effect of a change in shareholder power:

$$\frac{\partial Y^{IS}}{\partial \beta} = \frac{-(c_0 + \omega a_0)(+1/t - \omega a_1)n\gamma}{[s\pi - \omega a_1 n \beta \gamma - n(1 - \beta)\gamma/t]^2}. \quad (12)$$

Thus, $\partial Y^{IS}/\partial \beta > 0$ if $(\omega a_1 - 1/t) > 0$. More intuitively, the issue is the relative effect a change in shareholder power has on the investment function and the savings function. Hypothetically, a strong (positive) effect of shareholder power on asset prices *and* a strong wealth effect could offset the direct (negative) effect the increase of shareholder power has on investment.

However, this is an unlikely case, because the wealth effect is small according to most estimates. A much quoted OECD study puts it at 5 percent for the United States and below that for other OECD countries. Boone et al. (1998) had estimated consumption functions including wealth for various advanced countries. However, this estimate has to be regarded as an upper bound. Poterba (2000), in his survey of various approaches, argues that the evidence is inconclusive. One important issue is that the largest part of wealth owned by households is property rather than financial assets. These two types of wealth are also of different value as collateral when applying for credit. Case et al. (2001) disaggregate different types of wealth and fail to find evidence that a significant

Figure 4 Macroeconomics of shareholder power (model with wealth effect)

wealth effect out of financial wealth exists. They do find a substantial effect from real estate.

Thus, we conclude that, a priori, the effect of an increase of shareholder power on aggregate output is ambiguous. However, if one accepts the stylized fact that financial wealth has a small effect on consumption expenditures as plausible, then the effect of shareholder power on output will be negative. Even if the wealth effect is small, it will have a positive partial effect on output and thus dampens the direct negative effect on investment expenditures. This is illustrated in Figure 4.

Thus, under the plausible assumption of a small wealth effect (on financial wealth), an increase in shareholder power leads to a reduction in output (from Y_1 to Y_2) as well as investment (from I_1 to I_2). This is consistent with the stylized facts discussed in the second section. Independent of the size of the effects of shareholder power on investment and savings, it is easy to demonstrate that the model fits another of the stylized facts. An increase in shareholder power leads to a decrease in the investment/profit ratio. We know from Equations (3) and (4) that

$$\frac{I^*}{R^*} = \frac{1 - \beta}{t\beta}$$

and thus

$$\frac{\partial \left(\frac{I^*}{R^*} \right)}{\partial \beta} = \frac{-1}{(t\beta)^2} < 0.$$

Thus, the increase in shareholder power will unambiguously decrease investment per profit.

Some comments on the literature

This is hardly the first analysis that concludes that shareholder revolution and the new dominance of finance over industry will have a negative effect on growth. Much of the literature, however, does not take an explicit macroeconomic approach (Froud et al., 2000; Lazonick and O'Sullivan, 2000). This section clarifies the relation of the analysis presented here to the related macroeconomic literature. This literature usually identifies different channels through which finance affects investment behavior.

Several authors have stressed the role of high interest rates. Smithin (1996; 2003) argues that rentiers had suffered losses in the 1970s due to low nominal interest rates and high inflation rates. In the course of their counterattack, they managed to gain control over monetary policy. The rise of real interest rates in the 1980s is thus very much a distributional issue (cf. Bhaduri and Steindl, 1985). Smithin (2003) presents a simple macroeconomic model where investment depends on retained earnings. An increase in the interest rate will thus decrease investment and output. In a similar spirit, Duménil and Lévy (2001) present evidence that the recovery of profits in the neoliberal era only applies to profits before interest payments. Because postinterest profits are more relevant, this explains the stagnation of investment and growth.

Boyer (2000) explores the possibility of a "finance-led" growth regime. He presents a full macroeconomic model, where financial markets set a "hurdle rate," which he calls "financial norm." Only investment projects that pass this hurdle rate would be undertaken by firms. The mechanism is different from the literature mentioned in the previous paragraph. Firms do not invest because the rate of return on financial markets is higher, even though they might have the financial resources for investment. Boyer analyzes the conditions under which an increase in the financial norm would have an expansionary effect. This is what he labels a finance-led growth regime. He finds a condition similar to the one analyzed in Equation (12). If the financial norm has a strong effect

on share prices and a small effect on investment, and there is a strong wealth effect, growth can be “finance-led.”

Our approach differs in two important aspects. First, our analysis is built on an explicit theory of the firm. Second, the way in which financial markets affect nonfinancial businesses differs. In particular, Smithin (2003) as well as Boyer (2000) imply that financial markets interact with firms by setting constraints on the behavior of the latter. It is not the nature of the firms that is affected but the availability of finance or the required rate of return. By implication, if interest rates were lowered, nonfinancial firms would automatically increase their investment expenditures. Our approach is different in that it regards the firm as a battlefield rather than as a victim. Financial markets have not only changed the constraints that firms face but also the goals of firms. The policy implication is that it may not be sufficient to loosen the constraints for firms, but that changes in corporate governance may be desirable to empower growth-oriented groups within the firm. Next to management, the obvious candidate for this is labor or other stakeholders, in particular, the communities in which the firm is located. Rather than merely changing the signals firms receive from financial markets, firms must process these signals and determine who decides upon the reaction to the signals.

Having clarified this difference in emphasis, it remains to be said that these channels of how financial markets affect nonfinancial firms are not exclusive. On the contrary, one would expect effects through all these channels. The relative importance of these channels is a question for empirical research that remains well beyond the scope of this paper.

Conclusion

In the past decades, advanced capitalist countries experienced dramatic changes in their social structures of accumulation. These include changes in labor relations, a redefinition of the role of the state, and changes in the relation between the financial and the real sectors of the economy. This paper has investigated one of these latter changes, the shareholder revolution. Shareholders increasingly influence the behavior of nonfinancial firms. The Post Keynesian model of the firm was revisited and found wanting in this context. An extension of this theory that takes the goal of the firm as an outcome of the power relations between various groups within the firm was proposed. The model was inserted in a standard Kaleckian macro model. Under reasonable assumptions, the model predicts that an increase in shareholder power will lead to a decline in aggregate investment expenditures. It is thus consistent with the styl-

ized facts that the neoliberal era exhibits lower investment and output growth, but higher profits than the Fordist era.

A strength of the approach taken here is that it combines a microeconomic theory of the firm with a macroeconomic model. The key difference to similar models is that the effect of financial markets on firms is not portrayed as a constraint, such as high interest payments that decrease disposable profits or a high “hurdle rate,” but a change in power relations *within* the firm. In other words, firms are not simply victims of the rentiers, but the firm is the battleground of the conflict of interest. The analysis is tentative and makes no claim to assess the relative importance of the rise in shareholder power in explaining the stylized facts. It merely demonstrates that shareholder power has the potential to explain the changes. The proposed explanation is complementary to more standard explanations such as high interest rates, increased uncertainty, and so on. One obvious area for future research would be to quantitatively evaluate the weight of various explanatory factors.

The policy conclusions derived from the model proposed are noteworthy. Given the Post Keynesian macroeconomic framework, it is not surprising that an increase in state expenditures might help revitalize growth. More interestingly, the model highlights the importance of the decision mechanisms and power relations within the firm. Given the recent debates about corporate governance and control, sparked by outrageous cases of corporate fraud, it is curious that most proposals focus on how to increase the control by shareholders. Our model suggests otherwise. To provide an institutional setting that encourages growth not only is expansionary macroeconomic policy needed but within-firms growth-oriented groups have to have a say. One obvious, though currently unpopular, way to do so would be to empower labor in the control and decision process in the firm.

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