

Why ‘financialisation’ hasn’t depressed US productive investment

Andrew Kliman^{*} and Shannon D. Williams

The rate of capital accumulation in the USA has fallen markedly in recent decades. Works in the financialisation literature have tried to explain this phenomenon by arguing that rising financial payments and purchases have come at the expense of productive investment. This article shows that such arguments are not supported by the data. It also explains theoretically why rising dividend payments and the growth of corporations’ portfolio investment are compatible with the fact that corporations’ productive investment did not decline during the first two decades of ‘neoliberalism’ in the USA. There would necessarily be a trade-off between these uses of funds if they were all funded out of current profits, but there is no necessary trade-off because borrowed funds are an additional source. Finally, the article shows that the fall in US corporations’ rate of profit (rate of return on investment in fixed assets) fully accounts for the fall in their rate of capital accumulation.

Key words: Financialisation, Neoliberalism, Capital Accumulation

JEL classifications: O43, P16, Z13

1. Introduction

The relationship between financialisation and capital accumulation is a topic of considerable and growing interest within political economy. During the past several decades, the rate of capital accumulation has fallen and economic growth has slowed down as a result. Many heterodox economists, as well as others writing in the financialisation tradition, have attributed these phenomena to corporations’ increasing involvement in financial markets under what they characterise as a distinctive neoliberal model of corporate governance. In particular, they argue that profits have been diverted from productive investment towards financial uses under neoliberalism and financialisation, and that this diversion is the cause of the fall in the rate of capital accumulation.

For instance, [Krippner \(2011, p. 54\)](#) writes that ‘in the context of greater uncertainty about the cost of capital in a deregulated economic environment, non-financial firms increasingly diverted capital from productive to financial investment’. [Wolfson and Kotz \(2010, p. 88\)](#) hold that ‘a liberal and deregulated financial sector in a liberal

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SSA [social structure of accumulation] tends to divert funds from long-run productive investment to speculative activities'.¹ Ott (2012, p. 898) holds that beginning in the 1970s, 'non-financial corporations increasingly shied away from long-term investments in plant, equipment, and research and development . . . [and] diverted funds into finance'. The literature is replete with similar examples (see, e.g., Duménil and Lévy 2004, 2011; Husson, 2008, 2009; Orhangazi 2007, 2008; Stockhammer 2004, 2009).

However, as we demonstrate here, official US government data (from the National Income and Product Accounts and the Financial Accounts of the United States) indicate that there has been no diversion of profit from production to financial markets under neoliberalism. On the contrary, the data indicate that the share of profit that was productively invested was slightly higher during the first two decades of neoliberalism in the USA than during the prior three decades. Because profit was not diverted from production, the fall in the rate of accumulation (i.e., the growth rate of accumulated productive investment) over the post-World War II period as a whole was due entirely to the fall in corporations' rate of profit.

This finding may seem to contradict the fact that corporations have substantially increased their involvement in financial markets, as measured, for instance, by the increase in their financial assets as a share of their total assets and by the increase in their financial payments relative to profits. However, we argue, there is actually no contradiction between these phenomena and the fact that profit was not diverted from investment in production to financial markets. The reason no contradiction exists is that the substantial increase in corporations' financial acquisitions has been funded by means of an increase in borrowing.² Our analysis demonstrates that, in the era of neoliberalism and financialisation, corporate profit has become less important and borrowing has become more important as a source of funds for financial expenditures. Additionally, we find that higher dividend payments do not lead to a statistically significant decline in productive investment, and that corporations' access to and use of borrowed funds accounts for the absence of a trade-off between paying dividends and investing in production.

In the remainder of this introduction, we briefly survey the prior literature on the issue, discuss the aspects of it that we do and do not contest, and clarify what exactly we mean when we deny that financialisation has diverted funds from investment in production. Section 2 surveys financialisation trends. In the third section, we discuss the fact that profit is not the only source of funds for financial payments, and we stress the important role played by an additional source—borrowed funds. The fourth section builds on that discussion to show that, notwithstanding the relative growth of financial activity, neoliberalism did not cause US corporations to divert profits from productive investment towards financial uses. Productive investment did fall as a share of profit after the early 1980s, but not because profits were diverted away from production under neoliberalism. Rather, the investment share of profit fell because it was unusually and unsustainably high at the start of the 1980s, and the fall brought it back

¹ In these passages, and in the financialisation literature generally, 'productive investment' refers to investment in fixed assets. We have adopted this terminology, although we recognize that expenditures on workers' education and training can be and often are regarded as productive investments.

² Here and below, we use the colloquial term 'borrowing' to refer to what is technically known as dis-saving. Dissaving occurs when one uses existing savings (wealth) to fund an expenditure, whether one uses one's own savings or borrows others' savings.

to normal levels through 2001.³ Section 5 shows that the entire fall in corporations’ rate of accumulation of fixed assets during the post–World War II period is attributable to a decline in their rate of profit (after tax). In addition, none of the sharp fall in the rate of accumulation that took place between 1979 and 2001 was due to financialisation or neoliberalism; more than half of the fall is attributable to the decline in the rate of profit, whilst the remainder is attributable to the fact that the investment share of profit returned to normal levels. Section 6 summarises our key findings and offers a brief conclusion. Data sources and computations are described in the Appendix.

1.1 *Prior literature*

[Stockhammer \(2004\)](#) argued that the decline in the rate of accumulation was caused by a fundamental shift in the priorities of corporate management that has taken place under neoliberalism. Corporations have become increasingly rentier-like, using their profit to purchase financial assets instead of productive assets.

Over the past decades financial investment of non-financial businesses has been rising and accumulation of capital goods has been declining. . . . [This is primarily because] [f]inancialization, the shareholder revolution and the development of a market for corporate control have shifted power to shareholders and thus changed management priorities, leading to a reduction in the desired growth rate. . . .

For France, financialization explains the entire slowdown in accumulation, for the USA about one third of the slowdown. ([Stockhammer 2004](#), p. 2, p. 31)

Other writers focus on the increase in payments that corporations make to financial markets, a phenomenon they likewise attribute to neoliberalism.⁴ [Duménil and Lévy \(2011](#), p. 153) point out that the rate of accumulation is closely correlated with the rate of retained profits.⁵ They argue that changes in corporate governance under neoliberalism have caused corporations to relinquish a greater share of their profits to financial markets—in the form of higher interest and dividend payments—leading to a slowdown in the rate of accumulation. Similarly, [Orhangazi \(2007](#), p. 8) claims that ‘the percent of internal funds paid to financial markets each year has risen dramatically’. [Husson \(2008\)](#) insists that profitability has increased under neoliberalism, but that the additional profits have not been productively invested. ‘Rather, ... [t]he growing mass of surplus value which has not been accumulated has mainly [been] distributed in the form of financial revenues’.

Lazonick, writing within the shareholder value tradition that we discuss further in the next section, has devoted considerable attention to stock buy-backs as a means by which corporate funds are distributed to financial markets ([Lazonick and O’Sullivan, 2000](#); [Lazonick, 2013](#)). He argues that managers’ commitment to high stock prices has led corporations to devote a larger share of their profits to repurchasing their own stock, which in turn stifles the growth of investment in innovation ([Lazonick, 2013](#)). Similarly, [Orhangazi \(2008\)](#) hypothesises that corporate managers’ preoccupation with stock price can lead to the development of investment strategies in which the primary aim is to affect the price of outstanding stocks in the short run. This in turn can compel

³ As we also discuss in Section 4, the post-2001 decline in the investment share was temporary; productive investment increased much more rapidly than did profit after 2004.

⁴ ‘Financial payments’, or alternatively ‘financial payouts’, refers to corporations’ payments of dividends and interest, as well as stock repurchases.

⁵ For Duménil and Lévy, retained profit is equal to after-tax profit minus interest and dividend payments.

corporate managers to pursue financial investments with rapid returns in preference to long-term investments in production:

Financialization can have two potential negative impacts on capital accumulation ... First, increased financial investment and financial profit opportunities can crowd out real investment by creating managerial short-termism [i.e., concern for short-term increases in the price of the company's stock] and directing funds away from real investment. Second, increased financial payments can decrease real investment, shortening planning horizons of firm management and increasing uncertainty. (Orhangazi 2008, p. 99)

Using regression analysis, Orhangazi tested the effects of non-financial corporations' financial payouts and income on their real investment at both the aggregate and the firm level. At the aggregate level, he found that financial payments and incomes have a negative effect on real investment. At the firm level, he found that financial payments have had a negative effect on real investment across a range of different industries, within small and large firms, whereas financial income had a negative effect on real investment particularly for large corporations. However, Orhangazi did not provide estimates of the amounts by which increases in financial payments and income tended to reduce investment, and the negative effects were often not statistically significant at normal levels of testing. In any case, we attempted to replicate his aggregate-level regression results (Orhangazi 2008, p. 103, model II in Table 6.1), but were unable to do so.⁶

The present article takes issue with some (but not all) aspects of the financial literature. It does not dispute the claim that a shift towards a shareholder value orientation has occurred. Nor do we take issue with the claim that non-financial corporations have become increasingly financialised, according to some definitions of the term. It is certainly the case that their financial payments have increased more rapidly than have their profits, and that their purchases of financial assets have increased more rapidly than have their purchases of fixed assets. Yet authors such as Duménil and Lévy, Husson, Lazonick, Orhangazi and Stockhammer also claim that financialisation has occurred in a rather different sense: a greater share of profits or internal funds has been used to make interest and dividend payments, purchase financial assets and/or repurchase equity, which has led to a decline in the productive investment of profit. Our evidence for the USA indicates, to the contrary, that the relative increase in these financial payments did not lead to a decline in productive investment, because the increase in financial payments was not funded out of increases in profit.

1.2 The Meaning of 'Diversion'

Before turning to the empirical evidence, we wish to make clear exactly what we mean when we deny that financialisation in the USA has led to a diversion of funds from

⁶ In particular, whilst Orhangazi reported that financial payments had a negative effect on investment that was statistically significant at the 10% level, we found that the effect was positive (but significant only at the 15% level). The differences between his results and ours seem to be due at least in part to substantial discrepancies between the values we obtained for most of the regression variables and the values he reported by means of time-series plots (Orhangazi, 2008, pp. 114–6). Incorrect guesses on our part about Orhangazi's procedures and data sources may explain some of these discrepancies. However, we cannot account for the fact that one of his graphs indicates that the ratio of gross value added to the capital stock rose almost every year between 1961 and 2004, whilst we found that it trended sharply downwards after the mid-1960s. Prior to the initial submission of this article, we wrote to Orhangazi in an attempt to reconcile the two sets of results; we are awaiting his reply.

productive investment. As [Tobin \(1997, pp. 301–2\)](#) pointed out, the purchase of a financial asset is simply an exchange of a certain sum of money for a financial asset. It does not divert funds from productive investment; that is, it does not take money that was slated to be invested in production and use it for a different purpose. Thus, if a shift in the use of the money takes place, it does so sometime prior to the purchase of the asset. If such a shift does take place, the seller of the asset might take the money received for it and invest it productively, so that no diversion takes place on a macro level.

Yet even after we recognise that financial market transactions are not themselves diversionary, and that the question of whether diversion has taken place must be answered on the macro level, there is a further issue: a relative increase in financial payments and purchases is not necessarily a diversion of funds from productive investment. Of course, every dollar used to pay interest, pay dividends, buy financial assets or repurchase stock is a dollar that is not invested in production, but it is also a dollar that is not spent on candy, toenail clippers, lottery tickets and so on. Accordingly, we cannot automatically conclude that funds have been diverted from investment whenever financial purchases and payments increase more rapidly than productive investment—unless we are willing to conclude that funds have been diverted from candy, toenail clippers, lottery tickets and so on whenever financial purchases and payments increase more rapidly than spending on these items.

This point holds true whether the funds in question are profits or borrowed funds. Thus, the mere fact that financial purchases have increased as a share of borrowed funds does not imply that credit has been diverted from productive investment. It may be, and often is, the case that increases in financial payments and purchases are funded by means of newly created credit, rather than by a redistribution of the outstanding volume of credit.⁷ In such cases, diversion of credit from productive investment has not occurred.

Thus, in this article we use the term ‘diversion’ to refer to increases in financial purchases and payments that actually displace productive investment, take place at the expense of it. Diversion will be said to occur if and only if the increases in financial purchases and payments depress the share of profit that is invested in production. An equivalent way of stating this condition is that the percentage growth rate of financial purchases and payments in excess of new borrowing is greater than the percentage growth rate of profit.⁸

One reason the financialisation literature has often arrived at conclusions that seem to be at variance with ours is that it fails to make the distinction we have stressed here, between the diversion of profit from productive investment and the relative increase in financial purchases and payments. For instance, [Orhangazi \(2007, p. 8\)](#) wrote that ‘the percent of internal funds paid to financial markets each year has risen dramatically. This creates three distinct restraints on real investment’. He was evidently referring to a graph ([Orhangazi, 2007, p. 44, Figure 2](#)) which showed, correctly, that interest and dividend payments have risen when expressed as a percentage of internal funds.

⁷ In Section 2, we show that a much smaller share of US non-financial corporations’ financial payments and purchases was funded out of profit between 1968 and 2007 than it was between 1947 and 1967. A much larger share was therefore funded by means of additional borrowing.

⁸ This equivalence follows from the fact that productive investment + financial purchases and payments = profit + borrowing, together with the fact that the sum of the changes in the left-hand side terms equals the sum of changes in the right-hand side terms.

However, the statement that these financial payments were paid out of internal funds is incorrect. By definition, they cannot be.⁹ The statement also misleadingly suggests that since a greater share of internal funds has been used to make financial payments, a smaller share has been productively invested. In fact, non-financial corporations' gross fixed investment was equal on average to 95% of the book value of their domestic internal funds between 1947 and 1980, but 105% between 1981 and 2007.¹⁰

For some purposes, it is appropriate to express productive investment as a percentage of internal funds, or as a percentage of the total—borrowed and non-borrowed—funds obtained by companies. The latter measure is appropriate, for instance, if the question is 'why has the share of total funds allocated to financial payments and purchases increased in relation to the share allocated to productive investment?' However, we wish to answer a rather different question—has financialisation, that is, the relative increase in financial payments and purchases, *diverted* funds from productive investment? To answer it, one needs to abstract from increases in available funds brought about by increased borrowing, as we do when we express productive investment as a percentage of profit.

We focus on this latter question for two reasons. First, the question is present throughout the financialisation literature, much of which maintains that diversion, not just a relative increase financial payments and purchases, has occurred, and that financialisation, not the fall in the rate of profit, was therefore the main cause of the fall in the rate of accumulation. Second, by focussing on diversion rather than on the distribution of total (borrowed and non-borrowed) funds, this article is able to shed light on the following important and timely policy issue. Imagine that anti-financialisation reforms can successfully curtail financial uses of funds. What would the effects be? The thesis that financialisation has led to diversion suggests that the reforms would stimulate productive investment as diversion-in-reverse occurred. However, our analysis suggests that in the absence of increases in expected rates of return on productive investment, the main effect of the reforms might merely be to curtail business borrowing.

2. Financialisation trends

The rate of capital accumulation is the percentage rate of growth of the capital invested in production. [Figure 1](#) shows movements in US corporations' rate of accumulation of fixed assets, that is, their current net investment in fixed assets as a percentage of their existing accumulated investment (the net stock of their fixed assets at historical cost). The rate of accumulation fell markedly during the past three decades. When net investment (gross investment minus depreciation) is measured in historical-cost terms, the rate of accumulation plummeted from 13.3% in 1979 to an average of 4.3% between 2001 and 2007, a fall of 67%. Some of the fall reflects the fact that the cost of replacing depreciated fixed assets, relative to their original acquisition cost, declined markedly as

⁹ Roughly speaking, the term 'internal funds' as used in the Financial Accounts of the United States refers to profits retained after paying income tax, interest, and dividends but before depreciation charges. The present article focusses on uses of profit instead of uses of internal funds because it is principally concerned with the issue of diversion, and thus with changes in the distribution of non-borrowed revenue between the portion used to fund productive investment and the portion used to make financial payments and purchases. Because internal funds exclude revenues used to make financial payments (interest, dividends), it would complicate the analysis to focus on them.

¹⁰ The numerator of the ratio is gross investment, inclusive of depreciation, rather than net investment because the denominator is internal funds, which include depreciation.

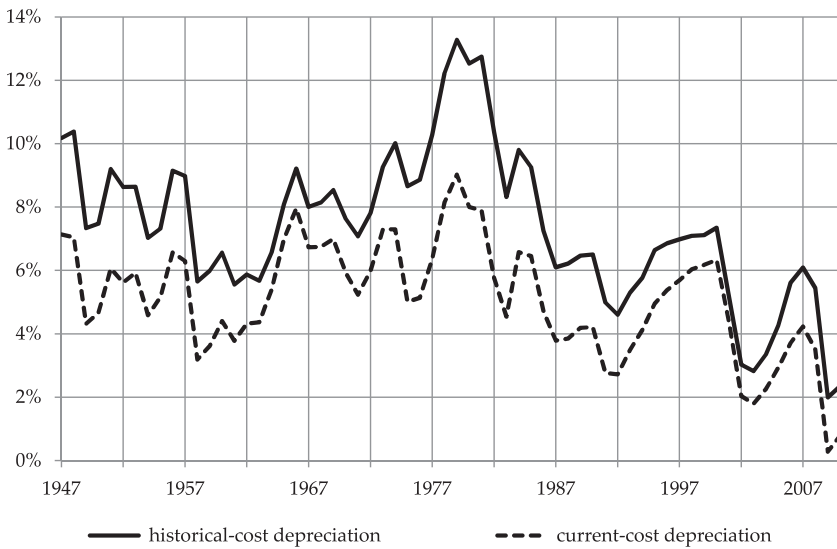


Fig. 1. *Rate of accumulation of fixed assets, US corporations (net investment as percentage of accumulated investment [net stock of fixed assets])*

the rate of inflation declined, beginning in the early 1980s. If we adjust for the effect of inflation by measuring net investment in current-cost terms, we obtain the dashed rate of accumulation shown in [Figure 1](#). It fell from 9.0% in 1979 to an average of 3.0% between 2001 and 2007. In terms of percentage points, the decline in this second rate of accumulation was much less than the decline in the first, but the percentage decline, 66%, was almost exactly the same. Thus, the rate of accumulation fell to about one third of its peak level of 1979 however one values depreciation.

Yet as the rate of accumulation declined, non-financial corporations substantially increased their acquisition of financial assets in relation to their acquisition of productive fixed assets.¹¹ As [Figure 2](#) shows, their financial assets increased as a share of their total assets (financial assets plus fixed assets as valued at current cost) from 36% to 56%, a rise of more than 50%, between 1982 and 2007. This rise is often cited as evidence by those who argue that financialisation has diverted profit from production to financial markets ([Orhangazi, 2007](#); [Krippner, 2011](#)).

In addition to increasing their financial investments, corporations are also paying out larger sums of cash to financial markets. [Figures 3, 4 and 5](#) show movements in non-financial corporations' interest payments, dividend payments and stock repurchases, expressed as shares of their net operating surplus (a measure of profit before exclusion of interest payments, transfer payments and corporate income taxes). The share of net operating surplus used to pay interest tripled between 1965 and 1974, from 7% to 21%, and remained high thereafter; the average interest share between 1974 and 2007 was 20%. The share of net operating surplus paid out as dividends was

¹¹ This comparison is restricted to non-financial corporations because financial assets play larger and different roles in the operations of financial corporations. Between 1947 and 2007, financial corporations' share of the corporate sector's financial assets rose very modestly, from 80% to 82%—which implies that financial and non-financial corporations' financial assets grew at almost the same rate. In contrast, financial corporations' shares of output (gross value added) and accumulated investment in fixed assets are much smaller, but they rose much more rapidly, from 4% and 3%, respectively, in 1947 to 13% in 2007.

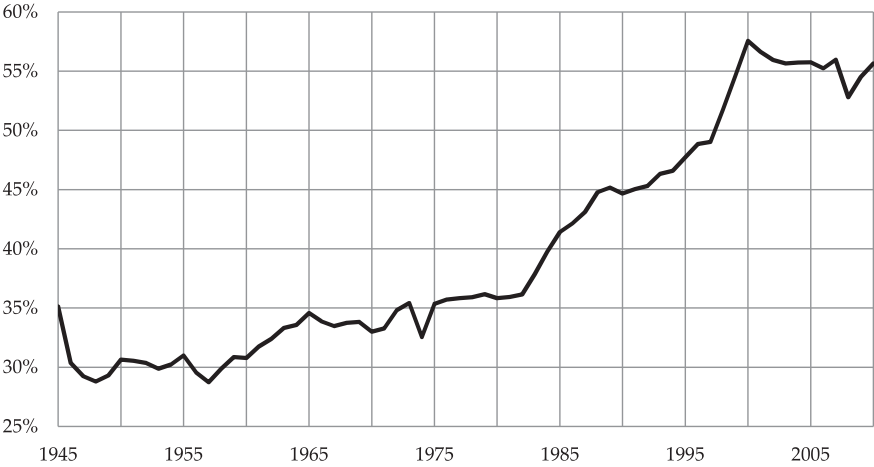


Fig. 2. *Financial assets, US non-financial corporations (as percentage of total fixed and financial assets)*

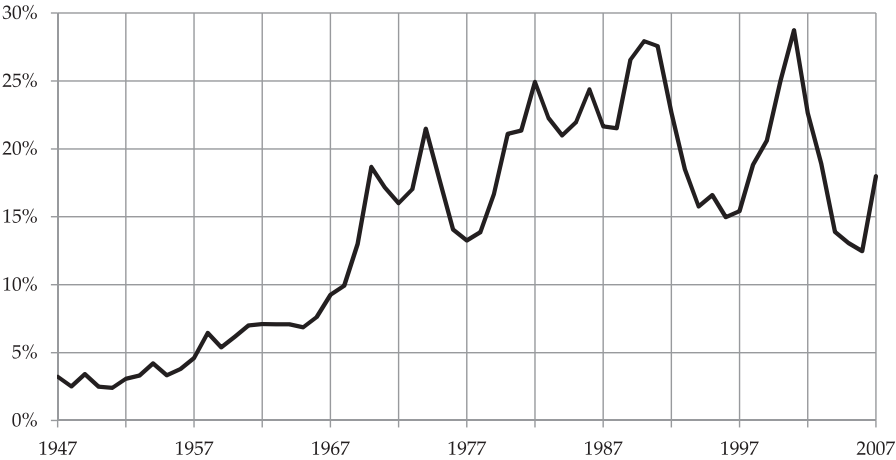


Fig. 3. *Net interest payments, US non-financial corporations (net interest and miscellaneous payments as percentage of net operating surplus)*

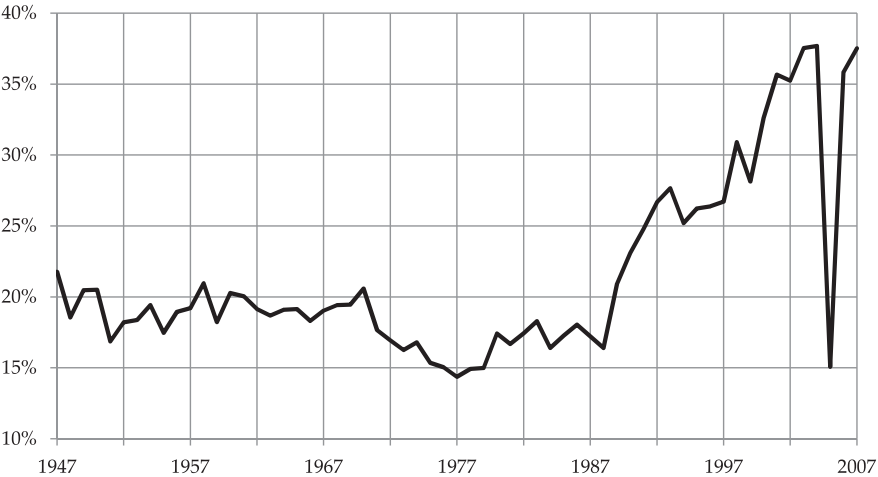


Fig. 4. *Net dividend payments, US non-financial corporations (percentage of net operating surplus)*

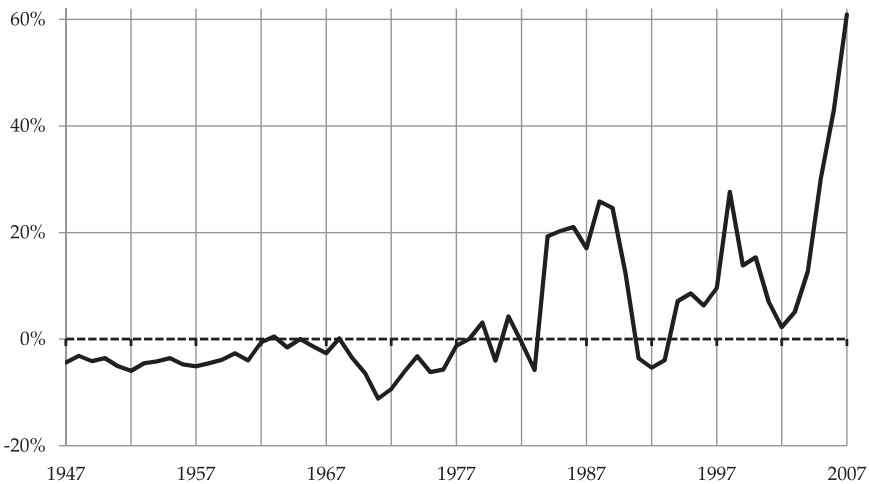


Fig. 5. *Net stock repurchases, US non-financial corporations (negative of net new equity issues as percentage of net operating surplus)*

relatively stable between 1957 and 1988, but it then rose almost continually (the sharp one-year plunge in 2005 was the main exception) to a level more than double that of 1988. There have been three periods in which stock buy-backs exceeded 10% of net operating surplus—1984–1990, 1998–2000 and 2004–7.¹²

The rapid growth of dividend payments and stock repurchases in recent decades has drawn considerable attention amongst sociologists and economists writing within the shareholder value tradition (Lazonick and O’Sullivan, 2000; Dobbin and Zorn, 2005; Fligstein, 2005; Davis, 2009). ‘Shareholder value’ is a term most often used by those who argue that a new corporate governance model emerged under neoliberalism, ‘wherein the strategic orientation of corporate managers’ shifted from a philosophy of “retain and reinvest” towards a philosophy of “downsize and distribute” (Lazonick and O’Sullivan, 2000, p. 18). Under the shareholder value corporate ethos, they argue, the primary objective is not to accumulate capital per se, but to return value to shareholders, especially in terms of an appreciating stock price (Krippner, 2011).

According to these authors, a combination of events—a wave of hostile takeovers, a neoliberalised regulatory environment, new financial innovations such as junk bonds, the increasing prevalence of stock options as a form of executive compensation and the rise of institutional investors as powerful shareholder activists—led to major changes in corporate governance strategies motivated by the goal of raising stock prices. They argue that corporate executives began to focus increasing attention on maintaining a high stock price for several reasons. One was that they sought to defend their firms against the threat of takeover. Another was that institutional investors pressured them to do so. Moreover, institutional investors insisted on the introduction of stock options for newly appointed corporate executives. This was an effort to bring management objectives in line with the interests of shareholders, since executives who have options to buy their company’s stock at a given price have a personal incentive to raise the price and thereby reap capital gains. The institutional investors’ ability to enforce their

¹² On average, stock buy-backs were 20%, 19% and 37% of net operating surplus during these three periods. There were also large buy-backs in 2008 and 2010, equal to 28% and 22% of net operating surplus.

wishes was enhanced when Congress permitted insurance companies and pension funds to invest in equities, which led to a dramatic rise in the share of publicly traded stock held by institutional investors (Lazonick and O'Sullivan, 2000).¹³

3. The importance of borrowing to financialisation

The increases in corporations' financial acquisitions and payouts are undoubtedly important trends. However, we believe that further analysis is needed to clarify the implications of these trends, in part because a good deal of the financialisation literature has drawn unwarranted conclusions about them. In particular, our findings indicate that corporations' increasing involvement in financial markets does not constitute a diversion of profit from production to finance, because the increases in financial acquisitions and payouts have essentially been funded by means of increases in borrowed funds. As is well known, leverage is another significant aspect of financialisation (Gowan, 2009); it has become an increasingly large source of the funds that drive the financialisation process.

It is noteworthy that financialisation is associated with a substantial decline in the importance of profit as a source of the funds used for financial expenditures (financial acquisitions, dividend and interest payments and stock buy-backs). As Figure 6 shows, the share

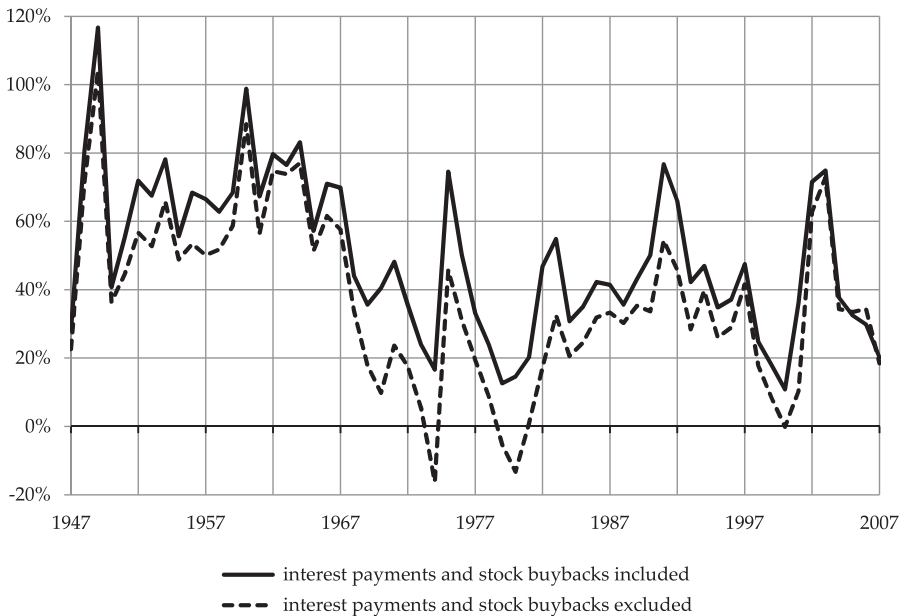


Fig. 6. *Financial expenditures covered by profit, US non-financial corporations (percentage of total financial expenditures)*

Note: In the dashed curve, 'financial expenditures covered by profit' are the difference between after-tax profit and net (productive) investment, whilst 'financial expenditures' are the sum of net dividend payments and net acquisition of financial assets. In the solid curve, stock buy-backs are added to the denominator, and net interest (and miscellaneous) payments are added to both the numerator and the denominator.

¹³ Krippner (2011, p. 9) provides a concise yet detailed summary of these developments. 'Taken together', she argues, 'these changes had a profound effect on the behavior of firms, with the threat of takeover acting as a stick and stock option as a carrot to fulfill the imperative of financial markets'.

of non-financial corporations’ financial expenditures that were covered by profit—that is, that the corporations could buy without borrowing—was substantially larger between 1947 and 1967, before the rise of financialisation, than during the four decades that followed. When we measure financial expenditures covered by profit as the after-tax profit that remains after net productive investment, and total financial expenditures as the sum of dividend payments and new acquisitions of financial assets, we find that the share of financial expenditures that was covered by profit fell by 58%, from an average of 60% between 1947 and 1967 to an average of 25% between 1968 and 2007. When a broader measure of total financial expenditures that also includes interest payments and stock repurchases is considered (and accordingly, the definition of profit is broadened so as to include the portion used to pay interest as well as after-tax profit), the share of financial expenditures that was covered by profit fell by 44%, from an average of 70% to an average of 39%.

Because firms can and do use borrowed funds, not just internal funds, to purchase financial and fixed assets, there is no necessary trade-off between financial and productive investment. For instance, if additional financial assets are purchased with newly borrowed funds, the profits that can be used to fund productive investment are left unchanged. US non-financial corporations’ acquisitions of financial assets were indeed funded almost wholly by means of newly borrowed funds throughout the entire post-World War II period, as Figure 7 shows. Through 1990, these corporations’ additional liabilities were more than sufficient to cover their new acquisitions of financial assets. Beginning in 1991, the gap between the two series was abruptly eliminated, but acquisitions of financial assets continued to be funded almost entirely by means of additional liabilities, not by drawing on profits. Non-financial corporations acquired \$8.6 trillion of additional financial assets between 1991 and 2007, whilst their liabilities increased by almost exactly the same amount, \$8.5 trillion. Thus, in effect they used borrowed money rather than profits to fund 99% of their new acquisitions of financial assets.¹⁴

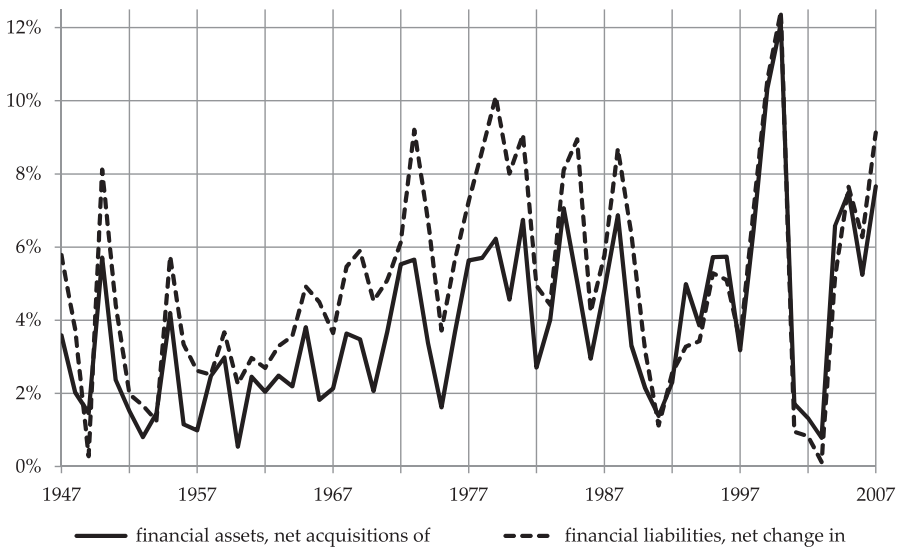


Fig. 7. *Acquisitions of financial assets and changes in liabilities, US non-financial corporations (percentages of gross domestic product)*

¹⁴ We say ‘in effect’ because it is actually the sum of borrowed and internal funds that is used to acquire all financial and all fixed assets.

A similar corollary exists with respect to financial payouts. It is true that dividends have increased markedly as a share of profits during the past two decades. It is sometimes wrongly assumed that when a bigger share of profit goes to pay dividends, it must be the case that a smaller share of profit goes to productive investment. This assumption is fallacious because, again, profit is not the only source of corporations' funds. If they borrow more, and invest the borrowed funds in productive assets, then dividends and productive investment can both be bigger in relation to profit.

As Figure 8 demonstrates, there was in fact no trade-off between the share of after-tax profit paid out as dividends and the share devoted to net productive investment. The graph splits the data into two sub-periods to capture the effect of an obvious structural break that took place from 1989 onwards. With the exception of one outlier, 2005, the dividend share of profit during this latter sub-period consistently exceeded its values between 1947 and 1988. For the 1947–88 period, the nearly horizontal regression line and the minuscule coefficient of determination ($R^2 < 0.001$) indicate that there was almost no relationship between the dividend and productive investment shares.¹⁵ During the 1989–2007 subperiod, there was again no statistically significant relationship between the dividend and productive investment shares (at normal levels of testing), and the upward slope of the regression line indicates that increases in investment actually tended to be associated with increases, not decreases, in dividends.

In marked contrast, Figure 9 shows that there was a very strong positive association between net productive investment and 'borrowing'—the portion of net investment and dividends not funded out of after-tax profit—as shares of after-tax profit. The slope coefficients, 1.00 for the earlier sub-period and 1.18 for the latter sub-period, indicate that a \$1 rise in investment was on average associated with additional borrowing of \$1.00 and \$1.18.

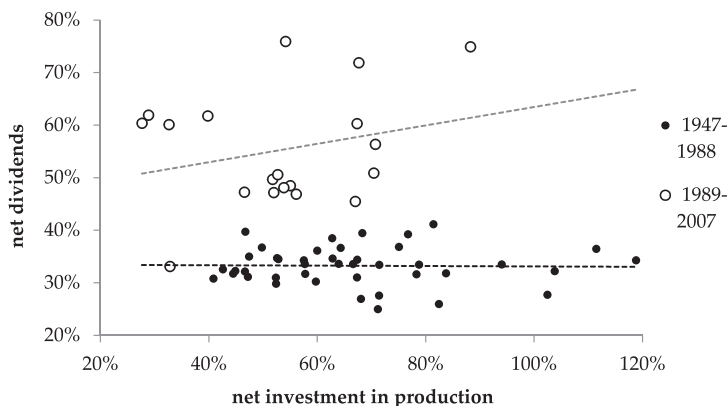


Fig. 8. *Productive investment and dividend payments, US corporations (percentages of after-tax profit)*

¹⁵ If there had been a perfect (dollar-for-dollar) trade-off between dividend payments and productive investment, a 1 percentage point rise in the investment share would have been associated, on average, with a 1 percentage point fall in the dividend share. The slope coefficient, -0.004 , implies that the actual average fall in the dividend share was only four one-thousandths as large. When net investment is lagged by two years, a trade-off between the variables can be obtained for the 1947–88 period, but it is modest (five cents less productive investment for every extra dollar of dividends) and statistically insignificant at the 5% level. During the next nine years, there was an extremely weak positive relationship between the lagged investment and dividend variables. Finally, for the 1998–2005 period, there was a more substantial trade-off between the variables (25 cents less productive investment for every extra dollar of dividends), but it too was very weak; the adjusted R^2 is negative.

When 2005, the outlier year, is omitted, the latter slope coefficient falls to 1.08. Since the slope coefficients for the 1989–2007 period are not statistically different from 1 at normal levels of testing, these results strongly suggest that increases in net investment were paid for—dollar for dollar—by means of additional borrowed funds during both sub-periods.¹⁶

Our results imply that when corporations decided to increase their productive investment, they did not obtain the extra money they needed by reducing dividends; instead, they borrowed it. When they decided to reduce their productive investment, they did not use the freed-up funds to pay additional dividends; instead, they borrowed less. Thus, when the dividend share of profit rose markedly, between 1988 and 2000, the rise did not come about at the expense of a fall in the productive investment share. The latter also rose markedly, as the borrowing share skyrocketed from –9% to 63% (see Table 1). Subsequently, the investment share fell very sharply, after which it partly rebounded; this was associated with a similar decline in and partial rebound in the borrowing share, whilst the dividend share remained within a narrow range. Moreover, the dividend share again tended to vary together, not inversely, with the investment share.¹⁷

The strong association between productive investment and borrowing demands that we reconsider the typical fashion in which the relationship between financial payouts

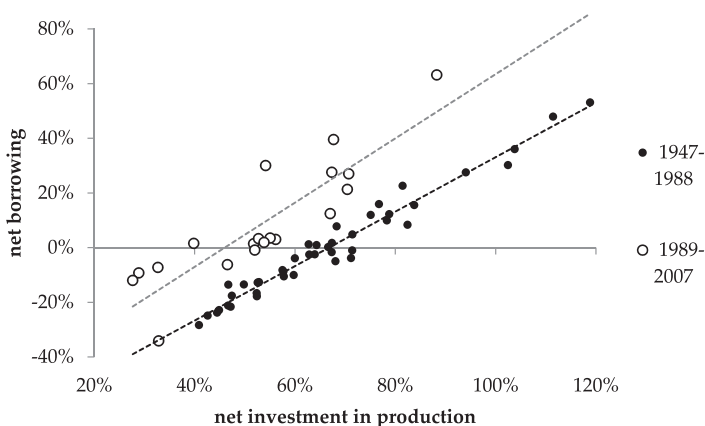


Fig. 9. *Productive investment and borrowing, US corporations (percentages of after-tax profit)*

Table 1. *Shares (%) of after-tax profit, US corporations, 1988–2007 (selected years)*

	1988	1992	2000	2004	2007
Investment share	58	47	88	28	54
Dividend share	34	47	75	60	76
Borrowing share	–9	–6	63	–12	30

¹⁶ When we consider only non-financial corporations, all results reported above for the dividend-investment relationship continue to hold true, except that the regression line for the 1947–88 period rises very slightly; the slope coefficient is 0.002. All results reported for the borrowing-investment relationship also continue to hold true, except that the slope coefficient for the 1989–2007 period is 1.21, or 1.12 when 2005 is excluded. These coefficients are also not statistically different from 1 at normal levels of testing.

¹⁷ These comparisons disregard the behaviour of the variables in the outlier year of 2005.

and investment is depicted. Discussions of this relationship sometime seem to give readers the impression that if an additional dollar of profit is distributed as dividends, productive investment must necessarily be reduced by a dollar. For instance, [Duménil and Lévy \(2011, p. 153\)](#) suggest that ‘corporations basically self-finance their investment. This ability depends on the rate at which they retain profits, that is, do not pay interest or distribute dividends. . . . Retained profits condition accumulation’. It is true that, on average and over sufficiently long spans of time, the share of investment funded out of borrowing isn’t large, which may be what Duménil and Lévy mean by corporations’ ‘basically self-financ[ing] their investment’. It is also true that if corporations did not borrow at all, their ability to invest would depend entirely on the degree to which they do not pay interest or distribute dividends. However, it is not true that corporations are unable to invest more than the profit they have retained after paying interest and dividends. Nor do Duménil and Lévy actually state that corporations are unable to invest more than their retained profits. On the contrary, they acknowledge that productive investment greatly exceeded retained earnings in the second half of the 1990s ([Duménil and Lévy, 2011, p. 153–4](#)).

4. Trends in productive investment as a share of profit

As we shall discuss presently, the share of US corporations’ profit that was productively invested was actually greater during the first two decades of neoliberalism than during the period that preceded it. It was also greater during the neoliberal period as a whole once we control for the substantial rise in the rate of depreciation. These findings directly contradict other authors’ (e.g., [Husson, 2008](#); [Stockhammer, 2009](#); [Chernomas and Baragar, 2012](#)) claim that the investment share fell as a result of financialisation and/or neoliberalism.

Referring to the USA, the major economies of the EU, and the EU as a whole, [Stockhammer \(2009, p. 11\)](#) argued that ‘financialization has had a dampening effect on business investment, probably due to negative effects of shareholder value orientation and increased uncertainty’. He based this conclusion on declining trends in the countries’ investment/profit ratios since the 1970s. However, there are two main reasons his inference is invalid. First, although his conclusion pertains to business investment, for some reason he computed ratios of investment (gross fixed capital formation) to ‘profit’ (gross operating surplus and mixed income) using data for the total economy.¹⁸ We computed the investment/profit ratio for the USA, using the same data source and the same variables that Stockhammer used, but restricting the focus to corporations only.¹⁹ The percentage decline in the ratio was reduced by more than half.

Second, even if we ignore Stockhammer’s disregard for other possible explanations of the decline in the investment/profit ratio, the time period he considered is far too short to enable him to attribute the decline to financialisation. He contended that the ‘regime of accumulation’ that preceded the ‘finance-dominated’ regime ‘c[a]me to an end in the course of the 1970s’ ([Stockhammer, 2009, p. 3](#)). Thus, he tried to assess the effects of financialisation by comparing post-financialisation figures to a pre-financialisation baseline that consists of a few years at most. There is no a priori reason to

¹⁸ Although [Stockhammer \(2009, p. 23\)](#) indicates that his investment data pertain to the private sector only, that is not the case.

¹⁹ The data are published in OECD.Stat Extracts, <http://stats.oecd.org>.

believe that these few years were representative of the pre-financialisation period, and thus no reason to believe that the investment/profit ratio was higher on average prior to the emergence of financialisation.

Similarly, Husson drew conclusions about the effect of neoliberalism on investment from a data series that provided no prior baseline information at all. In an attempt to defend his contention (in [Husson, 2008](#)) that a distinctive neoliberal regime of accumulation emerged in the 1980s in which profit was diverted from productive investment to financial markets, [Husson \(2009, Graphique 7B\)](#) employed data for the USA only from the early 1980s onwards.

[Figure 10](#) shows the net investment share of profit, using four different measures of profit,²⁰ relative to the average shares of the 1949–71 period. Because the data suggest that changes in profit generally precede changes in investment, we computed the net investment of each year as a percentage of the profit that was obtained two years earlier. For this reason, the graph begins with 1949 rather than with 1947, the start of the post-World War II period. The graph makes clear that the 1970s were in no way representative of the pre-financialisation period; the investment share skyrocketed during this decade. Hence, data series that begin with the 1970s or later do not allow us to draw valid conclusions about how financialisation and neoliberalism have affected productive investment.

It is clear from [Figure 10](#) that movements in the investment shares can be broken into four quite distinct periods: 1949–71, 1972–85, 1986–2001, and 2002–7. To discuss pre- and post-neoliberal eras, we can also split the second period into two sub-periods, one that ends with 1980 and another that starts with 1981, the year in which Ronald Reagan became president.

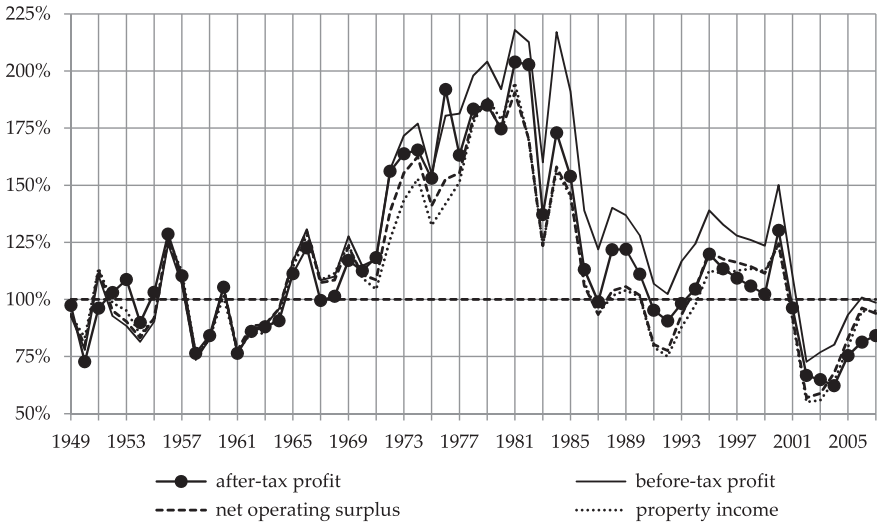


Fig. 10. *Investment shares of profit, US corporations* (as percentages of 1949–71 average; net investment as percentage of profit two years earlier)

²⁰ Investment shares based on the broader measures of profit (property income and net operating surplus) might be deemed more appropriate as measures of firms’ investment decisions, because they are less influenced by factors over which the firms have no control, such as changes in interest rates and corporate income tax rates.

Table 2 summarises the data in terms of these periods. Through 2001, all four investment shares of profit during the neoliberal era were greater than or equal to the pre-neoliberal investment shares. Moreover, whilst the investment share did decline markedly after the early 1980s, as Stockhammer and Husson found, this decline cannot be attributed to financialisation or neoliberalism. One reason it cannot is that the investment share of profit was unsustainably high at the start of the 1980s. Owing to a sharp decline in profitability, the (non-lagged) investment share of after-tax profit between 1979 and 1982 averaged 105%; corporations were investing more profit than they had. Another reason is that neoliberalism and financialisation did not cause the investment share to fall to below normal levels. When it fell, it returned to levels similar to those that were typical prior to 1972; during the 1986–2001 period, all four investment shares were greater than or equal to those of the 1949–71 period.²¹

The foregoing findings use net investment and profit data based partly on historical-cost depreciation figures. As Table 3 shows, we arrive at very similar conclusions when current-cost depreciation figures are used instead.

A sharp decline in investment and a large, though temporary, spike in profitability occurred after 2001. As a result, three of the four average investment shares for the

Table 2. *Investment shares (%) of profit, US corporations (net investment as percentage of profit two years earlier)*

Profit measure	1949– 71	1972– 80	1981– 85	1986– 2001	2002–7	1949– 80	1981– 2001	1981– 2007
PI	24	37	38	24	18	28	28	25
NOS	34	55	54	36	26	40	40	37
BTP	36	65	72	46	31	44	52	47
ATP	61	105	107	67	45	74	76	69

Notes: PI = property income; NOS = net operating surplus; BTP = before-tax profit; ATP = after-tax profit

Table 3. *Current-cost investment shares (%) of profit, US corporations (net investment as percentage of profit two years earlier; depreciation measured at current cost)*

Profit measure	1949– 71	1972– 80	1981– 85	1986– 2001	2002–7	1949– 80	1981– 2001	1981– 2007
PI	19	27	27	19	13	21	21	19
NOS	27	42	41	29	19	32	32	29
BTP	29	51	60	37	23	35	43	38
ATP	52	92	106	59	34	64	70	62

Notes: PI = property income; NOS = net operating surplus; BTP = before-tax profit; ATP = after-tax profit

²¹ Further research is needed to explain why there was little change, in the long run, in the investment share of profit, despite a decline in US corporations' rate of profit of more than 40% between 1948 and 2007. One might expect the investment share to be lower when profitability is high, since higher profits raise the denominator of the investment share. However, one might expect the opposite; if firms expect future conditions to be like present ones, high (low) profitability might lead to increases (decreases) in the share of profit invested in production. Perhaps these two effects offset one another.

neoliberal period as a whole, 1981–2007, fall short of the averages for the 1949–80 period. However, this fact cannot be attributed to neoliberalism or to an emergent neo-liberal mode of corporate governance. Such an explanation cannot account for why the investment share was not inferior to the pre-neoliberal share during the first 21 years of neoliberalism but then suddenly plummeted.

The post-2001 decline in the investment share seems to have been a temporary response to events of that period—perhaps events such as the bursting of the dot-com stock market bubble that began at the end of 2000, the sharp decline in the rate of profit between 1997 and 2001 and the terrorist attacks of 11 September 2001. After 2004, the investment share rebounded sharply. For instance, whilst after-tax profit was only 6% greater in 2007 than in 2004, net investment was 107% greater. Indeed, net investment increased by \$240 billion whilst after-tax profit increased by only \$47 billion, which means that corporations were investing an extra \$5 for every extra \$1 of profit. Thus, by 2007, the percentage increase in net investment relative to 1997 was slightly greater than the comparable percentage increase in after-tax profit (see [Figure 11](#)), which implies that the (non-lagged) investment share was slightly higher in 2007 than in 1997. We do not see how these facts are compatible with a narrative in which neoliberalism and/or a new model of corporate governance are causing companies to divert profit from productive investment to financial uses.

In any case, once one adjusts for changes in the rate of depreciation, the average investment share of profit becomes a good deal greater during the neoliberal period, even when the post-2001 years are included, than in the period that preceded it. As [Figure 12](#) shows, the rate of depreciation—depreciation of corporations’ fixed assets as a percentage of the net stock of their fixed assets—rose markedly after 1960.²² [Kliman \(2012, pp. 140–3\)](#) showed that the entire rise is attributable to the information technology revolution.

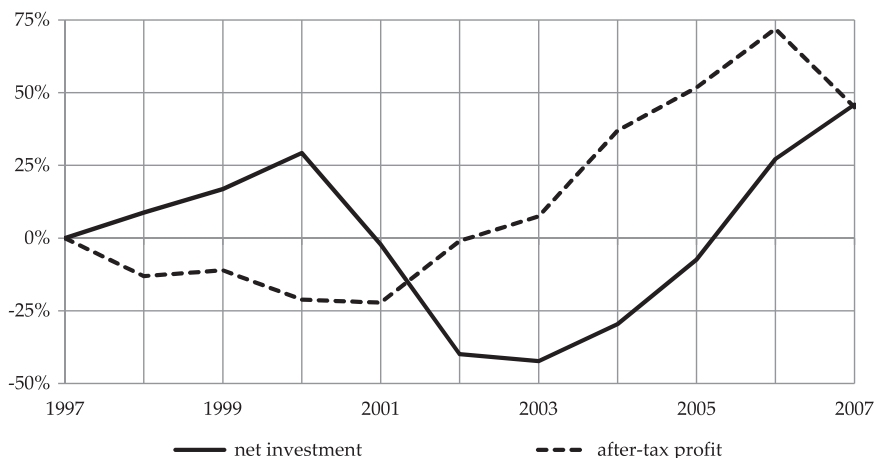


Fig. 11. *Net investment and after-tax profit, US corporations* (percentage differences from 1997 levels)

²² Our depreciation figures come from the US national accounts, which exclude all amortisation and measure depreciation using a fixed rule based on pre-determined service lives of different physical assets and pre-determined schedules of the percentage declines in their values over time. Our depreciation figures therefore have nothing to do with the depreciation expenses reported on tax returns, nor are they affected by companies’ accounting tricks, changes in tax laws and so on.

Investment in information-processing equipment and software became a greater and greater share of corporations' total productive investment, and since they depreciate much more rapidly than almost all other fixed assets, the shift in investment led to a rapid rise in the overall rate of depreciation. The growth of net investment tended to slow down as a direct result of the rise in the rate of depreciation. (Since net investment equals gross investment minus depreciation, it follows that net investment falls, all else being equal, when depreciation rises as a share of gross investment, i.e., when a larger share of total investment simply replaces the depreciation [loss in value] of existing fixed assets.)

Neoliberalism and financialisation are obviously not responsible for this increase in the rate of depreciation. Thus, to validly assess whether they have led to a diversion of profit from productive investment towards financial uses, we have to abstract from the increase in the rate of depreciation, control for its effects. We have done so by adding depreciation to both net investment and profit. The resulting investment shares, gross investment as a percentage of what may be called gross profit (profit plus depreciation), are the same when net investment and profit are valued at current cost as when they are valued at current cost. One investment share, gross investment as a percentage of gross operating surplus, is very similar to the measure Stockhammer reported; the main difference is that ours pertains to corporations rather than to the total economy.

The results of this exercise are presented in [Figure 13](#) and [Table 4](#). All four investment shares are higher during the neoliberal period—including the years after 2001—than before it. Three of the four investment shares exceed their 1949–71 levels even during the 2002–7 period, whilst the investment share of gross after-tax profit fell short of its 1949–71 level by only 2 percentage points. Thus, the fall in the investment shares over the whole 1981–2007 period, relative to their 1949–80 averages, are attributable to the rising rate of depreciation, not to neoliberalism and/or financialisation.

5. The falling rate of accumulation

As we noted, US corporations' rate of accumulation of fixed assets fell sharply during the three decades that preceded the Great Recession. Several radical political economists have argued that the decline occurred because, with the emergence of financialisation and neoliberalism, profit was diverted from productive investment towards financial payments and acquisitions.

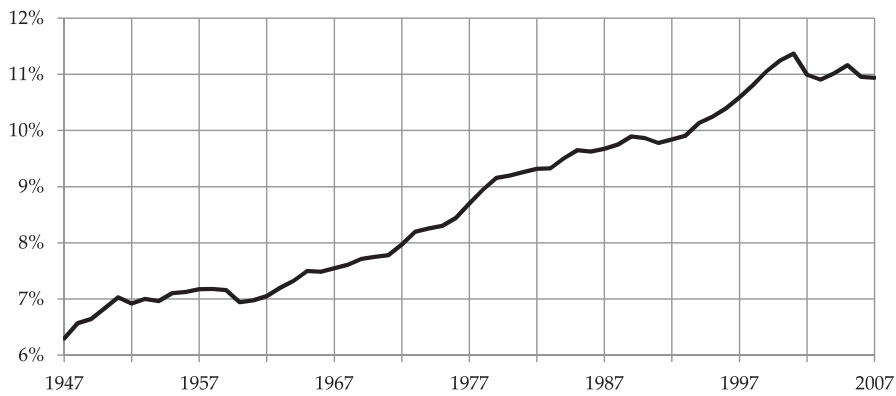


Fig. 12. *Rate of depreciation, US corporations* (depreciation as percentage of cost of net stock of fixed assets)

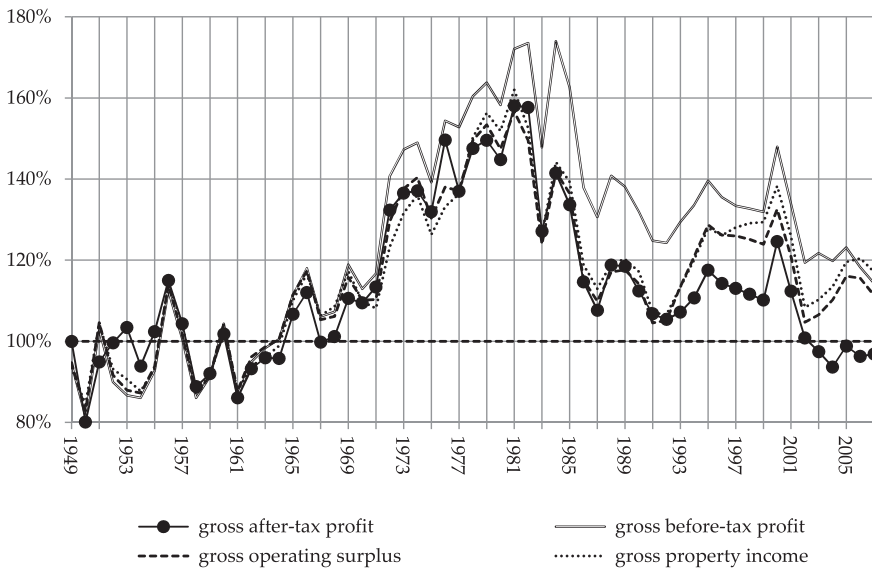


Fig. 13. *Gross investment shares of gross profit, US corporations (as percentages of 1949–71 averages; gross investment as percentage of gross profit two years earlier)*

Table 4. *Gross investment shares (%) of gross profit, US corporations (gross investment as percentage of gross profit two years earlier)*

Profit measure	1949– 71	1972– 80	1981– 85	1986– 2001	2002– 7	1949– 80	1981– 2001	1981– 2007
GPI	39	55	57	48	45	44	50	49
GOS	53	74	75	63	58	59	66	64
GBTP	55	83	90	73	65	62	77	75
GATP	80	113	115	91	78	89	96	92

Notes: GPI = gross property income; GOS = gross operating surplus; GBTP = gross before-tax profit; GATP = gross after-tax profit

This conclusion is a direct consequence of two of their key claims:

- (i) the rate of accumulation fell even though the rate of profit rebounded under neo-liberalism, which implies that the investment share of profit declined.²³
- (ii) the investment share declined because profit was diverted from productive investment during the neoliberal period.

For example, *Duménil and Lévy (2004, p. 65)* wrote,

Why was the restoration of the rate of profit not coupled with a parallel resumption of growth . . . ? The key to this enigma may be found in the monetary and financial mechanisms The continuing poor performance of the American and European economies [is] actually the effect of the specific dynamics of neoliberalism. One can, therefore, assert that the structural crisis is over and blame neoliberalism for poor accumulation rates.

²³ Since the rate of accumulation is the ratio of net investment to advanced capital, and the rate of profit is the ratio of profit to advanced capital, the former can fall whilst the latter rises only if the investment share falls.

Similarly, [Husson \(2008\)](#) argued that

[the] decrease of the wage-share has allowed a spectacular recovery of the average rate of profit from the mid 1980s. But . . . the rate of accumulation has continued to fluctuate around a level lower than that before the crisis. In other words, the drain on wages has not been used to invest more. . . . The growing mass of surplus value which has not been accumulated has [to] mainly be distributed in the form of financial revenues, and that is where the source of the process of financialization is to be found. The difference between the rate of profit and the rate of investment is a good indicator of the degree of financialisation.

We have shown above that claim (ii) is false, at least in the case of the United States. Although the investment share did decline after the early 1980s, it did so because the investment share at the start of the 1980s was abnormally high and unsustainable, not because profit was diverted from productive investment toward financial uses. And although financial payments and acquisitions grew rapidly, what made their rapid growth possible was increased use of borrowed funds, not diversion of profit from production. Through 2001, the share of profit that was invested in production was not lower under neoliberalism than prior to it, and once we control for the rise in the rate of depreciation, it was not lower during the neoliberal period as a whole.

As for claim (i), the ‘rate of profit’ that rebounded is not a rate of profit in the normal sense of the term. That is, it is not the rate of return on investment—profit as a percentage of accumulated investment (book value net of depreciation)—but profit as a percentage of what it would currently cost to replace the entire stock of fixed assets. [Kliman \(2012, chap. 5\)](#) has shown that the rate of return on accumulated investment declines substantially during the neoliberal period when property income or net operating surplus are employed as measures of profit. When before- or after-tax profit are employed, the rate of return on investment also declines substantially between 1982, a trough year, and 2001 (the last trough prior to the Great Recession), and it is basically trendless during the 1981–2007 period as a whole.²⁴

Since claims (i) and (ii) are both incorrect—when rate of profit is understood in the normal sense—the decline in the rate of accumulation cannot be attributed to a diversion of profit from production that took place because of financialisation and neoliberalism. Rather, it declined partly because the rate of profit declined, and partly because the investment share of profit, which was temporarily and unsustainably high at the start of the early 1980s, returned to normal levels.

The change in the rate of accumulation can be decomposed into changes in the investment share and changes in the rate of profit. Since the rate of accumulation is, by definition, the product of the investment share of profit and the rate of profit, the percentage change in the rate of accumulation is approximately equal to the sum of the percentage changes in the investment share and the rate of profit. This relation will help us assess movements in US corporations’ rate of accumulation of fixed assets.

The rate of accumulation peaked in 1979. Between that year and 2001, it fell by 61%, whilst the after-tax rate of profit fell by 41% and the investment share of after-tax profit fell by 34%. Thus, about 55% ($= 41/[41 + 34]$) of the decline in the rate of

²⁴ The before- and after-tax rates of return trend downwards between 1981 and 2005, trend upwards slightly when 2006 and 2007 are included but again trend downwards when 2008 is also included. The slope coefficients are as follows: property-income rate, -0.217% ($p = 0.001$); net-operating-surplus rate, -0.148% ($p = 0.009$); before-tax-profit rate, 0.018% ($p = 0.74$); and after-tax-profit rate, 0.006% ($p = 0.88$). The p -values indicate that, if the ‘true’ slope were 0, the probability that the observed slope coefficients would differ from 0 by as much as these is less than 1% in the first two cases but 74% or more in the latter two.

accumulation is attributable to the decline in the rate of profit, and 45% is attributable to the decline in the investment share. (The rate of accumulation then rose by 18% between 2001 and 2007, as a 47% rise in the rate of profit was only partly offset by a 20% fall in the investment share.)

Taking a longer view, of the post–World War II period as a whole, the fall in the rate of profit accounts for the entire fall in the rate of accumulation. Figure 14 shows the percentages by which the variables differed from their values in 1948. The rate of accumulation tracked the rate of profit relatively closely during the first two decades of the postwar period, and again during the last two decades. When the 1968–86 period is omitted, variations in the rate of profit account for 48% of the variation in the rate of accumulation one year later and 52% of the variation in the rate of accumulation two years later. After 1967, a massive increase in the investment share of profit occurred, which caused the rate of accumulation to rise substantially in relation to the rate of profit; yet because the investment share rose to unsustainable levels, it began to plummet after 1981, and this brought movements in the rate of accumulation back in line with movements in the rate of profit.²⁵ Thus, when all is said and done—that is, when we consider the entire post-war period—the investment share had very little to do with the decline in the rate of accumulation. Between 1948 and 2007, the rate of accumulation fell by 41%, whilst the investment share actually rose slightly, by 3%. The entire fall in the rate of accumulation is thus attributable to the

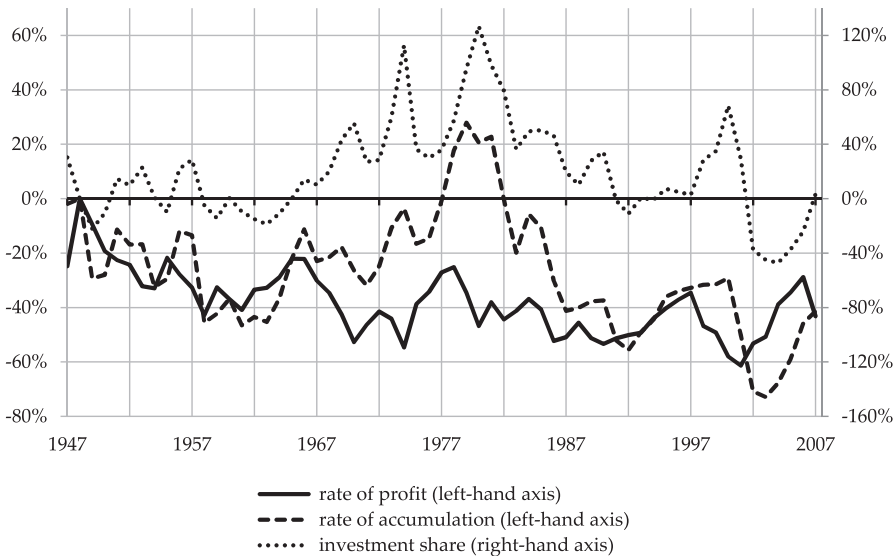


Fig. 14. *US corporations’ rate of accumulation, after-tax rate of profit, and investment share of after-tax profit (percentage differences from 1948 values)*

²⁵ The investment share rose partly because of declines in the rate of profit that were at first not matched by comparable declines in investment, and partly because of accelerating inflation that boosted the prices of investment goods more rapidly than it tended to boost profit. Conversely, the immediate reasons the investment share fell so sharply after 1981 were that inflation subsided and that investment did respond, after a lag, to the post-1978 fall in the rate of profit. However, the investment share would eventually have fallen even in the absence of these triggers, since corporations were investing more profit than they were receiving. This is why our account stresses the unsustainable level that the investment share had reached rather than the factors that triggered the fall.

43% fall in the after-tax rate of profit, which was only offset a bit by the small rise in the investment share.²⁶

This finding is not particularly surprising. That the rate of profit is a key determinant of the rate of accumulation is a staple of much economic thought, and indeed, the relationship between them is perhaps the main reason the rate of profit is of economic importance. What would be surprising is a persistent fall in the rate of accumulation despite a persistent rise in the rate of profit. Those who assert that such a divergence occurred under neoliberalism have called attention to the counter-intuitive nature of this assertion (see, e.g., [Husson, 2008](#)).

Yet why did the rate of profit fall? [Kliman \(2012, pp. 133–8\)](#) found that extremely little of the long-run fall in the ratio of property income to accumulated net investment is attributable either to a change in the distribution of property income between profit and compensation of employees or to a change in the rate at which prices rose in relation to costs of production as measured in terms of labour time. When one holds these factors constant, the rate of profit rises (falls) if employment grows more (less) rapidly than capital accumulates. Almost all of its long-run fall is thus attributable to the fact that capital continually accumulated more rapidly than employment grew. This phenomenon seems to be closely related to the fact that US corporations entered the post-World War II period with an extremely small stock of advanced capital (relative to gross domestic product), owing to the dis-accumulation of capital that took place during the Great Depression and the war. Further research is needed to explain why other determinants of the rate of profit had little effect on it in the long run.

6. Summary and conclusion

Various claims have been made in the financialisation literature that profit has been diverted from investment in production to financial purchases and payments as a result of financialisation and/or neoliberalism. This article has shown that such claims are not correct in the case of US corporations. The share of profit invested in production was greater during the first two decades of neoliberalism than during the preceding decades. Moreover, when we controlled for the rise in the rate of depreciation—a rise that resulted from the information-technology revolution, not financialisation or neoliberalism—we found that the share of profit invested in production was as great as or greater throughout the neoliberal period as a whole as it had been during the preceding decades. Although the investment share of profit did decline after the early 1980s, the article has shown that it declined from unsustainably high levels (close to or in excess of 100% of after-tax profit) to levels that were typical during the first quarter-century of the post-World War II period. The decline therefore cannot be attributed to financialisation or neoliberalism.

The article has also shown that the entire fall in US corporations' rate of accumulation between 1948 and 2007 is attributable to the fall in their rate of profit, rather than to a diversion of profit from investment. Moreover, somewhat more than half

²⁶ The rate of accumulation can be decomposed in a way that explicitly takes into account the influence of changes in investment as a share of *total* funds (borrowed funds plus profit). In this case, the rate of accumulation is the product of (a) investment as a share of total funds, (b) the ratio of total funds to profit, and (c) the rate of profit. Since the product of (a) and (b) is the investment share of profit, which experienced little change in the long run, the fall in (a) was offset more or less exactly by the rise in (b). The result, once again, is that the long-run change in the rate of accumulation is attributable almost exclusively to the change in (c).

of the steep decline in the rate of accumulation that took place between 1979 and 2001 is attributable to the fall in the rate of profit whilst the remainder is due to the fact that the investment share of profit returned to normal levels after having been unsustainably high.

In order to account for the fact that profit has not been diverted from production even though financial purchases and payments have increased much more rapidly than have profits, the article has emphasised the fact that corporations make use of borrowed funds as well as profit, and that credit markets have been an increasing important source of funding.

There is no single reason incorrect claims have been made about how financialisation and neoliberalism have affected productive investment. The article has called attention to a few different incorrect inferences that have been drawn from the data. We wish to conclude by re-emphasising what seems to be the main problem, in the hope that subsequent contributions to the financial literature will not be burdened by it. We are referring to the inference that—or perhaps a use of language that misleadingly suggests that—an increase in financial payments or purchases relative to some source of funds (profits, internal funds, etc.) implies that funds have been diverted from productive investment. A world in which additional credit is created *ex nihilo* and backed by nothing more than promises to repay—especially a world in which this phenomenon is increasingly significant—is not a constant-sum game. The recent financial crisis has shown once again that this phenomenon is certainly not free of costs. But a diversion of profit from production has not been amongst these costs.

We believe that the concept of financialisation can continue to play a useful role, as a descriptive term that refers to the relative growth and increased importance of financial markets, instruments and institutions. Whether financialisation has played a causal role vis-à-vis the rest of the economy is less clear. As our findings suggest, the term financialisation cannot properly be used as a synonym for slower growth or weaker performance of the non-financial economy. Nor can such effects be inferred simply from the presence of financialisation or institutional changes that have contributed to its emergence, such as transformation of the state–financial nexus and de-regulation of financial activity. Further investigation is needed to ascertain whether these trends have affected the performance of the non-financial economy, and, if so, what these effects have been; the main effects that have been suggested to date are the supposed reduction in productive investment and its consequences, which this article has called into question. Institutions are undoubtedly important, but an institutional analysis need not be grounded in the presumption that neoliberalism and/or financialisation have caused a fall in rate of capital accumulation.

Our findings do indicate that owners of US non-financial corporations—their shareholders—have in effect chosen to take on additional debt to provide themselves with higher returns in the short term.²⁷ Yet since liabilities of these companies have nevertheless increased more slowly than their assets (see [Figure 7](#)), it is not clear that the owners’ choices are amongst the features of financialisation that have affected macro-economic performance or people other than themselves.

²⁷ This was suggested by [Crotty \(2008, p. xv\)](#), at least as an abstract possibility: ‘companies now disgorge a much higher percent of their cash flow back to financial markets in the form of stock buybacks and interest and dividend payments than they did in the Golden Age. While *they can always go back and re-borrow these funds*, this process of “impatient finance” creates uncertainty about the cost and availability of investment funding and, again, induces a shorter planning horizon’ (emphasis added).

Some authors have recently argued that diversion of profit from production is a major underlying cause of the recent financial crisis and Great Recession. In addition to making more funds available for speculative financial uses, such diversion supposedly contributed to economic instability by depressing productive investment and economic growth, which in turn boosted the debt burdens of households and government relative to income. This line of argument suggests that macroeconomic policies that reverse the diversion of profit from production are crucially important to prevent a recurrence of the recent crisis. For instance, [Duménil and Lévy \(2011, p. 301\)](#) insist that to ‘invert[] neoliberal trends toward dis-accumulation [in the USA,] . . . [p]rofits must be conserved within corporations to this end, that is, much less paid out as interest, dividends, and high wages to the upper fractions of wage earners’. To help achieve this goal, they advocate a moderate interest-rate regime and tax incentives that encourage productive investment. However, our findings suggest that inasmuch as such policies are a solution to a non-existent problem, they are not likely to be effective. Since a long-term slump in profitability, not diversion of profits, is what led to the trend towards dis-accumulation, it is unlikely that the trend can be reversed in the absence of a sustained rebound of profitability.

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Appendix: Data and Computations

Unless explicitly indicated otherwise, all profit, net investment and fixed asset data used in this article are based on depreciation figures valued at historical cost.

Abbreviations

NIPA: National Income and Product Accounts, published by the US Bureau of Economic Analysis
 FAA: Fixed Asset Accounts, published by the US Bureau of Economic Analysis
 FAUS: Financial Accounts of the United States, published by the Board of Governors of the Federal Reserve System

Definitions

After-tax profit = before-tax profit – taxes on corporate income
 Before-tax profit = net operating surplus – ‘net interest and miscellaneous payments’ – ‘business current transfer payments (net)’
 Depreciation valued at historical cost = gross investment in fixed assets – net investment in fixed assets, valued at historical cost
 Net investment in fixed assets, valued at current cost = gross investment in fixed assets – depreciation of fixed assets (capital consumption), at current cost
 Net investment in fixed assets, valued at historical cost = change in the net stock of fixed assets, valued at historical cost, between the start and end of the year
 Net operating surplus = property income – ‘taxes on production and imports less subsidies’
 Property income = gross value added – depreciation – compensation of employees
 Rate of profit = profit divided by net stock of fixed assets as of end of preceding year
 Rate of accumulation = net investment divided by net stock of fixed assets as of end of preceding year
 Stock repurchases = – (‘net new equity issues’)

Data sources

Variable	Table	Line no.
Corporations (all domestic)		
Business current transfer payments (net)	NIPA 1.14	10
Compensation of employees	NIPA 1.14	4
Depreciation of fixed assets (capital consumption), at current cost	NIPA 1.14	2
Dividend payments, net	NIPA 1.14	14
Fixed assets, net stock valued at historical cost	FAA 6.3	2
Gross investment in fixed assets	FAA 6.7	2
Gross value added	NIPA 1.14	1
Interest payments, net (plus miscellaneous payments)	NIPA 1.14	9
Taxes on corporate income	NIPA 1.14	12
Taxes on production and imports less subsidies	NIPA 1.14	7
Financial corporations		
Financial assets, total	FAUS L.108	1
Gross value added	NIPA 1.14	16
Fixed assets, net stock valued at historical cost	FAA 6.3	3
Non-financial corporations		
Business current transfer payments (net)	NIPA 1.14	26
Compensation of employees	NIPA 1.14	20
Depreciation of fixed assets (capital consumption), at current cost	NIPA 1.14	18
Dividend payments, net	NIPA 1.14	30
Equity issues, net new	FAUS F.102	39
Financial assets, acquisitions of (net)	FAUS F.102	16
Financial assets, total	FAUS L.102	1
Fixed assets, net stock valued at current cost	FAA 6.1	4
Fixed assets, net stock valued at historical cost	FAA 6.3	4
Gross fixed investment	FAUS F.102	12
Gross investment in fixed assets	FAA 6.7	4
Gross value added	NIPA 1.14	17
Interest payments, net (plus miscellaneous payments)	NIPA 1.14	25
Internal funds, U.S. (book value)	FAUS F.102	5
Liabilities, net increase in	FAUS F.102	37
Liabilities, total	FAUS L.102	22
Taxes on corporate income	NIPA 1.14	28
Taxes on production and imports less subsidies	NIPA 1.14	23
Other		
Gross domestic product	NIPA 1.1.5	1