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The Profit–Investment Nexus in an Era of Financialisation, Globalisation and Monopolisation: A Profit-Centred Perspective

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ABSTRACT
During recent decades, the link between profits and domestic investment has weakened in the largest high-income economies. In this article, we explore this attenuation of the profit–investment nexus through a profit-centred perspective. Focusing on the impact of the origins and uses of profits, we study the investment behaviour of non-financial corporations in relation to their profits at the macro level since 1970, a period marked by financialisation, globalisation and, more recently, monopolisation. We contrast and discuss four competing hypothese—the *revenge of the rentiers*, the *financial turn of accumulation*, *globalisation* and *monopolisation*—and related stylised facts for France, Germany, Japan, the United Kingdom and the United States.

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1. Introduction

During past decades, the link between profits and domestic investment has weakened in the largest high-income economies. This article explores this phenomenon, sometimes referred to as a 'profits without accumulation' puzzle (Cordonnier 2006; Stockhammer 2006; Husson 2015), from a profit-centred perspective. Focusing on the impact of the origins and uses of profits, we study the investment behaviour of non-financial corporations in relation to their profits at the macro level since 1970, a period marked by financialisation, globalisation and, more recently, monopolisation.

Since the early 1980s, we observe a general trend of a diminishing level of investment relative to profits for the five largest high-income economies (Figure 1).[1] National trajectories have exhibited some diversity; in particular, there has been a U curve in the United States (US) between the early 1980s and the late 1990s, with a marked decline in the 2000s. In contrast, most of the decline in France occurred between 1982 and 1998, with some limited reversal since then.

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[1]The data used to compile all figures in this article are available on request from the authors (https://durandcedric.files.wordpress.com/2018/04/rope-data_and_figures-jan2018.xlsx).

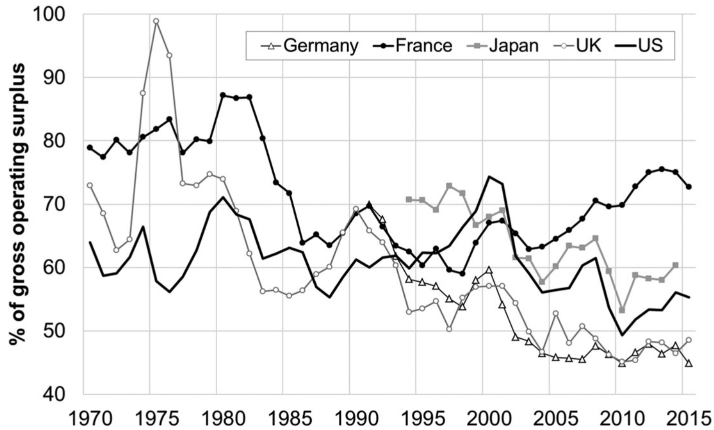

Figure 1. Profits without accumulation: gross fixed investment for non-financial corporations as a proportion of gross operating surplus, 1970–2015 (%).

Note: Authors'compilation using OECD and national accounts data.

Nonetheless, the general pattern is a weakening of the relation between profits and investment, which, remarkably, occurred in a period of improved profit rates.[2]

These stylised facts are consistent with other studies pointing out, from various methodologies and theoretical backgrounds, the weaker than expected path of capital accumulation. In a pioneering work focused on manufacturing in OECD (Organisation for Co-operation and Development) countries, Glyn (1997) reviewed evidence of a loosening of the relationship between profitability and capital accumulation between 1974 and 1994 in contrast to the strong link prevailing during the post-war golden age. Subsequent research, as we discuss shortly, and, notably, questioning of troubling investment trajectories have not been confined to heterodox economists. The corporate finance literature identified also a secular decline in the investment cash flow sensibility in US manufacturing between 1970 and 2006 (Brown and Petersen 2009). Gruber and Kamin (2015), from the US Federal Reserve Board, point to the urgency of making sense of a situation whereby, in most G7 countries since the early 2000s, corporate payouts to investors have trended up while firms cut back on investment spending—a behaviour inconsistent with a desire by corporations to cut back spending to rebuild balance sheets. In the US, since the middle of the 1990s, a negative correlation has existed between capital expenditures and industry Tobin's Q, which suggests that capital no longer flows mostly to those industries with the best growth opportunities (Lee, Shin, and Stulz 2016). Gutiérrez and Philippon (2016) find also that, in the US, investment has been weak relative to measures of profitability and valuation since the early 2000s and they point to intangibles, globalisation, concentration and institutional ownership as potential causes.

From the point of view of political economy, the attenuation of the relation between profits and investment is anything but trivial. Indeed, in the classical tradition of Smith,

[2]There is a very rich but rather technical debate regarding how profit rates are evolving. Nonetheless, on examining the various relevant measures, we see an unambiguous shift: the profit rate gradually fell from the mid-1960s up to the early 1980s, before then rising again. The significance of this turning point is the subject of ongoing debate: is it simply a partial recovery, unable to counteract the tendency for the rate of profit to fall, or is it indeed an authentic upturn? For a detailed presentation of the methodological terms of this debate, see in particular Basu and Vasudevan (2013).

Ricardo and Marx, profitability is the fundamental determinant of the rate of growth of capital stock; but the puzzle holds also from a Kaleckian perspective where causality is reversed, i.e. firms cannot increase their profits unless they invest more.

To clarify this puzzle, this article offers a critical review of the literature relevant to the question and brings to the discussion some stylised facts illustrating how various mechanisms muddle the way in which the profit–investment relationship operates. The dynamics of profit and accumulation in capitalist economies vary across space and time. From the stagflation of the 1970s to the Great Recession, financialisation and globalisation together with neoliberal policies have been the more salient characteristics of the period, although various countries have been affected unevenly. Neoliberal policies at the national and international levels have played a central role in fostering financialisation and globalisation through liberalisation (Harvey 2007; Duménil and Lévy 2011), although they are characterised by many other aspects (Brown 2003). Moreover, since the late 1990s, there are converging indications of a monopolisation trend, at least in the US economy.

Financialisation is a broad process with many facets, including debt-led consumption, the pre-eminence of financial motives, the rise of new financial institutions and technologies and macroeconomic regularities (Epstein 2001; van Treeck, Dünhaupt, and Hein 2007; van der Zwan 2014) and the unfolding of its variegated macroeconomic dimensions processes unevenly across countries (Karwowski, Shabani, and Stockhammer 2016). Financialisation of non-financial corporations is considered here as a twofold phenomenon (Orhangazi 2008): on the one hand, firms increase their payments to financial markets and institutions (Lazonick and O'Sullivan 2000; Aglietta and Berrebi 2007); on the other hand, firms accrue their profits through financial channels rather than through trade and production (Krippner 2005; Lapavitsas and Levina 2011).

Globalisation is also a multidimensional phenomenon, ranging from the global spread of cultural practices and the interconnectedness associated with information technologies to the intensification of transnational economic and financial flows (Dicken 1992). We refer to globalisation as the mounting possibilities for firms to import inputs from low-wages countries (Milberg 2008; Milberg and Winkler 2010) and, simultaneously, the fact that firms are offered new investment opportunities abroad (Fiebiger 2016), in particular in recently opened markets in developing countries. Finally, *monopolisation* accounts classically for an increase in market-share and ownership concentration, which protect profit margins and reduce incentives to invest. It also refers to the consequences of the huge scale and network gains associated with the digitalisation of economic activities.

We have identified four key narratives explaining the investment behaviour of firms in this context. The first two are linked to the broader process of financialisation. The *revenge of the rentiers* narrative suggests that the rise of financial payments has squeezed industrial retained profits, leading to slower investment growth. Second, the *financial turn of accumulation* narrative suggests a substitution of financial investments at the expense of real investments as the strategy of lead firms shifted towards higher short-term profitability through financial incomes at the expense of productive investment. The *globalisation* narrative focuses on the impact of a deeper integration of the world economy. It points to the fact that lead firms in the Global North managed to raise their margins thanks to lower input prices as they increased sourcing from low-wages countries and seized new opportunities for investment in the Global South at the expense of domestic investments. Finally, the *monopolisation* narrative proposes the linking of a retreat of competition to a diminution of incentives to invest. The contemporary tendencies towards stagnation should then be related to recent transformations of market and ownership structures.

The aim of this article is to contrast and clarify these four lines of argument. It seeks to explicate these narratives, to examine their theoretical consistency and to present stylised facts, mainly from OECD and national accounts, in order to evaluate their empirical plausibility over the period 1970–2015 for France and the US and, due to limited data availability, only from 1987 for the United Kingdom (UK), from 1991 for Germany and from 1994 for Japan. We focus on the five largest high-income economies. Focusing on a limited number of large economies over a relatively long period provides the meaningful stylised facts necessary to substantiate a comparative discussion of the various arguments. This analysis abstracts from the role of animal spirits and capacity utilisation in the investment decision, which is central to the Post-Keynesian, Kaleckian and Marxian traditions (for a review, see Lavoie 2014, Chapter 6), an aspect of the problem for future research.

The next four sections discuss each of the four narratives, in the context of stylised facts. A final section provides a synthetic assessment of the respective theoretical and empirical merits of the four narratives and indicates some directions for future research.

2. The revenge of the rentiers

The *revenge of the rentiers* narrative focuses on the reversal of class struggle dynamics at the end of the 1990s. By then, profits had declined dramatically as international competition intensified, wages grew more rapidly than productivity and the disciplinary effects of the labour reserve army weakened.[3] Inflation was a symptom of this class conflict, which was tackled through an abrupt decision of the US Federal Reserve (FED) to raise interest rates (Smithin 1996; Duménil and Lévy 2011). The effects were colossal, propelling a global recession and a surge of the dollar, but also dramatically altering the balance of power between classes. Indeed, 'the fight against inflation contains the hidden agenda of putting workers back in their place' (Boddy and Crotty 1975, p. 11); the 1979 coup resulted in a great defeat of labour, with surging unemployment, a retreat of unionisation and a rapid increase of income and wealth inequalities (Atkinson, Piketty, and Saez 2011). The restoration of the power of finance fostered by mounting real interest rates was also due to a parallel and on-going process of financial liberalisation from the early 1970s, under the pressure of petro-dollar accumulation and the collapse of the Bretton Woods system of fixed exchange rates.

According to this narrative, the 1979 coup and the freedom reacquired by finance propelled a new era of financial hegemony, increasing the ability of the wealthiest owners of capital and financial institutions to exert their power over the economy through the imposition on management of objectives favourable to finance (Duménil and Lévy 2004a, Chapter 9). However, this financial hegemony has serious detrimental effects and, in the advanced capitalist countries, 'the most obvious cost of neo-liberalism is its poor

[3]This argument on the full-employment profit squeeze has been extensively debated among heterodox economists. For an exposé and a critique, see Brenner (2004, Chapter 1).

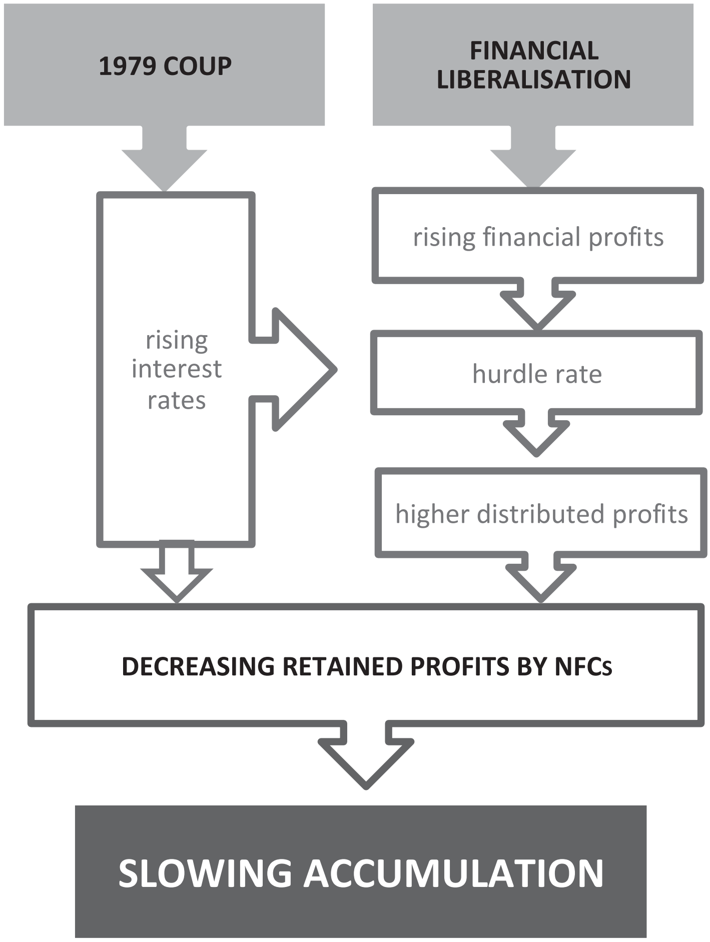

Figure 2. A class struggle story: the revenge of the rentiers.

performance concerning accumulation' (Duménil and Lévy 2004b, p. 51). Indeed, increasing financial payments in the form of dividends and interest squeeze the retained earnings of non-financial firms and ultimately investment, overshadowing the potential positive effects of the recuperation of the profit rate.

From a business organisation perspective, Lazonick (2013, 2016a, 2016b) agrees with Duménil and Lévy on the decisive role of retained earnings, stressing that these give some leeway to the managerial preference for growth and allow for a partial alignment of the preferences of workers and managers. These retained earnings were the key driver of the 20th century development of the managerial enterprise and a powerful engine of economic growth in the post-war period; in contrast, from the 1980s onwards, shareholder value maximisation is responsible for depriving non-financial firms of their ability to fund investments in organisation and technology because of rising dividends and buybacks. In the shareholder-dominated firm, there is no longer a presumption that internal funds should be used for investment; borrowing is increasingly used to boost dividends and stock buyback (Mason 2015).

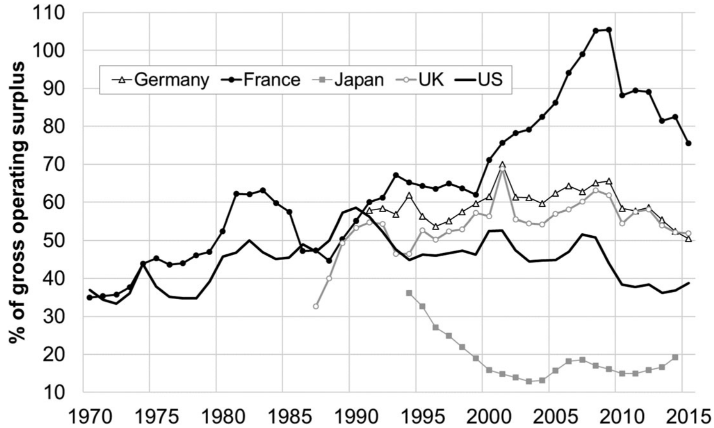

Figure 3. Payments to rentiers as a proportion of gross operating surplus, 1970–2015 (%).
Note: Authors' compilation using OECD and national accounts data.

Non-financial firms are thus the victims of financial capital and the squeeze of retained profits is not a necessary development of the endogenous dynamic of capital accumulation but a contingent outcome that results from class conflict and policy choices.

Figure 2 presents a combination of the mechanisms at stake. The rise of interest rates increases the financial cost for non-financial corporations, diminishing their retained profits. Moreover, the liberalisation of finance increases the profitability of financial operations, raising the general level of return on equity expected by investors—what Boyer (2000) calls a 'financial norm'. This hurdle rate translates as higher distributed profits to shareholders. In a context of increasingly liquid financial markets (Orléan 1999), management must comply with the requirements of impatient investors in terms of a higher rate of distributed profits (Lazonick and O'Sullivan 2000; Dallery 2009; van Treeck 2009). Overall, considering that retained profits by non-financial corporations are an important channel of funding for investments, a squeeze of retained profits by interest and shareholders' payments slows the accumulation of fixed capital.

The share of profits devoted to financial payments in the form of dividends and interest provides an indication of the payments made to rentiers by non-financial corporations and the subsequent squeeze of retained profits. As shown in Figure 3, the evolution of this ratio strongly supports the *revenge of the rentiers* narrative for the French and UK contexts. In France, we observe a dramatic increase in the share of profits devoted to the payment of interest and dividends, from around 40 per cent in the 1970s to 105 per cent in 2008. In the UK, there is a rapid rise from less than 40 per cent in the late 1980s to a peak of 68 per cent in the 2000s. In Germany, the increase is also continuous but more moderate, from approximately 55 per cent in the 1990s to around 65 per cent in the 2000s. In the US, we observe an increase from the late 1970s to the early 1990s and a subsequent slow diminution; however, as shown below, this diminution is due to the fact that in the US buybacks have surpassed dividends as the main way to convey profits to shareholders. Japan is the only country where the evidence is at odds with the revenge of the rentiers narrative as we observe a strong diminution of financial payments from

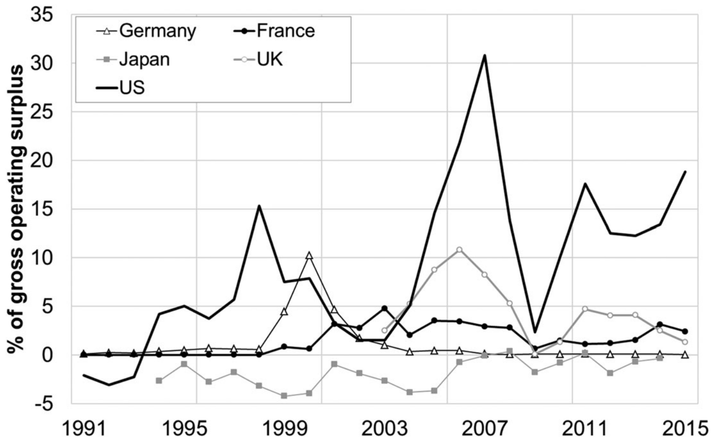

Figure 4. Share buybacks and cash-financed mergers as a share of gross operating surplus (1991–2015).

Note: Gross operating surplus, OECD and national accounts; buybacks and cash-financed mergers measured as net share issuance (–), Bank of Japan (BoJ) and FED; or gross share issuance less net share issuance, European Central Bank (ECB) and Bank of England (BoE). UK and US three-year moving average.

the mid-1990s to the early 2000s in a context of rapid deleveraging by non-financial firms and very low interest rates.

Finally, in the aftermath of the 2008 crisis, in all countries—except Japan again—there is a rapid and substantial diminution of financial payments.

These stylised facts require several qualifications. First, our calculations are based on gross operating profits for reasons of both the availability of statistics and the concern to avoid problems linked to calculating amortisation. It is thus worth focusing on the dynamics rather than absolute figures whose particularities may be due to varying statistical practices but also to various taxation regimes; for example, in France, profits are taxed at an early stage through mandatory social contributions, which is not the case in other countries.

Second, historically, the process of rising financial payments masks a qualitative change: there has been a shift from interest to dividends, as a result of the decline in interest rates—the weight of interest payments relative to profits of non-financial corporations peaked around 1990, which has been more than counterbalanced by the rising claims of shareholders (Durand 2017, Figures 26a–e).

Last but not least, the addition of interest and dividends paid by non-financial corporations fails to capture the financial payments made by non-financial firms to their shareholders in the form of cash-financed mergers and share buybacks. This is a considerable shortcoming, as the literature establishes a positive relation between share issuance and investment (Hecht 2014). Figure 4 represents the value of share removal, i.e. the value distributed to shareholders by buybacks and cash-financed mergers since 1991, using share removal as a proxy, i.e. the amount of shares removed from the stock market through buybacks, mergers and delisting. It shows that this phenomenon is particularly significant in the US, where it grew tremendously in the 1990s and 2000s and has rebounded since the global financial crisis.

However, this phenomenon is much less relevant for the other countries, except Germany in the early 2000s and the UK prior to the crisis.[4] Indeed, in all the largest high-income economies except for the US, open market share repurchases are subject to relatively strict regulation in terms of disclosure and execution (Kim, Schremper and Varaiya 2005), which is not the case in the US since the relaxation of most regulatory constraints under the SEC rule 10b-18 effected in 1982. This, and a tax regime that favours capital gains over dividend payments, explains the very specific profile of the US on this matter. There is a complementary argument about buybacks as 'creating opportunities for stock-market speculators' (Lazonick 2016a, p. 8), which is less compelling from a comparative perspective. The main thing is that, taking buybacks into account, the US trajectory is, like its European counterpart, in line with the revenge of the rentiers scenario, adding plausibility to this explanation of the weakening of the profit–investment relation for four of the five countries considered.

3. The financial turn of accumulation

Booming financial markets can be considered a key stimulus for investment. For example, Keynes, in Chapter 12 of the *General Theory*, wrote:

> The daily revaluations of the Stock Exchange, though they are primarily made to facilitate transfers of old investments between one individual and another, inevitably exert a decisive influence on the rate of current investment. For there is no sense in building up a new enterprise at cost greater than that at which a similar existing enterprise can be purchased; whilst there is an inducement to spend on a new project what may seem an extravagant sum, if it can be floated off on the Stock Exchange at an immediate profit. (1936, p. 151)

Over recent decades, this conception of a positive impact of bullish markets on investment has been challenged. Rather than an inducement to invest, they have been comprehended as opening up new strategic opportunities for the management of firms, offering an alternative pattern of accumulation to the accumulation of productive assets. This financial accumulation turn narrative is rooted in the Marxist political economy of the *Monthly Review* school (Magdoff and Sweezy 1987), the world-system perspective (Arrighi 1994), and has been further elaborated from a non-Marxist socioeconomic perspective (Krippner 2005, 2011). It points to the 'financialization of the capital accumulation process' (Sweezy 1997), which refers to 'a pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity production' (Krippner 2005, pp. 174–175).

Three main strands of explanation have been proposed to interpret this financial turn of accumulation. According to the *Monthly Review* and Arrighi approaches, it is a lack of investment opportunities that caused a drive toward financial accumulation. Krippner dismisses the idea that this financial turn could be correctly understood as an endogenous outcome of the accumulation process. Focusing on the US case, she views it, rather, as an emergent and unintentional phenomenon, resulting from the policies implemented in terms of financial deregulation in reaction to macroeconomic imbalances, global

[4]The literature indicates that buybacks have also expanded since the turn of the millennium in Germany (van Treeck, Dünhaupt, and Hein 2007, p. 70) and in Japan (Teng and Hachiya 2011; Tong, Suzuki, Kato, and Bremer 2012). However, this is not evident at the macro-level of share issuance.

Figure 5. The financial turn of accumulation.

inflows of capital and changing socioeconomic conditions that lead to the emergence of new financial opportunities. This perspective is consistent with a third line of argument rooted in the Post-Keynesian tradition, which points to changes in management preferences (Stockhammer 2004, 2006; Dallery 2009) resulting from the shareholder value revolution and stresses the ability of firms' management to take advantage of new financial opportunities in order to satisfy impatient investors. From this Post-Keynesian perspective, management's appetite for financial investments generating high returns in the short run goes hand-in-hand with a decrease in management's 'animal spirits' with respect to real investment; moreover, the shift toward financial operations also drains the internal means of finance: 'These "preference" and "internal means of finance" channels have each had partially negative effects on firms' real investment in capital stock' (Hein 2015, p. 173).

In spite of their diverging underlying theoretical assumptions, these analyses converge in pointing out that a drive toward financial accumulation occurred (Figure 5), both fuelled by and resulting in mark-to-market accounting standards and spiralling financial innovations but also in bubbles. The main consequences are, on the one hand, a rise in financial profits and, on the other, a slowdown of investment in fixed capital.

Contrary to the rentiers narrative, the non-financial sector is not portrayed, from this perspective, as the 'victim' of finance but, instead, managers of non-financial corporations are characterised as taking advantage of the new financial opportunities to accrue firms' profits. More precisely, this narrative suggests that non-financial firms opt deliberately for financial operations instead of fixed investment in order to maximise their short-term returns. Lead firms seize the opportunity of rising household and public debt, free capital flows and financial exuberance in order to increase their financial operations and limit their exposure to sunk costs associated with fixed investment (Crotty 2002; Orhangazi 2008; Clévenot, Guy, and Mazier 2010). This change of strategy reflects an endorsement of shareholder value by top management or, to phrase it in Duménil and Lévy's (2011) terms, a change of class alliance.

Empirically, there is some indication of a general turn toward financial accumulation among large high-income economies with an almost perfectly parallel and impressive rising trend in the value-added share of financial, insurance and real estate activities,

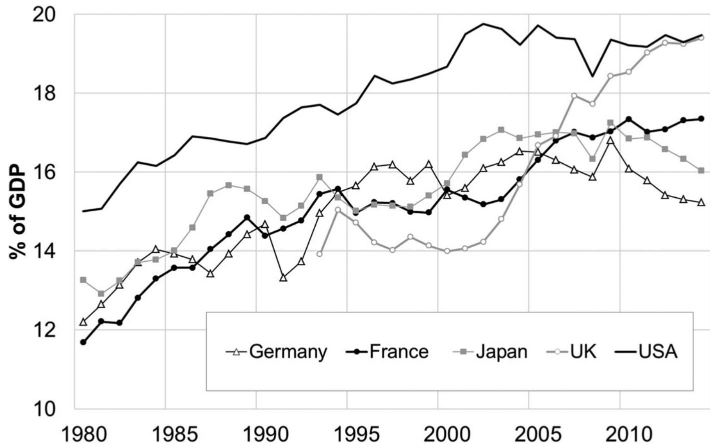

Figure 6. Value added in the financial, insurance and real-estate sector as a proportion of GDP, 1980–2014 (%).

Note: Authors' compilation using OECD and national accounts data.

resulting in an increase of about 5 gross domestic product (GDP) percentage points between 1980 and 2004 (Figure 6).

However, the financial turn of accumulation seems to take different paths in the countries of our study.[5] In the UK and the US, the most impressive evolution is the rise in the share of profit from the financial sector out of total profits (Figure 7), with a high volatility and a peak prior to the crisis. In the UK, this reflects the role of the City of London as an international financial services hub. In the US, there is a methodological issue at stake as the classification of holding companies differs from that of the OECD.[6] In France, the shift occurred mostly within the non-financial corporate sector, with a significant rise of financial income received by non-financial corporations (Figure 8), but we also observe a substantial rise of financial income in the UK, in Germany and, in the more recent period, in Japan. The spectacular rise of financial income as a share of gross operating surplus for France is related to the declining profit margin of non-financial corporations during the 2000s and, more generally, to a system of taxation that is applied more than in other countries at the operations level rather than the level of company profit. In the US, there is no upward trend after 1990 and a rapid decline since 2008.

[5]There are conceptual and political issues with the inclusion of financial services as a contribution to GDP (Assa 2016). National accounts include on a fee basis, which may explain the wide discrepancies between countries in terms of the weight of profits from the financial sector to total profits, as the importance of their ability to charge fees differs drastically.

[6]The classification of the OECD states that holding corporations (i.e. corporations that direct a group of companies) are classified as follows: (a) in sector S.11, non-financial corporations, if the preponderant type of activity of the group of corporations which are market producers, as a whole is the production of goods and non-financial services; and (b) in sector S.12, financial corporations, if the preponderant type of activity of the group of corporations as a whole is financial intermediation. This principle does not apply in the US. In an e-mail communication in February 2015, the service of the Integrated Macroeconomic Accounts series indicated that holding companies are classified within the financial business in most of the series, following the 2008 System of National Accounts (SNA) guidelines, which suggests including

holding corporations that hold only the assets (owning controlling-levels of equity) of a group of subsidiary corporations and whose principal activity is owning the group without providing any other service to the enterprises in which the equity is held, that is, they do not administer or manage the other units.

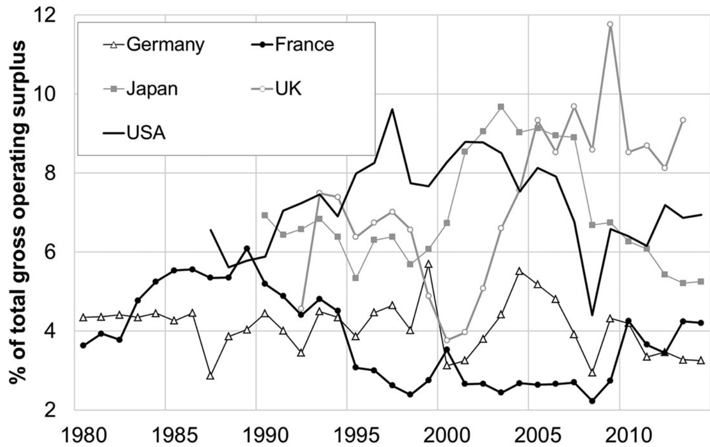

Figure 7. Gross operating surplus of financial corporations as a proportion of total gross operating surplus, 1980–2014 (%).

Note: Authors' compilation using OECD accounts data.

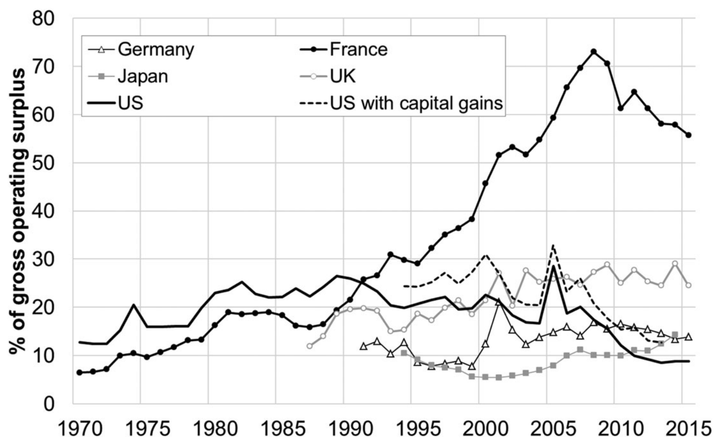

Figure 8. Income of rentiers as a proportion of gross operating surplus, 1970–2015 (%).

Note: Authors' compilation using data from the OECD, national accounts data and the US Internal Revenue Service.

One limit of this financial income indicator is that it does not account for the capital gains realised by non-financial corporations. However, we included this element for the US—the country where this phenomenon should be more crucial as a reflection of the buybacks and cash-financed mergers discussed above—and it does not alter the trend. Another shortcoming is that, because of data limitations, we are not able to determine in this study the weight of financial income related to foreign non-financial operations, such as interest and dividends received from foreign affiliates. These kinds of foreign income, which are related to productive or financial operations across affiliates of the same companies, could contribute to artificial exaggeration of the weight of financial income as we discuss in the next section.

The stylised facts supporting the financial turn narrative call for a more cautious examination of the revenge of the rentiers scenario. Indeed, if one wishes to consider the

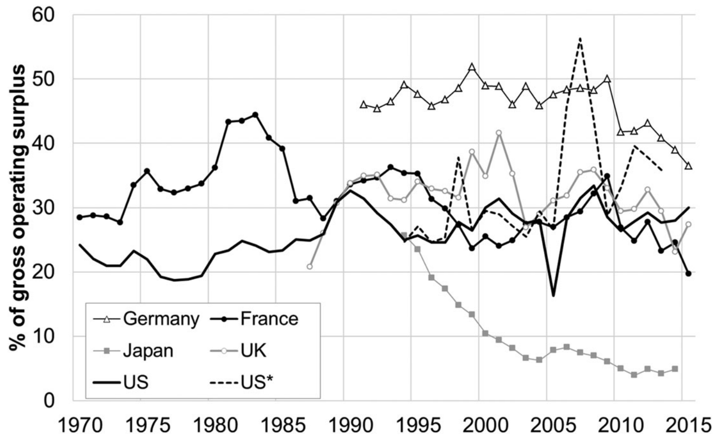

Figure 9. Net payments to rentiers as a proportion of gross operating surplus, 1970–2015 (%).
Note: Calculated as payments to rentiers less rentiers' income. US* includes share removal in payments and capital gains as income. Authors' compilation using OECD and national accounts data.

possibility of a squeeze of retained earnings as the main cause of investment slowdown, rentiers' payments by non-financial corporations need to be compared with the evolution of their financial income.

Within such a perspective, Figure 9 shows that the net payment of non-financial corporations (as a share of their profits) decreases for most countries, suggesting that the financial turn of accumulation has allowed non-financial firms to increase their available funds. Such an evolution is at odds with the idea of a financial squeeze of investment. In the US, the level of net financial payment has been almost stable since the early 1990s, which also suggests there has been no squeeze of internal funds of non-financial firms by financial markets. However, when taking into account buybacks, cash-financed mergers and capital gains, there is an upward trend in the US, mostly since the late 2000s.

One issue with the financial turn of accumulation narrative is that it fails to clarify the origin of financial incomes in the non-financial sector at the macroeconomic level. The first possibility is that it is a domestic transfer from households, the public sector or the financial sector. This can possibly occur in a bubble context where non-financial corporations are able to achieve capital gains. However, one must consider another possibility, namely, the transfer of income from abroad. Indeed, in the data presented concerning interest and dividends received by non-financial corporations one cannot identify the geographical origin of these financial incomes. It is a significant issue, in particular because dividends received by parent companies from foreign affiliates emerge as financial income whereas analytically they simply represent profits from foreign operations, i.e. profits fostered by foreign accumulation, as shown by Fiebiger (2016) in the US case, thus reflecting incomes related to globalisation more than to a financialisation of accumulation. The isolated peak in financial income observed for the US in 2005 (Figure 8), the year of a tax holiday on repatriated profits decreed by the Bush administration, testify to the important international dimension in the source of financial incomes of non-financial corporations.

4. Globalisation

For both Ricardo (1817; also see Maneschi 1983) and Marx (1894), the dynamic gains from international trade in terms of cheaper products are powerful countervailing forces against the declining tendencies of the profit rate, propping-up the possibilities of further accumulation. But this increased availability of internal funding does not mean a subsequently increased inducement to invest.

First, in a world opened up to capital flows, the flow of interest, dividends and retained profits from the rest of the world can increase relative to domestic profits (Duménil and Lévy 2004b). But such gains from globalisation do not favour domestic investment if non-financial firms prefer to invest abroad in order to expand their more profitable foreign operations (Serfati 2011; Fiebiger 2016).

Second, globalisation also interferes with profit-generation through the channel of intensified trade relations. Here, the impact on profits is ambiguous. On the one hand, a standard Ricardian approach focusing on horizontal relations would link increased competition of imports from emerging economies to the diminishing profitability of firms' domestic operations across high-income countries. However, this approach fails to take into account the situation whereby firms in developed economies participate in oligopolistic markets and are consequently able to take advantage of cheaper imports sourced abroad in a context of growing international fragmentation of productive processes (Feenstra and Hanson 1999; Hummels, Ishii, and Yi 2001). This vertical dynamic of trade relations can potentially supersede the negative effect of higher competitive pressure. This is the argument Milberg (2008, p. 421) advances, noting that 'the enormous expansion of global value chains has brought a lowering of input costs to lead firms, allowing them to maintain and even increase cost mark-ups, and thus profit rates and the economy-wide profit share'. Large oligopoly firms have not raised their prices but have managed to expand their profits as they capture, through cheaper imports (mark-up effect), various gains tied to labour exploitation, realised along global value chains in developing economies.

The very divergent trajectory of investment in high-income economies versus low- and middle-income economies (Figure 10) suggests a rapid geographical shift of accumulation and renders the hypothesis of a spatial disconnection of profits and investment very plausible. Indeed, as the liberalisation of trade and capital flows gained momentum during recent decades, the very possibility of a capture of profits from productive activities in low-wages countries by Northern lead firms benefitting from their market power position and through the repatriation of profits and interest increased tremendously. This occurred in parallel with the dislocation of socialist economies and the dismantlement of developmental state policies, placing a vast number of workers on the world market in a very short period of time (Freeman 2005).

The globalisation narrative proposes to capture economic processes beyond national boundaries and to overcome the shortcomings of the anaemic geography of the financialisation literature (Christophers 2012; Fiebiger 2016). Figure 11 delineates the mechanisms at stake. The global reshuffling of the political and institutional landscape created a vast pool of readily available labour. As a result, Northern capital was offered new opportunities of investment in the developing world that materialised with foreign direct investment and, indirectly, with loans and financial services exports. These operations

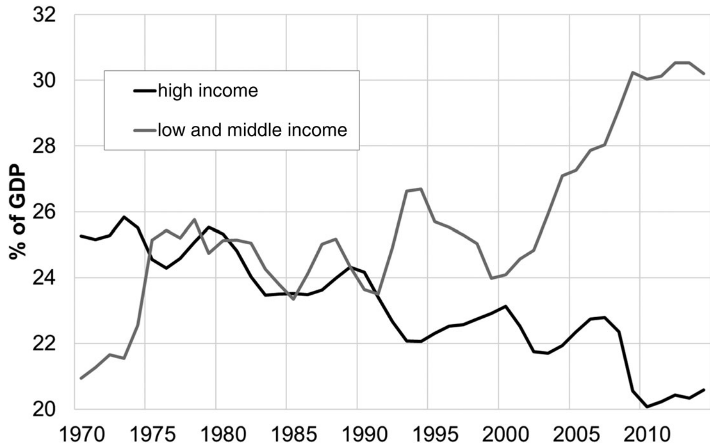

Figure 10. Gross fixed capital formation as a proportion of GDP in high-income economies compared to low- and middle-income economies, 1970–2014 (%).

Note: Authors' compilation using World Bank data.

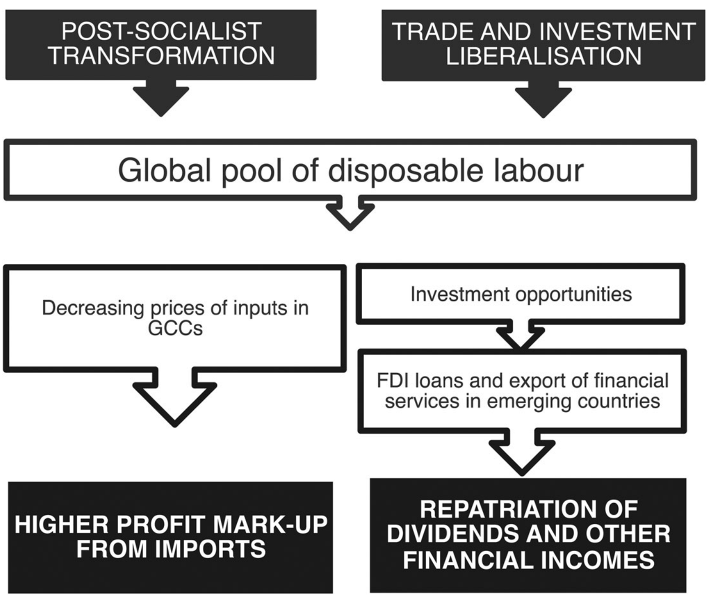

Figure 11. The globalisation narrative: channelling value to the North.

contribute to sustaining Northern firms' profitability without fostering any inducement to make domestic investment. In the meantime, Northern oligopolistic firms are able to increase their profits thanks to cheaper inputs supplied by global value chains.

Several stylised facts support the plausibility of the various dimensions of this narrative. The first one is the rise of gross and net outward foreign direct investment (FDI) stock, which has increased significantly since the 1990s as a proportion of both GDP (Figure 12) and domestic investment (Figure 13). FDI stock is mainly located in other

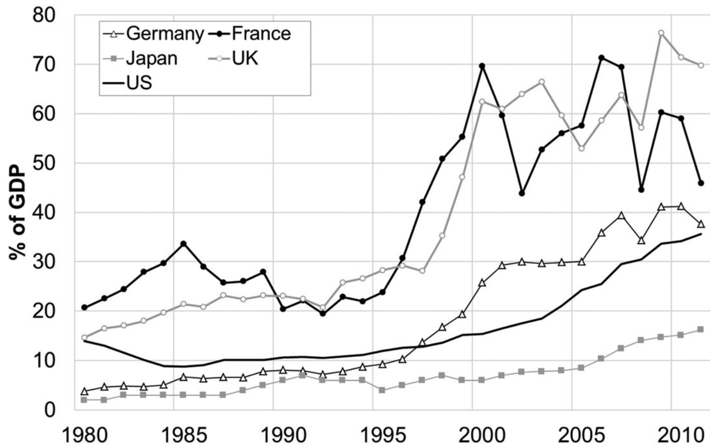

Figure 12. Outward FDI stock as a proportion of GDP, 1980–2011 (%).
Note: Authors' compilation using an updated and extended dataset constructed by Lane and Milesi-Ferretti (2007).

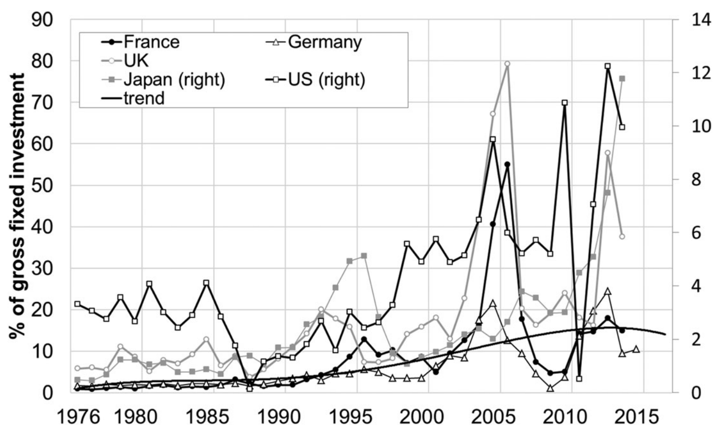

Figure 13. FDI outflows as a proportion of gross fixed investment, 1976–2015 (%).
Note: Authors' compilation using UNCTAD data.

developed economies. However, because all major economies have a positive and growing net outward FDI stock, their stock has expanded in developing countries, nurturing a recurrently positive net income from FDI, as shown in Figure 14 for the year 2014. This evolution supports the view that firms' profitability could be linked to repatriated earnings and lower supply prices from their foreign affiliates in low-wage economies.

The second stylised fact is the steady rise of imports from non-fuel-exporting developing countries in the share of imports by the developed economies of our sample since the early 1990s (Figure 15). However, in spite of a common trend, the intensity of this evolution varies broadly between countries: Japan and the US being the most affected due to their strong interconnectedness with China's rise, while European countries, and especially France, lag significantly behind. Moreover, given the smaller size of European countries and contiguity, these countries trade a lot more amongst themselves compared

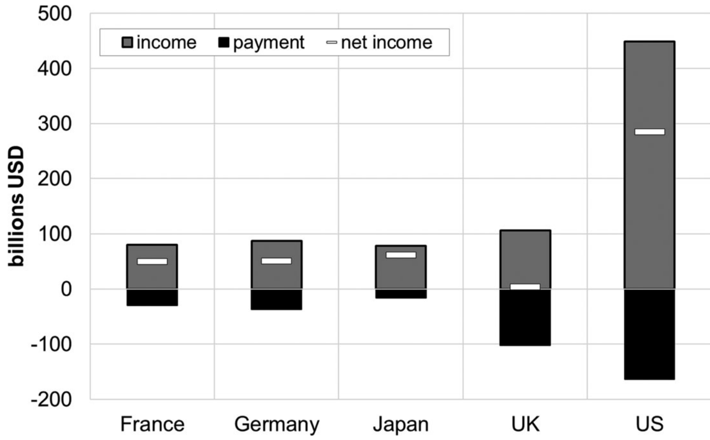

Figure 14. FDI income and payment in 2014 (in US$ billion).
Note: Authors' compilation using OECD data.

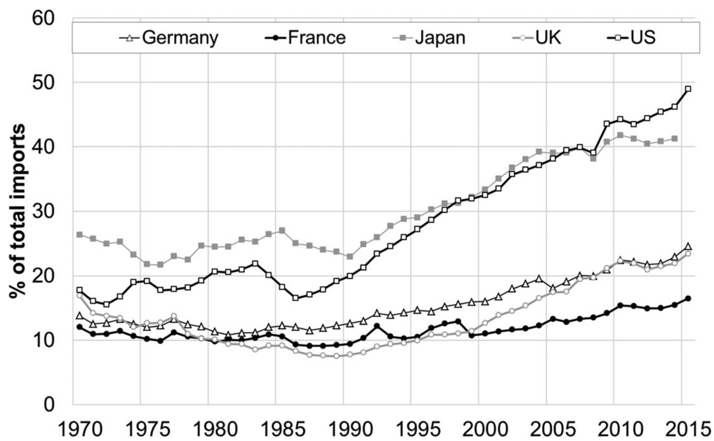

Figure 15. Imports from non-fuel-exporting developing countries as a proportion of total imports, 1970–2015 (%).
Note: Authors' compilation using International Monetary Fund trade data.

to Amerian or Japanese trade with other developed countries. This is the essential explanation of the gap between these two groups of countries. But the overall tendency clearly reflects the growing penetration of the products of developing countries, a trend generalised since the late1980s and which has not been impeded by the global financial crisis.

5. Monopolisation

'The wretched spirit of monopoly' famously denounced by Adam Smith (1776, Book IV, 2.21) still haunts mature capitalist economies. The deceptive effects of supernormal monopolistic profits for non-monopolistic firms and workers pointed out by Smith (Kurz 2016) have evolved into a rich anti-trust literature and regulation that aims at protecting consumers against anti-competitive conduct that raises prices, reduces output and hinders innovation and economic growth (Baker 2003). Among heterodox economists, a macroeconomic argument was developed in a Marxist and Post-Keynesian framework in the mid-20th century by Paul Sweezy, Paul Baran and Josef Steindl (Sweezy 1939; Steindl 1952; Baran and Sweezy 1966) and pursued by the *Monthly Review* school ever since (Foster and McChesney 2012). As an explanation for the simultaneous occurrence of high profits, low investment and stagnation tendencies,[7] the monopolisation story is situated at a more general level than the hypotheses previously examined.

Nina Shapiro (1988) nicely summarises the Steindlian version of the monopolisation argument. She recalls that 'the expansion of capital is sustained through the competition of capitals' (Shapiro 1988, p. 74): in a competitive environment, firms are compelled to invest and innovate in order to survive. Thanks to competition, the more successful firms expand and modernise industry while excessive production capacities are eliminated as profit margins squeeze higher cost producers out of the market.

However, this process is self-undermining because the elimination of higher-cost producers and the expansion of the more efficient ones fuel concentration at the industry level. Then, 'when the industry becomes an oligopoly, profit margins lose their centre of gravity' (*ibid*., p. 77). Oligopolistic firms seek to avoid the danger and the cost of waging an uncertain competitive war and prefer to informally coordinate their prices with their main competitors, which results in price rigidity and an adjustment to market conditions through capacity utilisation. Innovation brings production costs down but prices do not adjust, nurturing a tendency of surplus to rise (Baran and Sweezy 1966, p. 67). In the meantime, the economy is plagued with cumulative excessive capacity: because of the adjustment by quantity rather than by prices, less-effective firms survive and non-reinvested earnings grow, depressing further demand and thus excess capacity. At the oligopoly stage, high profits and low investment go hand-in-hand.

The monopolisation story is particularly relevant for our inquiry because it presents mechanisms that complement and/or make more precise the arguments examined in the preceding sections (Figure 16).

First, the emphasis on market structure allows for overcoming some shortcomings of the revenge of the rentiers story. The first problem is empirical because there is no clear increase in net financial payments (Figure 9) that could have squeezed the internal funds of non-financial firms. But there is also a logical limitation. A share is 'a mere title of ownership to the anticipated surplus-value from the stock capital' (Marx 1894, Vol. III, Chapter 29, p. 595) and share prices reflect beliefs in anticipated profit flows. Accordingly, new productive investment should increase anticipated profits and then share prices, and consequently allow shareholders to realise capital gains, exactly as buybacks do. In other words, given that investment also means enriching shareholders through higher share prices, managers' aversion to investment cannot be reduced to the intensification of their obligation to indulge the people who own the firm. If to please shareholders managers would rather distribute than invest firms' profits, it is because some specific

[7]This argument regained some interest in the recent debate about secular stagnation as the issue was raised by *The Economist* in March 2016 and discussed shortly afterwards by Lawrence Summers on 30 March 2016 in the *Financial Times* blog and by Paul Krugman in the *New York Times* on 18 April 2016, although without reference to Steindl and Sweezy.

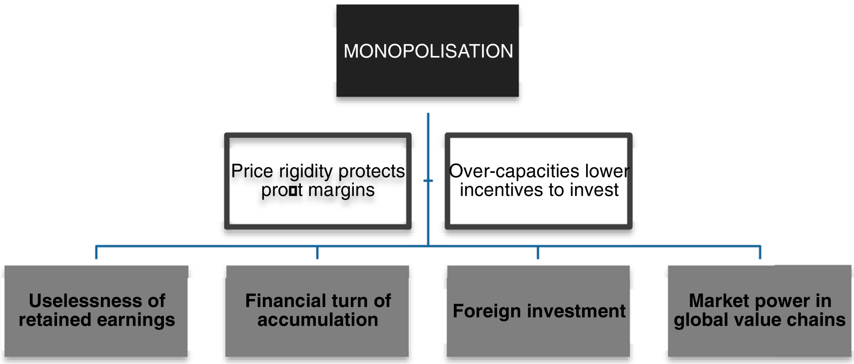

Figure 16. The monopolisation narrative—profiting without investing.

reason stops them leaning toward expansion. Monopolisation could be this reason. It makes investment less compelling by smoothing competitive pressure and less appalling due to structural overcapacities, which in both cases renders retained earnings less useful.

Second, the monopolisation narrative relates the financial turn of accumulation discussed in Section Three to the same specific disincentives to invest and to the resilience of profits resulting from an oligopolistic market structure: financial operations expand because they can partially substitute for unnecessary productive investment and absorb idle funds. Finally, monopolisation interacts with both sides of the globalisation story: on the one hand, the shift toward foreign investment can be linked to the lack of investment opportunities in rich domestic economies; on the other hand, an oligopolistic market structure in advanced economies is necessary to allow cost mark-up to rise thanks to cheaper foreign inputs provided by trade in global value chains.

Understood as a secular shift, a new stage of capitalism, the monopolisation hypothesis was severely criticised. One of its main flaws is to contrast oligopoly from a supposed norm of perfect competition that is very far from historically observed competitive processes between unevenly efficient capitals (Duménil and Lévy 1994; Schumpeter 2013, Chapter 8; Shaikh 2016, pp. 353–357). Moreover, moving from the intra-industry analysis of monopolisation to the macro-economy poses serious challenges. Steindl (1976) recognised that the lack of emphasis on innovation linked to inter-industry competition was a serious shortcoming in his theory (Hein 2016). This shortcoming is important because, as Shapiro (1988, p. 79) notes, inter-industry competition over the aggregate demand is fought with the same weapons of product improvement and costs reduction that hurt profit margins; inter-industry competition can thus make investment compelling again and alleviate stagnation problems of mature capitalist economies. These important criticisms are levelled at the monopolisation hypothesis generally, although they do not exclude some weaker version of the hypothesis limited to specific historical conditions.

Moreover, these critics do not consider the huge rise of intellectual property rights as a new source of monopoly power on knowledge (Pagano 2014; Autor et al. 2017). Indeed, this intellectual monopoly is not defined in a limited physical space: it imposes a much wider restriction on the economic activities of economic agents than the monopolisation of physical assets and fuels a famine of investment opportunities as intellectual property

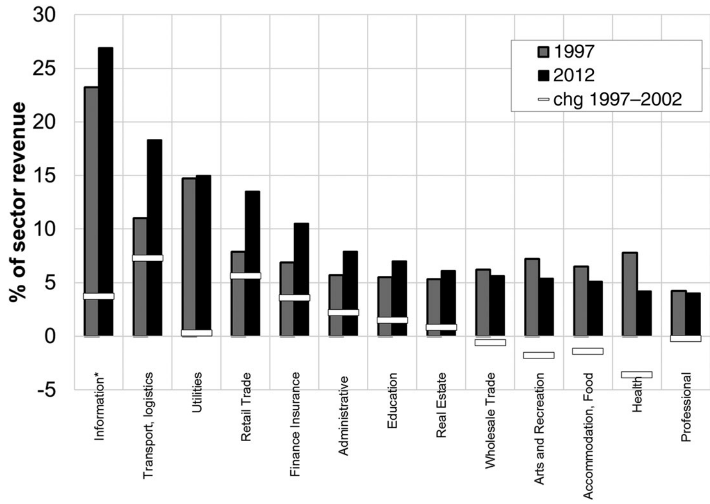

Figure 17. Concentration of US non-manufacturing: the four largest firms' proportion of total revenue by sector, 1997–2012 (%).

Note: Authors' compilation using US economic census data.

rights block the route for many potentially profitable operations. In the same vein, the rise of information technologies produces scale economies and powerful network effects that impact competition dynamics for internet companies (Haucap and Heimeshoff 2014) and beyond, drawing a new competitive landscape which is poorly understood.

The monopolisation narrative faces also a problem of periodisation. Convincingly, many authors argue that the intensification of competition was a key feature of capitalism in the last quarter of the 20th century (Mazier, Basle, and Vidal 1999; Petit 1999; Crotty 2003; Brenner 2004) as a result of successful catching-up by European and Asian economies, trade liberalisation, technological disruption, mutation of consumption patterns as well as neoliberal policies of deregulation and privatisation, which, all together, precipitated the demise of the Chandlerian integrated firm (Lamoreaux, Raff, and Temin 2002, 2004; Langlois 2003). Monopolisation was thus probably not a relevant trend from the 1970s to the 1990s. However, there is some striking empirical evidence of monopolisation since the mid-1990s; unfortunately, this only concerns the US economy as similar data and analyses for the other economies are not available.

First, data on entry and exit of new firms and on gross job flows indicate a secular decline of entrepreneurial activity since the 1980s, which intensified in the 2000s (Decker et al. 2016b, 2016a). This retreat of creative destruction dynamics is also apparent in the evolution of the number of listed corporations, which halved between 1997 and 2014 due to the diminution of the number of initial public offerings (IPOs) and the vitality of mergers (Grullon, Larkin, and Michaely 2015; Kahle and Stulz 2016). Second, data from the US economic census points to increasing concentration in most industries. Figure 17 shows that the share of the four largest firms in the revenue from non-manufacturing sectors has increased in the majority of cases. This concentration is particularly impressive in the information, retail, transport and finance sectors considering that we are looking at four firms at a very aggregated sectorial level (NAICS 2-digit). Data at a more

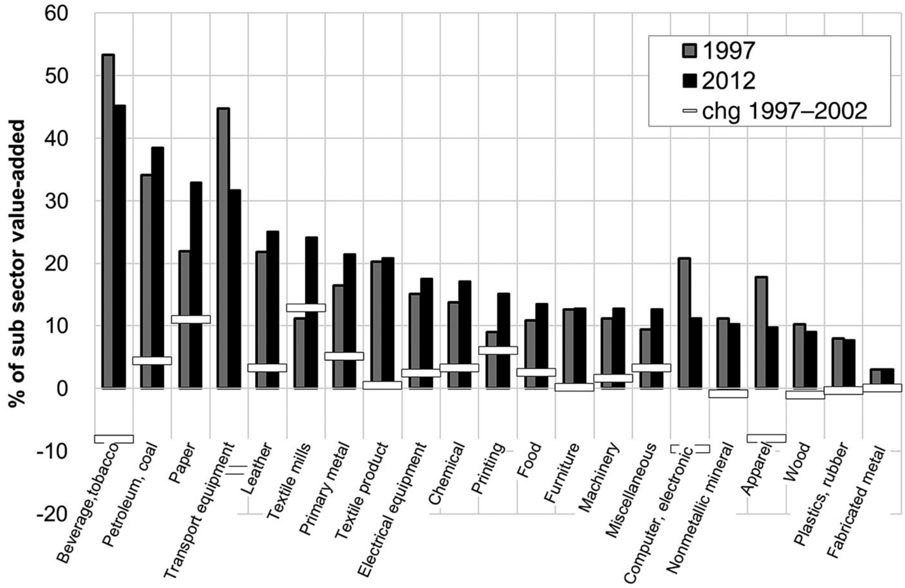

Figure 18. Concentration of US non-manufacturing: the four largest firms' proportion of total revenue by sub-sector, 1997–2012 (%).

Note: Authors' compilation using US economic census data.

disaggregated level (6-digit) or for the 50 largest firms at the 2-digit level, exhibits even higher increases of above seven and above four percentage points for the same period, respectively. We observe the same trend in US manufacturing, with two-thirds of manufacturing sub-sectors also experiencing an increase in the value-added share of the four largest firms (Figure 18).

Monopolisation may involve an increased market share of individual firms and increased cross-ownership but also increased common ownership. At the global level, network analysis of ownership ties between transnational corporations reveals that a large portion of control flows to a small tightly-knit core of financial institutions (Vitali, Glattfelder, and Battiston 2011). Concerning the US economy, a series of recent studies have revealed the extent of horizontal shareholding and its anticompetitive effects (Davis 2013; Azar 2016; Azar, Raina, and Schmalz 2016; Azar, Schmalz and Tecu 2017). Indeed, in the course of the past decade, a small group of institutional investors, such as Blackrock, Vanguard and State Street, have acquired large shareholdings in horizontal competitors. Far from being passive investors, these diversified asset management funds are actively engaged in management control; however, their economic interest is not in maximising firms' performance but in maximising the value of their portfolios. Therefore, they are not interested in each individual firm's increased market share and profits but overall sales and profits at the industry level. As shown by anecdotal and econometric evidence, they instruct managers to act accordingly and align their remuneration with industry performance or competitors' performance rather than individual firm performance (Antón et al. 2016; Elhauge 2016). While 20 years ago these funds played a negligible role in management control, today their prominence is overwhelming, as

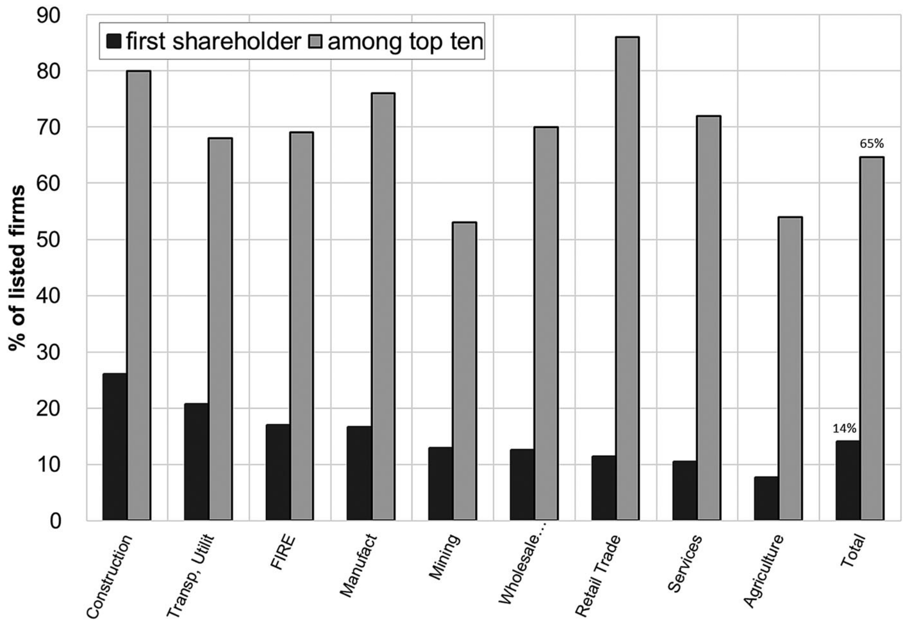

Figure 19. Blackrock top shareholdings in 2013.
Note: Authors' compilation based on Antón et al. (2016, Table 3).

exemplified by the considerable weight of the most powerful fund, Blackrock, in the shareholdings of the US economy (Figure 19). Blackrock is indeed the first shareholder of 14 per cent of all US listed companies, and of more than 20 per cent of construction and transportation and utilities companies. It is also among the top 10 shareholders in 65 per cent of US listed companies.

6. Conclusion

This article deployed a profit-centred perspective to the weakening of the link between profits and investment in the five largest high-income economies. It relates this phenomenon to the impact of financialisation, globalisation and monopolisation on the dynamics of accumulation by non-financial firms by identifying four channels related to the origin and use of profits: a squeeze of available funds for investment due to the increase of financial payments—the *revenge of the rentiers* narrative; a change in management preferences in favour of financial investment at the expense of domestic productive investment—the *financial turn of accumulation* narrative; and the possible substitution of foreign investment at the expense of domestic productive investment and increased cost mark-up thanks to cheaper inputs form low-wages countries—the *globalisation* narrative. The *monopolisation* hypothesis exposes changes in market structure that could complement each of these narratives: first, because of vanishing competitive pressure, the incentives to invest could be reduced while profits are preserved, which allow for generous payouts to rentiers as retained earnings become relatively useless; second, lacking incentives to invest to protect their domestic operations, non-financial firms will look to financial markets or to foreign expansion in order to valourise their idle cash; and third, market power is a necessary condition to explain how Northern non-financial firms can benefit from higher cost mark-ups in global value chains.

If anything, this article shows that the relationship between profits and investment is historically contingent and evolves through space and time. What are the determinants of the changes in the profit–investment nexus? We found some stylised facts supporting, at least to some extent, each of these four narratives, but our review shows that their relative pertinence must be specified.

Although raw data on financial pay-outs gives some credence to the *revenge of the rentiers* narrative, except for Japan, the idea of a squeeze of profits by financial payments is vulnerable to the fact that net financial inflows paid by non-financial firms—i.e. financial payments less financial income—diminished or remained stable most of the time for the countries analysed, the notable exception being the US since the global financial crisis. In this regard, the Post-Keynesian argument about the complementarity between the pressure on internal funds and the changes in management preferences seems inconsistent, as internal funds increase when financial income increases; however, it could be reformulated in terms of a financial norm that acts as a hurdle rate on investment (Boyer 2000).

Moreover, the argument regarding shareholders' short-termism is not fully convincing, because productive investment should be priced in shares—allowing for capital gains. And, in the same vein, because the lack of investment is also a threat for future profitability, distributing earnings instead of investing should affect share prices. This *revenge of the rentiers* story is thus primarily plausible to the extent that it reflects high interest rates following the 1979 coup. It is less convincing since interest rates have declined because, ceteris paribus, shareholders should have been equally delighted by rising investment as rising pay-outs.

The plausibility of the *financial turn of accumulation* narrative is supported by the growing weight of financial value added and profits within the economies discussed in this article and the increasing weight of the financial income of financial firms related to operating surplus. An initial difficulty with this narrative, at the theoretical level, is that it presupposes that financial accumulation can be sustained over a long period without fixed accumulation by non-financial firms. However, fictitious capital is vulnerable to rapid devaluation (Durand 2017) and repeated government support cannot prevent the recurrence of financial crises (Brunhoff 1979, p. 126; Minsky 2008; Crotty 2009). Empirically, the financial income indicator is problematic as it includes incomes received from foreign affiliates. Further analysis is needed to examine the decomposition of the financial income of non-financial corporations, in particular to evaluate to what extent the financial turn of accumulation of non-financial corporations could be a statistical artefact masking the internationalisation of profits.

The *globalisation* narrative is convincing but calls for stronger evidence. The growing outward FDI stock of major economies and their rising reliance on imports from developing countries and, especially, on imports of intermediate inputs, are consistent with the view that the domestic profitability of non-financial corporations is fuelled by foreign operations and, thus, that they are more induced to capture the gains of foreign accumulation than to invest domestically. The extent to which foreign investment in developing countries substitutes domestic investment and/or mark-up increases thanks to cheaper inputs from low-wage countries needs clarification.

Paradoxically, heterodox economists have explored to a lesser degree the monopolisation narrative in recent times, although there exists a rich tradition in this vein and some insightful openings related to the role of knowledge. However, it seems to be a promising perspective. Recent empirical analyses link the attenuation of the profit–investment relationship in the US to market concentration, less entry and a growing ownership by institutional investors (Gutiérrez and Philippon 2016) and find that mergers and acquisitions, on average, significantly increase mark-up (Blonigen and Pierce 2016). These findings are consistent with the monopolisation narrative and call for further empirical exploration in other countries and for other dimensions of the problem, in particular the perceived paucity of profitable investment opportunities and the market power exercised along global value chains.

More generally, our analysis indicates that these narratives partially overlap (Figure 20). On the one hand, the revenge of the rentiers makes sense in the aftermath of the 1979 monetary coup, and is consistent with the financial turn of accumulation only to the extent that high interest rates create a financial norm that limits the ability of firms to expand their productive operations. Moreover, this narrative has no direct connection with the globalisation story. On the other hand, the monopolisation hypothesis shares some arguments with all three of the other narratives: it accounts for the lack of relevance of internal funds related to the revenge of the rentiers story; for the famine of investment opportunities present both in the globalisation and financial turn of accumulation stories; and for the market power as an indispensable dimension of mark-up gains from global value chain trade.

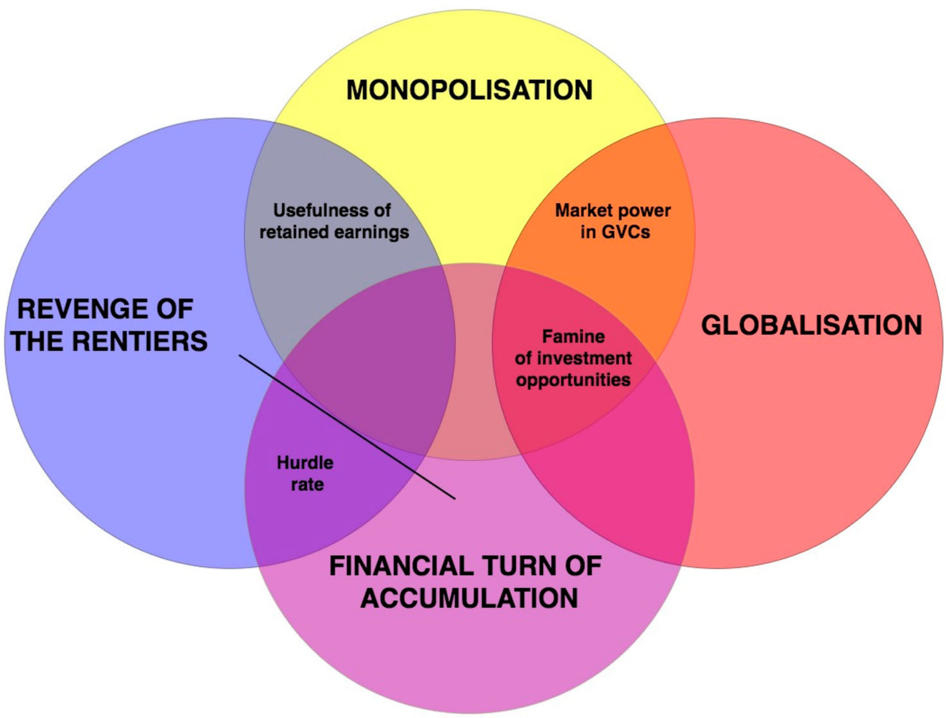

Figure 20. The conundrum of the relaxation of the profit–investment relation.

This divide suggests that, from the perspective of the origin and the use of profits, the profit–investment nexus can be altered on two counts. The first concerns the financial conditions and related corporate governance settings; the second concerns the product market conditions in terms of effective competition intensity and opportunities of investment. The first was probably the more important feature in the 1980s, with the reassertion of a financial hegemony following the surge in interest rates and the subsequent diffusion of this high financial norm with shareholder value governance. The product market side of the issue became prominent later as globalisation gained momentum in the 1970s and, at least for the US, monopolisation since the late 1990s. Further rigorous empirical research is needed to disentangle the importance of these distinctive narratives across space and time.

Finally, we must reiterate that our profit-centred analysis purposely ignores demand-side aspects of investment behaviour and the role of indebtedness. But, thanks to this emphasis on the origins and uses of profit, we are able to point to economic mechanisms frequently referred to in the financialisation and globalisation literature but overwhelmingly under-explored in macroeconomic studies. Another limit of our analysis is that it does not sufficiently contrast national trajectories and policy developments. Although a deeper comparative dimension would be very relevant, it goes beyond the scope of this article.

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