







# **INTRODUCTION**



*“capitalist accumulation in the 20th century was characterized by three trends: first, slowing down of the rate of growth; second, rise of monopolistic multinational corporations; third, financialisation.”*

(Lapavitsas, 2011, p. 612).

In the last four decades, we have experienced secular stagnation, privatisations, cuts in public investments and employment, and a rise in financialisation, financial profits, market concentration, profit share in Gross Domestic Product (GDP), unemployment, and inequality at the global level. This neoliberal era is marked by the inflation in stock markets fuelled by excess inflows through private pension funds and health insurances, advertisements, brand value, innovation, college education, and white-collar jobs. These should all be associated.

In order to comprehend these profound changes in the global economy, an understanding of the endogeneity of money, which emphasises that finance is the core of capitalism, and an analysis which covers the interactions between financial markets, goods markets and labour markets are required.

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As capitalism initially and historically is an economy of financial contracts, investment is indeed a financial decision made under the fundamental uncertainty of the future. The key variables for investment decisions are expected cash flows and the ability to fulfil debt commitments (Minsky, 1986, p. 132). As entrepreneurs' main motivation for investing in capital assets is to accumulate profits in monetary terms, not as goods or machines, capitalism is a 'monetary production system' (Keynes, 1936), where the supply of money is not neutral to output level, rather endogenous to production and investment (Rochon and Rossi, 2017). Since money is the most liquid asset, the 'store of value' function of money prevails in capitalism, contrary to a 'barter economy' where money is merely considered as a 'medium of exchange'. The ex nihilo creation of money by banks and public spending initiates economic circulation.

Hence, a macroeconomic analysis has to take into consideration that financial markets surpass goods markets and labour markets: Nonfinancial factors can play a role in economic decisions when financial factors operate smoothly: ‘... in a world in which financing conditions do not intrude into investment decisions, the technical productivity of capital assets and their supply price would determine investment.’ (Minsky, 1986, p. 211).

Based on this post-Keynesian theoretical background (Lavoie, 2022), I put forward that financialisation has been mainly driven by the increase in market concentration, which has led to a rise in wage inequality between white-collar and blue-collar workers. The rise in wage inequality has brought about an increase in savings of white-collar workers to be channelled to financial markets through private pension funds and a feedback to market concentration by way of validation of the high markup pricing of big firms through consumption preferences of white-collar workers.

All in all, the expected profits from financial assets have exceeded the profit expectations from real capital assets due to the suppressed demand. This resulted in financialisation of nonfinancial corporations (NFCs) as they started to prefer financial assets over nonfinancial assets in order to generate profits where ‘leakages’ caused by workers’ savings to be replenished through equity issuances (Toporowski, 2000; Graziani, 2003).

Because the US economy is the most notable exemplary case of financialization and market concentration, this study concentrates on it.

## DEFINITIONS

I need to first provide definitions for key concepts, such as financialisation, market concentration, white-collar and blue-collar workers, and wage and consumption inequalities between them.

The most widely cited definition of financialization is that of Epstein (2005, p. 3):

*'Financialisation means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies.'*

This definition is not, however, adequate to understanding the relationship of financialization with the slow-down of investment in real capital assets. For Krippner, financialisation is the pattern of accumulation in which profit making occurs increasingly through financial channels rather than through trade and commodity production (Krippner, 2005, p. 174).

8 / I prefer to define financialisation as the increasing engagement of NFCs in financial transactions and activities, rather than in real production, and I have opted to measure it by the ratio of financial assets held by NFCs to their nonfinancial assets. Moreover, by definition financialisation implies that what is occurring is not merely the growth of financial corporations, but the recourse of previously nonfinancial corporations to the use of financial methods and instruments.

In this sense, financialization refers to the process through which the 'entrepreneur corporation' has become the 'rentier corporation' (Toporowski, 1993, p. 42) by shifting its business towards financial operations and conducting its financial operations with 'excess capital' (Toporowski, 2008). Toporowski defines excess capital as 'excess of liabilities held in financial assets over productive capital, i.e., the plant, equipment, materials, and stocks of unsold products and semi-fabricates' (Toporowski, 2008, p. 4; 1993, ch. 3). In order to have greater clarity, I would prefer to define it as the quantitative difference between capital (in terms of accounting, owners' equity) and non-financial assets corresponding to the quantitative difference between



financial assets and financial liabilities. In other words, it is the capital not employed for real investment, but rather for financial operations.

My distinction between white-collar and blue-collar workers does not refer to the skill-level of workers, unlike that proposed by the Skill-Biased Technological Change (SBTC) approach (see Acemoglu, 2003; Acemoglu and Autor, 2011; Autor, 2014). Rather, it is based on tasks workers perform. The essential point is whether these tasks are ancillary, innovative tasks whose purpose is to increase the market share/market power of the firm (such as sales operations, advertising, marketing, design, R&D, business management, etc.) or tasks whose purpose is simply to produce goods and services. The white-collar/blue-collar distinction may appear confusing, since some jobs might seem like white-collar jobs, despite the fact that they have nothing to do with increasing market power. Nonetheless, the distinction represents the option that can be most readily addressed by an analysis of the available data. Calling innovative ancillary labour “white-collar work” and manual labour “blue-collar work” would not lead to any crucial empirical and theoretical shortcomings, despite the existence of challenging examples such as cleaners, accountants, etc.<sup>1</sup>

The wage differential between white-collar and blue-collar workers is calculated as the ratio of annual average hourly compensation of all employees in the US-NFC sector to the annual average hourly earnings paid to production and nonsupervisory workers in the private sector (see Figure 2).

By “market concentration,” I have in mind situations that are not fully competitive, such as oligopoly and/or monopolistic competition: situations in which firms are not price-takers and can differentiate their products in line with their market strategies, in order to be able to charge higher markups over their average costs by virtue of lowering the break-even point where total costs and total revenue are equalized. I am interested in market concentration at the macro level, not at the sectoral level, and

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1 Blanchflower and Oswald (1990) and Benton and Mund (2021) for a similar definition and a similar distinction.

thus prefer to measure it by the way of 'reverse of break-even point' in nonfinancial sector at the macro level. I prefer the term 'market concentration' instead of 'market power' since the former refers to a macro case, where the latter refers to relative market position of individual firms.

Quantity of break-even point ( $q_b$ ) is where unit mark-up (i.e., unit price ( $p$ ) over unit labour cost ( $u$ )) covers fixed costs ( $f$ ).

Total revenue = Total costs

$$q_b * p = f + u * q_b$$
$$q_b = f / (p - u)$$

I employ  $1/$  as an index to measure the market concentration at macro level (see Figure 1).

"Consumption inequality" refers to increasing inequality in consumption expenditures between white-collar and blue-collar workers. It is calculated as the share of consumption expenditure of managers and professionals within total consumption expenditure of all wage and salary earners based on the data in Consumer Expenditure Survey (CES).

## STYLIZED FACTS

It is important to offer some stylized facts about financialization, market concentration, and the widening wage gap between white-collar and blue-collar employees before moving on to the causal relationship:

### FACTS ABOUT FINANCIALISATION:

The ratio of stock market capitalization to GDP for the United States has increased from 41.3% in 1980 to 146.2% in 2014<sup>2</sup>. The ratio of the financial assets held by US-NFCs to their nonfinancial assets has increased from 38.6% in 1980 to 91.4% in 2013<sup>3</sup>. The ratio of profits in the financial sector relative to those of the non-financial sector has more than doubled since the mid-1980s (Jackson, 2010, p. 23); and in the US, institutional investors like investment funds, hedge funds, retirement funds, and insurance companies have increased their weight in GDP in terms of assets from 70.5% in 1980 to 182.9% in 2004 (Peralta and Garcia, 2008: 4). The ratio of portfolio income relative to cash flow for US-NFCs has risen by 300% from 1970 to 2000 (Krippner, 2005, p. 185) and the ratio of financial profits to non-financial profits has increased from 20% in 1984 to 90% in 2002 (NIPA, Table 6).

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2 Available at: [www.whitehouse.gov/administration/eop/cea](http://www.whitehouse.gov/administration/eop/cea) (accessed 11 November 2023).

3 Own calculation based on: [research.stlouisfed.org](http://research.stlouisfed.org) (accessed 11 November 2023).

## FACTS ABOUT MARKET CONCENTRATION:

A network analysis conducted by Vitali et al. (2011) found that 737 Transnational Corporations (TNCs) control 80% of the network and a 'super entity' comprised of 147 corporations have control of 40% of the network. In addition, brands from US-based companies account for just over half of the list of most valuable global brands (Forbes, 2016).

An April 2016 Issue Brief of the Council of Economic Advisers (CEA)<sup>4</sup> reports that market concentration in the USA has increased and that for the period from 1977 to 2013, firm entry rates have declined over time, whereas firm exit rates have been more or less steady (CEA, 2016, p. 5). Using plant-level data from the U.S. Census Bureau covering the entire manufacturing sector over the period from 1997 to 2007, Blonigen and Pierce (2016, p. 24) of the Federal Reserve Board (Fed) found that evidence for increased average markups from M&A activity is significant and robust. Grullon et al. (2019) found that, since the late 1990s, over 75% of US industries have experienced an increase in concentration levels.

According to my own calculations (Dögüs, 2019a), market concentration as the reverse of break-even point, based on Steindl (1952 and 1990), has increased by 53% from 1966 to 2013.

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4 Available at: [www.whitehouse.gov/administration/eop/cea](http://www.whitehouse.gov/administration/eop/cea) (accessed 11 November 2023).

## FACTS ABOUT THE RISE OF WHITE-COLLAR WORKERS:

The share of college graduates employed in white-collar jobs has increased by 144% from 1973 to 2015<sup>5</sup>. During the same period, wage inequality between the 90th and the 50th percentiles has increased by 30%<sup>6</sup>. The wage differential between white-collar and blue-collar workers has increased by 31% from 1964 to 2015<sup>7</sup>.

## FACTS ABOUT PENSION FUNDS:

The share of pension funds in household wealth, as of national income, has increased by 290% from 1964 to 2013 in the USA. In 2014, 49,3% of pension funds invested in stocks and the value of pension funds accounted for 96% of US GDP<sup>8</sup>.

## FACTS ABOUT CONSUMPTION INEQUALITY:

The consumption inequality between white-collar and blue-collar workers has increased as of 22% from 1984 to 2017 in the USA (Dögüs, 2019b).

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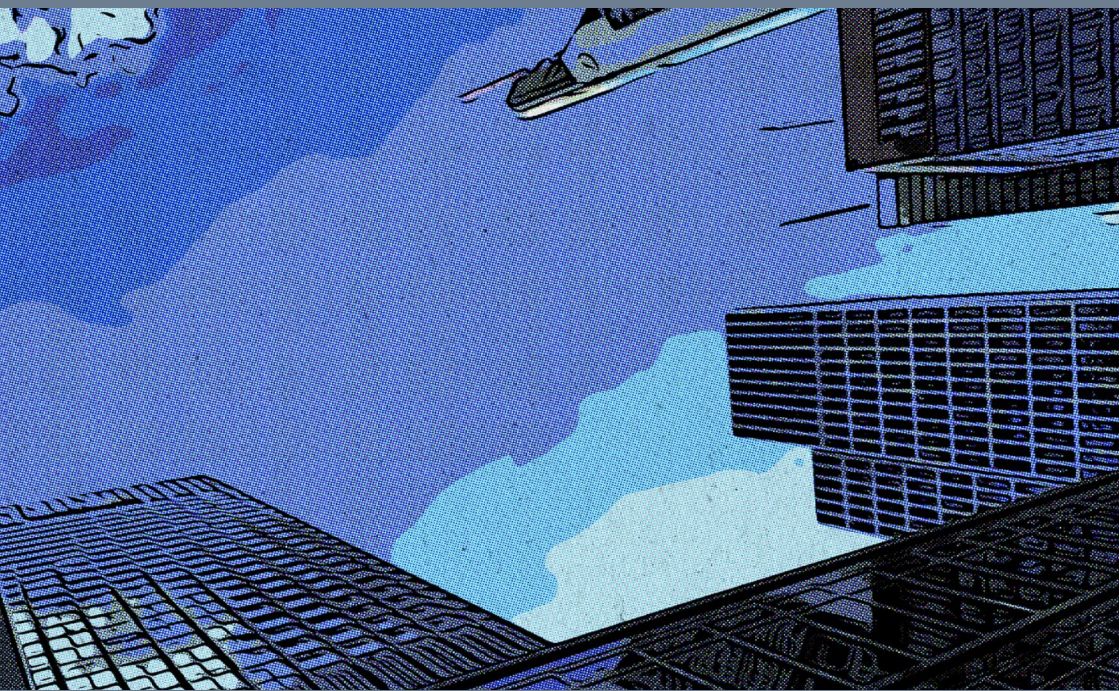
5 Available at: [www.epi.org/data/#?preset=wage-education](http://www.epi.org/data/#?preset=wage-education) (accessed 11 November 2023).

6 Available at: <https://epi.org/research/state-of-working-america/>; Figures 4K and 4L (accessed 11 November 2023).

7 Own calculations based on: <https://fred.stlouisfed.org> (accessed 11 November 2023).

8 Available at: [www.oecd.org/finance/Pension-funds-pre-data-2015.pdf](http://www.oecd.org/finance/Pension-funds-pre-data-2015.pdf) (accessed 11 November 2023).

# **LITERATURE REVIEW**



The majority of the work on financialisation focuses on its macro-economic implications and (Skott and Ryoo, 2008; Hein, 2012; Lin and Tomaskovic-Devey, 2013; Palley, 2014 and Alvarez, 2015) impact on distribution (Onaran et al., 2011). In the relevant literature, it has been argued that the introduction of private pension schemes in the 1970s caused capital markets to inflate (Toporowski, 2000) and financialisation to emerge (Lazonick and O'Sullivan, 2000), but the intermediary causal mechanism was not highlighted. Soener (2015) examines the causes for the financialization of non-financial corporation (NFCs) from an organizational and institutional standpoint rather than an economic one.

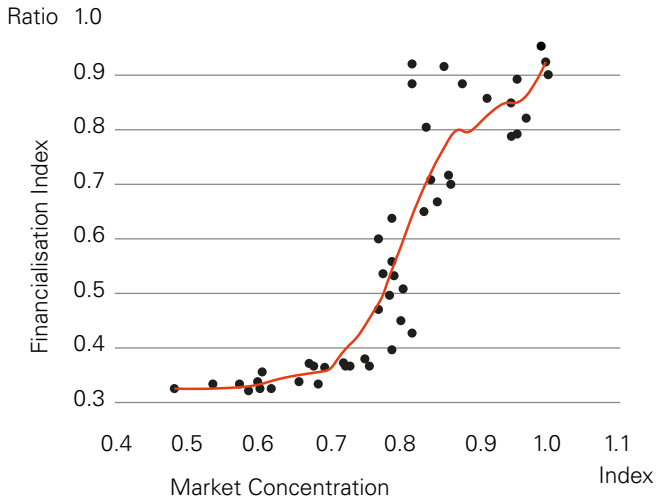
Only Palley's reminder that monopoly power increases managers' savings due to their rising income level (Palley, 2015, p. 235) appears to be an attempt to link financialisation to market concentration and the savings of high-income earners. However, Palley's research focuses on growth and distribution rather than financialization and wage disparities. To my knowledge, the influence of wage dispersion on financialisation has not yet been examined in the literature, with the exception of Vasudevan (2015), who stresses the role of the managerial class rather than white-collar employees, as this study does.

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The main argument is that market concentration has increased the wage differential between white-collar and blue-collar workers (Dögüs, 2019a) consumption inequality feeds market concentration back (Dögüs, 2019b); wage dispersion has then increased white-collar workers' pension fund savings (Dögüs, 2018a), resulting in 'leakages' to be replenished through equity issuances (Toporowski, 2000; Graziani, 2003), and this, in turn, has resulted in financial market inflation. This led the profit expectations of NFCs from liquid financial assets exceeding their quasi-rent expectations from illiquid capital assets, due to the depressed demand for consumption goods (Dögüs, 2018b). Figure 1 shows that after a certain level of concentration, the relationship between financialisation and concentration becomes sharper and stronger.



## Market concentration at macro level in non-financial sector

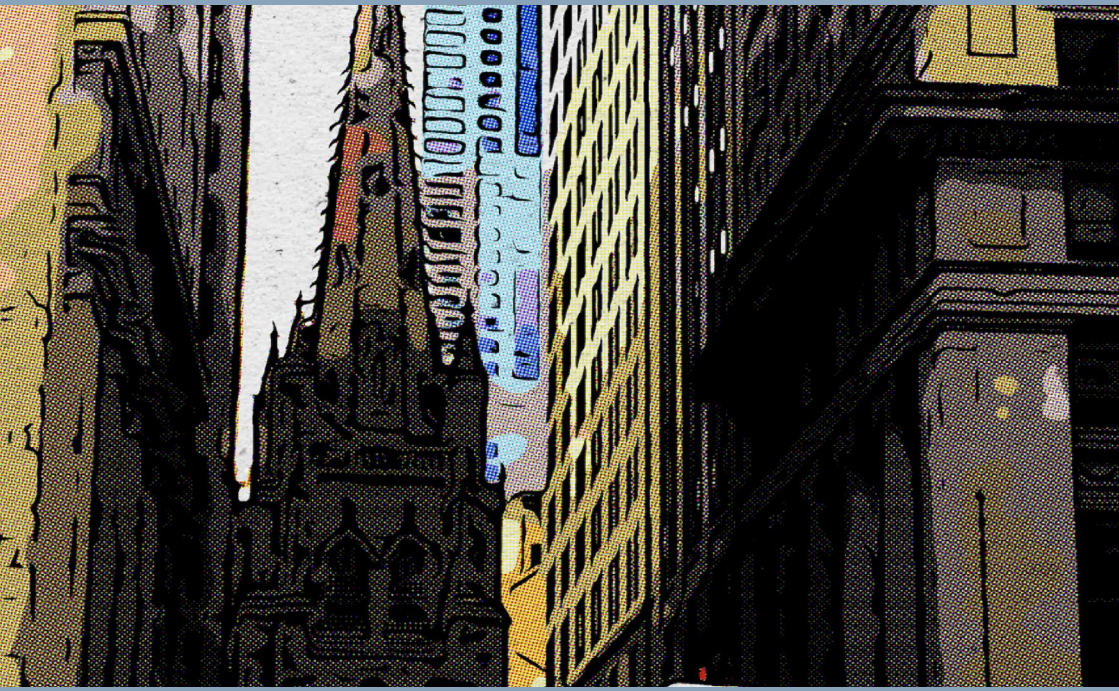


**Figure 1.** Market concentration at macro level in non-financial sector (=reverse of break-even point)<sup>9</sup> and financialisation index (=Ratio of financial assets to non-financial assets held by US-NFCs.)<sup>10</sup>. 1964-2007, USA. Sources: own calculations

9 See Dögüs (2019) for details.

10 See Dögüs (2018b) for details.

# **MONETARY CIRCUIT THEORY**



Monetary Circuit Theory (MCT), which initiates economic circulation and production with loans granted by banks out of thin air, 'describes the working of the economy as a sequential process, characterized by successive stages forming a monetary circuit'. (Michell, 2017) and 'the borrower-bank-lender triangular relationship' (Fontana et al., 2017). According to MCT, banks do not simply intermediate between borrowers and savers, 'since savers do not 'lend' their deposits to banks' as banks do not employ these savings to grant loans, rather 'banks have to issue new loans in order to refinance any outstanding debts by firms' (Parguez and Seccareccia, 2002, p. 114).

Rochon (2005, p. 126) traces the roots of MCT back to work of Quesnay, and Vernengo and Rochon (2001, p. 82) emphasise that Robinson (1956) has a clear understanding of distinction of initial and final finance, *ex nihilo* creation of credit, savings as leakages and destruction of money when loans are repaid which are distinctive essence of the circuit approach.

'Initial finance' implies the loans borrowed to finance investment and production<sup>11</sup> whereas 'final finance' refers to the money which returns from workers to firms either when workers consume or when workers convert their deposits into stocks (Michell, 2017, p. 256). If workers spent their total wage income for consumption, then firms will be able to repay their debt and close the circuit without losses (Graziani, 2003, p. 30). However, 'the greater the liquid balances held by wage-earners, the greater the losses of revenue suffered by the corporate sector' (Passarella, 2014, p. 129). Total savings and investments at macro level in a closed and balanced budget economy are still equal, yet the distribution of savings between workers and capitalists changes.

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11 See Rochon (2009) for a discussion in the MCT on whether loans to finance investment and/or production (wage bills) and on how firms generate profits enabling interest payments in the circuit. Similar to incorporating time dimension to resolve the dilemma, as done by Rochon (2009, pp. 73-75), Toporowski (2020) reminds that interest payments are not made always out of current profits, unlike assumed by a Ricardian perspective, rather and mostly, out of past profits.

The argument that equities are mainly issued in order to replenish the liquidity deficit caused by savings, not to finance investments, is supported by the increase in equity issuances at the global level as of 56 percent in 2020 during the pandemic,<sup>12</sup> which led to a decline in production and investments and a rise in household savings<sup>13</sup>.

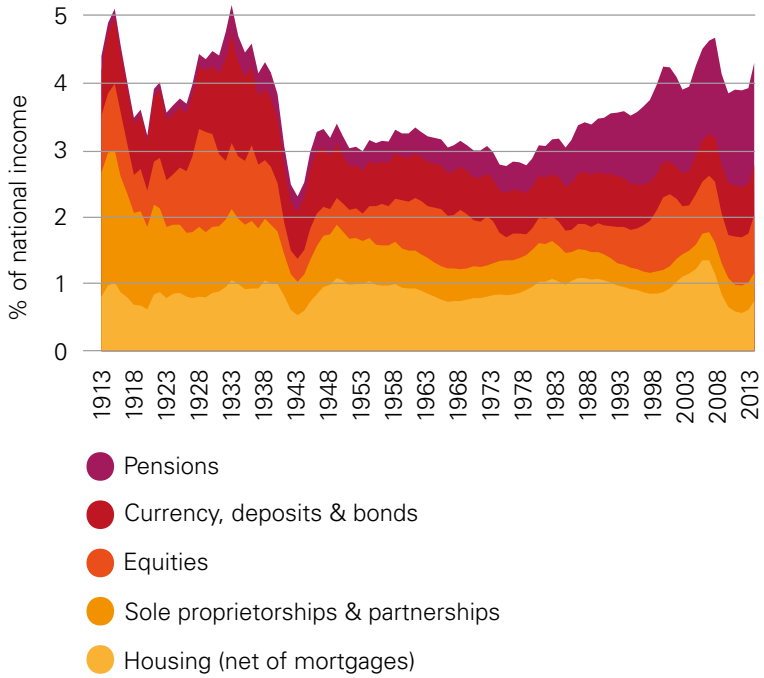
When households, particularly workers save and 'decide to put their current savings into a bank deposit, firms lose the same amount of liquidity and their bank debt is correspondingly increased. The consequence is that banks and firms compete for the available financial savings' (Graziani, 2003, p.114). Banks compete with firms since when households transform their deposits into other financial assets, in this case into equities, then credit-deposit ratio of banks and hence their liquidity needs rise which can basically be met at central banks. If central banks do not accommodate liquidity needs, then banks can appeal to interbank markets or sell government bonds they hold to convert them to liquidity or raise deposit rates up in order to call deposits back (Lavoie, 1996) all of which create 'liquidity management costs' that are mostly confused with cost of credit creation for banks which is indeed zero.

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12 Available at: [www.refinitiv.com/perspectives/market-insights/global-capital-markets-answer-2020s-distress-call](https://www.refinitiv.com/perspectives/market-insights/global-capital-markets-answer-2020s-distress-call) (accessed 5 December 2023).

13 Individual firms can of course employ equities, i.e. savings, to finance their investments however this would not bring about a positive growth rate as the total amount of money is fixed. Growth at macro level requires new money creation through loans created by banks.

## Composition of US-households' wealth as a share of GDP



**Figure 2.** Composition of US-households' wealth as a share of GDP, 1913-2013.

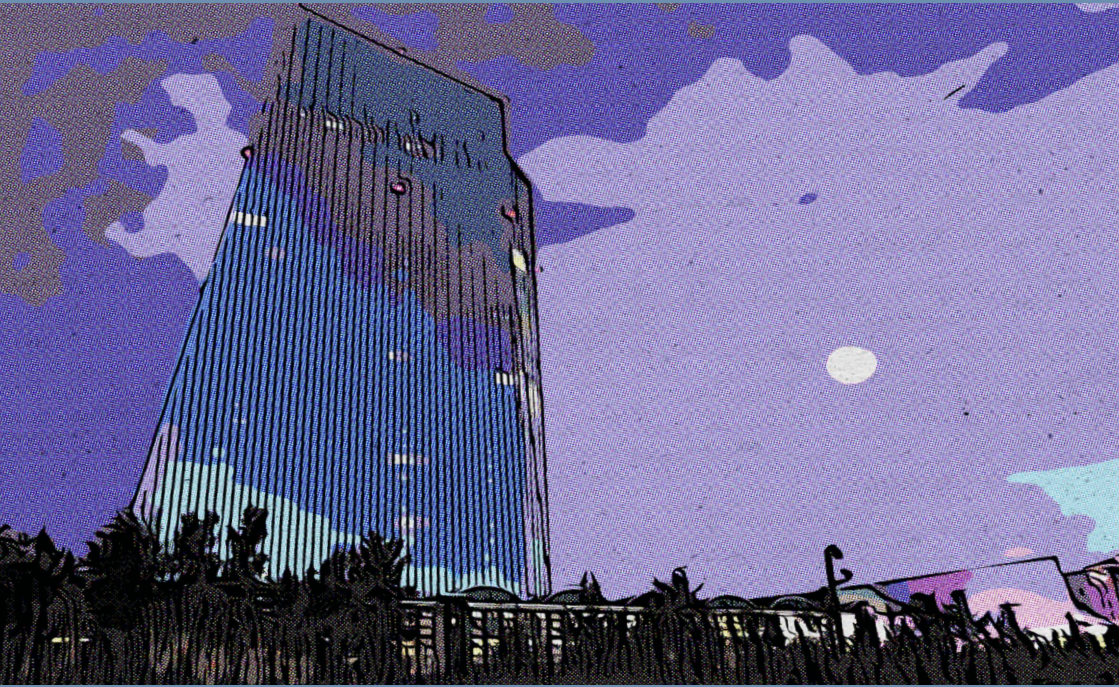
Source: <https://gabriel-zucman.eu/files/SaezZucman2016QJE.pdf>

Figure 2 depicts that banks have been losing out to firms as share of equities and pension funds within households' wealth have been rising higher than deposits since the outset of financialisation, just because of that households with lower income level have limited financial assets and their portfolios are inclined to include fixed-income assets. On the other hand, large proportion of portfolios of households with higher income level consist of stocks. As a result, an increase in income inequality tends to raise the demand for stocks (Skott, 2013) and in turn this increases the wealth inequality (Ederer et al., 2021).

Under such circumstances of persisting inequality, 'share value maximisation' (Lazonick and O'Sullivan, 2000) has become a target for financialised NFCs because demand for goods depressed and firms face liquidity deficits to be replenished by way of equity issuances and monetary circuit being heavily closed through equities rather than consumption expenditures. This does not indicate a new business model in which selling equities replaces selling goods, rather an alteration of the way of final finance.

# CAUSAL NEXUS





This chapter attempts to explain the causal nexus between market concentration, wage inequality, consumption inequality, pension fund savings and financialisation.

## **MARKET CONCENTRATION TO WAGE DIFFERENTIAL**

According to the findings of Dögüs (2019) based on US data between 1964 and 2007, market concentration is a major factor in the long-term behind the rising wage inequality between white-collar and blue-collar workers. Large NFCs prefer to hire and pay more white-collar workers in order to increase their market share because these workers' innovative tasks—such as marketing research, product design and differentiation, R&D, and advertising—help to lower the break-even point at which total costs and revenues are equal (ibid).

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Non-production tasks performed by white-collar workers are not paid more just because they are complicated and difficult, but also because they function to increase or at least to preserve the market share of the firm (Kalecki, 1954; Minsky, 1986; Sawyer, 1981, 1985; Shepherd, 1997; Steindl, 1990). In the case of such tasks, whether through cost-reducing production technologies or through demand-elasticity-reducing product differentiations and advertising (Sawyer, 1981, pp. 107-111), the aim is to reduce the break-even point of the firm where costs and revenues are equalized (Steindl, 1990, pp. 305-306).

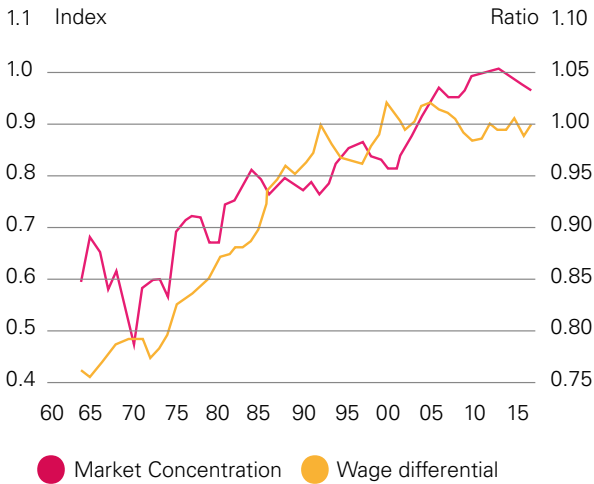
Elucidating the relationship between the break-even point and overhead costs (paid to white-collar workers) by way of price-output settings of firms would help us to comprehend why bigger firms pay and employ more white-collar workers and thereby how wage differentials have essentially been driven by rising market concentration.

The break-even point might be reduced either by way of making the cost curve flatter via labour-saving technological tasks or by making the revenue curve steeper, i.e. making the demand more inelastic through product differentiation, advertisement, brand-value, and market research. Dominant firms in labour-intensive sectors, such as garment and retail

industries, may prioritize innovations to make the cost curve flatter, whereas in capital-intensive sectors they may prioritize innovations to reduce the elasticity of their demand curve<sup>14</sup>.

Once the break-even point has been lowered, the firm can either charge a higher mark-up or reduce its prices to drive rivals out of the market or to prevent new entries into the market (Sylos Labini, 1962). Hence, as Steindl (1990) notes, “break-even point is a measure of the degree of monopoly’ and ‘the break-even point will be lower if mark-up is higher”, p. 307).

### Market concentration and wage differential between white-collar and blue-collar workers



**Figure 3.** Market concentration is calculated as the reverse of the break-even point of US-nonfinancial corporations. Wage differential is calculated as the ratio of annual average hourly compensation of all employees in the non-financial corporation (NFC) sector to the average hourly earnings of production workers in the private sector. Sources: Own calculations based on the Federal Reserve Bank of St. Louis annual datasets (See: <https://fred.stlouisfed.org>), 1964-2015, USA. See Dögüs (2019) for further details.

14 For further discussion of this, see Toporowski (2005).

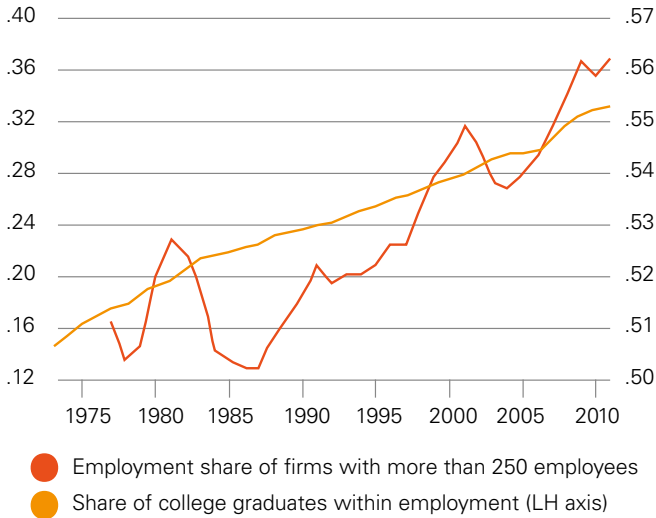
The causal nexus of the relatively higher growth of salaries of white-collar workers due to market concentration can be explained by remembering that employment and thus wage growth are mainly demand-driven (Keynes, 1936, Ch. 19) and that competition in innovation and hence diffusion of innovations across sectors creates a higher demand for white-collar workers. The rising share of higher-income-earner white-collars within the employment composition (see Figure 4) makes the demand curve more inelastic due to their consumption preferences and the cost curve flatter due to higher share of fixed costs within total costs. This reduces the firm's break-even point and thereby enables it to charge a higher mark-up.

R&D and the computerization of production technology, which might be conceived as a technological instrument for reducing the break-even point, have for the most part been first introduced by big firms that can afford them. Innovation does not drop from the sky by itself; rather, it is a by-product of market forces.

As a result, as the ratio of white-collars workers to blue-collar workers – or, in other words, the share of overhead costs within overall production costs – rises, higher markups become more applicable (Sawyer, 1985, p. 27). As Minsky puts it:

If the ratio of overhead and ancillary wages to technologically determined wages is higher for every output, then the markup and the price of the product will be greater for every level of output than in the absence of such spending (Minsky, 1986, p. 174).

Share of college graduates within employment and employment share of firms with more than 250 employees, 1973–2011.



**Figure 4.** Source: [www.epi.org/data/#?preset=wage-education](http://www.epi.org/data/#?preset=wage-education) and [www.census.gov/ces/dataproducts/bds/data\\_firm.html](http://www.census.gov/ces/dataproducts/bds/data_firm.html), respectively (accessed 15 December 2023).

The diffusion of a new innovation – either in production technologies or in advertisement, sales promotions, product differentiation, etc. – introduced by a single (big) firm depends on the employment share of white-collar workers in other firms and sectors (see Figure 4): workers who are needed to implement and adopt or to imitate this new innovation. In such a concentrated market case where diffusion of innovations due to competition in innovation is being expedited by white-collar workers, big firms can extract monopoly rents via competitive advantages enabled by innovations carried out by white-collar workers; thus, the growth of salaries of white-collar workers is higher than the growth of wages of blue-collar workers as white-collar workers validate their employment by way of their consumption (Minsky, 1986) as they prefer high-end, expensive goods produced by market dominating large NFCs (Dögüs, 2019b).

To sum up, as wage inequality (i.e., paying more to employees than other firms) requires bigger firms, a structural, secular increase in wage inequality would not be possible if there were no structural, secular rise in market concentration. That is to say, without any change in market structure, which might have been underpinned by SBTC, i.e. computerisation (Van Reenen, 2011) and/or institutional change (Kristal and Cohen, 2016), a change in wage differential would be temporary, since the workforce would adapt to the changing requirements in the medium or long run.

## **CONSUMPTION INEQUALITY TO MARKET CONCENTRATION**

White-collar workers' lower price elasticity of demand due to their higher income level contributes to the maintenance of concentration at the aggregate level as they prefer to purchase more high-end, expensive goods produced by large companies which primarily sell to other capitalists and white-collar workers. For example, blue-collar workers might drink a simple beer, whereas capitalists and high-wage-earning white-collar workers might prefer to drink high-quality whisky, despite the expenditures for both being recorded as beverage expenditures. A blue-collar worker can only afford to buy a simple and cheap t-shirt, whereas a well-paid white-collar worker may prefer an expensive t-shirt of her favourite brand.<sup>15</sup> This might reflect Veblen's '*conspicuous consumption*' (Veblen, 1899 [2007]),<sup>16</sup> which implies that the main motive driving consumption decisions is publicly to display economic power, i.e. prestige (Harriger et al., 2010). Social mobility, i.e. when the social ladder being climbed, makes white-collar workers to prefer expensive goods and it corresponds to what is called as '*raising the consumption norm*' (Cynamon and Fazzari, 2016, p. 10).

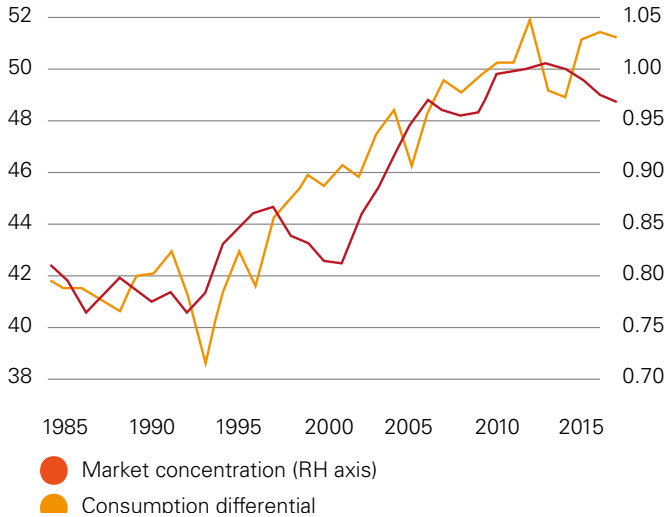
Hence consumption expenditures by high-earning white-collar workers validate markup pricing of big firms and underpins the increase in market concentration, as depicted by Figure 5.

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15 Phillips (2003) points out that brands are instruments for consumers to construct and create identity.

16 See Trigg (2001) for a Bourdieuan critique.

## Consumption differential between white-collar and blue-collar workers.



**Figure 5.** Source: Consumption differential (own calculation as the ratio of consumption expenditures of two worker groups based on Consumer Expenditure Survey and Market concentration (=reverse of break-even point of US-nonfinancial corporates<sup>17</sup>) based on the Federal Reserve Bank of St. Louis annual datasets (See <https://fred.stlouisfed.org>): USA, 1984-2017.

Big firms frequently innovate, differentiate, and alter their products, as well as increase their advertising, in an effort to promote and protect consumption by lowering the price elasticity of demand. Firms can operate with a lower break-even point and, as a result, offer a higher markup over unit average costs when demand is less elastic.

A newly hired white-collar worker or a rise in the wage gap between white-collar and blue-collar workers favours the employment of another white-collar worker in another dominant firm rather than a blue-collar worker because

17 Discussion on this measurement of concentration will be provided in the empirical part and more detailed in Dögüs (2019).

white-collar workers innovate, advertise, and differentiate expensive and branded products. When a company innovates or differentiates its products, the competition is forced to innovate as well, giving priority to the hiring and pay of overhead labour in order to remain competitive.

White-collar workers' consumption preferences therefore spread out the concentration across sectors: In order to increase its market share, a large company in one industry may hire a new white-collar worker with a high salary. However, this new white-collar employee may prefer to purchase relatively more expensive goods made by larger companies in other industries due to concerns about status and product quality.

To put it another way, the high markup pricing is made possible by the inelastic demand of white-collar professionals earning high wages, whose desire is influenced by shifting fashion trends. This trend forces businesses to hire additional white-collar workers in order to meet the challenges of the demand. Minsky (1986, p. 174) emphasizes this point as follows:

*'If all the overhead and ancillary service costs are wage costs and all of such wages are spent on consumer goods, then profits in the extended sense will rise by the amount of such wages. Consumption spending by ancillary labor validates in the aggregate the employment of ancillary labor.'*

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## **WAGE INEQUALITY TO INFLATION IN FINANCIAL MARKETS**

Private pension schemes serve to inflate financial markets (Toporowski, 2000). In 2014, 49.3% of pension funds invested in stocks and the value of pension funds represented 96% of GDP<sup>18</sup>.

Toporowski (2000) points out that the excess inflow into financial markets, 'which is made up of the contributions to pension funds, plus the investment income which is not paid out as pensions' (ibid., p. 69), inflates the prices of financial assets (ibid., 75). Thereby, it stimulates the demand for financial assets by increasing the expected capital gains from them (Toporowski, 2008b, p. 8), as 'changes in profits and trends in stock prices

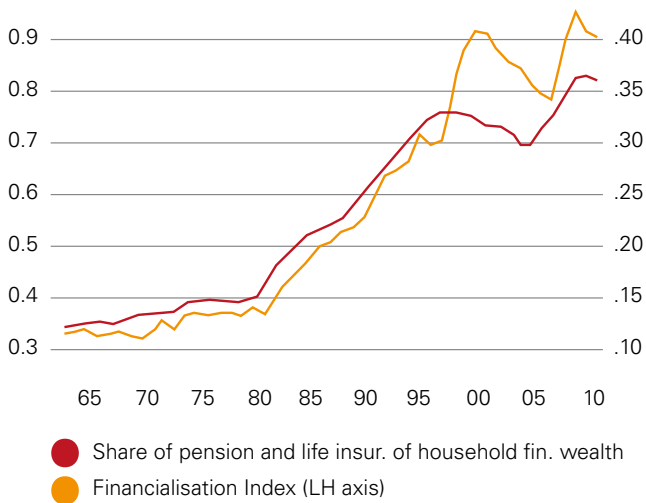
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18 Available at: [www.oecd.org/finance/Pension-funds-pre-data-2015.pdf](http://www.oecd.org/finance/Pension-funds-pre-data-2015.pdf) (accessed 16 December 2023).



attract savings from other nonfinancial securities markets, such as bank deposits, gold and property, which also act as repositories for savings' (ibid., p. 32). This encourages NFCs to refinance 'in excess of their current needs', which results in overcapitalization (Toporowski, 1993, p. 29). Figure 6 depicts the increasing share of financial assets held by NFCs hand in hand with pension funds' share within US-households' financial wealth.

### Financialisation Index and Pension funds' share within households' financial wealth



**Figure 6.** The Financialisation Index is defined as the ratio of financial assets to non-financial assets held by NFCs.

Sources: <https://gabriel-zucman.eu/files/SaezZucman2016QJE.pdf>.

Concerning the decrease in investment due to savings out of the salaries of white-collar workers that flow into financial markets<sup>19</sup>, the following statement by Minsky is useful: a high savings ratio out of wages diminishes and a low ratio increases business profits: the behaviour of saving

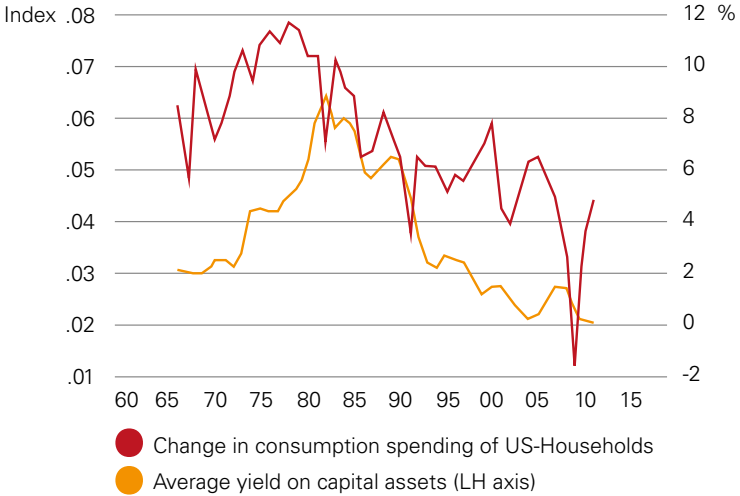
<sup>19</sup> For the sake of simplicity, the savings invested in housing and real estate have been left out of the analysis.

out of wages amplifies the effect on profits of increases and decreases in investment (Minsky, 1986, p. 170).

By way of this process – namely, overcapitalization – the “entrepreneur corporation” has become the “rentier corporation” (Toporowski, 1993, pp. 36-43) with “a higher liquidity preference” (ibid, p. 42). Due to higher liquidity preference, the ratio of liquid financial assets to non-financial assets held by NFCs in the USA has increased in the last three decades. This development has been driven mainly by depressed demand for consumption goods (Dögüs, 2018b). In line with accounting principles, the higher ratio of financial assets to non-financial assets corresponds to an increase in excess capital (ibid, pp. 210-211).

The relatively higher wages of white-collar workers enable them to save more relative to blue-collar workers (see Figure 7) and to contribute to private pension schemes, resulting in the inflation of financial markets.

**Average saving rates of blue-collar and white-collar workers**



**Figure 7.** Average saving rates are defined as  $(1 - \text{real consumption expenditure})/\text{real income after taxes}$ . Source: Consumer Expenditure Survey (CES) [www.bls.gov/cex/csxstnd.htm#2011](http://www.bls.gov/cex/csxstnd.htm#2011) (accessed 26 December 2023).

The amount of total savings out of the salaries of white-collar workers, that has not flowed into the goods markets but rather into financial markets, depresses demand and discourages real investment, and makes the monetary circuit inclined to be closed through equity issuances instead of through consumption expenditures (Dögüs, 2018a). As Minsky points out:

*‘The greater the income of the managerial, technical, and professional labour force – and the greater their savings – the lower the cash flows [internal funds] available for capitalist and rentier income’ (Minsky, 1986, p. 174).*

## **FINANCIALISATION OF LARGE NFCs**

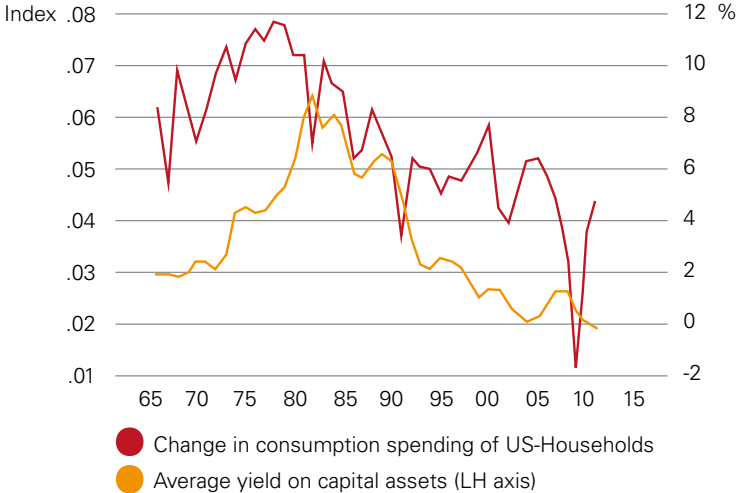
Firms decide on investing either in liquid financial assets or in illiquid capital assets in accordance with their profit expectations vis-à-vis these assets and with their margin of safety (Minsky, 1986). If they expect higher profits (quasi-rents) from financial assets as compared to capital assets, then they will invest more in financial assets. If return on capital assets is expected to exceed return on financial assets, then investment in capital assets will be preferable.

As white-collar workers (managerial, technical, and professional labour force) being heavily employed and paid more by large NFCs since Small and Medium Enterprises (SMEs), due to their more elastic demand curves and restrictive cost structures, cannot afford to employ and pay white-collar workers as much as big firms can (Dögüs, 2019a, p. 230). Thus mostly large NFCs have engaged in financial transactions and financialised, as Davis (2018) has shown by way of an empirical investigation of NFCs in the USA in the period between 1971 and 2011. This is not only because small firms cannot easily handle financial operations due to their cost structures, but also because customers of small firms are mostly composed of blue-collar workers those cannot save so much (Dögüs, 2019b).

As customers of large firms composed of capitalists and white-collar workers those who are able to save, large firms try to capture their savings

by way of equity issuances and engaging in finance and ‘become rentiers’ (Toporowski, 1993): ‘growing profits and retained earnings associated with a relatively weak business investment have slowly transformed (or rentierized) the nonfinancial business sector itself into a net lender that seeks profitable outlets that provide high financial returns for its internal funds’ (Seccareccia, 2012, p. 282).

**Average yield on capital assets, US-NFCs and change in US-household consumption spending**

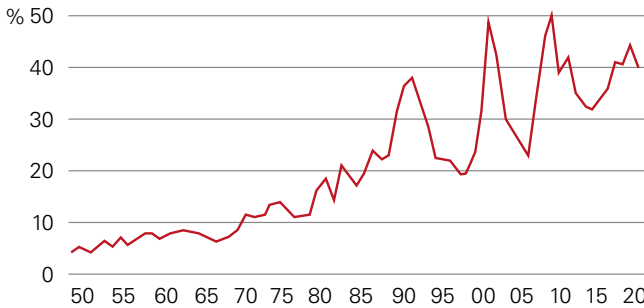


**Figure 8.** Sources: [www.bea.gov](http://www.bea.gov) and [gabriel-zucman.eu](http://gabriel-zucman.eu) (accessed 16 December 2023).

If the employment share and savings rate of white-collar workers were the same in 2011 as they were in 1984, the total real consumption expenditure of workers would be 35% higher (Dögüs, 2018a). As consumption spending declines due to the rising wage inequality, not only closure of the circuit to be by way of equities instead of consumption expenditures; but also NFCs engage more in finance rather than production as average yield on capital assets decreases (see Figure 8), quasi-rent expectations

from financial assets exceed quasi-rent expectations from capital assets and thus NFCs prefer to hold financial assets more than non-financial assets (Dögüs, 2018b)<sup>20</sup>. Result of this process is the rising share of financial profits of NFCs within their total profits as depicted by Figure 9.

### Share of financial profits of NFCs within their total profits



**Figure 9.** Sources: own calculations<sup>21</sup>

20 Regarding the other side of the coin, i.e. contribution of household debt which has mainly increased due to stagnated wages- in order to maintain life conditions- to financial profits to exceed non-financial profits, Leclaire's reminding is useful: 'As it [household debt] increases, households use a greater proportion of their incomes to repay consumer debt rather than purchase new goods and services and save. Nonfinancial firms are no longer able to get the wage bill back to close the productive circuit and financial firms make a growing proportion of their profits from household debt rather than nonfinancial firm profits/household saving' (Leclaire, 2021, p. 17).

21 Corporate profits before tax (<https://fred.stlouisfed.org/series/A053RC1Q027SBEA>), Profits of NFCs before tax (<https://fred.stlouisfed.org/series/A464RC1Q027SBEA>), Profits of financial corporates before tax (<https://fred.stlouisfed.org/series/BOGZ1FA796060035Q>).

# CONCLUSION



In short, because of the increase in market concentration and financialisation, closure of monetary circuit is less likely to be by way of consumption expenditures and more likely through stock markets as rising wage differential leads pension fund savings of white-collar workers to be channelled to financial markets. In addition to the increase in white-collar workers' savings, demand for goods of blue-collar workers those who have higher propensity to consume has been depressed and hence quasi-rent expectations from financial assets have exceeded capital assets. As a result, NFCs find it more attractive to make profit over financial assets and so they do.

Public employment, public investment, and taxing excessive financial profits seem as the most crucial tools to reverse experiences up to now and to initiate a definancialization process. Public employment and public investment would work to increase the demand for goods, thereby encouraging new entries into markets and thereby reducing market concentration. An increase in demand would also help the quasi-rent expectations from capital assets exceed the quasi-rent expectations from financial assets. The higher level of production and real investment would ease wage inequality by increasing wages and employment of blue-collar workers.





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