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INEQUALITY FEEDS PROFITS: A RE-EXAMINATION OF US ECONOMIC PERFORMANCE 1960-2019 IN THE LIGHT OF KALECKI'S EQUATION

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ABSTRACT. This study uses Kalecki's profit equation to examine the changing composition of expenditures that drove profit realisation in the US economy over the last few decades (1961-2019). A clear result is that profits in the Consumer Age (1979-2008) were driven less by investment and 'external markets', - i.e. net exports and government deficits - than by a general collapse in savings. Thereafter, public deficits have aided profits. Still, the support of capitalists' consumption, although reduced, has remained. The study argues that the decline in the relative bargaining power of production workers in the labour market, together with financial innovations, is the root cause of the Consumer Age. Empirical support is sought for the hypothesis that income inequality resulting from wage stagnation has increased upper- and middle-class consumption, and household indebtedness, and thus, profits. These events suggest a debate about how the distribution-spending link, fairly stable in Kaleckian/Keynesian models, can be profoundly altered because of institutional and cultural change, and more generally, a debate about how long an economy driven by consumerism and inequality can last.

Key words: Kalecki's profit determinants, Income distribution, Consumerism.

JEL classifications: E11, E12, E21, E25, E29, E65, O51

1. INTRODUCTION

In assessing the stability of a capitalist economy, focusing on the dynamics of profits and their determinants is crucial, given the importance of aggregate profits for the larger economy. Indeed, both the purpose and very condition of existence of such an economic system is to ensure the profitability of private enterprises.

However, if a surplus over costs is the primary requirement for firms' profitability, its monetary realisation at the macro level depends on the levels of specific determinants of aggregate demand, as Kalecki's theory of profits suggests. According to the latter, the total volume of realised profits in an economy is causally determined by

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the sum of five macroeconomic variables: gross private domestic investment, capitalist consumption, government budget deficit, net exports, and the negative value of workers' savings. This results from the necessary equality (ex-post) between saving and investment, an identity which, according to Kalecki (1971, ch. 7), becomes a causal relationship, at least in the short run. The use of this identity is derived, as in Keynes's approach, from the circular flow of income-expenditure-production, which is a prerequisite for understanding the economy's monetary integration. This has later been extended to all flows and stocks in the stock-flow consistent models of scholars such as Tobin, Godley, and Lavoie.¹

Since corporate profits are the main motive for investment, production, and employment decisions, tracking how the relative importance of their causal sources, or 'leakages', changes over time can help examining the distributional and institutional changes that cause economic development to move from one epoch of capitalism to the next. Of course, profit generation is also closely linked to the financial structure and stability of firms.

This is what this study explores: how the spending that drives profits has changed over the decades considered here for the US economy, and what role these changes have played in securing profitability in the transition from the Golden Age (1950-1973) to neoliberal (1979-2008) growth regimes, and from the latter to the current period ushered in by the recession that began in late 2007. The analysis concentrates on the US case, given its size and importance as well as its pivotal role in the global economy. Extensions with comparisons to other countries are left to future research.

A first look at the US data shows that, after the profit squeeze of the Golden Age and a temporary decline in the 1980s, the profit share, as a percentage of the gross domestic product (GDP), recovered steadily until the start of the Great Recession in the 2008, despite the continuous fall in per capita income for the bottom 90% of the US population.

As we shall see, a permissive condition for this outcome has certainly been the growing wedge between labour productivity, and the average compensation of production and nonsupervisory workers. This gap has been widening steadily since the early 1980s, and has led to a divergence between the incomes of high and low earning families. However, the subsequent increase in mark-ups is a necessary, albeit not a sufficient, condition for the existence of growing profits, since its effective implementation also requires a simultaneous or subsequent increase in profit-generating

¹ While explaining profit formation, Keynes and Kalecki assign a crucial importance on the expenditure conditions. Jerome Levy was a pioneer in deriving a profit equation similar to Kalecki's in 1914, according to S. Jay Levy (2001).

expenditure.

This work aims to provide evidence that these two events - the low wage growth relative to productivity and consumption boom of the consumer/financialisation age - although seemingly counterintuitive, are closely intertwined. This emergence of profits fuelled by the consumption of high income classes has given rise to two conundrums discussed in the literature: the divorce between profits and investment, or profit generation without accumulation (Cordonnier, 2006); and the 'saving puzzle', or the decline in household saving in a context of rising economic inequality (Brown, 2008).

2. LITERATURE ON KALECKI'S EQUATION APPLIED TO THE US ECONOMY

Very few studies have examined the issue of aggregate profitability of the US economy using the Kaleckian framework.

The first work is that of Erdos and Molnar (1980) for the period 1968-78. The authors divide the profit determinants into three groups: trend-like (capital consumption allowances and capitalists' consumption), cyclical (investment and workers' saving), and counter-cyclical (government deficit and foreign trade surplus). They conclude that the third group had an important stabilising effect on total profits in the final period of the 'Golden Age'. Asimakopulos (1992), a well-known Kaleckian scholar, examines the determinants of US profits for a more extended post-war period, from 1950 to 1988. The author also notes the counter-cyclical pattern of the government deficit and the deterioration in the external surplus. Finally, the author draws attention to the emerging feature of the decline in personal savings in the 1980s without explaining a process that has only just begun.

The most recent studies are those of Brennan (2014) and Bakir and Campbell (2016, 2022).

All these studies, as well as the present one, note the emergence of capitalist consumption and personal dissaving as the strongest determinant of profits since the 1980s and throughout the entire period of the neoliberal epoch. This phenomenon has persisted despite the 2008 financial crisis and COVID-19 recession. In particular, Bakir and Campbell (2022) stress the importance of the redistribution from enterprises to rentiers and shareholders of the components (or uses) of Kaleckian profit, as distinct from its determinants, such as proprietors' and rental incomes, interests, and dividends and undistributed profits.

This research differs from previous work in the following ways. It focuses on the 1979-2008 period, the central episode of the neoliberal era in which institutional

change has been more pronounced, using annual data that are more appropriate for covering such a long period. Hereafter, we refer to this period as the Consumer Age, a characteristic moment of the neoliberal era.² It points to the continuous decline in the bargaining power of production workers as its salient feature and origin. We distinguish between the compensation of managers and supervisory workers, and that of production and nonsupervisory workers using Economic Policy Institute (EPI) estimates. Since the focus is on distributional changes, all variables are shares of GDP. By comparison, Brennan deflates them using the GDP price deflator, while Bakir and Campbell relate the profit determinants to the value of the net capital stock, as they are more interested in an accumulation perspective.³

The remainder of this work is organised as follows. The following section proposes a statistical determination of Kalecki's equation in terms of current GNP accounting. Section 4 presents evidence on annual profit flows from 1960 to 2019 and discusses their evolution. Section 5 provides a simple econometric test to show how well the inequality indicators compete with the financial indicators in explaining the rise in the sum of capitalists' consumption plus workers' dissavings. Section 6 raises questions about the decline in the propensity to save in the US. If this turns out to be the answer to the puzzle of large profits with low investment spending, it also addresses issues about the place of the *permanent psychological propensities* among the elements of the economic system usually taken as given, or independent, as suggested in Keynes's General Theory. The final section draws the conclusions.

3. A REFORMULATION OF KALECKI'S PROFIT EQUATION IN TERMS OF CURRENT GNP ACCOUNTING

Next, Kalecki's original formulation is recalled and then reformulated in terms of the Bureau of Economic Analysis (BEA) national accounting framework. However, while doing so, we have to accept some drawbacks, as is discussed. Nevertheless, the insights gained from Kalecki's equation, even in this reformulation, can be of considerable value. In any case, there is no other way to use it empirically, at least until reliable estimates of missing variables become available.

² We adopt the expression 'Consumer Age' used in various papers by Cynamon and Fazzari (2008, 2013a, 2013b).

³ Useful discussions of the relevance of Kalecki's profits equation can be found in Toporowski (1999), Sawyer (2014), Laski and Walther (2015), and Osiatynski (2020).

Our starting point is Kalecki's original equation (Kalecki, 1971, ch. 7). It derives from the accounting relationship between incomes and expenses as follows:

$$P + W + T = C_c + C_w + I + G + X \quad (1)$$

Here, P and W are profits, gross of depreciation, and wages and salaries, respectively, all net of direct taxes, while T are direct and indirect taxes. The right hand side (RHS) of equation (1) is the sum of capitalists' consumption (C_c), workers' consumption (C_w), gross private investment (I), government expenditure for consumption and investment (G), and net exports (X). By subtracting from both sides taxes minus transfers, ($T - TR$), and solving for P , Kalecki obtains his profit equation:

$$P = (C_c - S_w) + I + D + X \quad (2)$$

where $D = G + TR - T$ is government deficit, while S_w , workers' saving, derives from the identity $W + TR \equiv C_w + S_w$.⁴

According to Kalecki, this definitional relation can, under certain assumptions, be read as a causal relation, wherein the items of expenditure decisions on the RHS appear to be independent of current profits, since they are *determined by decisions shaped in the past*⁵. Hence, these items can be considered as the sources of profits, or more precisely, the demand conditions for market profitability.

Equation (2) can be easily reformulated in terms of the three sectoral balances, or the fundamental financial identity:

$$P - C_c + S_w - I = (S_c + S_w) - I = D + X \quad (3)$$

where S_c is capitalists' consumption. This identity has been transformed by theoretical economists into an operative constraint by adding the further condition that aggregate demand and supply converge to a short-run equilibrium. This constraint

⁴Kalecki (1971), p. 81-82. Note that this procedure merges the primary and secondary distribution of income, whereas, the current accounting procedures keep them distinct in separate accounts.

⁵Kalecki, (1971), p. 79.

has been used by Godley and many others to build models that formalise the integration of the real and financial sides of the economy ⁶.

However, the Kaleckian approach (i.e. equation (2)) has the merit of highlighting an important causal link between changes in demand corporate profits.

The income-expenditure account of the the National Income and Product Accounts (NIPA) data produced by the US Department of Commerce's BEA, which corresponds to equation (1), reads instead as the following identity:

$$os + w + w_{row} + t_p + dis = c + i + g + x \quad (4)$$

where the variables, which are now measured in current dollars and written in lowercase, are:

- os = private operating surplus
- w = compensation of employees
- w_{row} = net wage and salary from rest of the world
- t_p = taxes on production and imports (net of subsidies)
- dis = statistical discrepancy
- c = total consumption
- i = investment
- g = government expenditure for consumption and investment
(including current surplus of government enterprises)
- x = net exports of goods and services

This account is at the centre of our work, as it is the only one that can provide an estimate that is as close as possible to identity (1), thus allowing the variables in equation (2) to be statistically evaluated.⁷ However, unlike equation (1), this account refers to incomes generated by the production process, or *primary incomes*, according to the terminology of the System of National Accounts. It does not show the various transfers that follow the distribution of primary income among government, households, and enterprises, as taxes and transfer receipts. However, from identity (4), we can derive a first rewrite of the Kaleckian equation in accounting terms as follows:

⁶In the 1970s, Godley and his colleagues transformed the three balance constraint (3) into the Twin Deficit Hypothesis. Later, Godley used this framework more extensively in forecasting the US economy, notably for the Levy Economics Institute.

⁷It is the NIPA 'Domestic income and product account', which, in the redesigned BEA tables, is the result of merging Table 1.10 (Gross Domestic Income by Type of Income) with Table 1.1.5. (Gross Domestic Product).

$$p = (c - w) + i + d + ca - dis \quad (5)$$

where the new variables are p for profits, d for government deficit, and ca for foreign current account. These new variables are consolidated from the accounts as follows:

$$\begin{aligned} p &= \text{Profits after taxes} + \text{Taxes on corporate income} + \text{Net interests} + \text{Proprietors' income} \\ &\quad + \text{Rental income of persons (net of the imputed rental of owner-occupied nonfarm housing)} \\ &\quad + \text{Consumption of fixed capital} + \text{Net Business current transfer payments to persons} \\ d &= \text{Government expenditure for consumption and investment} - \text{Current surplus of government enterprises} \\ &\quad - \text{Taxes on production and imports} + \text{Subsidies} - \text{Net business current transfer payments to government} \\ ca &= \text{Net exports of goods and services} + \text{Net wages and salaries from the rest of the world (ROW)} \\ &\quad + \text{Net dividends from ROW} + \text{Net reinvested earnings on direct investment} \\ &\quad + \text{Net business current transfer payments to ROW} \end{aligned}$$

Notably, by not recognising the class distinction between capitalists and workers, the official accounting procedures do not allow us to distinguish between the consumption or saving of capitalists and workers, nor between the taxes paid separately by each of these two income groups. Thus, neither C_c , nor S_w , which appear in equation (2), are accessible data; only their difference $(C_c - S_w)$ - i.e. $(c - s_w)$ in NIPA terms - can be estimated as a whole by the empirical difference consumption-minus-compensation $(c - w)$. As it is shown later, this entry, which depends directly on the consumption expenditures of nonemployees and inversely on the savings of employees, is of paramount importance in interpreting our results.

Evidently the accounting aggregation of equation (5) does not reflect exactly the Kaleckian profit notion. Nevertheless, its RHS is the sole handhold that may give empirical content to equation (2). We hypothesise that it presents a satisfactory picture of the demand-side profitability of an economy and is faithful as much as possible to the Kaleckian approach.

For clarity, we highlight two accounting items that are at odds with the ideal Kaleckian equation. First, one of these items is excluded, while the other is included

in identity (5). However, both these discrepancies are not such that they will jeopardise the analysis. In addition, we introduce a significant enrichment in identity (5): splitting total compensation into compensation of production workers and that of managers. The three modifications proposed are as follows.

(1) **Removing the imputed rental services of owner-occupied housing.** The rationale for including imputed rents in the national accounts is to ensure that the national product is constant, regardless of whether a house is owner-occupied or rented. However, this practice is not relevant to the objective under discussion. We choose to remove these imputed rental services from both sides of the equation, from the private operating surplus and from personal consumption expenditure (amounting to 9-10% of total personal consumption on average over the period considered).

(2) **Including Proprietors' incomes.** Proprietors' income is the income of sole proprietorships, partnerships, and tax-exempt cooperatives. Although the proprietors' sector cannot be strictly assigned to the capitalistic sector of the economy, separating its income from that of capitalist enterprises is impossible. To have an equivalent expression to equation (2) that relates only to the corporate sector, we should also be able to remove those elements of the RHS of equation (2) that relate only to this sector. Therefore, there is no alternative but to include in profits both the incomes of owners - on the left hand side of expression (5) - and all the corresponding unknown demand elements on its RHS.

However, hereafter we shall continue to call profits what refers more properly to *property incomes*, which only imperfectly reflect the profits of a pure capitalist economy.

(3) **Splitting total compensation into compensation of production workers and that of managers.**

Kalecki himself, however, gives a rather comprehensive definition of profit. It includes not only profit as the surplus value accruing to capital, but also rents, interests, and management costs. As such, it appears to include all enterprise incomes, except the wages of production workers. According to Kalecki:

'By gross profits we shall mean depreciation and net undistributed profits, dividends, interest, rent and also managerial salaries ... The receivers of

*this type of income we call capitalists.*⁸

Hyman Minsky, who relies on Kalecki's theory, also extends the category of profits to include *'wage and salary incomes of those who do not furnish labor required by the technology embodied in capital assets'*, thus including the remuneration of overhead employees working in advertising, sales, marketing, research, etc., and thus, retributions far beyond that of managers. Therefore, Minsky adds, *'reported profits of the business sector underestimate the surplus being generated in our economy'*.⁹

Although no official data are available on the remuneration of non-production workers and supervisors, one may estimate it separately from that of the production workers. This allows us to get as close as possible to the Kalecki/Minsky concept of profit. Using publicly available data from the EPI's (2022) State of Working America, Bureau of Labor Statistics (BLS), and BEA, we can first calculate the compensation of production workers (here labeled w_p), and then that of managers and supervisors (w_m) so that $w = w_p + w_m$. The data involved and procedure used are presented in Appendix A. Once an estimate of the compensation of managers/supervisors is available, an extended measure of profits can be reformulated as follows:

$$p' = p + w_m = (c - w_p) + i + d + ca - dis = (c_c + c_m - s_p) + i + d + ca - dis \quad (6)$$

where c_m is the consumption of managers and s_p is the saving of production workers. Now, c can be written as $c = c_c + c_m + c_p$, which is the sum of the consumption of capitalists, managers, and productive workers, respectively; meanwhile, $s_p = w_p - c_p$ is the saving of productive workers. Of course the expression $(c_c + c_m - s_p)$ can only be determined for its whole amount as the difference $(c - w_p)$.

From now on, we present our results in two versions: the first, called version A, adopts a narrow concept of profits and is referred to as p , where the compensation of employees is entirely considered not to be a part of profits; and the second, called version B, is the extended version which deals with p' and includes the compensation of managers in the broader definition of profits. The value closest to the 'correct'

⁸ Kalecki (1942), p. 258. Kalecki (1971, p. 179) gives an empirical estimate of profits using the US Department of Commerce as a source, where simply calculates profits as the difference between *the adjusted [for the statistical discrepancy] gross income of the private sector and adjusted private sector wages and salaries*.

⁹ Minsky (1986), chapter 7, p. 172-173.

Kaleckian notion of profit is probably somewhere in between. Of course, p' will always be greater than p , and $(c - w)$ less than $(c - w_p)$.

4. THE PRIMARY SOURCES OF US PROFITS, 1960-2019: CONSUMPTION SUPPORTS AND STABILISES PROFITS IN THE CONSUMER AGE (1979-2008)

An obvious limitation of the current analysis is that the accounting variables used are collected before government redistribution. Thus, the focus is on the process of profit generation in the market place, which rather is the main source of income inequality. A partial analysis of the influence of secondary redistribution is presented in Section 4 to highlight the role of households saving.

Of course, the four determinants of the profits - $(c - w)$ or $(c - w_p)$, i , d , and ca - are not independent of each other over time; they can interact dynamically in several ways. For instance, the government deficit, like the current account, may depend on the level of past investments through their impact on income. Meanwhile, changes in consumption or saving patterns may affect investment decisions and foreign exchange. Similarly, the imports of goods can increase the trade deficit (by draining profits) but improve firms' mark-ups by reducing costs.

However, the analysis of their simple evolution proposed here is a necessary starting point for a more in-depth investigation of causes and effects.

The first decision is how to weight the variables to give them a comparable 'real' weight in their progression over time. We choose to express them as shares of the GDP (y in symbol), rather than converting them into real values by using a price deflator or converting them into fractions of the rate of profit using the value of net private-fixed assets as a weight, as in the previously cited works. A reference value alternative to GDP could have been the total compensation of employees, or even better, the compensation of production workers only. From a Marxian perspective, the ratio of profits to compensation of employees would assume the meaning of an indicator of exploitation in value terms; that is, a measure of the ability of the capitalist class to extract value from labour.¹⁰ However, the results obtained with this last reference value do not lead to a different interpretation of the data. Hence only the shares to GDP are presented here.

The path of the variables involved is shown in Figure 1, with p and p' , at the top, and their respective determinants, at the bottom.

¹⁰On the interpretation of the profit/wage ratio as a measure of capitalist exploitation based on a power relationship, see Screpanti (2003).

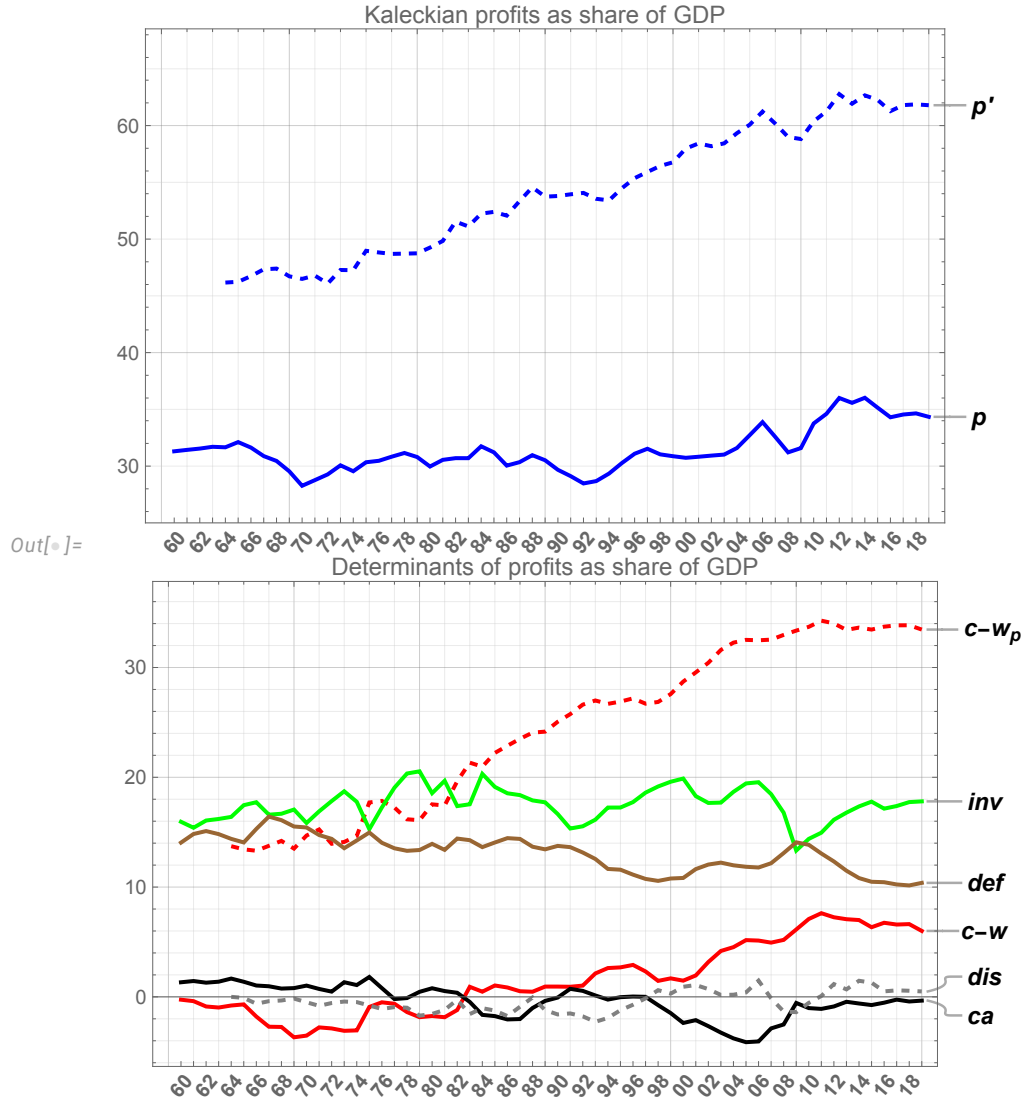


Figure 1. Profits and extended profits (top, years 1960-2019), with their determinants as a percentage of GDP (bottom, 1964-2019). Author's elaborations based on BEA and EPI data.

Neither p nor p' show a clear cyclical pattern overall. Only the first variable shows a cyclical trend but only until the late 1980s. Instead, there is a time trend for p since the early nineties and for p' since the early eighties, which is much earlier and for a longer period. Then, they both fall in 2008-2009, representing the years of the Great Recession, and recover somewhat thereafter, mainly due to a partial recovery

in investments. Overall, p increases by 3 points in 2019 compared to 1960, while the extended profits share p' is 15.6 points higher in 2019 compared to 1964.

While p' is clearly greater than p , the widening gap between these two measures of profit due to the extraordinary growth in w_m , the compensation of managers and supervisors, which began around the early eighties (as shown in Figure A1, Appendix A) is most striking.

Remarkably, the increase in w_m is not due to an increase in the number of managers and supervisors relative to the number of production workers. Rather, it is due to the growing gap in per capita compensation between these two groups. This gap begins in the early eighties with the sharp increase in high pay at the top of the wage hierarchy, which keeps pace with productivity growth, as has been emphasised for several years in the extensive literature coming from both mainstream and dissenters economists.

According to Piketty (2014), since the mid-1970s, the share of the top wage decile in the US has risen from 25 to 35 per cent of the total wage bill. It is, in Piketty's plain words, '*a record level of inequality of income from labor ... higher than in any other society at any time in the past, anywhere in the world*'.¹¹

Mishel and Bivens (2021) refer to '*wage suppression rather than wage stagnation*' to explain the 43 percentage point divergence between productivity growth and median hourly compensation growth between 1979 and 2017 in the US.¹² Stansbury and Summers (2017) provide evidence of the broken link between productivity and the pay of production workers. Later, the same authors (Stansbury and Summers, 2020) further strengthen the hypothesis that the declining worker power is the main cause of the decline in *rents* for the majority of workers, except for the highest paid top executives and managers.

Atkinson (2015) and Milanovic (2019) report that in the US, the degree of association between people who are simultaneously at the top of the distribution of earned

¹¹ On the boom of wages at the top, see also Piketty and Saez (2003), Piketty, Saez, and Zucman (2018), Atkinson (2015, especially ch. 3), and a large subsequent literature.

¹² Rather than changes in the balance of power as the cause of the rise in wage inequality, a more mainstream narrative is provided by Lemieux, Mac Leod, and Parent (2009). According to these authors, the increase in the wage gap may be due to the growing pay of the workers at the top of the wage distribution, whose performance-based remuneration reflects, ex-post, a superior productive ability. In this view, technological change and globalisation are the main factors behind the increase in wage inequality.

incomes and capital income distribution sharply increased from the early 1980s to the early 2000s. A subset of the upper class is now at the intersection of being both between capital and labour income recipients, where a person can be both a supermanager and rentier. This phenomenon coincides with and is a consequence of the growing inequality of labour income, which is essentially taking shape in the marketplace, the locus of decision-making. Here, ordinary workers, because of their weakened bargaining position, have not been allowed to share the increases in the net output value of firms (Berman and Milanovic, 2020).

A similar increasing trend to that of p (and p') also appears for $(c - w)$ and even more so for $(c - w_p)$, both shown in the lower part of Figure 1. These two curves are redrawn in Figure 2 below to emphasise their increasing and rather regular time trend in the central subperiod. The two structural breaks that delimit this period - i.e. the Consumer Age - are highlighted here: the first can be located in 1979, and the second in 2008 at the beginning of the Great Depression.

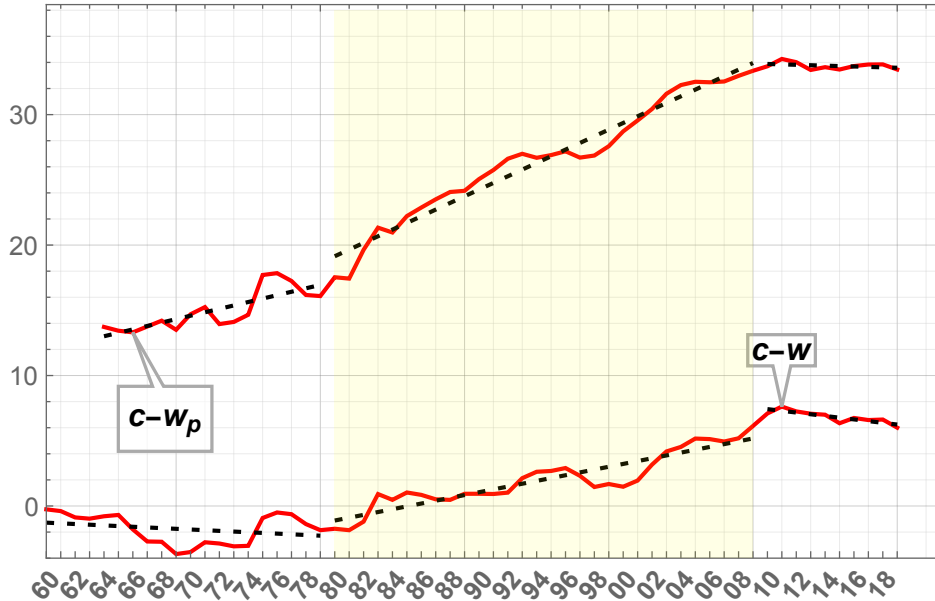


Figure 2. Profits' determinants $(c - w)$ and $(c - w_p)$ as shares of GDP. Author's own elaboration based on BEA and EPI data.

Looking at the time series of the other determinants - i , d , and ca - reveals that they are not the factors supporting the growth path of p or p' .

After a fluctuating upward trend in the 1960s and 1970s, when it reached around 20% of GDP, the investment share remained in a deep slump for the next twenty years (with a low of 15.3% in 1991). It then partially recovered in the early 2000, before falling back to 13.3% in 2009, the year of the Great Recession. In the subsequent recovery, the investment share has remained at around 18%, well below the levels reached in the 1970s; overall, this determinant shows a path correlated with the real GDP growth rate (the Pearson correlation with the growth rate is 0.40, with a t-value of 3.4, and a p-value of 0). On its own, the investment determinant would then have passed on its inherent instability and sluggish growth to aggregate profits. It helps to recall what Minsky, in a Keynesian mood, observed on this subject in 1992. Arguing for the conditions necessary for stabilisation policy, Minsky writes: *'If the economic structural relations ... make the government deficit move quickly in the opposite direction from investment, then both realised and expected profits will be stabilised'*.¹³ These data would suggest that things turned out differently, profits were indeed stabilised. However what ensured their stability over most of the period was the consumption-minus compensation determinant, $(c - w)$, or even better $(c - w_p)$, rather than government deficit spending.

Indeed, Figure 1, lower part, shows that neither the government deficit (d) nor foreign current account balance (ca) contribute to the increasing trend of the profit share.¹⁴

In particular d remains relatively stable around 14% of GDP until 1987, and then it starts to decline to a minimum of 10% in 1998 (coinciding with the first long period of the 'Great Moderation'). It then rises to 12.2% by 2003, remains broadly stable for the next four years, and rises again to 14% in 2009, coinciding with the Great Recession. It then falls back to 10.3% in 2019. Globally, it shows a fairly downward trend. Further, its use as a countercyclical support to aggregate demand (and profits) seems to emerge sporadically only in the crises after 2000, where it rises very timidly due to the greater fall in GDP than to the increase in the amount of government intervention before redistribution (i.e. before its personal tax and transfer policy).

The current account balance ca also shows a declining trend, permanently in negative territory since 1998. Its dominant item, net exports, turns negative much earlier since 1976 and then, after a brief recovery from 1987 to 1992, experiences an even deeper downturn up to the threshold of the Great Recession in 2008. The profit

¹³ Minsky (1992), p. 12.

¹⁴ Of course, the trend in the government deficit (as a share of GDP) shown in this figure differs from the final government deficit, as it includes only items from market or primary distribution (i.e. excluding secondary redistribution).

drain due to current account deficits after 1998 averages 1.7% of GDP points per year. Moreover, ca is moderately negatively correlated with $(c - w)$ with a Pearson $\rho = -0.58$, which rises to -0.78 with respect to net exports, over the entire period. This suggests that the expanding consumer demand has boosted imports.¹⁵

In conclusion, the determinant of profits, when taken together, except $(c - w)$ and $(c - w_p)$, generally give a diminishing contribution from the early 1980s onwards, as highlighted in Figure 3 below.

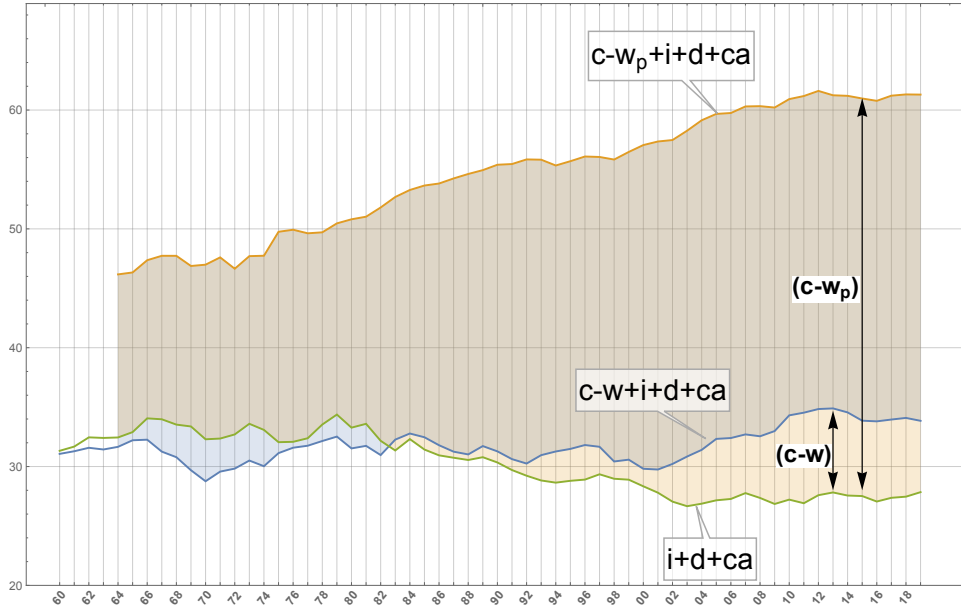


Figure 3. The dominant influence of the consumption-minus-compensation determinant on profits share evolution. Shares of GDP. Author's own elaboration based on BEA and EPI data.

This is the first evidence that the US data offer at first glance: rising consumption (or falling savings) pushes profits onto a growing and relatively stable path, at least

¹⁵According to Milberg and Winkler (2010), in the US experience, offshoring has lowered the cost of uncompetitive imports, allowing firms' mark-ups, profits and profits shares to rise. Consequently the authors argue that this violates Kaleckian macroeconomic principles. We believe that the increase in mark-ups is a permissive condition. Rather it is the joint influence of all demands that has the final say in realising aggregate profits, as Kalecki himself showed. Thus, the drain on profits caused by imports can be more than compensated for by an increase in investments or, as in the present case, capitalist consumption. It is another thing to recognise that offshoring has had a major impact on reducing workers' bargaining power, and thus wage growth.

in the years of the Consumer Age.

To develop this point further, it may be useful to divide our macroeconomic history into three subperiods: the first 19-year period (1960-1978), covering the latter part of the Golden Age; central 29-year subperiod (1979-2008), the Consumer Age; and final 11-year period (2009-2019), covering the period between the Great Recession and start of the COVID-19 pandemic.

To examine our results for these three sub-periods in more detail, equation (5) can be conveniently expressed in difference terms as follows:

$$\frac{\Delta p}{p} = \frac{\Delta(c-w)}{p} + \frac{\Delta i}{p} + \frac{\Delta d}{p} + \frac{\Delta ca}{p} - \frac{\Delta dis}{p} \quad (7)$$

where Δ is the symbol for the annual change of the variables and p and all its determinants are, as usual, shares of GDP. Thus, $\Delta p/p$ is the growth rate of the profits share, which approximates the difference between the growth rates of profits and GDP. The terms on the RHS of equation (7) instead measure the contribution per year that each individual profit determinant makes to $\Delta p/p$.

The same expression as that above, but not repeated for simplicity, has also been calculated with respect to $\Delta p'/p'$, with the only difference being that its first addend is $\Delta(c-w_p)/p'$ instead of $\Delta(c-w)/p$.

Table 1 shows the average annual contributions of its determinants to the growth rate of p for the three periods analysed.

In the Golden Age the largest and only positive contribution to the growth rate of p comes from investment with an average increase of 0.78 percentage points. Meanwhile in the Consumer Age, the only positive contribution comes from $(c-w)$ at 0.72 percentage points. Instead, the third period is characterised by the rebounds from the 2008-2009 contraction in which i and ca (especially its main determinant, net exports) fell sharply, on the one hand, and d rose, on the other. In the upswing the first two recovered, explaining their positive contribution in the following years. Meanwhile, the third, the government deficit, declined, adding a negative contribution to $\Delta p/p$ in this third subperiod. The contribution of $(c-w)$ also remains positive (0.25 points on average), although lower than in the previous period but higher then

Table 1. Contributions to the increase of the profit share, version A.
Annual average percent change per period.

	Golden Age 1961-1978	Consumer Age 1979-2008	Post Great-Recession 2009-2019
$\Delta(c - w)/p$	-0.18	0.72	0.25
$\Delta i/p$	0.78	-0.40	0.17
$\Delta d/p$	-0.16	-0.03	-0.67
$\Delta ca/p$	-0.26	-0.26	0.61
$\Delta dis/p$	-0.22	-0.05	0.47
$\Delta p/p$	-0.05	-0.02	0.83

(*) Source: author's own elaboration based on BEA data.

that of investment. Thus, the socio-institutional environment that favours capitalists' consumption without stimulating investment has persisted beyond the financial crisis.¹⁶

Table 2. Contributions to the increase of the profits share, version B.
Annual average percent change per period.

	Golden Age 1965-1978	Consumer Age 1979-2008	Post Great-Recession 2009-2019
$\Delta(c - w_p)/p'$	0.36	1.03	0.08
$\Delta i/p'$	0.59	-0.22	0.13
$\Delta d/p'$	-0.16	-0.02	-0.39
$\Delta ca/p'$	-0.27	-0.14	0.33
$\Delta dis/p'$	-0.15	-0.02	0.27
$\Delta p'/p'$	0.37	0.63	0.41

(*) Source: Author's own elaboration based on BEA and EPI data.

The contributions to the growth rate of p' (version B) are shown in Table 2. As expected, the main contributor is $(c - w_p)$, except in the Golden Age, where it is overtaken by the contribution of investments. In the Consumer Age, $(c - w_p)$ provides the contribution (for one percentage point) that makes $\Delta p'/p'$ positive, more than offsetting the declines in all others. In the third period, its contribution remains

¹⁶ The contribution of the statistical discrepancy seems to be remarkably positive in the third period, where the recurrence of larger positive discrepancies appears to be more frequent, perhaps because of incomplete data collection, organisation, and processing. This can be probably be explained by national accounting statisticians.

positive, albeit to a lesser extent than that of i . For other contributions, the same comments applies as for version A.

In summary, in both versions, the consumption-minus-compensation has been the engine of U.S. profits growth and stability throughout the Consumer Age. The following section assesses the extent to which this profit determinant is related to the growing imbalance between capital and labour.

5. CHANGING CONSUMER HABITS AND THE DECLINING POWER OF THE TYPICAL WORKER: A HEURISTIC LINK

Despite the lack of separate data on c_c , c_m , s_w , and s_p , it may be useful to consider the following alternative expressions from which the role of households' personal savings emerges:

$$c - w = c - w - y_d + y_d = y_{nw} - s \quad (8)$$

$$c - w_p = c - w_p - y_d + y_d = y_{np} - s \quad (9)$$

Here, y_d is personal disposable income, so that $(y_d - c)$ is equal to personal saving s . Thus, $y_{nw} = y_d - w$ represents personal non-labour income, or personal income excluding the compensation of all employees. Meanwhile, $y_{np} = y_d - w_p$ represents personal income of non-production workers, or personal income excluding the compensation of production/non-supervisory employees only. As above, all variables are expressed as a percentage of GDP. This helps to reveal the fall of personal savings that occurred during the Consumer Age.

Figure 4 shows the temporal evolution of the variables in equations (8) and (9), together with w_m and w_p , from 1964 to 2019. As w_m and w_p start to diverge continuously, especially from the early eighties, the personal saving rate falls sharply for about a quarter of a century from 7.8 to 2.6 per cent of GDP until the start of the Great Recession in 2006. It then reverses its negative trend as households respond to the accumulation of private debt and deflation of the housing market. Non-labour income follows quite different paths. On the one hand, y_{nw} shows an oscillating pattern until the beginning of the Great Recession. Thereafter, it starts to climb steeply mainly due to the combination of the increase in personal current transfers from 2008 to 2010 (2.1% of GDP), and decrease in personal taxes and contributions

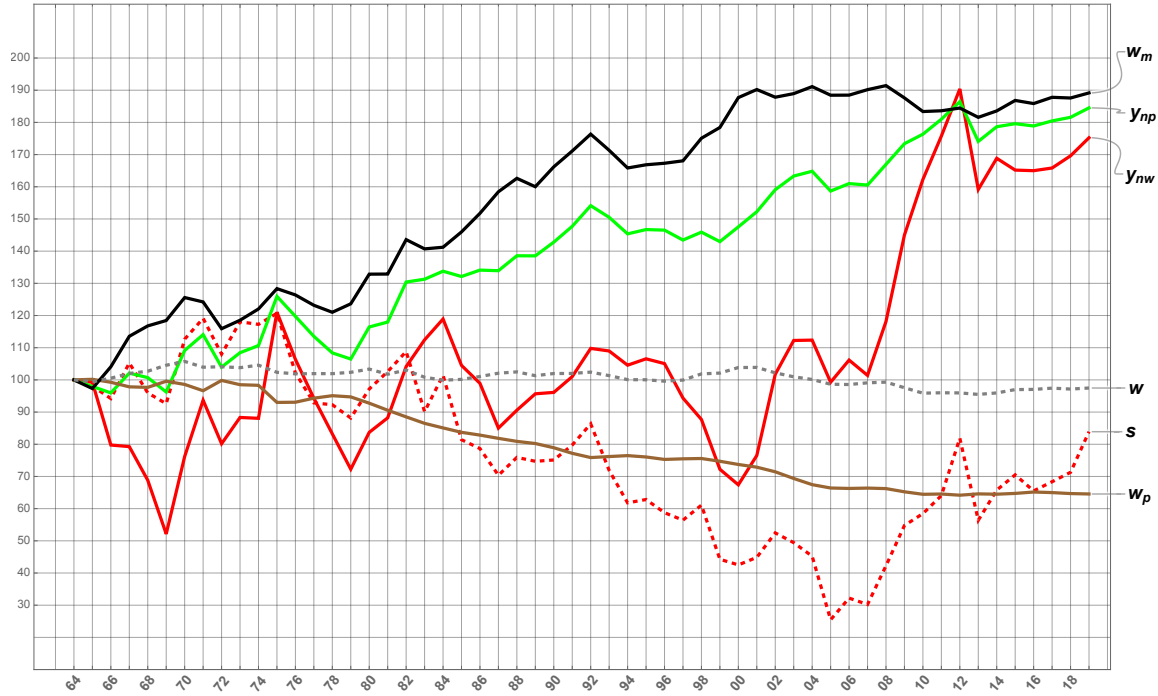


Figure 4. Non-labour incomes, households personal savings, and employees compensation as shares of GDP. Indexes, Base: Year 1964=100. Author's own elaboration based on BEA and EPI data.

(2.3%) over the same period.¹⁷ All this is despite the fall in dividends and interests (-3.2%). On the other hand, the much more regular evolution of y_{np} is due to the smoothing and inflating effect of the inclusion in non-labour income of w_m , which is basically increasing.

5.1. A simple econometric analysis about the inequality-consumption nexus in the *consumer age*.

To go a little deeper into the causes of the increase in the main support for profits share growth, a simple regression analysis is presented which examines the links between this determinant, as the dependent variable, and several variables which

¹⁷ Commentators attribute the resulting rise in fiscal deficit, after taxes and transfers, simply to the automatic operation of stabilisers which responded passively to the extraordinary retrenchment in spending by firms and households during the Great Depression. Some argued that automatic stabilisers, rather than discretionary policy, saved the country from a second Great Depression. See Kelton (2016), citing authors such as Martin Wolf and Paul Krugman.

affected it. These explicative variables are grouped into two types of indicators: socio-economic and financial. The first are measures of inequality in the labour market or income distribution, while the second are traditional variables such as the household wealth and interest rate, as well as two other financial indicators that may influence household behaviour in terms of consumption/saving decisions. The same regressors have also been used in regressions where the dependent variable is s , which is the household saving rate as a percentage of domestic personal income (DPI).¹⁸ The variables in the first explicative group are as follows:

- (1) Productivity/production-workers compensation gap, defined as the divergence between productivity, and production-and-non-supervisory worker's compensation;¹⁹
- (2) Pretax income share held by the bottom 90 per cent of the population;²⁰
- (3) Gini index for the U.S.;²¹
- (4) Collective bargaining coverage (percentage of employees).²²

The second group of explicative variables includes the following variables:

- a) Net households wealth as a percentage of DPI;²³
- b) Real interest rate;²⁴

¹⁸ For our purposes, relating personal saving to personal domestic income is more appropriate, rather than to GDP. However, these two measures are highly correlated, with a correlation coefficient of 0.996.

¹⁹ This divergence is documented in Economic Policy Institute, *State of Working America Data Library*, 'Net productivity per hour worked' and 'Average compensation of production and nonsupervisory workers' series. 'Net productivity' is the growth in the output of goods and services less depreciation per hour worked. Compensation is comprised of both nonwage payments and wages of production/nonsupervisory workers per hour worked in the private sector. Data source: NIPA (compensation) and BLS (Productivity Data). Available at <https://www.epi.org/data/?subject=prodpay> (Accessed 7 October 2024).

²⁰ Source: World Inequality Database. Available at <https://wid.world/data/> (Accessed 7 October 2024).

²¹ Source: Gini Index for the United States, Federal Reserve Economic Data. Available at <https://fred.stlouisfed.org>. (Accessed 7 October 2024).

²² Source: OECD/AIAS ICTWSS database. Available at <https://www.oecd.org/en/about/oecd-archives.html> (Accessed 7 October 2024).

²³ Source: Federal Reserve System, Financial Accounts of the United States, Household Balance Sheet, Balance Sheet of Households and Nonprofit Organizations, 1952 - 2024. Available at: https://www.federalreserve.gov/releases/z1/dataviz/z1/balance_sheet/table/, (Accessed 9 October 2024).

²⁴ Source: AMECO (annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs), Real long-term interest rates, deflator private consumption (ILRC) series.

- c) Household debt as a percentage of GDP;²⁵
- d) Consumer credit as a percentage of DPI.²⁶

Tables 3 and 4 illustrate the results of the regressions with $(c-w)$ as the dependent variable, while Tables 5 and 6 illustrate the results with s as the dependent variable. The regressions with $(c-w_p)$ as the dependent variable are presented in Tables 7 and 8, which have been included in Appendix B because their results essentially confirm the conclusions that can be drawn from Tables 3 and 4.

In a retrospective analysis such as the present one, the purpose of these regressions is simply to test the empirical robustness of the relationship between the consumption-minus compensation determinant, on the one hand, and inequality-financialisation nexus, on the other. Given that the explicative variables chosen are, for the most part, alternative measures and results of interrelated aspects of the same underlying phenomenon, namely, the explosion of economic inequality accompanied by financial innovation, they all show a high degree of correlation, except the real interest rate variable and a Consumer Age dummy. Hence, as well as to avoid the problem of multicollinearity, it is appropriate to include them in the regressions one by one.²⁷

The results in Table 3 fully confirm a strong association between $(c-w)$, or $(c-w_p)$ (Table 7, in Appendix B), and all measures of socio-economic inequality, with a very high goodness of fit, especially for the productivity-pay gap, and with all coefficients significantly different from zero at the 1% significance level. Union coverage also performs as expected with a significant coefficient and with a high goodness of fit when combined with a consumer age dummy. The consumer age dummy is only included in the regressions when it significantly improves the fit.

At the same time, the financial variables are also significant in explaining $(c-w)$ (Table 4) and $(c-w_p)$ (Table 8, in Appendix B), but with a lower fit. The only exception is the interest rate: it has an unexpected positive sign in all regressions, since it increase should reduce c_c , or $c_c + c_m$, and increase s_w , or s_p . Moreover, the interest rate coefficient is insignificant in explaining $(c-w)$ (Table 4).

Table 5 suggests that the socio-economic variables are also significantly related to the households saving propensity (and all with the expected sign). In this case,

²⁵Source: Federal Reserve System, see previous note, (Accessed 9 October 2024).

²⁶Source: Federal Reserve System, see note 31. (Accessed 9 October 2024).

²⁷The correlation matrix of the explicative variables is shown in Table 9, in Appendix B.

Table 3. Consumption-minus-compensation and socioeconomic indicators

Dependent variable ($c - w$)				
Constant	-1.47*** (0.16)	47.55*** (3.15)	-52.30*** (6.33)	12.03*** (0.71)
Productivity-pay gap	0.18*** (0.01)			
Bottom 90% income share		-0.50*** (0.03)		
Gini index ⁽¹⁾			1.40*** (0.16)	
Union Coverage				-0.45*** (0.04)
Dummy 1979-2008				-2.14*** (0.39)
Adjusted R-squared	0.931	0.883	0.784	0.846
P-value(F)	1.42E-35	3.83E-21	1.17E-11	1.30E-20
Observations (1960-2019)	60	60	57	60

OLS estimates; Newey-West standard errors (HAC) in parentheses, *** $p < 0.01$,
 ** $p < 0.05$, * $p < 0.1$. (1) Period 1963-2019

the fit improves even further when the 1979-2008 dummy is added, whose negative coefficient confirms the structural decline in s that characterises the Consumer Age.

Finally, Table 6 shows the results of the regressions between s and the financial variables. All explicative variable except the interest rate have significant coefficients. Meanwhile, the real interest rate interest coefficient, even where it is significant, has the wrong sign in five out of six regressions. Again, the 1979-2008 dummy enters the regressions improving the fit with a significant negative coefficient.

Overall, the evidence is broadly supportive of the hypothesis that the institutional changes and policies that ushered in the neoliberal era, which coincided in its first three decades with the Consumer Age, fostered the increase in the consumption-minus-compensation determinant of profits. That this increase can be explained in terms of both socio-economic and financial indicators is unsurprising: both are related to each other and are circumstances of a unique social process of overspending, which Schor (1998) calls *new consumerism*. It is a process that results from the resort to debt by those who are short of money, either out of necessity and/or to maintain a habitual standard of living, or because of highly intensified standards of social belonging, in a '*national culture of upscale spending*' reinforced by the spread

Table 4. Consumption-minus-compensation and financial indicators

Dependent variable $(c - w)^{(1)}$			
Constant	-21.17*** (2.37)	-9.44*** (1.15)	-17.46*** (2.04)
HH Net Wealth/DPI	0.04*** (3.81E-3)		
Real interest rate	0.13 (0.16)	0.02 (0.11)	0.21 (0.13)
HH Debt/GDP		0.17*** (0.02)	
HH Consumer Credit/DPI			0.93*** (0.10)
Adjusted R-squared	0.597	0.809	0.738
P-value(F)	2.12E-14	8.44E-12	1.20E-12
Observations 1960-2019	59	59	59

OLS estimates; Newey-West standard errors (HAC) in parentheses, *** p<0.01, ** p<0.05, * p<0.1. (1) Period 1961-2019.

Table 5. Saving propensity and socioeconomic indicators

Dependent variable s								
Constant	10.97*** (0.30)	11.90*** (0.33)	-25.88*** (5.69)	-23.13*** (3.35)	-51.52*** (6.34)	-50.19*** (4.66)	2.08** (1.03)	3.14** (0.87)
Productivity-pay gap	-0.13*** (0.02)	-0.12*** (0.01)						
Bottom 90% income share			0.37*** (0.06)	0.36*** (0.04)				
Gini index ⁽¹⁾					-1.11*** (0.16)	-1.05*** (0.12)		
Union coverage							0.32*** (0.05)	0.30*** (0.04)
Dummy 1979-2008		-2.11*** (0.46)		-2.23*** (0.39)		-2.00*** (0.40)		-1.01* (0.56)
Adjusted R-squared	0.675	0.812	0.685	0.838	0.686	0.804	0.686	0.709
P-value(F)	4.06E-08	2.12E-15	4.36E-08	6.34E-18	1.02E-08	1.94E-12	2.67E-09	2.72E-09
Observations (1960-2019)	60	60	60	60	57	57	60	60

OLS estimates; Newey-West standard errors (HAC) in parentheses; *** p<0.01, ** p<0.05, * p<0.1. (1) Period 1963-2019.

of borrowing opportunities, a complement to consumerism.²⁸

²⁸ Schor, 1999, p.4.

Table 6. Saving propensity and financial indicators

Dependent variable s						
Constant	28.24*** (2.37)	27.60*** (2.34)	19.12*** (0.72)	18.55*** (0.66)	25.68*** (1.88)	24.51*** (1.58)
Net wealth/DPI	-0.03*** (6.36E-3)	-0.03*** (4.29E-3)				
Real interest rate	-0.40*** (0.12)	0.06 (0.11)	-0.32*** (0.09)	-0.11 (0.09)	-0.47*** (0.11)	-0.12 (0.13)
HH debt/GDP			-0.15*** (0.01)	-0.14*** (0.01)		
HH consumer credit/DPI					-0.79*** (0.01)	-0.72*** (0.08)
Dummy 1979-2008		-3.10*** (0.64)		-1.35*** (0.36)		-2.22*** (0.56)
Adjusted R-squared	0.560	0.745	0.851	0.881	0.736	0.827
P-value(F)	1.66E-07	1.47E-14	2.00E-18	1.03E-22	3.35E-12	3.01E-16
Observations (1961-2019)	59	59	59	59	59	59

OLS estimates; Newey-West standard errors (HAC) in parentheses; *** $p < 0.01$,

** $p < 0.05$, and * $p < 0.1$.

However, if there is to be a priority between economic inequality and the emergence of new consumer lending institutions, logically, the declining bargaining power of workers is the cause, while the expansion of borrowing facilities is the effect. For example, the fall in wages causes the lack of spending capacity, while consumer credit is its remedy. It is unthinkable that employers will be able to cut wages and that workers will accept this because credit has become easier to obtain.²⁹

A simple empirical support for this hypothesis is provided by a Granger causality test carried out on two variables representative of the two groups, the productivity-pay gap and the households consumer credit/DPI ratio, for the years 1961-2019. The results are shown in Table 7.

While the null hypothesis that the productivity-wage gap does not Granger-cause consumer credit can be rejected at the 0.01 level, the F-statistic for the null hypothesis that consumer credit does not Granger-cause the productivity-wage gap is quite

²⁹ Brown (2008) offers a detailed and extensive discussion of the relationship between inequality and consumer credit in the US. In particular, the author argues that the decline of the personal saving rate in the US is an effect of rising income and wealth inequalities combined with increased credit availability (see Ch. 4 of his book).

Table 7. Pairwise Granger causality test

	One lag		Two lags		Three lags	
Null hypothesis	F-statistic	Prob.	F-statistic	Prob.	F-statistic	Prob.
Productivity-pay gap does not Granger-cause consumer credit ratio	6.9809	0.0107	10.41	0.0002	4.5069	0.0071
Consumer credit ratio does not Granger-cause productivity-pay gap	0.0810	0.7772	0.41441	0.6629	1.0714	0.3697

low.

The literature investigating the relationship between income inequality, and the various phenomena labelled 'globalisation' and 'financialisation' is large and growing, and it is certainly not the case to cover it here.³⁰

6. CLOSING REMARKS WITH SOME NAIVE QUESTIONS ON KEYNESIAN MACROECONOMIC THINKING

A central tenet of Keynesian economics is that investment determines savings, and not the other way round. Further, the former depends on 'animal spirits', while the latter depends mainly on GDP and income distribution. The same causality is also assumed by Kalecki, who also emphasises the importance of profits in creating a favourable environment for private investment, and thus guiding entrepreneurs' expectations. In the Keynes-Kalecky view, the fundamental macroeconomic problem arises not only because a policy of lower interest rates may be ineffective in stimulating private investment, but also because capitalism suffers from aggregate demand growth that is structurally too low to maintain full employment.

Therefore, in the socially managed welfare capitalism that followed World War II, constructing policies designed to avoid cycles, and ensure full-employment and steady growth was considered crucial. The measures then undertaken, quite successfully, to close the saving-investment gap were to expand government deficits and reduce households saving through fiscal redistribution from high to low incomes. These policies were undermined by growing political opposition in the 1970s, which eventually led to the abandonment of demand management and the rise of finance capitalism.

Since then, alternative ways of closing the gap have been undertaken to maintain

³⁰A general key to reading these developments is that all these phenomena are primarily the result of deliberately pro-market policies and procedures that have been in place since the inception of the neoliberal era in the late 1970s, and which continue to prevail despite the ruinous crisis that began in 2007. The authors who follow this line are too numerous to list.

high levels of growth and employment. In Europe, Germany has pursued a mercantilist strategy, structurally generating an export surplus at the expense of the other Euro partners, who have had no choice but to adopt restrictive fiscal policies in line with the European Union's austerity laws, thus tacitly abandoning the goal of full employment. In the leading economy of the Western world, the way out has been different.

We have in fact learned that for the US economy, throughout the Consumer Age, private investment has proved largely insufficient to guarantee a high profit share at a stable pace. Neither rising public deficits, nor structural export surpluses (which have become structurally negative) have been able to permanently compensate for the inadequate investment spending.

Rather, it was the prolonged reduction in saving that effectively played the role of a substantial macroeconomic stimulus. Moreover, this reduction was not achieved through fiscal redistribution to low-income groups. However, even if such a redistribution had occurred, the decline in the propensity to save appears to have been too large to be attributed solely to a shift in income from a class of high savers to a class of low savers.

This, in my view, raises a serious question for much of the macroeconomic modelling of the Keynesian variety.

The argument can be easily illustrated in the following graphical summary (Figure 5) using the basic canonical Kaleckian model.³¹

To put it in Kaleckian terms, we write the saving equation as follows:

$$g^s = \frac{sm}{k}u - a \quad (10)$$

Here, $g^s = S/K$ is the growth rate from the saving perspective, $u = Y/Y^*$ is the realised rate of capacity utilisation (where Y and Y^* are income and full capacity income, respectively), and s is the marginal propensity to save, which in Kaleckian models usually refers only to profit earners. The profit share is given by m , k is the capital-income ratio K/Y^* , and $a = A/K$ is the ratio of autonomous expenditure to capital stock. Let $g^i = I/K$ be the rate of capital accumulation, which is assumed to be constant for simplicity, but is in line with the above evidence. The

³¹ Lavoie (2014, ch. 6) gives a complete illustration of the canonical Kaleckian growth model and all its variants.

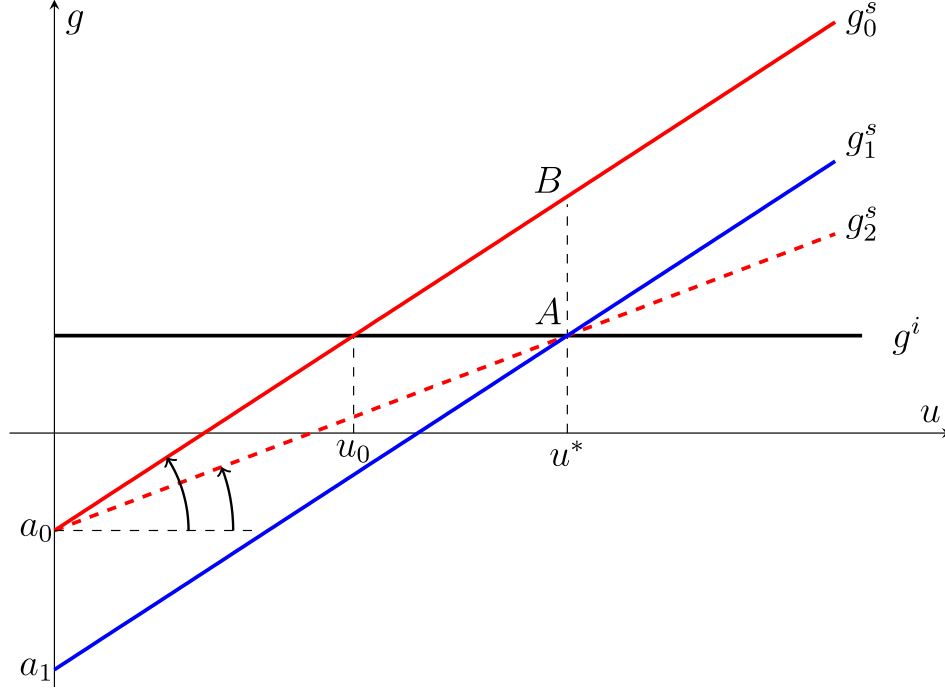


Figure 5. A Kaleckian-inspired illustration of the *consumer age* solution to the saving-investment gap.

initial equilibrium is given in u_0 , at the intersection point of the two curves g_0^s and g^i , below the desired capacity rate given by u^* . This latter capacity rate, which can be thought of as the level required for the social acceptability of the economic system or as a capacity level close to full employment, corresponds to a gap between g_0^s and g^i (equal to the distance AB).

As is well known, in this framework, the conventional Keynesian policy proposition would suggest to inject demand into the economy, thus shifting the autonomous expenditure curve from a_0 to a_1 in order to reach the desired equilibrium at u^* . However, as the evidence in this work suggests, the US socio-economic system has found a different solution over a very long period of thirty years: instead of an expansionary policy initiative in the hands of the government, an unprecedented plummet in the saving rate has occurred. In terms of the above figure, this can be represented by a reduction in the slope of g^s with a rightward rotation of the saving curve to

the position in g_2^s ; that is, by reducing the ratio sm/k . Therefore, the proactive budgetary policy not just proved unnecessary to achieve the employment and GDP growth targets, the profit share improvement was also made possible during this period. In fact, the fall in the saving rate (from 10.3 to 4.59% between 1979 to 2008; i.e. a fall of 55%) has been so great that it has outstripped both the increase in m (an increase of 20%, over the same period) and the fall in k , the capital-income ratio, as suggested by the official statistics (a fall of 20%).³²

It is an adaptive process of change that surprises much of traditional Keynesian thinking, according to which rising inequality should have reduced consumption by lowering the average marginal propensity to consume.³³

All this is common knowledge and has been interpreted in many ways. The reduction in households saving has been achieved by stimulating households indebtedness, which creates virtual wealth, through asset price bubbles, or easy credit policies for middle-class and low-income households (Brown, 2008; Cynamon and Fazzari, 2008; Barba and Pivetti, 2009; Van Treeck, 2014; Azizi and Darcillon, 2014; Nikiforos, 2016), or by increasing health expenditure (Chen et al., 2019). Many have suggested this to be an unsustainable route, but this is not the place to review the many accounts of the collapse of personal savings in the US.³⁴ Some economists have drawn on the life-cycle hypothesis, which is both theoretically flawed and empirically unsupported (Guidolin and La Jeunesse, 2007), while others have pointed to the effects of income inequality (Brown, 2008; Wisman, 2009; Palley, 2010; Alvarez-Quadrado and Vilalta, 2018).

The decline in the propensity to consume is a matter of interest for all social sciences. There has been a change in the lifestyle of individuals which goes beyond that implied by mere changes in income or wealth, however large; it appears as a change in society itself. It is a lesson of history that the US socio-economic system has built a new framework capable of generating sufficient effective demand, despite the decline in the median wage of workers over such a long period. One view worth

³²The suggestion that the decline in the saving rate may be due to measurement errors in the NIPA methodology, rather than a real phenomenon, has not proved to be persuasive (Guidolin and La Jeunesse, 2007; Cynamon and Fazzari, 2017). Assuming that the data on capital stock may be indicative, the ratio of the capital stock at constant national prices to the real GDP has fallen from 4.18 in 1960 to 3.36 in 2019. Federal Reserve Economic Data; series RKNANPUSA666NRUG and RGDPAUSA666NRUG; <https://fred.stlouisfed.org>.

³³The model used here as an example is based only on flow analysis. Of course, models that take stock effects into account offer deeper insights into the explanation of consumption/savings behaviour. See, for instance, the discussion in Godley and Lavoie (2007, ch. 3).

³⁴One of the first papers addressing this 'puzzle' is Summers and Carroll (1987).

mentioning in this regard is that of Brown, who suggests that this is a case of institutional change, reminiscent of the role of a Marxian 'superstructure' in reshaping habits and mass culture to conform to dominant class interests.³⁵

According to Keynes's General Theory, the propensity to consume (or save) is a factor that is part of the economic framework, which he regards as given, even if not constant, and capable of giving the economic system a degree of stability. In his analysis, it is an ultimate independent variable based on one of the fundamental psychological factors - the tastes and habits of the consumer - which are considered to be fairly stable. However he also warns that the '*division of the determinants of the economic system into the two groups of given factors and independent variables is, of course, quite arbitrary from any absolute standpoint*' and that this division must be grounded on experience.³⁶

The US experience in the long Consumer Age suggests that the psychological propensity to consume should be removed from the category of given factors because of cultural, technological, and institutional changes.

7. CONCLUDING DIGRESSIONS

The capitalistic economy requires a stable and continuous increase of the profit share at the expense of ordinary workers and welfare recipients. This study shows that in the US, where its neoliberal variant has shown a low propensity to reinvest realised profits in the real economy, this essential requirement has been satisfied through the unequal rise of private consumption. This has been largely driven by the spending of the upper-middle class, notwithstanding the stagnation of wages for most working people. Actually, in the Consumer Age, fluctuations in investment have largely been offset by increasing consumption, rather than by government deficits. Although the resulting detriment of saving has a limit in the indebtedness excess or savings exhaustion, the basic characters of the US socio-economic system have survived well beyond the 2008 financial crisis and COVID-19 recession. This suggests that the roots at the origin of the Consumer Age are still under way, with the power of the financial institutions becoming even stronger given the continuing weakness of collective bargaining.

Nobody knows whether in the near future a new civilisation of capitalism will be attempted in this key country, as in the rest of the Western world dependent on it.

³⁵Brown wonders: '*After all, who can dispute the fact that these units [financial elite and business organizations] are responsible for the allocations of vast resources for the development of a relentless, ubiquitous institutional machinery that exhorts people to borrow and spend?* ' (p. 58).

³⁶Keynes (1973), p. 247.

Whether a pendular Polanyian swing towards a re-embedding of the economy into non-economic institutions, or, to put it another way, a return to something approximating a Keynes's state managed capitalism, will occur, as happened in the three decades after WW2 with improvements in living conditions and economic equality, remains to be seen.³⁷ In such a case, the profit motive and private production that it encourages will have to be supported much more by public consumption and investments targeted to an extension of public goods for the people rather than by private current consumption.³⁸

Public investments do not only merely to guarantee fundamental rights for all citizens. They are needed also to strengthen the role of the State as the main source of dynamism and innovation (Mazzuccato, 2013). In particular, they are necessary for social objectives, going beyond income maximisation, such as those advocated by the American political philosopher Michael Sandel:

*This generation could commit itself to an equally consequential investment in an infrastructure for civic renewal: public schools, public transportation systems, public health clinics, playgrounds, parks, recreation centers, libraries, and museums that would, ideally at least, draw people out of their gated communities and into the common spaces of a shared democratic citizenship.*³⁹

However, in my opinion, all this will only be possible if the capitalist elites accept to leave the primacy of power to the political representatives as interpreters of the common goals of social equality and respect for the natural environment. This implies that the levers of fiscal policy, accompanied by the full control over the creation of money and credit, will have to be returned to the hands of genuinely democratic governments capable of counterbalancing concentrated economic power in an international context inspired by cooperation rather than competition. A reassessment of the role of the State and a restoration of workers' bargaining power go in exactly the opposite direction to that of neoliberal deconstruction where Kalecki's fundamental

³⁷ Although it is always hazardous to try to fit the complex current trends into a predetermined periodised scheme, if we consider the four-stage model of the Polanyian double movement - marketisation, countermovement, disruptive strains, and socialist/fascist irruption - then at the time of this writing, the US, just like the rest of the Western world, seems to be situated in between the third and fourth stage. See Polanyi (2001).

³⁸ A recent discussion on Keynes's view on reforming capitalism can be found in Konzelmann et al. (2021).

³⁹ Sandel (2009), p. 138.

reforms are as far away as ever, not to mention Keynes' bold and visionary prophecies.⁴⁰

What has gone wrong with the current consumer/financial capitalism is incessantly repeated by all critics of neoliberalism. It suffers from at least three drawbacks. First, it creates a polarisation that deeply divides society and threatens its cohesion; second, it jeopardises human survival on the planet; and third, it is morally questionable. Moreover, it should not be forgotten that what enforces the viability of this system is a culture industry, based on the values of individualistic egoism, whose endless message is the coalescence of competitive consumption and freedom. Therefore, in addition to the many civil and political changes and reforms that are needed, a renaissance will also require a cultural revolution.

Predicting whether, when, and under what conditions the enormous social energy necessary for such a transition will be generated in the Western world, through powerful social movements, in the near or distant future, is a challenge for even the best historians.

⁴⁰ The celebrated essays *Political aspects of full employment* (Kalecki, 1971; part III, ch. 12), and *Economic Possibilities for Our Grandchildren* (Keynes, 2010) are examples of courageous and enlightened originality.

APPENDIX A. AN ESTIMATE OF THE COMPENSATION OF PRODUCTION AND
NONSUPERVISORY WORKERS FOR THE US ECONOMY AS A WHOLE.

Our estimate of compensation of production and nonsupervisory workers data for the US economy, in current dollars, is based on the average compensation of production/nonsupervisory compensation workers series from the EPI Working America Data Library. This series is constructed by the EPI using average hourly wages from the Bureau of Labor Statistics (BLS) CES and then adjusted for non-wage compensation using the Bureau of Economic Analysis (BEA) NIPA data on the composition of workers' compensation.⁴¹ Below, I show briefly how a single annual value has been estimated. The data available are as follows:

w = average hourly compensation of production/non supervisory workers (source: EPI, in 2020 dollars)

h_w = average weekly hours of production/nonsupervisory workers (source: BLS)

L = production/non supervisory employees (in thousands, source: BLS)

p_{2020} =Personal Consumption Price Index, based 2020 (source: BEA), used to inflate compensation in 2020 dollars

Using these data, the single annual value of production/nonsupervisory workers compensation (W_p) in current dollars is obtained as follows:

$$W_p = w \cdot h_w \cdot 52 \cdot L \cdot p_{2020}$$

Then, we can calculate the managers/supervisors compensation (W_m) by subtracting it from the BEA total workers compensation:

$$W_m = W - W_p$$

The trend of the two variables estimated in this way is depicted in Figure A1 below, which shows how differently they increase from 1964 to 2021. While W_p exhibits an almost linear trend, W_m follows a quadratic trend, clearly decoupling from W_p around the year 1979, thus revealing the typical bifurcation that marks the beginning of the neoliberal era.

It is important to note that this cannot be attributed to a change in the composition of employees, as the BLS data show that ratio of production/nonsupervisory employees to total employees is fairly stable, fluctuating around 82%, within a range

⁴¹ See EPI, State of Working America Data Library, 'Productivity and hourly compensation' series, available at <https://www.epi.org/data/?subject=prodpay>. Accessed 30 January, 2023. Further details on EPI methodology are accessible at <https://www.epi.org/data/methodology/>.

of $\pm 1\%$.⁴²

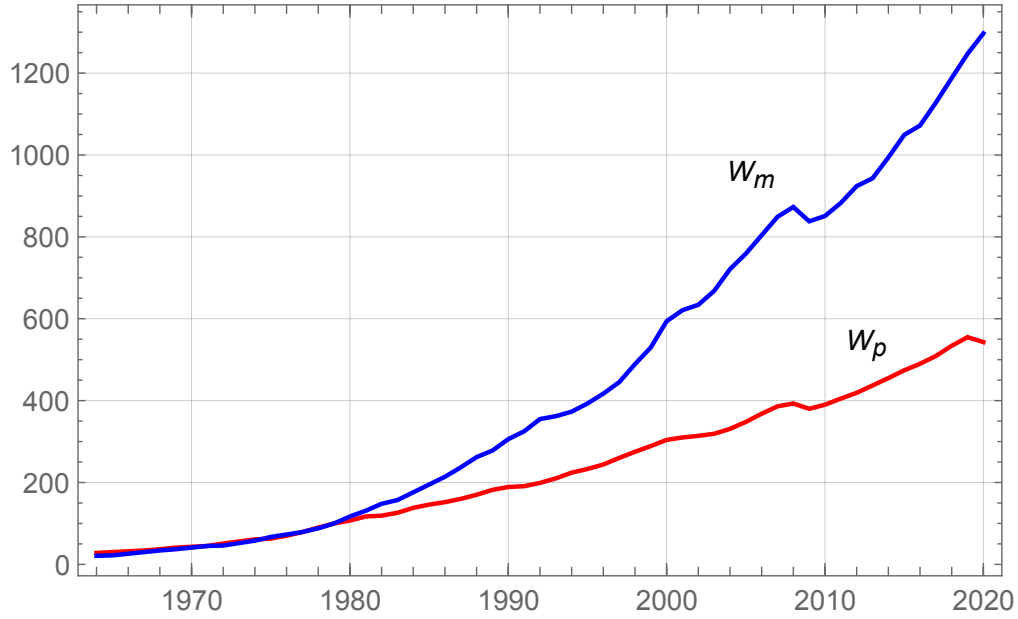


Figure A1. Compensation of production/nonsupervisory workers (W_p) and managers/supervisors (W_m). Index (1979=100).

⁴²See BLS, Employment, Hours, and Earnings from the Current Employment Statistics survey (National), Series Id: CES0500000001 and CES0500000006. Available at <https://data.bls.gov/pdq/SurveyOutputServlet> (Accessed January 31, 2023).

APPENDIX B. REGRESSIONS WITH $(c - w_p)$ AS DEPENDENT VARIABLE**Table 8.** Consumption-minus-production workers compensation and socioeconomic indicators

Dependent variable $(c - w_p)$				
Constant	17.05*** (0.47)	125.88*** (5.68)	-96.00*** (11.13)	46.12*** (0.97)
Productivity-pay gap	0.41*** (0.02)			
Bottom 90% income share		-1.10*** (0.06)		
Gini index			3.12*** (0.28)	
Union coverage				-1.09*** (0.05)
Adjusted R-squared	0.961	0.888	0.818	0.963
P-value (F)	8.29E-30	1.86E-23	1.08E-15	3.34E-29
Observations 1960-2019	56	56	56	56

OLS estimates; Newey-West standard errors (HAC) in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ **Table 9.** Consumption-minus-production workers compensation and financial indicators

Dependent variable $(c - w_p)$			
Constant	-27.63*** (4.89)	-2.65 (2.36)	-21.50*** (4.40)
Net wealth/DPI	0.09*** (7.59E-03)		
Real interest rate	0.74*** (0.27)	0.40** (0.15)	0.83*** (0.23)
HH debt/GDP		0.40*** (0.04)	
HH consumer credit/DPI			2.18*** (0.19)
Adjusted R-squared	0.637	0.878	0.785
P-value (F)	4.82E-16	1.37E-14	1.64E-15
Observations 1964-2019	56	56	56

OLS Estimates; Newey-West standard errors (HAC) in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 10. Correlation matrix for the explicative variables used in regressions.

	Productivity-pay gap	Bottom 90% income share	Gini index	Union coverage	HH net W/DPI	Real interest rate	HH debt /GDP	HH cons. credit/DP
Prod.-pay gap	1	-0.9722	0.9146	-0.9442	0.8508	-0.128	0.9342	0.914
Bottom 90% income share		1	-0.9522	0.8943	-0.8946	0.0927	-0.9054	-0.9195
Gini index			1	-0.8487	0.8433	0.0365	0.8708	0.8538
Union coverage				1	-0.7123	-0.0629	-0.882	-0.8209
HH net W/ DPI					1	-0.2306	0.7842	0.9057
Real interest rate						1	-0.1241	-0.262
HH debt/ GDP							1	0.8874
HH cons. credit/ DPI								1

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