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A Burning Debt. The Influence of Household Debt on Investment, Production and Growth

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Abstract

This paper examines how financialization and pervasive household indebtedness influence investment, employment and profit. More precisely, it builds on the post-Keynesian literature on financialization, representing household indebtedness as a stable source of liquidity that affects not only consumption behaviour, but also investment and income distribution: by enhancing exploitation, by modifying the multiplier effect, and by supporting market concentration. Finally, a proposal for the definition of a second stage financialization is advanced.

Keywords: Household Credit, Financialization, Monetary Theory of Production.

1 Introduction

According to David Ricardo, the consumption of unproductive workers is "[...] just as necessary and as useful with a view to future production, as a fire, which should consume in the manufacturers warehouse the goods which those unproductive labourers would otherwise consume" (Ricardo, 1951a, p. 421).

In other words, any consumption out of a revenue that is not the result of a productive activity is irrelevant in terms of growth.

This statement is very much outdated for several reasons: most importantly, the definition of unproductive workers and unproductive activities, that refers to the service sector. Moreover, by defending Say's law and thus misinterpreting the factors inducing investment[1], Ricardo disregards completely the relevance of aggregate demand as a stimulus for growth: a lesson taught by the Great Depression and well learned and explained, among others, by John Maynard Keynes and Michał Kalecki.

Nevertheless, today that the glorious days of Keynesianism are long gone, this fire in the warehouse describes unexpectedly a familiar scenario, in which the sustained spending of the household sector ensures high profits to the corporate sector but does not trigger an increase in investment and therefore in production and employment.

This investment-profit disconnect seems somehow to counterpart the income-spending disconnect resulting from the increase in household credit. Here, we will explore some aspects of this double disconnect, trying to provide an explanation for the slow pace of capital accumulation.

Ricardo's statement on the consumption of the unproductive classes has led us to re-read the work of the economists that accomplished the *revolution of effective demand*, paying specific attention to the aspect of their thought that reflects on the tendency of capitalism to become locked in stagnation and underemployment equilibrium. These aspects have been largely ignored by the New Economics reading of Keynes and can be synthesized well by Keynes' sentence: ``If,

[1] The discussion between Ricardo and Malthus pertained precisely to the validity of Say's law. On this topic, see for example the book by Lilia Costabile on Malthus, with an introduction by Augusto Graziani (Costabile, 1980).

however, we are tempted to assert that money is the drink which stimulates the system to activity, we must remind ourselves that there may be several slips between the cup and the lip" (Keynes [1936]1973, p.173}.

The paper begins with the description of some stylized facts and with a review of the theories of capital accumulation from Keynes to more recent Post-Keynesian contributions. Then, we will compare theories and data, in order to appreciate what has changed in the mechanisms at play in the investment decisions of the entrepreneurs at the current stage of financialization. In fact, we will try to argue that, since the 1980s, the process of financialization has gone through two different stages. The first stage goes from the 1980s to the early 2000s, a time during which there has been a strong influence of shareholders, especially institutional investors, on the management of firms, that led the latter to compete for funds on financial markets by raising the value of their assets and facing or committing hostile take over threats. In this first stage, financial profits were high but so was firms' indebtedness, together with financial market confidence. The current phase is instead characterized by a deep entanglement of the non-financial and the financial corporate sectors: not only financial investors govern the non financial firms but the latter themselves act like financial investors. The competition among firms is appeased and the new indebted sector is the household sector.

We will find that, in this historical phase, household debt does act like a fire in the warehouse, as it *consumes* or exhausts the conditions for investments to be convenient to the current capitalist class.

More specifically, three arguments will be outlined: the exploitation argument, that points out how household debt puts workers in a weaker bargaining position, allowing firms to deepen exploitation and therefore increase production, while relying on a stable or contained labour costs and a flexible labour force; the multiplier argument, which explores the effect that an increase in investment would have on the indebtedness and spending behaviour of households; the market concentration argument, where we advance the hypothesis that the entanglement of the financial and non financial sectors enhances a conservative and routinized behaviour in finance and investment, thus impeding the emergence of new productive structures.

2 Some Stylized Facts about Production and Profit

2.1 Fixed Capital Formation

Half way through the Eighties the gross fixed capital formation to GDP ratio has started a worldwide declining path. In fact, the growth in the developing countries has not been able to compensate for the fall in the developed (figure 1). Canada, and to a certain extent also France, are exceptions: fixed investments as a share of GDP recovered slightly since the year 2000. In Canada, the increase in investment is accounted mainly by the expansion of the oil sector. In France, instead, the recovery is much smaller and due mostly to the business services and financial intermediation sectors.

This is in line with the experience of other developed countries which have all seen a similar shift of resources from the manufacturing sector to the service sectors, especially the sector of business services and financial intermediation (see table 1).

This is consistent with data about the composition of household final consumption expenditures, the largest share of which is accounted for by services, especially health care and financial services (BEA). Therefore, we could claim that firms shifted their production toward the sectors that enjoy the strongest final demand. Nevertheless, the composition of household expenditures cannot be associated entirely with a change in household preferences, but also with the fall in the price of goods (especially non durable) and the rise in the price of services. This price dynamics results rather from the structure of the market and the deriving pricing decisions of firms than from supply-demand mechanisms.

However, notwithstanding the increase in investment in those sectors, the economy of the developed countries appears to be driven by consumption expenditures, as opposed to the rest of the world.

Figure 2 shows a disproportionate growth in investment spending and final consumption expenditures in the developed countries[2].

[2]This structural change can be defined as a de-industrialization process, as it involves the shift of resources from the second to the third sector, but also as the result of a technological change that

The counterpart in terms of income distribution, household debt and persistence of household spending regardless of income fluctuations has been discussed in: the increasing inequality has enhanced indebtedness and sustained consumption spending.

2.2 Retained Earnings

The fall in fixed capital formation has been often explained, on the one hand, by the crowding out effect due to more profitable financial activities and, on the other, by the necessity to redistribute profits to shareholders to avoid a fall in asset prices and the danger of hostile take overs. From this latter obligation follows a reduction of the internal funding available to finance investments (see for instance Crotty, 1993,2005, Lazonick, and O'Sullivan, 2000, Bhaduri et al., 2006, Orhangazi, 2008, Davis. 2003, Froud et al. 2002).

Graphs A, B and C in Figure 3 confirm this explanation for the period between the years 1980 and 2000, when the net operating surplus declines relative to net capital formation, showing the lower profitability of production; the undistributed share of profits shrinks and the investment in financial assets counts for an increasing share of the total assets.

Since the beginning of the XXI century, instead, the trend seems to have changed: the net operating surplus recovers, relative to investment, together with the share of undistributed profits, and even the accumulation of financial assets slows down. In other words, it appears that firms are hoarding their revenues: a behaviour that they share with banks, as shown by Robert Pollin in his recent paper on the US liquidity trap (Pollin, 2012). At the same time, the frequency and the value of the mergers and acquisitions rose tremendously from 2004 to 2007 (Gaughan, 2007), showing a lively activity of firms in operations that lock in competitors and maintain their market position.

These stylized facts suggest that the current stage of financialization differs from the past regarding the structure of the liquidity flows and its relation with the accumulation process. On the one hand, in fact, household debt is a relevant source of liquidity for the system and for firms, who absorb the largest part of it. On the other hand, firms retain part of that liquidity, putting a hold on investment plans and often having an important lending position.

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relies in a stronger relevance of intangible assets and R&D

Firms' increased liquidity preference has been explained by some economists as the result of the increased uncertainty connected to the stability of final demand, due to the elevated indebtedness of households (Stockhammer, 2004, Crotty, 2005, Bhaduri, 2011, Barba and Pivetti, 2012). Indeed, the crisis of 2007 in the US has shown the risks to which a growing household debt, connected to wage stagnation, can expose the economy. Nevertheless, notwithstanding the crisis and the following recession, firms and governments are not supporting substantial interventions directed to changing the structure of income distribution or to regulating financial markets in order to promote productive investments. The timid attempts made immediately after the crisis are fading out quickly.

In the next sections, we will try to build on the idea that financial cycles coexist with a long-run accumulation regime that rests on the persistence of household indebtedness and on the progressive entanglement of financial and non-financial sectors.

3 Theories of Capital Accumulation

The Keynesian and Post-Keynesian theory of income distribution builds on the idea that investment is the fundamental variable driving growth, employment and consequently income shares.

Keynes' analysis of the inducement to invest focuses heavily on some psychological variables. Minsky, Kalecki and Eichner instead pay more attention to the external financial constraints faced by firms. From a different perspective, which stands outside the Keynesian tradition, Schumpeter discusses the fundamental function of innovations in driving growth and the crucial role played by banks in guiding the process.

In section 2 I shall outline some main aspects of the above mentioned theories and some of the recent Post-Keynesian contributions (Crotty, 2005, 1993, Lazonick and O' Sullivan, 2000, Bhaduri et al., 2006, Orhangazi, 2008, Barba, and Pivetti 2012, Froud et al., 2002}[3]

Keynes (Keynes[1936], 1973, ch.V) identifies two sets of expectations influencing investment

[3] In addition to the works that I explicitly consider here, I would like to mention here the interesting works by (Davis, 2003, Mcnally, 2009, Bhaduri et al., 2006, Epstein, 2005, Fumagalli and Lucarelli, 2001, Hein, 2012, Rochon and Rossi, 2010)

decisions, and thereby output and employment: short term, that is what price and quantity to expect for the sale of finished items, and long term, which depend on the return from investment.
Short term expectations are influenced by the most recent results of production and sale of output, although the decision to produce durable goods is more complicated, as it requires a more long term evaluation. Long term expectations are influenced partly by *existing facts*, such as the existing stock of capital and consumer demand, and partly by *future events*, such as changes in the composition and in the quantity of capital and consumption expenditures.
Among the Keynesian determinants of investment, we find some relevant financial factors: the marginal efficiency of capital, which is a formalization of the impact of the borrower's risk on the volume of investment, the theory of two prices, the uncertainty due to speculation.
The theory of two prices has to do with the comparison between the asset price on the secondary market and the price for the production of new capital assets: if the one is lower than the other, there is no reason for the entrepreneur to produce or buy a newly built investment good. The latter factor, instead, is related Keynes' understanding of the financial markets. According to Keynes, financial markets function on the basis of conventions “established as the outcome of the mass psychology of a large number of ignorant individuals [, which] is liable to change violently as the result of a sudden fluctuation of opinion due to the factors which do not really make much difference to the prospective yield [of a production plan]” (Ibid, p. 154)
In his *A Treatise on Money* (Keynes [1930], 1958) , Keynes considers more explicitly the problem of investment goods financing. There, the saver chooses between deposits and asset titles, according to his perception of the prospective yield relative to his risk aversion, thus affecting the price of new investment goods. The credit sector can play a stabilizing function by balancing off the savers' behaviour: buying the assets that the public is less prone to hold and generating the corresponding holdings that the public has a higher propensity to buy.
Therefore, the price of investment is the result of the psychological attitude of savers and of the behaviour of the banks. Unfortunately, not much hope resides on the banks' commitment for stability, as they do not avoid the influence of gregarious behaviour.

The role of expectation and of mass psychology is therefore a very relevant element in Keynes' explanation of the inducement to invest.

Uncertainty rules financial markets, where conventions are arbitrarily established and disrupted by speculation. Nonetheless this condition characterizes the investment decisions in a more radical way. In fact, it is in the nature of capitalism to be driven by individual, yet, interdependent decisions.

“The amount of aggregate income and aggregate savings are the results of the free choices of individuals whether or not to consume or whether or not to invest; but they are neither of them capable of assuming an independent value resulting from a separate set of decisions taken irrespective of the decisions concerning consumption and investment” (Keynes, 1973, p. 47).

From this principle derives that the equality between saving and investment cannot but be an ex-post equality, determined by investment decisions. The mechanism allowing for this equality is the increase in output generated by an increased employment level, which Keynes describes in the ch.10 on the marginal propensity to consume and the multiplier.

“The multiplier tells us by how much their employment has to be increased to yield an increase in real income sufficient to induce them to do the necessary extra saving, and is a function of their psychological propensities” (Keynes, 1976, p. 117).

Therefore, the discussion on the multiplier lies on the explicit link existing between investment, employment and savings (given the value of the marginal propensity to consume). It is interesting to notice that Keynes mentions the possibility of negative savings: ``re-employment will gradually reduce [...][the] acts of negative saving and reduce, therefore, the marginal propensity to consume more rapidly"(Keynes, p. 121).

Finally, although the theory of money that emerges from the General Theory differs from Keynes' previous works, as it has been largely studied and commented (see for instance, Graziani, 1981}, we may point out that the controversial passage in which Keynes talks about *wasteful loans* can be considered under the light of Keynes' preoccupation for controlling the inducement to invest. In fact, he says, “[...] unemployment relief financed by loans is more readily accepted than the financing of improvements at a charge below the current rate of interest”. Shortly after, instead, he argues that “[a]t periods when gold is available at suitable depth experience shows that the real wealth of the world increases rapidly; and when but little of it is so available, our wealth suffers stagnation and decline”. The latter statement would lead to conclude that there is no such thing as a *wasteful loan*, as loans augment the available liquidity. Nonetheless, he seems to believe that

public investments, that enhance productivity, would induce more private investment than some liquidity transfers to the unemployed[4]. In other words, Keynes points out here the non neutrality of money, by highlighting that the liquidity can have very different functions, uses and, therefore, effects on production, depending on the economic subjects who hold it.

The effort of Keynes in the *General Theory* focuses on showing that the capitalist system usually finds itself in an underemployment equilibrium, the main reason being the instability of investment that is enhanced greatly by the financial markets. The author that developed this effort further is Hyman P. Minsky (Minsky, 1975), who takes into account the reciprocal relation between the liability structure of the economy and the price of capital assets, merging the theory of money with the theory of investments and defining thus the Keynesian *slips* between the quantity of money and the quantity of investments.

In his theory, the quantity of *effective* money and the short and long-term expectations drive the decisions of investment by determining the supply and the demand price of capital assets. The supply price depends on the interest rate, the quantity of money and the subjective lender's risk (depending on the size of the investment plan and the leverage ratio). The demand price, instead, relies on the capitalization rate (that is the opportunity cost of investment) and on the expected future profits. If the expectations, the perceived risk and the quantity of money allow for an increase in investment, profits will also rise bringing along optimistic expectations and thus having a feedback effect on the financial structure and eventually leading to financial fragility.

The principle of effective demand can be found also in the works of Michał Kalecki on the inducement to invest and the determinants of profits (Kalecki, 1969, 1971). Kalecki relies less than Keynes on psychological arguments and introduces new elements of discussion, connected to various economic, social and technological aspects. He shows from very simple accounting identities that the capitalists earn what they spend, that is, profits (inclusive of unsold goods) are equal to the consumption and the investment of the capitalists. According to him, capitalists will continue investing until the profit opportunities are exhausted. Letting the cyclical aspects of his discussion aside, he distinguishes three main determinants of investment: the availability of

[4] The Keynesian idea that not any public spending is *good* spending is pointed out in several works such as Kregel, 1985, Parguez, 2012, Seccareccia, 1995, Smithin, 2013.

internal funding, which determines the borrowing capacity of the firm and its degree of risk; the profitability, i.e. the *normal* or *average* rate of profit expected from an investment plan; and the state of technology and the expected gains due to an increase in productivity.

Separately, he discusses two other channels that can expand profits: net exports and the so-called *internal exports*, which correspond to the net public spending. In his analysis, net exports and net internal exports induce new investments and increase employment. In fact, he states very clearly that an inflow of new savings which would push the finance frontier further enhances the inducement to investment.

External and internal export are stabilizing factors (Bellofiore and Passarella, 2009}, that permit capitalism to overcome the distributive problems which, besides negative expectations and uncertainty, can lock the system into an under-employment situation (Rugitsky, 2013).

Wages and profit margins are determined by the degree of monopoly and the size of the mark up, set by firms. In a slump, the wage share is likely to fall and the market concentration to augment. In such circumstances, any increase in production will remain partially unsold, causing a fall in prices and profits, which in turn would impede the recovery.

Policy measures supporting employment would have a positive effect both on wages and on profits but the fear of the class struggle and the necessity to maintain the discipline in the factories leads capitalists to look with suspicion at any public intervention supporting employment in a stable way. Moreover, according to Kalecki, the market concentration, and therefore the existing power structure of the market, is also threatened by the strength of unions, and the consequent rise in wages.

The problem of the financial constraint is developed further by Alfred Eichner (Eichner, 1976). According to him, it is convenient for the firms to condense in *megacorps*, which enjoy a larger corporate levy. Firms accumulate savings to reduce the necessity of external borrowing and still be able to implement investment plans with a view to increase their size and market power. He distinguishes two types of investment. One is taken on to enhance the corporate levy in the long run, and includes: advertising, R&D and any activity that allow to a differentiatiation of the product, rise in entry barriers and the creation of a positive public image. Its determinant is the marginal efficiency of capital. The other type is taken on with a goal of maintaining market shares: new plants and equipment, and increased capacity. The key determinant, in this latter

case, is the expected rate of growth of the industry sales, which is based on the past trend.

Joseph Schumpeter, in his works done in Austria (see De Vecchi, 1993), explains that the type of investment undertaken is more relevant relative to growth than its size. More specifically, innovations, which consist in the access to the productive system of a new productive structure, are the prime sources of the economic growth.
Such a new combination of techniques has to overcome a series of obstacles in order to be implemented: dominant conventions, conservatism and the evaluation and judgment of the credit sector. That is why Schumpeter identifies in credit the main function of the capitalist system.
In fact, the entrepreneur cannot be seen as the one who already detains the means of production. Instead, it is the bank that, by financing the innovations, allows for change, thus playing a crucial role in social equilibria.
At the same time, the debt of the new entrepreneur is not toward the sellers or the bank, but it is toward the entire society. In fact, by means of loans, the bank creates credit money and so it modifies the relation between the latter and the issued money, affecting the activity of the other banks and the activity of the institute of emission.
Schumpeter allows for the possibility that some production can be financed outside the credit sector and takes into account the emission and acquisition of assets on financial markets; nonetheless this practice is not able to influence the evolution of the system: cyclically, the system is locked by habits of productive practices. Therefore, a market so dominated by habits cannot possibly promote innovation.

Many Post-Keynesian authors have focused on the relationship between financialization and capital accumulation and more precisely on the phenomenon of the consistent increase in financial investment and in financial earnings obtained by firms since the 1980s and the contemporaneous fall in productive investment. We can summarize the following main factors that this literature identifies: the substitution, or crowding out, of real investment by financial investment, the change in the corporate structure, the increase in payout ratios and short-termism.
James Crotty (Crotty, 2005) argues that the preference of firms for financial investment is due to the historical fall in profits from non-financial activities and to the increase in the cost of external

funding in the 1980s and 1990s. William Lazonick and Mary O'Sullivan (Lazonick and O'Sullivan, 2000) add that the increase in financial payout ratios for firms (interests, dividends and stock buybacks) reduces the retained earnings and further enhance the financial constraint of the firm. Such phenomenon corresponds to a shift in the entrepreneurial strategy from the Eichnerian retain and reinvest to what Lazonick and O'Sullivan call downsize and distribute. Such strategy involves a preference for actions that increase the shareholder value of the firm rather than increasing market shares and is consistent with the increased control of institutional investors on non financial corporations.

Also Engelbert Stockhammer (Stockhammer, 2004) reflects on the change in the corporate structure which, together with higher financial profit, induce managerial decisions oriented toward a short term perspective, pulling away from long term productive investment plans. He speaks of the crowding out of productive investments, referring to the portfolio approach to investment, which has its origin in the Keynesian theory of the two prices and its development by James Tobin (Tobin, 1965).

An original contribution by Özgür Orhangazi (Orhangazi, 2008) tests on cross sectional firm level data for the period 1973–2003 the possibility that the trade off between financial and productive investment could be only a short term phenomenon: the idea being that short term financial profits could lead in the long term to favourable conditions for productive investment (this is the hypothesis of the profit and finance-led growth in (Bhaduri and Marglin 1990, Bhaduri et al., 2006, Boyer, 2000, Boyer, 2000). This analysis leads him to a very interesting finding that shows a different behaviour of firms of different sizes. The coefficient of financial profits for large firms is negative, supporting thus the crowding out hypothesis. Nonetheless the same coefficient is positive for small firms. This finding, although it confirms the negative effect of high financial profits and financialization on investment, suggests a hierarchical access to financial markets.

The literature outlined above, while lingering on different aspects, consists of an homogeneous representation of a stage of financialization going from the early 1980s to the early 2000s, characterized still by a relatively strong competition among firms for funding and a strong take-over movement. It is Coupon Capitalism, as July Froud et al. call it (Froud et al., 2002): where

firms transfer liquidity to the financial markets only to compete, in a second moment, for those very same funds.

Nevertheless, during that same time frame, another phenomenon was emerging, that this literature does not tackle: household debt. Indeed, while there are studies concerning the relation between financialization, income inequality and household indebtedness, this last factor is never considered to influence the investment behaviour of firms in the long run. In fact, even after the subprime crises, the influence of household debt has been seen merely as a short term destabilizing phenomenon, enhancing uncertainty and financial fragility.

The more substantial change brought in by the emergence of household indebtedness was highlighted by Mario Seccareccia in a paper circulated already in 2009 but published only in 2012 (Seccareccia, 2012), where he showed that there has been a structural transformation of the financial imbalances by sector: since the turn of the century, in Canada, households have become net borrowers and firms net lenders.

Indeed, the stylized facts of the recent decades show: increased retained earnings of firms, a reduction in financial payout ratios and easier access to credit for firms as well as for households.

As pointed out by Fletcher Baragar and Robert Chernomas (Baragar and Chernomas, 2012), it is "the recent emergence of substantial quantities of retained corporate earnings, and in particular the decision of firms to hold an increasing portion of these accumulated savings in the form of liquid assets, that requires explanation". This explanation cannot prescind from a study of the role that a structural indebtedness of household has on the investment decisions.

Among the authors who tried to describe and explain this evolution we find Amit Bhaduri (2011) and Aldo Barba and Massimo Pivetti (2012).

Amit Bhaduri goes back to the two prices theory[5], pointing out that the uncertainty connected to a credit-fueled consumption leads the firms to keep "excess capacity or inventories in reserve (analogous to liquidity) as a strategy to maintain a more flexible position". He also argues that the firms "might prefer a method of production with lower fixed but higher operating cost even if total unit cost turns out to be higher". Barba and Pivetti, from a neo-Ricardian perspective, recall the core relations between investment and income distribution. The latter, in fact, determines aggregate demand which includes investment, that in turn determines employment and income

[5] Bhaduri uses the term *luring away*, instead of *crowding out*

distribution. Finance only allows for a temporary slackening of those relations, allowing for a substitution of loans for wages and for the expansion of profits above the volume of investment.
Unlike Bhaduri and Stockhammer, they explain that real and financial investment have different determinants: real investments are not discouraged by the rising financial returns, instead they are blocked by the unstable and temporary nature of the current household spending.
Finally, it is worth mentioning an older contribution by Crotty on capital accumulation (Crotty, 1993) in which he draws two different capitalistic competition regimes: anarchic and co-respective. Co-respective regimes occur usually when profit rates are larger and firms get involved in processes of capital widening rather than in capital deepening. The competition is not played on efficiency and productivity but rather on acquisition of new markets and of larger market shares. Moreover, firms may not fully utilize their financial resources.

4 Finance, profit margins and profits

After a first stage, from 1980s to 2000s, in which firms compete for funding in order to implement or avoid mergers and take overs, we are now in a situation where this competition appears mitigated. Firms earn high profits and accumulate savings in the form of liquidity without pursuing real investment plans but still committing mergers and acquisitions. At the same time, household indebtedness appears as a stable source of liquidity and therefore as a structural element in the picture.
The following three subsections discuss some factors that might explain this that appears as a second stage financialization, concerning the time from the early 2000s to the present.

4.1 The Accounting Explanation (Household debt as a source of internal exports)

Taking the Kaleckian accounting framework as a starting point for our discussion, household debt appears as a way to expand profits.
In other words, the growth of profits in the current historical phase can be explained by a transfer of liquidity from households to firms equal to household debt minus imports and outflows of capitals, that can take two forms: sale revenues and financial returns. Although the nature of these

transfers is substantially different from public deficit spending, we observe that, first, public spending has played a role in supporting and expanding household indebtedness as a new form of welfare and, second, public and household spending have been interchangeable: at the time of the subprime crisis, when household reduced their outlays, governments intervened injecting the lacking liquidity, only to draw back when the emergency was over.
We can therefore define household net borrowing as a substitutive form of *internal exports*, that is the term used by Kalecki to define net public spending in deficit (internal to the country, but external to the capitalist system).

This latter definition goes back to Rosa Luxemburg's discussion of the impossibility of the extended reproduction and the necessity for capitalism to acquire external markets, that is a source of income lying outside the capitalist system. In fact, she also includes in this category public spending, especially military expenditures (Luxemburg, Bellofiore et al.}. Therefore, according to her, capitalism can avoid a fall in the inducement to invest only within this impure and open setting (Robinson) that compensate the lack of internal demand, due to the contradiction of wages being both a cost and a source of income for firms.
However, this accounting explanation tells us only the source of the liquidity accumulated by firms, but does not explain why the firms do not compete for a larger share of it. In fact, as Kalecki would say, firms should invest until profit opportunities are exhausted. Therefore, some other explanation must be found for the weakening of the inducement to invest and to compete.

4.2 The Exploitation Argument

Household debt can be considered as a disciplinary tool. On one side, in fact, a whole sociological literature relying on Michel Foucault and Gilles Deleuze (Lazzarato) points out the role of debt as a guilt-generating mechanism of control. On the other, the economic Marxist literature has insisted on the constraints imposed by household debt on the bargaining power of workers (Barba et al., 2009). Both mechanisms affect the contracted wages and the ability of workers to influence the job market regulation.
The reduction of their contracted wages reduces the prime costs of firms and therefore increases

their profit margins. As to the job market regulation, the deregulation allowed by the loss of power of unions permits a flexible and reversible (potentially short-term) increase in the amount of hours worked.

Recent empirical studies have shown that the growth rate of GDP has become less and less sensitive to the fixed investment of firms and increasingly affected by investments in intangibles and in R&D Gaughan, 2007). This is consistent also with the Cognitive Capitalism hypothesis, in which labour has become more and more knowledge based (Fumagalli, 2006). Therefore given the technological change and the sectorial shift from industry to services, the technical composition of operating/fixed capital has been falling. As we have seen in section 2, Bhaduri argues that this evolution is also due to the increase in uncertainty that, in this historical phase, leads firms to rely on operating capital than on fixed capital. In such circumstances, the availability of a cheap and flexible labour force is especially convenient for firms.

Moreover, from a strictly macroeconomic point of view, part of the spending households undertake out of debt can be considered investment for the economy as a whole, in the sense that it increases productivity, in accordance with Verdoorn's law. The increase in productivity reduces the unit costs of production which, under certain circumstances, can lead to an increase in profit margins.

In conclusion, access to credit for households does not imply the overcoming of the discriminating factors at play both in the exchange on the labour market and in the technical organization of the labour process. It is in fact true that households can expand their choices of consumption and investment, but the monetization and valorization of such choices underlie the production process that is invariably controlled by firms.

Again, however, these two channels, per se, do not explain the increase in profits, for which we must assume an expansion of the liquidity disposable to households, disconnected from employment.

4.3 The Multiplier Argument (Household spending as the autonomous variable)

The question then becomes: in the presence of household indebtedness, what would be the effect of an increase in firms' investment?

“The multiplier tells us by how much [the] employment has to be increased to yield an increase in real income sufficient to induce them to do the necessary extra saving, and is a function of their psychological propensities” (p. 117, Keynes).

In Keynesian theory, the average propensity to consume is inversely related to income inequality. In fact, there is an upper bound to the consumption of households, which is their income. Moreover, in a situation of inequality, an increasing share of the income goes in the hand of individuals with a higher propensity to save relative to the poorer households.
However, as we have shown elsewhere, income inequality reinforces the inducement to go into debt of households at the extremes of the income distribution, sustaining the spending of both groups of income. We recall that, from the analysis conducted from the Survey of Consumer Finances, we found that the indebtedness of the highest quintiles is determined by their net worth and that for the lowest quintiles is a substitute for wages.
In other words, the level of consumption is determined regardless of the level of income (while depending on income distribution) and can be regarded as an autonomous variable, breaking thus the link between investment, employment and saving on which the multiplier relies.
Analytically, the higher quintiles of income have a desired leverage ratio:D_{rh}/A_{rh}, according to which they determine their behaviour. When the price of assets rises, debt also needs to rise to maintain the desired rate and viceversa. Conversely, poorer households base their indebtedness decisions on the preferred sum of new debt and wage: $\Delta D_{ph}+wN_{ph}$.
The consumption of households can be written as follows:

$$C_h = wN + (1 - i)(\Delta D - \Delta A) - i(D - A)$$

where ΔD stands for the new debt flow, ΔAfor the amount of savings used either to repay part of the debt or to buy new assets (or to be held as cash) and i is the financial payout or payin.
The Keynesian case corresponds to ΔD=0, so that (ignoring the financial payouts): $C_h = wN - \Delta A = cY_h$.
For the richer households, it will be: $C_{rh}(wN_{rh}+, A_{rh}+)$, since an increase in the value of their

assets will induce to further indebtedness and to a higher propensity to consume out of income. The wage effect can be ignored, as the main determinant of their level of consumption and debt is their net worth.

For the poorer households: $C_{ph}(wN_{ph}+, wN_{ph}-, A_{ph}+)$, as an increase in wages has a double effect on consumption. In fact, on one side it permits a higher level of consumption out of income, on the other, it reduces the necessity to get into debt. It follows that an increase in wN, by substituting an equal or lower amount of debt, would not affect the level of consumption and therefore reduce their propensity to consume accordingly. Eventually, the progressive reduction of the accumulated stock of debt will reduce also the financial payout and therefore augment the liquidity disposable for consumption. At the same time, the reduction of the income uncertainty will reduce the drive for skills updating and the correlated expenditures. Finally, we assume that the wealth effect can be ignored in the case of poor households.

Therefore, in presence of household debt, an increase in investment and employment is likely to keep unchanged for some time the level of consumption of the poorer households. If the investment plan is large and spread, the time lag for the income effect to be stronger than the debt effect might be smaller, but it would induce a change in the relative price of assets, having thus an ambiguous effect on the consumption of the richer, depending on their portfolio composition[6].

It follows that part of the production is likely to remain unsold and the profits of firms to shrink. The consequent fall in prices might in turn have a positive influence, increasing the real income of households, but this is likely to happen and be perceived with some delay. In the meantime, the firms will drop their investment plan.

In conclusion, household debt enhances the well known problem that a capitalist system faces in a depression, that is, as explained by both Kalecki and Keynes, the tendency to remain locked in stagnation. This argument is consistent with the idea that the fall in the investment share, rather than being simply due to a crowding out effect, has its own determinants (Barba, 2012). Nonetheless, Finance here does not play a merely permissive role. Instead, it is the key variable

[6] However, the emergence of a strong financial convention based on a new productive composition can enhance the optimism of rich households inducing them, on one hand, not to reduce their debt burden and, on the other, to acquire new assets, in a bullish *crescendo*.

affecting investment decisions.

4.4 The Market Structure Argument (Corporations as credit sector agents)

According to Kalecki, firms will continue to invest up until the exhaustion of profit opportunities. Nonetheless, we have seen that in certain circumstances, a co-respective regime can be in place, that leads the firms to reduce the level of risk they are willing to take on and increase their liquidity preference.

In the current phase, this co-respective regime assumes specific characteristics, consistent with a process of market concentration that involves both non-financial and financial firms.

In fact, the ``increased uncertainty'' explanations rely on a fundamentally Keynesian and Minskyan analysis of the financial markets. Such analysis is based on the idea that financial markets are a conglomerate of distinct but interdependent agents that follow or to some extent lead a mimetic and speculative behaviour. On the contrary, we argue here that financial markets are oligopolistic. For instance, they are controlled by clusters of institutional investors (Vitali et al). Moreover, as Orhangazi shows in his work (Orhangazi), firms of different sizes have specific attitudes towards financial markets: big corporations act on markets mainly to accomplish mergers and acquisitions or to do speculative activity, whereas small firms really look at the stock exchange as a way to obtain financing. Often, big corporations have financial branches and thus assume the role of institutional investors themselves.

It follows that the interests of non financial and financial corporations are increasingly overlapping, not simply in the sense that financial actors influence the management of non financial firms, but also because the two sectors have been merging progressively. We can therefore argue the existence of a sort of hierarchy: big corporations and banks which control financial flows on one side, and small ventures and households that demand credit on the other.

This idea sheds potentially a new light on financial constraints and on the function that finance plays relative to the approval of certain productive compositions rather than others. In fact, the emergence of new productive compositions affects the relative prices and therefore the relative market power of firms. In such circumstance, the natural conservatism of financial markets (De Vecchi) is enhanced by the willingness of oligopolistic corporations to maintain their power

position. In other words, the oligopolistic financial markets do not sustain or approve innovating investments in order to maintain the pricing conventions stable as long as possible, together with the market power structure that derives from it.

Therefore, the theory of the two prices and the crowding out effect do not apply symmetrically to firms of different sizes due to their hierarchical position. At the same time, the control over the financial flows becomes crucial to the maintenance of the existing power structure of the market.

5 Conclusions

This paper tries to discuss how financialization and pervasive household indebtedness influence the determinants of investment and profit. In fact, according to Keynesian theory, current consumption levels are a relevant factor affecting profit expectations and inducing investments. The multiplier effect of investment spending allows the profit expectations to be realized, thanks to its effect on the wage bill and on the consumption expenditures of workers.

However, in presence of household debt, the profit-employment link slacks: the profit opportunities of the firms expand without requiring necessarily an increase in investment and employment. Indeed, the investment share of income has been declining in most developed countries (and also worldwide), most significantly in the manufacturing sector, for at least 20 years. Profit shares by contrast have been constantly increasing.

This paper tries to build on the post-Keynesian literature on financialization, representing household indebtedness as a stable source of liquidity that affects not only consumption behaviour, but also investment and income distribution: by enhancing exploitation, by modifying the multiplier effect, and by supporting market concentration.

In conclusion, we advance the hypothesis that, since the turn of the Century, the developed economies have entered a second stage financialization, characterized by:

- a higher liquidity preference of firms and a preference for productive processes with high operating costs and low fixed costs;
- a crucial role of household debt as a disciplining factor and as a stabilizing factor that can

be associated with the Kaleckian internal exports and with a liquidity source that appeases the competition among firms;

- a crystallization of the existing economic power *élites*.

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Tables and Figures

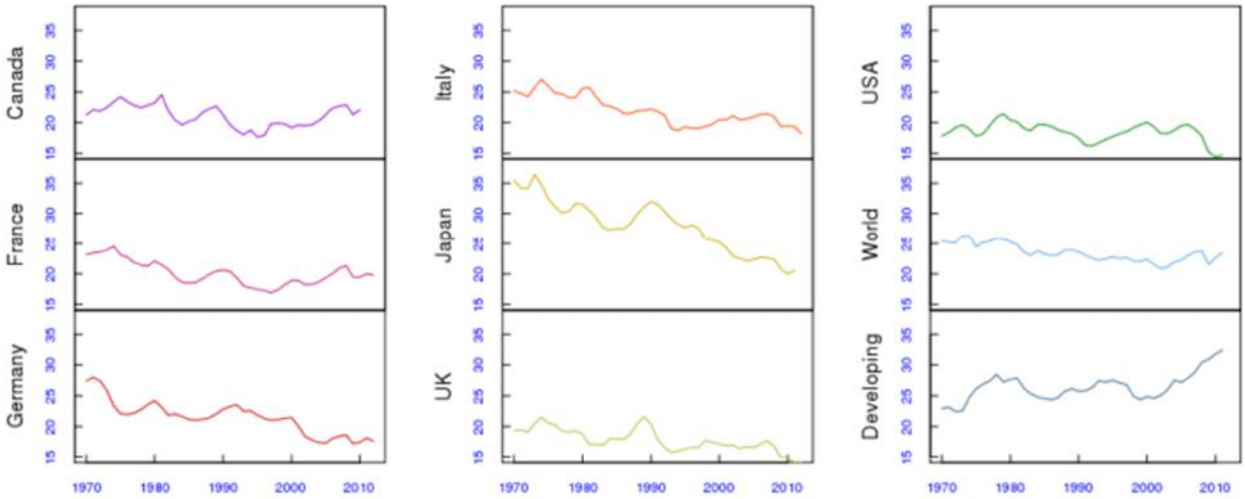

Figure 1: Gross Fixed Capital Formation to GDP % Ratio. Source: OECD Dataset 1

	Manufacturing		F.I.R.E.B.S.	
	Investment	Employment	Investment	Employment
CANADA				
1970	15.08	22.89	29.51	7.31
2008	5.53	11.37	39.95	17.94
FRANCE				
1970	16.56	24.23	46.73	7.62
2008	8.48	12.58	53.93	19.10
GERMANY				
1970	23.72	35.76	30.59	6.10
2008	13.73	19.02	48.60	17.04
USA				
1971	14.09	29.91	31.06	9.25
2008	9.74	9.82	35.22	20.93

Table 1: Investment and Employment in Manufacturing and Financial Intermediation, Real Estate and Business Services (F.I.R.E.B.S.) as a share of Total Economy. Source: OECD Dataset 1 and STAN Indicators

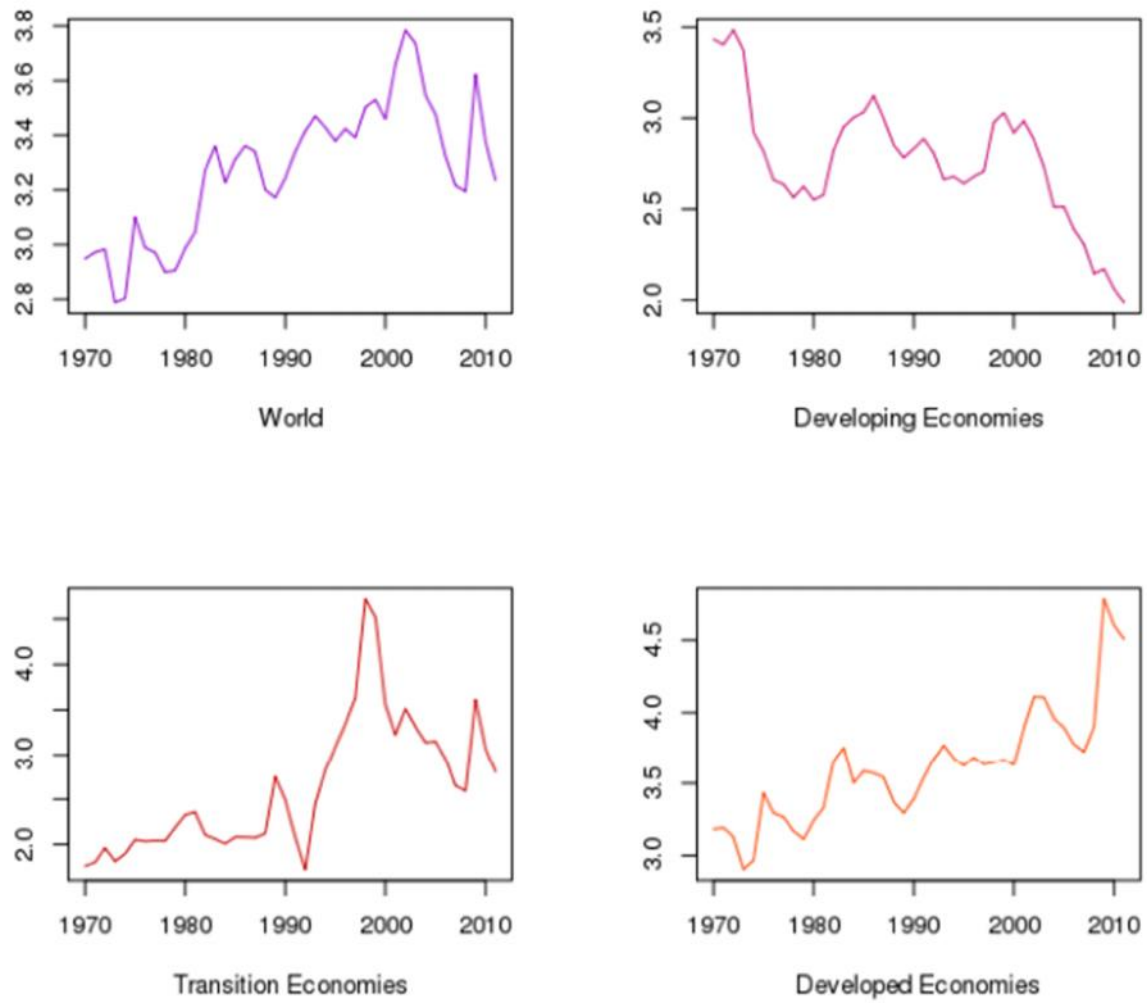

Figure 2: Final Consumption Expenditures to Gross Capital Formation. Source: UnctadStat

Figure 3: Non Financial Corporations (USA)]{Non Financial Corporations (USA)

(a) Net Operating Surplus to Net Capital Formation

(b) Financial Assets on Total Assets

(c) Undistributed to Total Corporate Profits

Source: Fed Flow of Funds

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