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A Minskyan criticism on the Shareholder Pressure Approach of financialisation*

by Ilhan Dögüs

Abstract

In this paper, the Post-Kaleckian approach on financialisation which argues that investment of Nonfinancial Corporations in real capital assets has been restricted by the rising dividend and interest payments due to shareholder pressure will be criticized based on a Minskyan understanding of investment. It will be put forward that, reinvestment of profits in capital assets has decreased because of declined quasi-rent expectations induced by depressed demand.

Key words: financialisation, shareholder pressure, Minsky, capital assets, financial assets

JEL codes: E12, E22, E44

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"When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done." (Keynes, 1960, pp. 159)

1. Introduction

In the last three decades lower rates of growth and higher structural unemployment especially in the USA, i.e. long-lasting secular stagnation (Palley, 2014) have gone hand in hand with the rising engagement of Nonfinancial Corporations (NFCs) in financial activities which confirms Keynes' above cited forecast: The role of stock markets both in macroeconomic dynamics and in everyday life has reached its apogee especially after the 1980s. The ratio of financial assets to nonfinancial assets held by US-NFCs has increased from 38.6% in 1980 to 91.4% in 2013. Having been stimulated by this shift in asset composition of NFCs, *the ratio of profits in the financial sector relative to the non-financial sector more than doubled since the mid-1980s* (Jackson, 2010, pp. 23) and *institutional investors, such as investment funds, hedge funds, retirement funds and insurance companies have increased their weight in the GDP in terms of assets from 70.5% in 1980 to 182.9% in 2004, in the US* (Parelta and Garcia, 2008, pp. 4).

Under this economic regime, termed as *financialisation*, profit rates (=net operating surplus / net capital stock) have been increasing whereas capital accumulation rates (=growth rate of business capital stock) have been decreasing (van Treeck, 2007, pp. 3-4). This might have been realized because financialisation *elevates the significance of the financial sector relative to the real sector and transfers income from the real sector to the financial sector* (Palley, 2007, pp. 3). The most cited definition for *financialisation* is Epstein's following definition:

> *"Financialisation means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies."* (Epstein, 2005, pp. 3)

However this definition is not sufficient to understand the relationship with the slowdown of investment in real capital assets and so Krippner's definition is a better fit: Financialisation is *"the pattern of accumulation in which profit making occurs increasingly through financial channels rather than through trade and commodity production*" (Krippner, 2005, pp. 174).

Hence, I prefer to define financialisation as the increasing engagement of NFCs in financial transactions and activities rather than real production and hence I prefer to measure it over the ratio of financial assets held by NFCs to their nonfinancial assets (i.e. financialisation index which is my own calculation based on */research.stlouisfed.org/*). The rise of institutional financial investors and fund management and the increase in their profits have been stimulated by the transformation of NFCs towards engaging in financial activities. In other words, if NFCs had not financialised, there might not be such scope for financial corporations or fund management to propagate. Moreover by definition *financialisation* implies that what is occurring is not merely the growth of financial corporations but the recourse of previously nonfinancial corporations to the use of financial methods and instruments. In this sense, financialisation refers to the process by which the "*entrepreneur corporation*" has become the "*rentier corporation*" (Toporowski, 1993, pp. 42) by

moving their business towards financial operations and managing their financial operations with *excess capital* (Toporowski, 2008). Toporowski defines excess capital as *excess of liabilities held in financial assets over productive capital, i.e., the plant, equipment, materials, and stocks of unsold products and semi-fabricates.* (Toporowski, 2008, pp. 4; Toporowski, 1993, Chapter 3). For a clearer definition, I would prefer to define it as the quantitative difference between capital (in terms of accounting, the owners' equity) and nonfinancial assets which correspond to the quantitative difference between financial assets and financial liabilities. In other words, it is the capital not employed for production, rather for financial operations.

Within the Post-Keynesian school, the structural macroeconomic shift that is the *financialisation* of NFCs, has largely being attributed to rising shareholder pressure (Lazonick and O'Sullivan, 2000). Investment and capital accumulation have fallen due to financial constraints increased by distributed profits, i.e. rising dividend and interest payments and buybacks (Hein, 2008)[1]. According to findings of Stockhammer (2004) increased distributed profits explain the slowdown in capital accumulation in France and the USA, but to a limited extent in UK.

However, Kliman and Williams found out that this argument is not supported by the data for the USA. They claim that they *attempted to replicate his* [Orhangazi's] *aggregate-level regression results (Orhangazi 2008, p. 103, model II in Table 6.1), but were unable to do so* (Kliman and Williams, 2014, pp. 4).

In this paper, this approach, which I call the *Shareholder Pressure Approach* (hereafter SHPA) will be criticized through a Minskyan understanding of investment. This critique will consist of six points, the two most important of which are the following: i) The direction of causality is reversed: NFCs do not reinvest less in capital assets due to rising distributed profits; rather because they reinvest less in real capital assets and engaged more in financial activities they distribute their profits. Indeed, even though they distribute profits, (especially large) NFCs have excess capital through which *they manage their financial operations* (Toporowski, 2008, pp. 7), instead of employing it in real investment. ii) If dividend and interest payments create constraints, they should also create constraints for reinvestment in liquid financial assets; not only for reinvestment in productive real capital assets.

I will shortly put forward the proposition that financialisation is the case where NFCs have prioritized reinvestment in financial assets over capital assets as quasi-rent expectations from capital assets have declined because of depressed demand. The relationship between the rising return on financial assets, i.e. "*asset price bubble*" (Palley, 2014), or "*capital market inflation*" (Toporowski, 2000) and the demand depressing income inequality are out of the scope of this paper and need further research[2].

Sen and Das Gupta (2015) is the only Minskyan paper which acknowledges that financialisation emerges as *financial assets* [are] *relatively attractive as compared to other assets, by offering both better returns and potential capital gains*; however it does

[1] See for further discussion, Hein, 2009, 2010, 2012b and 2015; Hein and van Treeck, 2010; Orhangazi, 2008; Stockhammer, 2004, 2008, 2009 and 2012; Onaran et al. 2011; Dünhaupt, 2013; Dallery and van Treeck, 2008; Dallery 2009; Tori and Onaran, 2016.
[2] See footnote 7.

not criticize the SHPA but instead relies on it and misses its contradictions. That paper also does not adequately highlight the role of demand. Wray (2011) used Minsky's concept of "money manager capitalism" (Minsky, 1992) which might be conceived of as referring to financialisation as a stage of capitalism deals with the Global Financial Crisis, not as an explanation of the macroeconomic transformation towards financialisation.

Hence this paper stands as a contribution to the literature by employing Minsky's financial theory of investment to comprehend the financialisation process and to criticize the SHPA on financialisation through acknowledging that investment takes place if demand prices for capital assets exceed the supply prices of capital assets (Minsky, 1975, pp. 109) and that both of these prices are determined by the margin of safety of investing agents which reflects *the difference between prospective cash receipts and cash commitments* (Kregel, 2008, pp. 7) and thus the "*liquidity preference*" (Keynes, 1960).

The paper is structured as follows: after a brief review of the SHPA in section two, the third section provides criticism of it with a short explanation why Minsky's investment theory is needed to comprehend financialisation and in the fourth section it will be argued that reinvestment of profits in capital assets has been decreased because of declined quasi-rent expectations due to depressed demand. Section five strengthens the argument with empirical evidence based on available US data between 1960 and 2014 and the final section concludes.

2. A brief review of the Shareholder Pressure Approach

The SHPA is based on the assumption that with financialisation corporate governance has changed and the power has shifted from managers to shareholders and thereby reduces the tendency to accumulate capital and to invest. This refers to the shift from the "*retain and reinvest strategy"* to the *"downsize and distribute strategy"* (Lazonick and O'Sullivan, 2000, pp. 4). Downsizing means decreasing investment activities via cuts in staff and plant closures, in order to increase the marginal productivity of labor and so as to increase the return to equity to fulfill shareholders' demands. Distribution means distributing revenues through dividend payments, interest payments and stock repurchases. Cordonnier and Van de Velde describe this situation as "*profiting without investment*" (Cordonnier and Van de Velde, 2015). Jackson gives a brief description of this shift:

> *"Prior to the 1980s, the U.S. was characterized by strong managers and weak owners. Top managers tended to view themselves as loyal to the corporation, rather than as agents of shareholders. The 1980s saw a huge wave of hostile takeovers that threatened the hegemony of U.S. managers. Likewise, institutional investors and particularly public-sector pension funds such as CALPERs became much more active players in corporate governance, using their growing blocks to exercise greater voice in corporate management (Useem, 1996). By the 1990s, managers had fought back by lobbying state governments to enact anti-takeover legislation, which made hostile takeovers much more costly (Useem, 1993). But managers also accepted the notion of "shareholder value" as a new underlying ideology for corporate America. In particular, the rise of equity-based pay such as stock options gave managers a greater stake in promoting restructuring and*

> *orientating their strategies toward the stock market."*(Jackson, 2010, pp. 10)

Orhangazi pointed out in his paper examining the financialisation process in the USA that shareholder pressure leads to a shift from long-termism to short-termism since stock markets are, by definition, short-term oriented:

> *"Managers of non-financial corporations may be forced, or induced via stock options, to take the short horizon of financial markets as their guideline for decision-making. If financial markets undervalue long-term investments then managers will undervalue them too, as their activities are judged and rewarded by the performance of a company's assets. This may harm the long-run performance of companies."* (Orhangazi, 2008, pp. 871)

It is argued that shareholders' preferences create finance constraints through *increasing dividend payments and share buybacks in order to boost stock prices and thus shareholder value"* (Hein, 2012a, pp. 12-13). Hein points out that *managements' animal spirits* with respect to real investment in capital stock are reduced by shareholder power since shareholders have no binding relations with the firms whose shares they hold and hence they can immediately jump to another firm whose profitability they expect to rise. However, if shareholder pressure does not align with management's preferences but only in line with their own interests and so if resources are at the disposal of the management, shareholders may have a positive effect on productivity growth and capital accumulation (Hein, 2009, pp. 21). Dallery and van Treeck highlight:

> *"... during the Fordist period, accumulation has been constrained mainly by the availability of finance, while in the financialisation period, shareholders' preferences have been the main limiting* factor" (Dallery and van Treeck, 2008, pp. 12).

According to SHPA scholars, managers of NFCs face a trade-off between rates of accumulation (= growth) and profit. Hein (2009) explains this trade-off at firm level as follows: the amount of profit which has not been converted to investment in order to accumulate capital represents the distributed profit due to shareholder pressure. If the exposed dividend payments and interest obligations are lower and the proportion of externally financed investment (with a tolerable leverage ratio) is higher; then managers can finance higher growth with the given profit rate (Hein and van Treeck, 2010). However, if the proportion of distributed profits is higher, then managers' ability to invest more in order to grow/ accumulate is restricted. Stockhammer indicates that *this* [trade-off] *translates into lower investment activity.* (Stockhammer, 2004, pp. 739)

To summarize, the SHPA argues that distributed profits restrict internal funds and managers' ability to undertake investment in real capital assets in search of growth and the shareholders' short-term expectations align with managers' preferences to prioritize shareholder value maximization since *"for shareholders, the accumulation decision is subordinated to the profitability target*" (Dallery and van Treeck, 2008, pp. 10-11).

3. Minskyan criticism on the Shareholder Pressure Approach

Before criticizing the SHPA, it is necessary to very briefly discuss why Minsky's financial theory of investment is needed to understand the financialisation process. As

financialisation implies lower investment by NFCs in real capital assets, it should be examined through a monetary Keynesian theory of investment which emphasizes the role of debt whereby *money is being created* (Minky, 1986, pp. 198).

3.1 Minsky vs. non-monetary Keynesians

Firstly, concerning the causality relation between factors, Minsky acknowledges very clearly that economic actors prioritize some indicators for decision making and hence if these prioritized factors are weak, then other indicators can have a role in influencing other factors. For example, concerning under which circumstances capacity and cost matter, as a *financial Keynesian* Minsky states that

> "*during periods in which financial markets operate smoothly the technical demand for capacity, as determined by extrapolations of past behavior and the profitability of existing capacity, dominate in determining investment*" and "*in a world in which financing conditions do not intrude into investment decisions, the technical productivity of capital assets and their supply price would determine investment*" (Minsky, 1986, pp. 211).

Such an understanding of this causality is crucial to comprehend the economic processes by appreciating the role of human psychology; rather than approaching the economy as if it consists of mechanistic relations between abstract phenomena.

Secondly, whereas non-monetary Keynesian scholars prioritize the *medium of exchange function* of money (for example Kalecki; see Sawyer, 1985), the *store of wealth function* is more decisive for Minsky as a monetary Keynesian: *Money is not some abstract medium of exchange. … Money is the result of the financing that is taking place* (Minsky, 1975, pp. 99). In line with that, in Minsky's theory what matters as the key variable for investment decisions are the expected Cash Flows and the ability to fulfill debt commitments; not sales (past profits), for example, as assumed by Kalecki; since actors *recognize that the future can be unlike either* (Minsky, 1986, pp. 132) and the future is fundamentally uncertain.

Based on this distinction, whereas non-monetary Keynesian scholars' economic agents take action in real exchanges, as they are more concerned about the wage share, real wages, i.e. distribution; Minsky's economic agents make "portfolio decisions"[3]:

> "*One way every economic unit can be characterized is by its portfolio: the set of tangible and financial assets it owns and the financial liabilities on which it owes*" (Minsky 1975, pp. 70)

Finally, financial theory of investment of Minsky which distinguishes financial and capital assets (Minsky, 1986, pp. 235) and acknowledges that investment decision is taken over the difference between capital assets' demand and supply prices, better explains* both the nature of capitalism (as capitalism initially and historically is an economy of financial contracts[4]) and its fluctuations and thus its crises. By emphasizing

[3] Criticism of Kaleckians and Marxists and other non-monetary Keynesians on Minsky by arguing that "*there are no real-sector sources of instability in his model*" (Crotty, 1986, pp. 4) depicts clearly that production, capacity and costs issues outweigh for them to comprehend how the capitalist economy functions.

[4] See Collignon (2010), Ferguson (2008) for a discussion on that banking and thus capitalism

that investment is fundamentally a financial decision he does not undervalue the role of debt and thus of interest rates in investment decisions and in the whole macroeconomic process. Minsky describes his theory as "*a theory of the impact of debt on system behavior and also incorporates the manner in which debt is validated*" (Minsky, 1992, pp. 7).

At this point, remembering that despite firms having adequate internal funds they can still borrow to benefit from tax shield and to distribute or to externalize the risk of investment if tax rates and interest rates are appropriate, it is crucial to understand why debt does not necessarily increase when internal funds do not suffice. That is to say that the cost of capital is not always lower than the cost of debt. Disregarding the role of debt would render us unable to explain the fluctuations in investment related to borrowing at the "*margin of safety of borrowers and lenders*" in order to determine and alter the level of investment.

The concept of "*margin of safety"* is crucial not only for understanding the fluctuations, but also for comprehending why and when (especially larger) NFCs prefer a higher ratio of financial assets, i.e. financialisation. As a higher margin of safety of borrowers lowers the demand price for capital assets and higher margin of safety of lenders raises the supply price of capital assets; in such a case, investment in real assets would be reduced and -if financial markets are over-liquid, financial assets held by NFCs would exceed the capital assets; due to higher *liquidity preferences* which leads economic agents to hold more liquid positions in their portfolios (see Minsky, 1975, pp 80-82).

3.2 Criticisms on SHPA

In order to strengthen my criticism, I would first like to emphasize the main contradiction of the SHPA with (Post-) Keynesian understanding:

The core contradiction is that the SHPA stands as a supply-side explanation, although the main distinguishing feature of the (Post-) Keynesian approach is that it emphasizes the demand-side to understand economic processes. Within that context, it has a strong similarity with the argument of the Neo-Classic Approach that *financial markets can make easier the access to capital, so it can boost investment and thus growth* (Boyer, 2000); by assuming that financial constraint depresses investment.

The criticisms of the SHPA are as follows:

i) Firstly and most importantly, the direction of causality is the other way around: NFCs do not reinvest less in capital assets due to increased distributed profits; rather they distribute profits because they reinvest less in real capital assets due to depressed demand which reduces quasi-rent expectations and hence raises the margin of safety. To put it differently, if NFCs had considered real investment more profitable than financial operations, then they would not have engaged more in financial operations and hence they would not have had to distribute their profits. Once if real investment starts to seem profitable due to an increase in demand, then NFCs would either run down their financial assets (Minsky, 1986, pp. 214) or borrow to finance the acquisition of new capital assets, i.e. the investment, if their internal funds really have been constrained by past dividend and interest payments. This point will be empirically tested in the fifth

has emerged first with abandonment of usury in 15th century.

section.

ii) If dividend and interest payments create constraints, they should also create constraints for reinvestment in financial assets; not only in capital assets. However, as depicted by Figure 3, the ratio of financial assets to non-financial assets held by US-NFCs has been exceeding 50% after 1987. As firms have "*three sources of such finance: cash and financial assets on hand, internal funds (i.e., gross profits after taxes and dividends), and external funds*" (Minsky, 1986, pp. 205); the level of being constrained to reinvest (either in financial or capital assets) is mainly determined by acquired cash flows; not distributed profits. If acquired cash flows are strong enough, then they will choose one of these asset types regarding their profit expectations. If firms perceive that real investment would generate higher profits due to strong demand, then they might borrow or sell their financial assets out to finance the investment excess of internal funds (Minsky, 1986, pp. 213). That is to say, as opposed to the SHPA, firms may reduce their dividend and interest payment obligations, if they perceive that these payments constrain their funds.

iii) The SHPA does not take into account that mostly large NFCs have engaged in financial transactions, as revealed by the findings of Davis (2013) through an empirical investigation of NFCs in the USA between 1971 and 2011. The argument of the SHPA that NFCs are financially constrained by distributed profits relies on the implicit assumption that NFCs can generate their income only through sales, like small and medium size firms which cannot easily handle financial operations due to their cost structures. However, if acquired cash flows validate all debts and out-of-pocket costs (including dividend and interest payments); so reinvestment (either in financial or capital assets) should not have been constrained. Large NFCs are not exposed to financial constraints as much as smaller NFCs (See Azad, 2012) and have engaged more in financial transactions and rely less on retained earnings to finance their investment projects (Fazzari et. al, 1988, pp. 147). This is logical since a) large NFCs can afford management of financial transactions by employing high-paid finance experts whereas small firms cannot due to their cost-revenue structure and b) large NFCs have stronger balance sheets. Additionally, as indicated by Toporowski (2000, pp. 24) the most capital intensive ones are those which would make the largest calls on the capital market in a boom. Hence the main underlying argument of the SHPA that real investment is constrained by distributed profits does not correspond to reality. It assumes that NFCs want to invest, but they cannot. Indeed, from Steindl (1952), we know that large NFCs have a lower tendency to reinvest.

iv) Not only stock market capitalization and thus dividend payments and buybacks, also trading and holding of derivatives[5] (Toporowski, 2000, pp. 51) and other financial assets stands as a proper indicator for financialisation of NFCs, as some corporates do not pay dividends to their shareholders and also some NFCs which have not issued any stocks might hold other financial assets to make profit. Through financialisation, or better to say, through having engaged more in financial transactions, NFCs are not only exposed to dividend and interest payments. Despite it is less than their payments, they receive interest and dividends gains.

[5] One could argue that derivatives are held to hedge against business risks. But if derivatives stand both in liability and asset side of NFCs' balance sheets, then it implies that they are engaged in trading of derivatives. Secondly it highlights the "*reserve replenishing orientation*" and increasing margin of safety due to rising volatility.

In addition, NFCs also receive gains from financial assets (such as derivatives, commercial paper, mortgages, securities, bonds, mutual funds etc.). The ratio of portfolio income relative to cash flow which *reflects the relationship, for non-financial firms, between the return generated from financial versus productive activities* (Krippner, 2005, pp. 182) for US- NFCs has risen by 300% from 1970 to 2000 (ibid, pp. 185) and the ratio of financial profits to non-financial profits has increased from 20% in 1984 to 90% in 2002 (NIPA, Table 6). This demonstrates both the increasing *excess capital* and rising engagement of NFCs in financial transactions.

As illustrated by the Figure 1, the net worth which depicts the difference between financial assets and financial liabilities which corresponds to the *excess capital* i.e. the difference between capital and nonfinancial assets. If the net worth is positive, then according to accounting principles, we can conclude that the amount of capital (including retained earnings) exceeds the amount of fixed nonfinancial assets. This reveals that this excess capital is not employed for real productive investment; rather employed for managing the liquidity (Toporowski, 2008, pp. 7) *in search for speculative returns* (ibid, pp. 6) in inflated highly liquid financial markets (ibid, pp. 4).

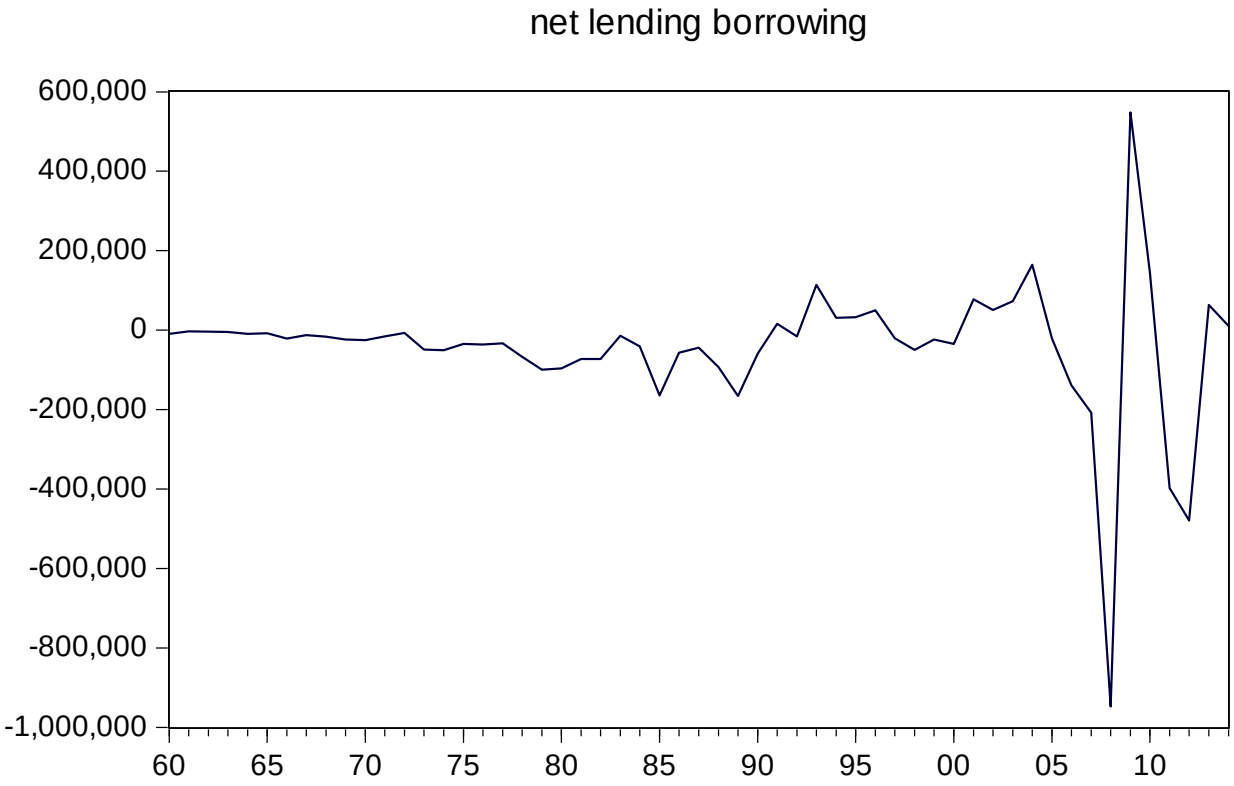

Fig. 1. *Net worth, i.e. Net lending and net borrowing of US-NFCs. 1960-2013. Source: https://research.stlouisfed.org/fred2/series/TNWMVBSNNCB*

More importantly, as dividends are taxable, some shareholders might prefer not to hold dividend paying stocks. Hence measuring financialisation and its effect solely through dividend payments is inadequate. More importantly, dividend payments should not have created finance constraints when there is a strong demand for goods; as Toporowski pointed out:

> *"… studies of corporate finance data indicate that, when an economic boom provides them with plentiful sales revenue, firms actually reduce their debt financing, and even replace it with equity (common stock) as the stock market flourishes*" (Toporowski, 2000, pp. 27).

This finding supports my first criticism on the SHPA that firms distribute profits since they do not reinvest so much; not "reinvest less as they distribute profits". If there were higher profit expectations from capital assets than from financial assets, then NFCs would be exposed to distributing their profits. This argument will be tested empirically in section five.

v) As the ratio of net savings to profits after taxes of NFCs increased from 37% to 44%[6]; then it could be stated that dividend and interest payments have not created enough financial constraints to reinvest in real capital assets, as opposed to the SHPA. The internal funds, as the main resource of investments, have rarely become negative. This indicates the "*overcapitalization*" (Toporowski, 1993) of NFCs; rather than being financially constrained.

Not only dividend payments, also interest payments have not constrained the (large) NFCs enough to invest in real capital assets. This is confirmed by the fact that the ratio of interest payments to profits has decreased from 44% to 36% between 1973 and 2005 (Palley, 2007, pp. 13). Moreover, as reported by Fazzari et. al (1988, pp. 147) large firms with excess liquidity and higher market share have greater ability to access not only to external debt /credits, but also to capital markets. Toporowski claims that:

> *"... excess liquidity enables the companies enjoying it to gain higher interest income to offset the higher cost of their borrowing and to maintain their planned spending. Larger companies, with access to capital markets, can afford to issue securities to replenish their liquid reserves."* (Toporowski, 2000, pp. 55)

vi) Finally, as firms can reduce or defer their dividend payments, when they consider that their reserves are squeezed (Toporowski, 2000, pp. 27), it would mean that the power still resides with managers concerning whether to distribute profits or reinvest in capital assets.

Besides my own criticism, it is worthwhile to mention the criticism of Kliman and Williams (2014):

Kliman and Williams state that if "*financial purchases have increased as a share of borrowed funds* [it] *does not imply that credit has been diverted from productive investment"* (Kliman and Williams, 2014, pp. 5), as *substantial increase in corporations' financial acquisitions has been funded by means of an increase in borrowing* (ibid, pp. 2). If not borrowed, alternatively, as indicated by Minsky, firms can *run down holdings of financial assets that are superfluous to operations* (Minsky, 1986, pp. 213).

Kliman and Williams point out that the SHPA disregards the role of borrowed external funds as a source of financing investments. They state that purchasing a financial asset does not necessarily divert funds from productive investment, "*as the seller of the asset*

[6] Source: https://research.stlouisfed.org/fred2/series/NCBINSQ027S

might take the money received for it and invest it productively, so that no diversion takes place on a macro level" (Kliman and Williams, 2014, pp. 5). If *the percentage growth rate of financial purchases and payments in excess of new borrowing is greater than the percentage growth rate of profit* (ibid, pp. 5), then a diversion of funds could take place. According to them, the fall in investment level has taken place because of "*the investment share at the start of the 1980s was abnormally high and unsustainable*" (ibid, pp. 20).

To be clear, they put forward that

> "*when corporations decided to increase their productive investment, they did not obtain the extra money they needed by reducing dividends; instead, they borrowed it. When they decided to reduce their productive investment, they did not use the freed-up funds to pay additional dividends; instead, they borrowed less"* (ibid, pp. 13).

This is in line with the argument of Toporowski (2000) that firms mainly issue equities in order to replenish their reserves, not to finance their investments. Palley (2014, pp. 33) reports the very strong correlation between net equity issuance and new borrowing.

4. Financialisation due to decreased quasi-rent expectations from capital assets

In this section, I will try to show that the change in demand is the main decisive factor behind financialisation, as also behind other (macro)economic phenomena, through shaping the quasi-rent expectations from capital assets (and thus demand prices for capital assets) and the margin of safety[7]. Quasi-rent expectations will be represented by return on capital assets, margin of safety by leverage ratio (debt to equity) and demand will be represented by consumption spending.

As firms' main objective is maximizing their profits, they decide on realizing this objective whether through investing in liquid financial assets or in illiquid capital assets in accordance with their profit expectations from these assets and with their margin of safety. If they expect higher profits (quasi-rents) from financial assets compared to capital assets, then they would invest more in financial assets. If return on capital assets is expected to exceed return on financial assets, then investment in capital assets would be favorable.

This point was implicitly indicated by the concept of "*marginal efficiency of capital*" (Keynes, 1960, pp. 135) which is compared with interest rate to decide on investing in capital assets. The interest rate might be conceived as a general indicator for return on financial assets. Hence investing in financial liquid assets instead of illiquid capital assets has nothing to with being financially constrained; rather it is the result of changes

[7] An analysis on relationship between rising market concentration which reduces demand structurally by increasing the inequality and financialisation over wage dispersion induced by market concentration and pension funds as raise the savings out of wages is out of the scope of this paper and will be examined in a forthcoming paper as a part of my dissertation. Hence in this paper I must confine to examine the relationship between quasi-rent expectations and financialisation. See Azad (2012) and Dutt (2006) for a detailed discussion on the relationship between underconsumption, underinvestment and market concentration.

in comparative expectations concerning assets. It is the core issue whether the demand pushes marginal efficiency of capital to exceed the return on financial assets or not.

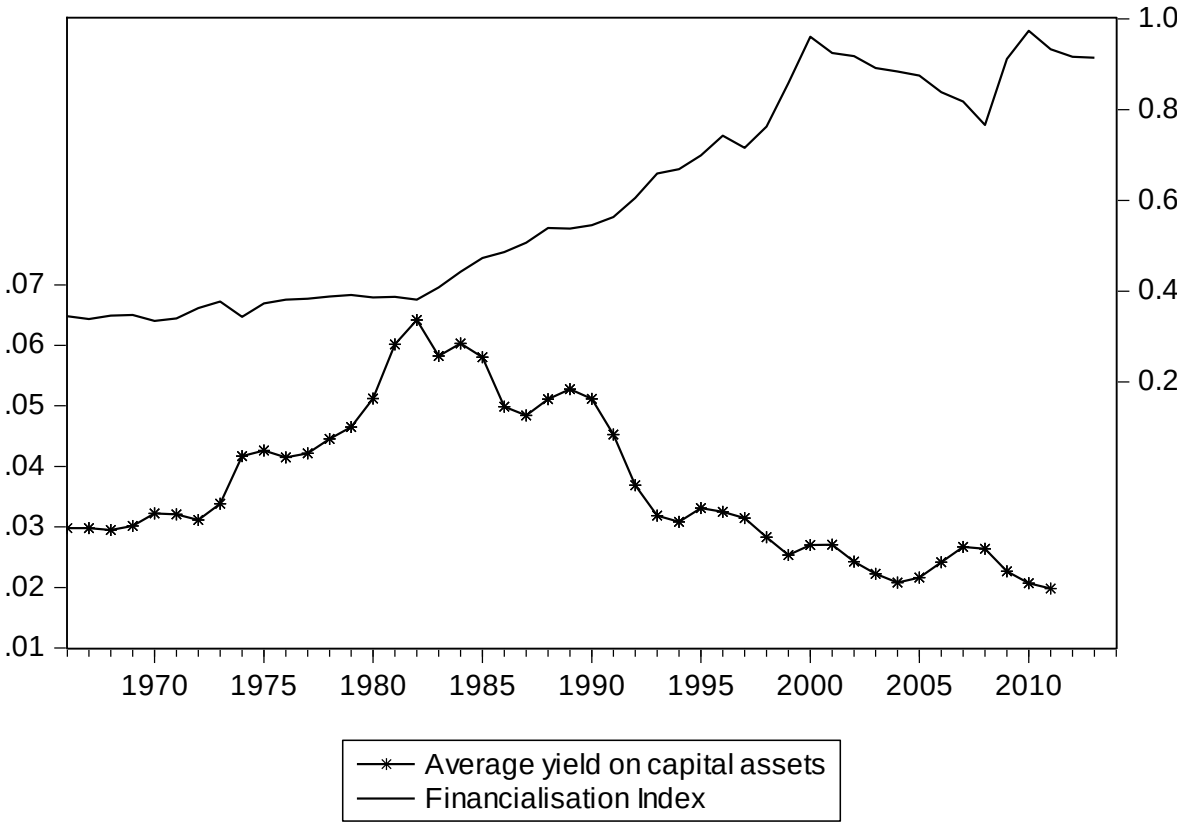

Fig. 2. *Average yield on capital assets, US-NFCs (L) and Financialisation Index (=Ratio of financial assets to non-financial assets held by US-NFCs.) (R) 1966-2013. Sources: gabriel-zucman.eu and my own calculation based on /research.stlouisfed.org/*

As illustrated by Figure 2, NFCs do not abstain from investing in productive capital assets because they are constrained by dividend and interest payments; rather because the return on real assets (which reflects ex-post quasi-rent expectations from capital assets) have been decreased compared to previous decades. The year 1982 represents a structural shift: In 1982 average yield on capital assets started to decrease sharply and also the ratio of financial assets to non-financial assets started to increase dramatically.

If the return on fixed capital assets at aggregate level is structurally lower, firms would have "*a higher liquidity preference*" (Toporowski, 1993) and a structural tendency to have a higher ratio of financial assets and a lower tendency to reinvest in capital assets as their main concern is profit maximizing either through investing in financial assets or in capital assets. The 300% increased ratio of portfolio income relative to cash flow (Krippner, 2005, pp. 185) demonstrates that they have maximized their profits through reinvesting more in financial assets.

Lee puts forward:

> "*The financial asset ratio is a long-term target liquidity ratio whose size is determined by the enterprise's expectations about the extent of future short-term deficits on the capital account in relation to the availability of short-term credit facilities*" (Lee, 1999, pp. 181).

Based on that, it could be proposed that it might not be called "shareholder value orientation", rather it is "deficit covering orientation" or "*reserve replenishing* orientation" (Toporowski, 2000) which is derived from increasing margin of safety induced by demand-depressing and volatilizing income inequality[8]. The increasing amount of financial derivatives held by NFCs stand as a proper indicator to reflect the increasing margin of safety due to rising volatility and the reserve replenishing orientation.

Davis documents that (sales) volatility has increased since 1970, especially much faster for small firms (25.4% for small and 5% for large firms)[9] and asserts that *higher volatility, reflecting greater uncertainty, is likely to drive increased demand for liquid assets* (Davis, 2013, pp. 8).

This point is very crucial to incorporate the return on capital assets, the change in consumption spending and the margin of safety in order to conceptualize financialisation: Sales volatility induced by increased income inequality[10] increases the margin of safety of NFCs, i.e. reduces the desire and the courage to take the risk of external debt and of the investment and thus reduces the leverage ratio and increases the ratio of financial assets. Even if NFCs tend to invest in real capital assets, the perceived risk due to higher margin of safety would depress the investment level due to charging higher interest rates (Minsky, 1986). On the contrary, *the boosted euphoria of economic agents* induces *them to accept lower margins of safety"* (Nikolaidi, 2014, pp. 2).

[8] Lin and Tomaskovic-Devey (2013) and Alvarez (2015) discuss the relation between rising income inequality and financialisation for the USA and France, respectively.

9 According to my own calculation, standard deviation of the change in consumption spending has increased as 29% from 1966-1980 to 1981-2014 (See Figure 4).

[10] Inequality raises the sales volatility since both debt-financed consumption of low-income earners and savings of high-income earners rise in case of high inequality. In a forthcoming article, this issue will be discussed elaborately but see for a discussion upon consumption, savings and debt, concerning inequality: Green (1991), Wildauer (2016), Nikiforos (2015), Perugini et. al. (2015), Cynamon and Fazzari (2013). For example, Kim (2013) found out that household debt variables have negative effects on output for the post-1982 period, but not for the pre-1982 period.

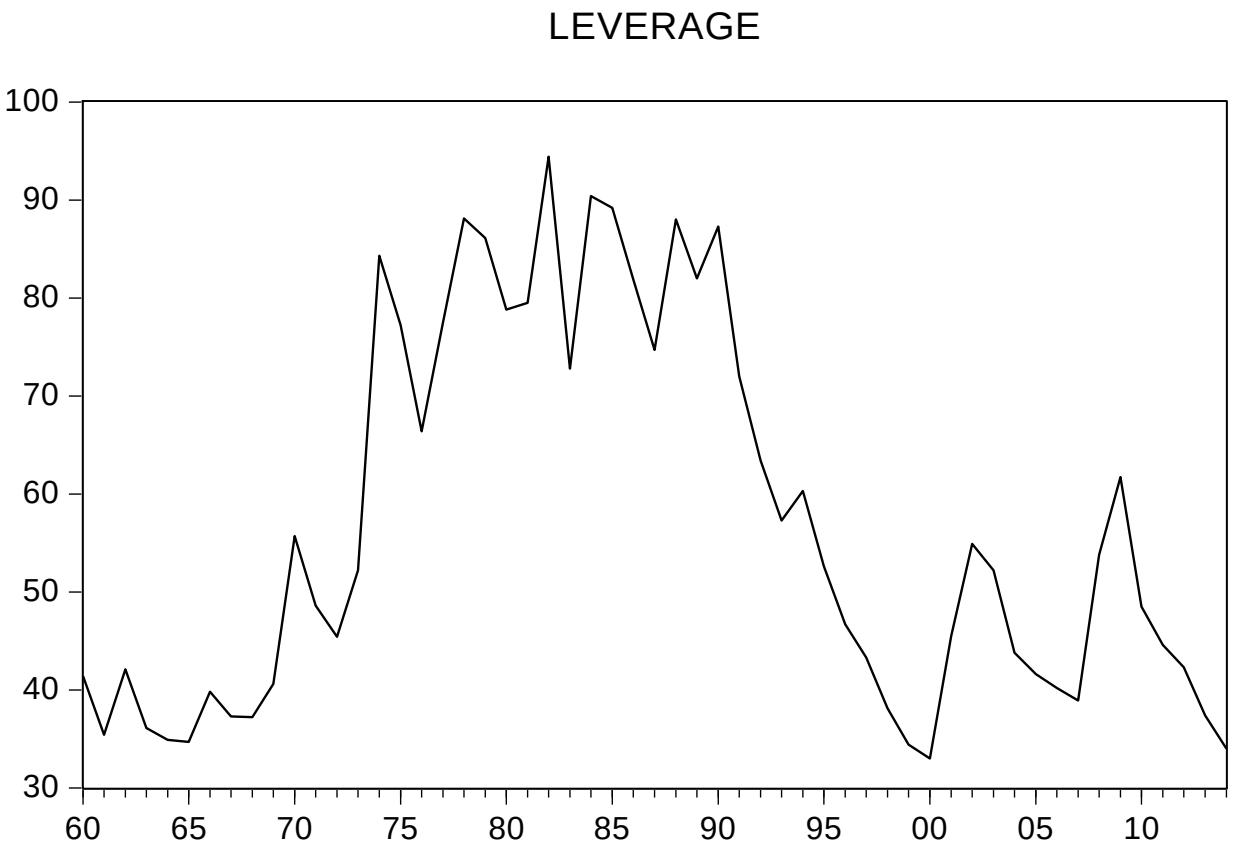

Fig: 3. US-*NFCs, Credit Market Debt as a Percentage of the Market Value of Corporate Equities. 1960-2013 Source: https://research.stlouisfed.org/fred2/series/NCBCMDPMVCE*

A diminishing leverage ratio (See Figure 3) implies that firms' debt has not increased as much as equities. Or with other words; in exchange of one unit debt, firms have raised their equities or amount of capital more than one unit. If we incorporate Figure 2 and Figure 3 with Figure 1 with considering the basic accounting rule, we can conclude that the increased capital has been employed to finance the financial assets, not capital assets; as contemporaneously the ratio of financial assets to non-financial assets have increased, too.

$$financial\ assets(fA) + nonfinancial\ assets(Nfa) = financial\ liabilites(fL) + Owners'Equity(Eq)$$

If the ratio of fL / Eq (leverage ratio, see Figure 3) is decreasing whereas fA / Nfa (financial assets' ratio, see Figure 2) is increasing, then mathematically fA and Eq should have more increased relative to Nfa and fL, respectively. Then, based on that, it is logical to deduce i) *excess capital* (the difference between Eq and Nfa which corresponds to the difference between fA and fL, i.e. the net worth depicted by Figure 1) has increased, ii) acquisition of fixed capital assets has mainly been financed by external funds, as an increase in Nfa corresponds to the increase in fL . This was verified by the empirical findings of Kliman and Williams (2014).

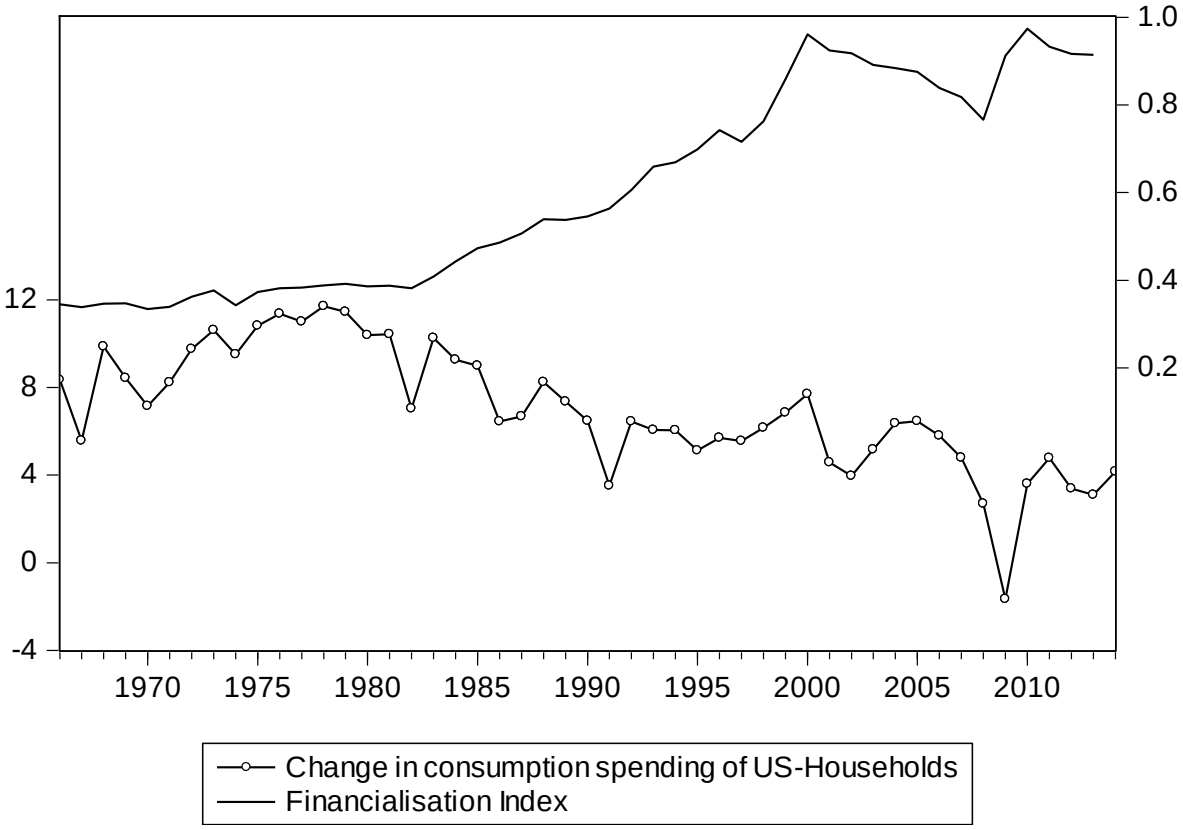

Fig. 4. *Change in US-household consumption spending (L) and Financialisation Index (=Ratio of financial assets to non-financial assets held by US-NFCs) (R). 1966-2013. Sources: gabriel-zucman.eu and my own calculation based on /research.stlouisfed.org/*

To conclude, a higher required margins of safety paved by sales volatility and by the decline in consumption spending (see Figure 4) leads to higher ratio of financial assets and on the contrary a lower margins of safety induces investment in capital assets by increasing their demand prices and as a result, reduces the financial assets' ratio in the portfolio: "*If financial assets are run down* [to finance investment in excess of internal funds]*, then margins of safety in the asset structure are reduced"* (Minsky, 1986, pp. 214).

5. Empirical evidence

In this section, first, I will show the reverse relationship between distributed profits and investment in capital assets and then test my own argument over Granger causality tests as the existence and the direction of causality are the main concerns of this paper. The tests have been run by E-Views 8. For the sake of simplicity[11], I focused on the relation between the change in household consumption spending (1966-2013; gabriel-zucman.eu) and financialisation index which I calculated as the ratio of financial assets to non-financial assets held by NFCs (1966-2013; research.stlouisfed.org/), in order to highlight the role of demand in explaining the financialisation process; as the change in consumption spending forms the quasi-rent expectations from capital assets. The reason behind 50-year time span is to demonstrate and to capture the long-run trend and the structural break during 1980s.

[11] Also the role of fiscal and monetary policies has been left out for the sake of simplicity.

Since the leverage ratio (1960-2013; research.stlouisfed.org/) is an intermediary factor between demand and financialisation and also can be affected by other factors, such as by external shocks on the value of financial assets; and as the return on capital assets is a function of demand, i.e. of the change in consumption spending; I prefer to employ the change in consumption spending as the explanatory factor. A regression between return on capital assets (1966-2013; gabriel-zucman.eu) and ratio of financial assets to nonfinancial assets would have collinearity problem; as firms prefer more financial assets to hold over nonfinancial capital assets, if the return on capital assets is lower. In other words, financial assets' ratio includes implicitly the return on capital assets *by definition*, and hence results would be biased.

In order to constitute a more convincing relationship between financialisation (i.e. higher ratio of financial assets to nonfinancial assets) and the change in consumption spending, it is worthwhile to remind that the decline in consumption spending is not only caused by diminishing purchasing power of low-income earners; but also by the rising savings of high income earners (i.e. capitalists and high wage-earner white collars) which inflate financial markets[12].

Pairwise Granger Causality Tests
Date: 06/08/16 Time: 11:33
Sample: 1960 2014
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
DIVINTBLNC does not Granger Cause GFCF	52	0.96995	0.3866
GFCF does not Granger Cause DIVINTBLNC		3.87872	0.0276

Table 1. *Granger causality test. Changes in Gross fixed capital formation and in Dividend & Interest Balance (1960-2014). Sources: http://www.federalreserve.gov/apps/fof/DisplayTable.aspx?t=F.103 and https://research.stlouisfed.org/fred2/series/USAGFCFQDSNAQ*

On the contrary to most of empirical works of SHPA-scholars (except Tori and Onaran, 2016) which do not include dividend and interest gains, I included also the received interest and dividend gains, as these gains would function to enhance funds of NFCs. As seen by Table 1, the direction of causality between the change[13] in Gross Fixed Capital Formation (GFCF) and the change in dividend and interest balance (=received interest and dividends gains - dividend and interest payments; my own calculation, 1960-2014, federalreserve.gov) is as I've previously pointed out: The causality runs from GFCF (1960-2014; research.stlouisfed.org/) to distributed profits, since its probability is lower than 5% (2,76%); and we cannot refuse the Hypothesis that distributed profits does not Granger cause GFCF, as its probability is higher than 5% (38.66%). That is to say, GFCF has an impact on dividend and interest balance as GFCF leads to interest payments due to external financing and creates reserve deficits which are replenished by equity issuances (Toporowski, 2000). However, dividend and interest balance of NFCs does not affect GFCF, as GFCF is mainly determined by demand and if once demand rises, NFCs might borrow or run down their financial assets to finance GFCF; if their internal funds have really been constrained by past dividend and interest payments and may reduce relative share of their financial operations which lead them to distribute profits.

[12] See footnote 7.
[13] I employed the change in variables in order to avoid the non-stationarity.

Pairwise Granger Causality Tests
Date: 06/08/16 Time: 19:57
Sample: 1 54
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
FINDX does not Granger Cause CHNCONSPSPND	46	6.18786	0.0045
CHNCONSPSPND does not Granger Cause FINDX		3.40209	0.0430

Table 2. *Granger causality test. Financialisation Index (=Ratio of financial assets to non-financial assets held by US-.NFCs) and change in US-household consumption spending. 1966-2013. Sources: my own calculation based on /research.stlouisfed.org/ and gabriel-zucman.eu*

As seen by Table 2, the probabilities of both hypotheses (Financialisation index does not Granger cause the change in consumption spending and cause the change in consumption spending does not Granger cause financialisation index) are lower than 5%, so we can reject them and can conclude that there is causality between them and it is bidirectional; not unilateral, as opposed to SHPA (see Onaran et.al. 2009): As a decline in consumption spending reduces the quasi-rent expectations from capital assets, then NFCs prefer financial assets to hold. On the other hand, as financialisation distorts income distribution, it might depress the consumption spending.

In short, engagement of NFCs in financial activities (= higher ratio of financial assets) stands as a profit maximizing tool in case of depressed demand which increases the margin of safety.

6. Conclusion

To summarize, the SHPA underestimates the ability of demand to push NFCs from financial activities towards production and real investment. Concerning investment decisions, it attaches more importance to the supply side rather than the demand side. It assumes that NFCs desire to invest in capital assets but are unable afford this because of distributed profits. It does not adequately consider the case that if there were strong and stable demand which would stimulate real investment through the expectations of higher profits from illiquid capital assets compared to liquid financial profits, then NFCs with a lower margin of safety would engage in production rather than financial transactions. As (especially large) NFCs those which are relatively more financialised have *excess capital,* the core argument of SHPA that distributed profits constrain real investment fails and the reverse-causality seems to be valid: NFCs distribute profits since they do not invest so much in real capital assets. Their empirical results might seem rigorous and do not falsify their assumptions since they do not include dividend and interest gains of NFCs in their regression models, as I have shown in this paper.

In short, NFCs with excess capital (depicted by Figure 1) are not financially constrained and even if they were constrained, they would have been pushed to invest in capital assets, if there were strong demand. Since the demand is volatile, weak and raises the margin of safety; NFCs are overcapitalized, i.e. financialized, as reflected by Figure 4.

The relation between market concentration and the structural decline in demand which pushes NFCs towards financialisation over pension funds calls for future research.

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