Have we been here before? Phases of financialization within the twentieth century in the US

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This paper explores the process of financialization from a historical perspective during the course of the twentieth century. We identify four phases of financialization: the first from the 1900s to 1933 (early financialization), the second from 1933 to 1940 (transitory phase), the third between 1945 and 1973 (de-financialization), and the fourth period picks up from the early 1970s and leads to the Great Recession (complex financialization). Our findings indicate that the main features of the current phase of financialization were already in place in the first period. We closely examine institutions within these distinct financial regimes and focus on the relative size of the financial sector, the respective regulation regime of each period, the intensity of the shareholder value orientation, as well as the level of financial innovations implemented. Although financialization is a recent term, the process is far from novel. We conclude that its effects can be studied better with reference to economic history.

Keywords: financialization, monetary regimes, speculation

JEL codes: E42, E44, B52

1 INTRODUCTION

When did financialization start? While there is much literature on the increasing dominance of finance in the United States after 1970, little work to date has attempted to investigate whether financialization was taking place earlier. Whereas few authors consider financialization as an evolutionary process that can be traced back to pre-capitalist societies, most analysts emphasize the neoliberal period beginning in the 1980s.

Financialization, as Sawyer (2013/2014) appropriately describes it, is a process that widely varies in form and intensity across time and space. Accordingly, by utilizing

* Corresponding author: email: dieguevarac@unal.edu.co. The views expressed in this article are those of the authors only and do not necessarily reflect the official views of the Greek Ministry of Finance or the Council of Economic Advisors. We thank the two anonymous referees for their plentiful advice, as well as Stephen Kinsella, Antoine Godin, Costas Koutsikouris, Elizabeth Dunn, and the participants of the 1st Grenoble Post-Keynesian Conference, ‘Money, Crises, and Capitalism,’ for their valuable comments. All remaining errors are ours. This work is partially funded by the Institute for New Economic Thinking.

empirical and qualitative analytical tools coming from different schools of thought, we identify distinct phases of financialization during the twentieth century in the US. In particular, we examine the resemblance of financialization's characteristics in the early twentieth century with those of the contemporary period, questioning whether the current phase of financialization is a vaguely different repetition of its older counterpart, as observed, for example, in the early 1900s.

To carry out our task, we divide the sample period into four distinct regimes, marked by structural breaks in the institutional setting of the economy, which affected the functioning of the financial sector. The first period of early financialization lasts from the beginning of the twentieth century up until 1933, as the New Deal agreement brought significant changes in financial regulation and policy orientation. The second period (1933–1940) reflects the transitory phase of the economy that leads to the third period, the 'Golden Age of Capitalist Development' (1945–1973). The crisis of 1973 heralded the end of the Golden Age. Last, we apply Dumenil and Levy's (2011) definition of neoliberalism as 'financialized capitalism' to link the fourth period of complex financialization with 1974–2010.

We contribute to the relevant literature by exploring financialization from a historical perspective and pointing out different varieties of financialization throughout the twentieth century in the US. While most studies focus on a few criteria to establish evidence of financialization, we employ a plethora of empirical and qualitative indicators that allow us to formulate a synthetic argument for the pace and the form of financialization in each distinct regime. We argue that financialization, characterized by an increased role for the financial sector along with higher complexity across financial objectives and institutions, is merely the current phase of a historical process that has been unfolding since the dawn of the twentieth century. In our view, the early 1930s period presents a significant resemblance to the current phase of financialization.

Financialization is associated with financial booms and busts and has a negative impact on the real production of the economy, as it results in unemployment and highlights income inequalities. History shows that the degree of financialization is a policy variable. For instance, in the postwar period, policymakers implemented a range of policy instruments (such as full employment policies of a Keynesian flavor) and enforced a strong regulatory environment in order to restrict the uncontrolled explosion of finance. The implications of our findings could point towards policies that could reverse the destabilizing effects that financialization has on society.

The paper is organized as follows: Section 2 discusses theoretical contributions with respect to financialization; Section 3 looks at the data relating to the financialization process, focusing on the importance of the US financial sector; and Section 4 provides an analysis of the course of financialization throughout the twentieth century, paying close attention to the interaction between financial innovations and the regulatory environment, as well as to the degree of shareholder value orientation in the US economy. We also scrutinize the commitment of fiscal and monetary policies to full employment and low-inflation targeting and examine whether the economic system is prone to financial collapse. The penultimate section (Section 5) summarizes our findings, which formulate and support our argument, while the last section (Section 6) concludes.

2 VARIETIES OF FINANCIALIZATION

Financialization is a broad concept with multiple dimensions interacting in the economic, social, and institutional domain. The most common definition for financialization is the

one provided by Epstein (2005, p. 1), who refers to the process as ‘the increasing importance of financial markets, financial motives, financial institutions, and financial elites in the operation of the economy and its governing institutions, both at the national and international level.’ In a similar vein, Vercelli (2013/2014, p. 5) defines financialization as ‘the process of evolution which has progressively increased the crucial role of money in the economy and society shaping the forms of exchange, circulation, distribution, and accumulation of exchange value.’

Although both definitions are rather broad, they capture the complex nature of financialization and its links to the underlying institutional structures. However, the absence of a single criterion that would integrate every dimension of financialization renders the establishment of relevant evidence a rather challenging task for empirical researchers (Raza et al. 2016).

The broadness and the importance of financialization led several authors to an investigation of a rather wide scope regarding the origins of the phenomenon, and triggered a debate on whether financialization dates centuries back or whether it constitutes a unique characteristic of the current phase of capitalism. Following Sawyer (2013/2014), we identify two large strands of literature on financialization. The first examines the evolution and the size of the financial sector and has its origins in both mainstream and heterodox schools of thought. For instance, Vercelli (2013/2014, p. 21) associates financialization with the penetration of different forms of money in society through financial innovations, and identifies a ‘secular tendency towards financialization’ that originates in ancient civilizations, although he recognizes two distinct phases of financialization in the twentieth century.

Mainstream authors tend to highlight the positive consequences of financialization, for example, in most cases arguing in favor of a long-run positive association between the magnitude of finance and economic growth, referring to it as ‘financial development’ or ‘financial deepening.’ They employ several proxies, such as the size of the economy’s banking sector, its loan provision capacity, or measure the relative importance of the financial sector, by going back as far as their data sources allow (see Greenwood and Scharfstein 2013).

A few notable exceptions performed after the financial crisis of 2008 highlighted the possibility of a non-linear relationship between financialization and economic growth, suggesting that a stronger financial sector contributes to growth only up to a certain threshold while further financialization affects growth adversely (see Law and Singh 2014). Also, Schularik and Taylor (2012) explored the association between various leverage structures, money, and the likelihood of financial crises since 1870. They emphasize the importance of credit on financial instability and argue that the prewar period presented much less dominance of credit and finance, acknowledging the Great Depression as an exceptional case in that period.

Similarly, heterodox authors largely examine the destabilizing impact of financialization on the economic and social domain. This literature strand, deriving mainly from post-Keynesian and Marxist schools of thought, tends to associate financialization with the era of neoliberalism, which began in the 1980s for most developed economies, and describes it as a different form of capitalism in which finance has become more dominant than it previously had been and has penetrated into various realms of society (Sawyer 2013/2014). Table 1 presents some pertinent studies in each approach that are employed in this paper.

Next we provide an overview of several of the listed approaches to financialization, among which is a strand of research that focuses on the submission of the production process to the principles of financial liquidity. For instance, Palley (2007, p. 2) suggests that financialization is ‘a process whereby financial markets, financial

Table 1 Financialization in the economics literature

Approaches	Pertinent studies
Financial development / increasing size of the financial sector	<ul style="list-style-type: none"> • King and Levine (1993) • Rousseau and Wachtel (2000) • Greenwood and Scharfstein (2013) • Philippon (2015)
Increasing importance of financial markets / increasing power of financial elites and rentier class	<ul style="list-style-type: none"> • Arrighi (1994) • Epstein (2001) • Dumenil and Levy (2002) • Epstein and Jayadev (2005) • Palley (2007) • Dallery (2008) • Vercelli (2013/2014)
Regimes of accumulation / corporations engaged in profit-making in the financial sector	<ul style="list-style-type: none"> • Arrighi (1994) • Lavoie (1995) • Boyer (2000) • Stockhammer (2004) • Krippner (2005) • Van Treeck (2008a) • Hein (2008)
Shareholder value orientation	<ul style="list-style-type: none"> • Lavoie (1995) • Lazonick and O'Sullivan (2000) • Aglietta and Breton (2001) • Cutler and Waine (2001) • Stockhammer (2004) • Froud et al. (2006) • Roberts et al. (2006) • Dallery (2008) • Hein (2008)
Financial innovations / debt-led consumption and distribution	<ul style="list-style-type: none"> • Hilferding (1910) • Palley (1994) • Phillips (1996) • Dutt (2005) • Bhaduri, Laski, and Riese (2006) • Montgomerie (2006) • Hein and van Treeck (2008) • Hein (2009)
Low-inflation targeting	<ul style="list-style-type: none"> • Palley (1999) • Epstein (2001)

institutions, and financial elites gain greater influence over economic policy and economic outcomes.' This process is characterized by 'a slight shift in income toward capital, a change in the composition of payments to capital that has increased the interest share, and an increase in the financial sector's share of total profits' (ibid., p. 14). Similarly, Orlan (1999) associates financialization with the restructuring of the internal organization of the firm, as a response to the increasingly powerful interests of the stock market.

This approach is close to the view that financialization refers to the increasing power of the rentier class. It derives from the earlier works of Hilferding (1910) and Lenin (1916) and has been more recently advocated by Dumenil and Levy (2002) and Epstein and Jayadev (2005). However, this view could be considered as too narrow, as it focuses solely on the rentier class, while currently the firm has become the 'battle-ground' for different agents, including workers, managers, shareholders, and financiers (Stockhammer 2005/2006).

According to advocates of 'shareholder value orientation,' the growth pattern of the firm has shifted from 'retain and invest' to 'downsize and distribute' (Lazonick and O'Sullivan 2000). In particular, shareholders are considered to have a short-term orientation with respect to firms' profits, as they are interested in higher dividend payments and higher stock prices, which is in stark contrast to the managers' aim for long-run growth of the firm.¹ Higher dividend payments imply lower retained earnings, while higher stock prices translate to low equity issuance (Hein and van Treeck 2008). Therefore, financing of investments becomes feasible only through the use of external means, such as higher loans and increased leverage ratios, which render the firms financially fragile.

Close to the shareholder value orientation norm is the definition provided by Arrighi (1994) and Krippner (2005), according to which financialization is a pattern of accumulation, where profit is accrued primarily due to financial activities and less so due to production or trade activities. Arrighi's and Krippner's definitions coincide with the shareholder value orientation view in the fact that productive firms engage in financial activities, either because the expected profit in the financial market is higher than the corresponding profit in the goods market, or because the conditions associated with high dividend payments are so strict that they essentially force firms to seek additional gains in the financial market. As put by Dallery (2008, p. 492), the profit rate has become 'an end in itself.' Nevertheless, as noted by several authors,² the impact of this process has ambiguous results on accumulation, with the institutional setting of the economy defining its ultimate goal and the associated regime (Stockhammer 2004).

A considerable amount of research has focused on financial innovations as a feature of financialization. Hilferding (1910) looked at financial derivatives as a tool of capturing the essence of speculation, which lies solely in the exchange value (Sotiropoulos 2012). In addition, Phillips (1996) links the intensity of financial innovation to the volume of trading in the financial markets.

Financial innovation has also been extended to the rise of new consumption patterns, bound to higher household debt structures with distributional implications (Palley 1994; Dutt 2005). Hein and Mundt (2013) suggest that stagnating wages are linked to increased household debt and result in debt-led consumption booms, while Bhaduri et al. (2006) focus on the wealth effect on consumption, where higher levels of financial wealth induce households to spend more, given financial deregulation.

1. Interestingly, the shareholder value orientation fits well, and even validates, Minsky's financial instability hypothesis (Charles 2016). In short, Minsky advocates that modern capitalist economies are inherently unstable due to increasing financial fragility being built up during periods of prolonged financial tranquility. As indicated by Lavoie and Seccareccia (2001), the procyclical debt ratios require that the growth rate of investment is higher than the one of retained profits, which is not necessarily always the case. In periods of financialization, however, shareholder value orientation imposes a higher distribution of dividends, reducing thereby retained profits. In tandem with low interest rates, this reflects the period of tranquility that allowed financial fragility to build up in the Minskyan interpretation of financial crises (Charles 2016).

2. See, for example, Boyer (2000), Hein (2008), Lavoie (1995), and van Treeck (2008b).

Lastly, Montgomerie (2006) looks at the introduction of credit cards, which allowed more financial institutions to enter the credit market.

Financialization varies in terms of pace and form, and one can identify periods of financialization as well as of de-financialization (Sawyer 2013/2014). However, comparing distinct periods of financialization is not an easy task, since ‘there are too many factors to account for change and capitalism cannot necessarily be characterized by compartmentalized sub-epochs’ (Orhangazi 2008, p. 24). The comparison becomes even trickier, as different schools of thought in economics consider different indicators, proxies, and definitions to measure financialization.

In identifying distinct phases of financialization in the US economy, we assume that capitalism is a prerequisite for the process of financialization, as well as a certain degree of financial development, in the sense that financial instruments become commonplace.³

Hence, we select the beginning of the twentieth century as our starting point, as it satisfies our methodological assumption: (a) US capitalism had already been in place for a significant amount of time; and (b) it was a period characterized by a fairly developed financial sector that gave birth to modern consumer credit (Calder 1999; Feretti 2008). Thereafter, we divide the period into four distinct regimes associated with structural breaks in the institutional setting of the economy in order to make comparisons in terms of institutions, policies, and economic outcomes in each period. These structural changes in capitalism did not occur within the period of a calendar year, rather they took place gradually. For this reason, developments during the 1930s and 1970s could only function as proxies of an ongoing change, the effects of which were observed in late 1940s and early 1980s, respectively.

3 THE IMPORTANCE OF THE US FINANCIAL SECTOR

Our analysis begins by looking at the role of the financial sector in economic activity, as measured by a number of criteria addressed in the literature. Figure 1 shows the sum of the profits and wages in the US financial sector as a share of GDP for the period 1900–2012. The upward trend is clearly evident, even from the early twentieth century, and is only disrupted by the run-up to World War II. Up until 1933, the increase in the income share of finance more than doubled (111 percent), while the associated yearly rate of growth, on average, was about 2.5 percent. Between 1934 and World War II the income share of finance indicated a tremendous drop of almost 60 percent and a yearly growth rate of –4 percent, reflecting the impact of the Great Depression on the financial sector. In the postwar years until 1973, the increase in the income share of finance was relatively moderate (35 percent), with the yearly growth

3. A number of researchers trace financialization to a period before capitalism, even as far back as 5000 years (for example, Graeber 2011), by tracing the evolution of debt instruments along with the evolution of various social norms such as different modes of exchange, that is, gifts. Others (for example, the Monthly Review approach) consider financialization as a form of mature capitalism stemming from the production of an economic surplus which cannot be absorbed in the sectors of production or consumption. Finance, therefore, facilitates the absorption of this surplus, thereby preventing the stagnation of the productive sector (see Baran and Sweezy 1966; Lapavistas 2013). For the purpose of this paper we follow the broader approach of Hilferding (1910), who explored the transformation of capitalism which he termed as ‘Finanzkapital,’ to reflect the increasingly greater role of banks as intermediaries of investment capital to monopolistic firms.

Note: The estimations for the income share of finance refer to the value added of the factors of production, while GDP excludes the spending on defense to adjust for the tremendous effect on spending during World War II.

Source: Estimations based on Philippon (2015).

Figure 1 Income share of finance in the US (1900–2012)

rate of the share being equal to 2 percent. Lastly, after 1974, the US economy witnessed an overall rise in the share of finance by 30 percent with a yearly growth rate of about 1 percent.

The increasing importance of the financial sector is also depicted by the share of consumption expenditure on financial goods and services, reported in Figure 2. Expenditure for financial products in the 1930s was slightly higher than health expenditure and significantly higher than expenditure for medicine. In recent years, finance-related expenditure has grown only moderately compared to other types of expenditure, though the amount is higher in absolute terms.

Another measure of the importance of the financial sector is its level of sophistication, otherwise known as ‘financial depth.’ In the literature, the most common proxy for financial depth is broad money (M2) or the stock of liquid liabilities (M3) expressed as ratios of GDP. Figure 3 shows the ratio of broad money over GDP in the US for the period 1900–2010. Despite the high variability throughout most of the century, broad money over GDP indicates distinct trends across each phase of financialization we explored. The period 1900–1933 indicated a relatively steady yearly rate of money growth of around 1 percent. The period between the financial crash and the beginning of World War II indicated a similar yearly rate of growth, though with extreme fluctuations due to the higher uncertainty.⁴ During the Golden Age of capitalism (1945–1973) the

4. The fluctuations could be explained by high uncertainty, which, as pointed out by Keynes (1936), leads to the hoarding of money.

Source: Estimations based on Mehra et al. (2011) and Philippon (2015).

Figure 2 Consumption by type of expenditure as a share of GDP for the US economy (1930–2010)

Source: Estimations based on Schularick and Taylor (2012).

Figure 3 Broad money over GDP for the US economy (1900–2010)

ratio of broad money to GDP plummeted, with an average yearly decline of 0.6 percent. The neoliberal phase showed increases in the monetary base of the US economy, especially after 2000, indicating a yearly growth rate of almost 1 percent, similar to the first phase of financialization.

These figures provided an overview of the importance of the US financial sector during the twentieth century, providing a primary indication that finance was already prominent in the early 1900s, that is, the first period we examine. The following section tracks the evolution of financialization in depth, using methodological instruments derived mainly from the post-Keynesian tradition.

4 EVIDENCE OF FINANCIALIZATION IN THE US ECONOMY IN THE TWENTIETH CENTURY

In this section we use empirical estimates to assess the relative importance of finance throughout the twentieth century in the US economy. Similar attempts have been carried out by several authors. Among them, Krippner (2005) constructed two indicators for financialization for the post-WWII period. Her first indicator relates to the ratio of profits of corporations stemming from financial activity, while the second compares the profits between the financial and the productive sectors. Both of these indexes provide support for the rise of financialization in the 1970s. However, due to data limitations, the analysis did not include the interwar period.

Stockhammer (2004), by dividing the share of interest and dividend payments by the share of profits, empirically tested the hypothesis that short-run investment in financial instruments is preferred to long-run investment in real capital. His hypothesis is rejected for Germany and perhaps the UK, but is valid for France and the US. Van Treeck (2008b) employed a Kaleckian growth rate of investment function for the US to find that interest and dividend payments have a significant negative impact on accumulation, while Orhangazi (2008) found that on a micro-firm level, financial profits have a negative impact on large firms but a positive one on small firms, as financial profits relax the financial constraints.

These attempts vary in methodology and in each sample's period, yet they reach similar conclusions. However, none of the above extends its analysis prior to World War II. In the following sub-section, we attempt to shed some light on issues related to financialization throughout the twentieth century in the US, with the use of descriptive statistics.

4.1 Fiscal, monetary policy and capital mobility

We commence our analysis by presenting the fiscal and monetary policy framework that underlined each distinct period under consideration, ultimately determining the dynamics of the financialization process. In particular, we assess the role of fiscal policy in promoting full employment and question whether monetary policy has been accommodative to the financial sector.

Of course the scope and the implementation of fiscal and monetary policies could not be examined in isolation but rather within a regulatory framework, which facilitates the attainment of fiscal and monetary targets. For this reason we pay particular attention to capital mobility as a stimulating factor of the process of financialization. According to Crotty and Epstein (1996), capital controls have a detrimental impact on the ability of

the rentiers and financiers to avoid regulation, simultaneously accommodating full employment and redistributive policies. In this sense, unregulated capital mobility constitutes a further argument in favor of the presence of financialization.

In the first period under examination, the global monetary system was dictated by the 'gold standard,' which included movements of gold between central banks, as a response to international non-financial transactions (Eichengreen and Temin 1997). The aim of the gold standard was to secure price stability and constrain fiscal expansion, reflecting 'the mentality and the type of conduct of ... economic elites' (ibid., p. 187).

This condition had a considerable effect on the money supply and the balance sheet of the central banks. As shown by Godley and Lavoie (2007, ch. 6), the system favored the exporting countries, since a deficit in the current account of the importing country implied a reduction of gold reserves of the central bank, which ought to be counterbalanced by an increase in the Treasury bills held by the central bank. This effect gave rise to the twin deficit phenomenon in the importing countries. Given that governments did not favor budget deficits, another option for rebalancing the current account was deflating the economy, with the main burden being laid upon wages, as was the case before World War I (Eichengreen and Temin 1997).

In the US, the lack of a central monetary authority controlled by the government prior to 1913 allows us to safely assume that the interests of the financial sector were *de facto* accommodated. Financial regulation, carried out by the state governments, could hardly be thought of as effective (Komai and Richardson 2011). In regard to foreign competition and imposed imbalances by the gold standard framework, the current-account deficit at the turn of the century was reversed to a surplus in the run-up to World War I, since the UK's major supplier of war machinery was the US (Arrighi 1994, p. 278). This tendency was further heightened after World War I when the US experienced massive inflows of capital due to its strong productivity growth as compared to major European countries, as well as the uncertainty created by the inability of the latter to honor their debt commitments (Arrighi 1994). Besides, the free movement of capital under the gold standard regime posed no obstacles on these capital inflows (Crotty and Epstein 1996).

In this context, the specific conditions of that time favored the US financial sector; however, in terms of monetary policy, the outcome is ambiguous. Although there are considerable elements in favor of an accommodative monetary policy, they arguably do not suffice to reach reliable conclusions. Nevertheless, in regard to fiscal policy, non-commitment to full employment was clearly evident.

The fiscal policy inaugurated under the leadership of Franklin Roosevelt in 1933 marked a regime change in terms of policy goals, when a set of acts was implemented to combat recession and unemployment. According to Papadimitriou (2008), these fiscal interventions were a close approximation to an employer of last resort policy schemes, even though they were not sufficiently successful as to render demand for labor inelastic.⁵

However, fiscal targets were not the only structural change that had taken place. The dogma of central-bank independence had been abandoned, with the Fed being

5. According to Minsky (1968) a direct job creation policy, such as an employer of last resort scheme, creates a perfectly inelastic demand for labor, since individuals in the labor force will be employed regardless of the wage level or the unemployment level. For a thorough discussion on the theoretical background of the employment of last resort policies, see Kaboub (2007).

now under the direct control of the government (Epstein and Schor 1995).⁶ More importantly, capital controls were imposed simultaneously in several economies in search of an alternative to the already collapsed pegged exchange rates regime policy (Mitchener and Wandschneider 2013). Therefore we observe a coordinated shift in the framework under which economic policy was conducted, which, in its several aspects, contrasted with the process of financialization. As noted by Orhangazi (2008, p. 28), the dominance of financial capital had come to an end, inaugurating a new stage of capitalism and bringing forth a new phase of financialization.

The system that emerged under the Bretton Woods Conference agreement ensured the convertibility of the US dollar to gold, effectively providing stable exchange rates. The Bretton Woods exchange-rate regime reflected the dominance of the dollar, by allowing it to function as inconvertible world money and, hence, of the Fed in the global monetary framework.

In addition, a clear distinction between the interests of productive and financial capital could be observed, with the former supporting the maintenance of effective capital controls which clearly opposed the interests of the latter (Ferguson 1984).

The agreement was accompanied by a set of policy goals, in which the maintenance of full employment had a central role, while the monetary policy was bound to serve the fiscal (Marglin and Schor 1990). Particularly for the US, we observe a clear detachment from processes related to financialization.

Nevertheless, the collapse of Bretton Woods brought a new political agenda, set forth by Thatcher and Reagan in the 1980s, that gradually led to central-bank independence, zero inflation targeting, free capital movements, and the abandonment of full employment. The new order in the area of global finance increased the level of instability in the global financial system, while triggering the growth of international financial markets (Lapavistas 2013).

According to Palley (1999, p. 106), central banks were characterized by a clear deflationary policy bias. Given that the majority of the board members were previously employed in the financial sector, the institutionalization of central-bank independence implied the promotion of financial interests by the monetary policy. In addition, Palley (*ibid.*, p. 120) refers to three regimes of monetary policy in a Phillips curve: (a) high inflation and low unemployment, which implies high bargaining power for labor; (b) moderate inflation and unemployment, which boosts aggregate demand in the short-run, with moderate inflation reflecting sufficient demand; and (c) low inflation with high unemployment, which favors the financial sector. In this context, zero inflation policies and central-bank independence promote the interests of the financial sector against labor and productive capital.

In addition, the 1980s marked a period of abolition of barriers to trade and capital movement which gained ground after the legally binding General Agreements on Tariff and Trade (GATT) and North American Free Trade Agreement (NAFTA) treaties, while fiscal policy was downgraded, given the tax cuts on business and rich households (Crotty and Epstein 1996). Hence, we observe a new shift of the economic policy framework towards the opposite direction of the corresponding framework in the 1930s.

Overall, the fiscal and monetary framework of conducting policy experienced dramatic changes within the twentieth century, where a phase of free-market orientation was succeeded by a policy regime in which the fiscal instruments had a critical role in economic

6. It should be noted that even though monetary policy was conducted in order to support the full employment fiscal target, its potentials were not fully exploited (Mitchener and Wandschneider 2013).

activity. The roots of this change can be traced both in the economic and the political sphere; however, free-market orientation resurged in the latest phase of financialization, with its main features in terms of policymaking resembling those in the early 1900s.

4.2 Shareholder value orientation

The shareholder value orientation can be viewed as the pressure on managers to ensure short-term profits at the expense of firms' long-run growth.⁷ This distribution of corporate profits in favor of the shareholders could potentially have a considerable impact on the non-financial corporations' (NFCs') accumulation rate since the lower level of retained earnings ought not to suffice so as to finance investment in the productive activity. By using this approach, the similarities between the first and the fourth periods of financialization are striking.

The rise of the joint stock company in the first period provided financial institutions with the option to control corporations by placing their representatives on corporations' boards, by holding their stocks, and by the provision of higher loans (Orhangazi 2008, p. 24). As an immediate result of this condition, financing capitalists were actually monitoring managers (DeLong 1991). From a similar point of view, the productive capital was financialized (Pineault 2001, cited in Orhangazi 2008, p. 27), which, in combination with the developments in the stock market, had a detrimental impact on the sustainability of the economic system (Keynes 1936, p. 160).

The intense regulation and interventionist policies in the second period paid off in the third, where the boom in fixed capital formation signified a transition towards a long-run orientation with respect to firms' growth (Marglin and Schor 1990). Overall, this period was characterized by financial tranquility, where the pressure on managers, by financiers and stockholders, was reduced (Orhangazi 2008, p. 30).

However, in the last period, this pressure once again resurged, in a rather 'formal' manner, as compared to the first one. For instance, the imposition of the so-called return-of-equity (ROE) norm was indicative of the ultimate goal of management, which was to maximize the return value to shareholders.

To proxy the level of shareholder value orientation, we focus on the controversy that arises between the dividend payments and the internal financing of investments.⁸ Table 2 presents the average shares of net dividend payments and retained earnings over corporate profits after tax. The first period spans the years 1929 to 1932; therefore, the related values are a mere reflection of the irregularity of the Great Depression, where corporations were distributing sums that exceeded their profits, presumably to sustain the price of their shares.

However, the blurred depiction of the first period is somewhat restored in view of the second period, where no dramatic changes in the institutional framework of the associated variables were observed. Specifically, distributed profits accounted for 87 percent of the overall profits, implying an overwhelming 'originate and distribute' orientation (Sawyer 2013/2014).

7. The switch in the mentality of entrepreneurs towards the pursuit of prospective, and even speculative, profit as compared to the mentality of the entrepreneurs in the late nineteenth century was already noted by Keynes (1936, p. 159) in the interwar period.

8. Possibly the most notable feature of the shareholder value orientation relates to the increasing short-run investment in financial assets at the expense of investing in real assets (Stockhammer 2004). Nevertheless, due to data limitations regarding interest payments between sectors, we were unable to assess this feature for the period under examination.

Table 2 Average share of net dividend payments and retained earnings to corporate profits after tax (excluding depreciation allowances) in the US

	Dividends	Retained earnings
1st period	10.41	−9.39
2nd period	0.87	0.13
3rd period	0.39	0.61
4th period	0.53	0.47

Source: National Income and Product Accounts.

Source: Estimations based on Baker and Wurgler (2000) and Philippon (2015).

Figure 4a Gross equity issuance and gross corporate bond issuance over GDP for the US economy (1910–2010)

This condition is reversed in the third period, with retained earnings accounting for 61 percent of profits, which comes in line with the investment boom in the Golden Age. However, in the latest period, the pressure on managers is depicted in the higher share of net dividends, accounting for 53 percent of profits. In advance, the intensity of the distribution of profits becomes higher in the period close to the Great Recession. For instance, the average shares of net dividend payments and retained earnings in the period between 1995 and 2008 were equal to 64 percent and 36 percent, respectively.

Subsequently, we examine corporations' external debt, paying much attention to the corporate bond and equity issuance. Corporate bond issuance, depicted in Figure 4a, presents high volatility in the first period of financialization, yet it fluctuates at a considerably higher level than equity issuance. This pattern is followed in the second period; in the third, bond issuance stabilizes around 1.5 percent of GDP, to explode in the latest phase of financialization.

With respect to equity issuance, there was a clear negative trend close to the 1920s, where an extreme short-term rise took place due to the stock-market rally, as reported

in the abrupt increase of the market value, which led to the financial collapse in 1929. After World War II, equity issuance remained relatively stable, with a small increase in the average level in the fourth period, while following a cyclical pattern. By contrast, the market value of equities (see Figure 4b) presented both an upward-sloping trend and a cyclical pattern, with a widely increasing volatility of the latter. These are well illustrated in Table 3, which provides an overview of the average bond and equity issuance and the corresponding volatilities for each period.

Lastly, we focus on mergers and acquisitions, which according to Hein (2009) reflect the pressure on managers by the use of hostile takeovers. Figure 5 depicts the value of mergers and acquisitions for the period 1900–2013. The intensity of merger activity is clearly evident during the 1920s, followed by a period of tranquility after the financial collapse of the late 1920s. However, after the late 1960s, and especially around the millennium, a second explosive wave of mergers takes place.

Source: Estimations based on Baker and Wurgler (2000) and Philippon (2015).

Figure 4b Market value of equity over GDP for the US economy (1900–2012)

Table 3 Corporate gross bond issuance and gross equity issuance over GDP for the US economy (1909–2012)

	Gross bond issuance over GDP		Gross equity issuance over GDP	
	Mean	Volatility	Mean	Volatility
1st period	2.25%	25.24%	1.09%	62.13%
2nd period	1.62%	38.24%	0.24%	51.17%
3rd period	1.51%	17.59%	0.44%	34.55%
4th period	2.41%	31.10%	0.62%	37.64%

Source: Estimations based on Baker and Wurgler (2000) and Philippon (2015).

Source: Estimations based on Jovanovic and Rousseau (2005) and Philippon (2015).

Figure 5 Value of mergers and acquisitions in the US (1900–2013)

Overall, evaluating shareholder value orientation in a consistent manner is not an easy task, given the data limitations and the distinct institutional framework in each period. However, our analysis suggests that common elements are present between the first and the fourth period under consideration, providing support for the argument in favor of financialization in the early 1900s.

4.3 Financial regulatory framework, financial innovations, and household credit

4.3.1 Regulatory framework

The banking sector's involvement in securitization has been extensively regulated since the mid-nineteenth century. However, a loophole in the associated regulatory framework allowed national banks to enter the securities market by setting up affiliated trusts (White 1986). Numerous banks had already broadened their operations through their bond departments; nevertheless, the growing securities market⁹ seemed at that time a source of considerable profit, in which traditional banks were not allowed to participate (ibid.). The introduction of affiliates as an institutional partner of the commercial banks allowed the latter to overcome regulation and gain access to this profitable market.

The number of US national banks engaged in securitization was 11 times higher in 1931 compared to 1921, while the banks that were mostly interested in the bond market rather than commercial activity more than doubled (Peach 1941). The participation of

9. Securitization commenced around 1860, with the introduction of railroad bonds and a further introduction of mortgage-backed securities in the 1880s (Chancellor 1999). In the early 1900s the term's meaning shifted, mostly referring to the use of uninsured deposits as collaterals for issuing new loans which in turn were used for the purchase of stocks or bonds. After the 1970s, issued securities were backing every single debt instrument, a practice not irrelevant to the financial regulatory framework. Nowadays, the term is mostly employed to refer to complex financial products, especially asset-backed securities such as collateralized debt obligations (CDOs).

banks and their affiliates in bond issuing rose from 36.8 percent to 61.8 percent, while the share of bonds issued by all banks increased from 22 percent to 44.6 percent (US Senate 1931, cited in White 1986). A contributing factor was also the increased competition for deposits (White 1986). According to Dymski (1991), during the 1920s, immense competition for deposits increased interest costs, leading banking institutions on a quest for high return, that is, riskier loans.

The higher leverage structure also served the purchase of stocks, which implies higher stock prices and, therefore, capital gains. Speculation during the 1920s rendered the US economy financially fragile. The intensive securitization, with the use of uninsured deposits as collateral in combination with the stock-market rally, led to the stock-market crash in 1929.

The outbreak of the Great Depression was followed both by interventionist policies and legislative initiatives, which aimed to prevent any further deterioration of the economy and control the potentially destabilizing threats of the financial activity in the productive sector. The most critical policy response with respect to the functioning of the financial sector was the Glass–Steagall Act, passed in 1933.

Specifically, policymakers were particularly concerned with the involvement of banks in the securities market, as they were identified as one of the major causes for the massive bank failures during the Great Depression (Crawford 2011). For this reason, banks were offered the choice to engage in either commercial or investment banking activities. The introduction of the Federal Deposit Insurance Corporation (FDIC) ensured the protection of depositors from defaults in commercial banks, while the newly established Securities and Exchange Commission (SEC) regulated financial practices.

The intense regulation, in combination with weak foreign competition, resulted in financial tranquility, where the pressure on managers by financiers and stockholders was reduced (Orhangazi 2008, p. 30).

In the first two decades after World War II, the US economy achieved an almost full employment state, experiencing only minor recessions and modest inflation periods (Minsky 1986, p. 50), while financial activity was carried out under the control of the Fed with the use of the Fed's discount window and open-market operations (*ibid.*, p. 52).

However, the institutional changes in the financial sector and, in general, the attempts to regulate its functioning lacked a coherent theoretical framework that would allow for a dynamic and continuous regulating process (Minsky 1986, pp. 43–45). This argument is verified by the fact that during the 1960s, a period characterized by strong investment growth, financial innovation in the money market – that is, by introducing the certificate of deposits, real estate investment trusts (REITs), and the commercial paper – rendered the Fed's controlling instruments ineffective, since the latter were not adapted to the new financial environment.

More importantly, the structure of debt had a critical role in the period at hand. As a follow-up to the Great Depression, government debt started rising and even surpassed private debt during World War II, reaching a record level of 113 percent of GDP (see Figure 6). Indeed, it was the first time that public debt penetrated into firms' and households' balance sheets as a financial asset (Minsky 1986, pp. 37–38).

A seemingly financially tranquil period was disrupted by a wave of financial episodes. Minsky (1986, pp. 97–101) described in detail the developments in the financial sector that led to the credit crunch of 1966 and the liquidity squeeze in 1969–1970. Focusing particularly on the money market, financial institutions collateralized the liability side of their balance sheet for the first time after World War II; this resulted in high levels of instability in the financial sector and reduced financing of tangible capital investments. Also, rising public debt in the hands of the public and other financial institutions, along

Source: Estimations based on Philippon (2015).

Figure 6 Total debt-to-GDP, private-debt-to-GDP, and government-debt-to-GDP for the US economy (1900–2012)

with an increasing rate of financial innovations, suggests a deeply rooted transformation that consequently resulted in a debt-oriented financial environment during the neoliberal era of financialization (fourth period).

In 1975, the Securities Amendment Acts were passed in order to set up the National Market and the National Clearing System, aimed at enhancing liquidity and competition, yet they failed to deliver results (Komai and Richardson 2011). In the same year, the fixed minimum commission rates were repealed as anti-competitive regulation.

In the 1980s, a large-scale deregulation process took place, with the Glass–Steagall Act being gradually relaxed by the Fed¹⁰ and eventually repealed in 1996¹¹ (Crawford 2011). At the same time, US financial institutions, keen on becoming aggressively competitive on a global scale, lobbied for loose regulation (Komai and Richardson 2011). Finally, the reform of FDIC to FDICIA (Federal Deposit Insurance Corporation Improvement Act), in 1991, institutionalized the ‘too big to fail’ doctrine (ibid.). The remaining regulations were carried out on the basis of addressing moral hazard and information asymmetries.

4.3.2 Financial innovations’ growth rate

Financial innovations stand at the core of financialization, as they allow the financial sector to overcome regulatory barriers and therefore increase its relative economic power (Bhaduri 2011). Until recently, numerous authors perceived them as a

10. According to Crawford (2011) the Fed reinterpreted the Act in the 1980s, allowing commercial banks to have 5 percent gains from holding securities. The threshold was further relaxed to 10 percent by the end of the decade and in 1996 the margin was set to 25 percent.

11. Officially the Glass–Steagall Act was abandoned in 1998.

contributor to economic development and prosperity (Bernstein 1996), as they ‘increase risk sharing, lower transaction costs, and reduce information and agency costs’ (Merton and Perold 1997, p. 108). Only a few scholars highlighted the other side of the coin. One of them was Hyman Minsky (1990, p. 60), who stressed that ‘economies with financial innovations that are driven by market prospects are structurally conducive to booms and busts.’

The quantitative assessment of the role of financial innovation as a contributing factor to the financialization process is a complicated task, as it is not possible to point out which innovation contributed to the process to what extent. Figure 7 represents the share of financial patents registered in the US economy as a share of all registered patents in the country for most of the twentieth century as a proxy of the relative share of growth of financial innovations.

It is evident that the trend of new financial patents is steadily increasing throughout this period, representing what Minsky (1986, p. 111) described as an internal process of a capitalist system with a sophisticated financial sector. This steady rate of growth in financial innovation suggests that the links between financial innovation and financialization should not be rooted in technological improvement *per se*. Instead, the institutional and policy forces, which allow the financial innovations to be employed by the financial institutions, should be more important. To assess the contribution of financial innovations in the expansion of the financial sector’s role in each period, we track preceding innovations moving in tandem with regulatory developments in the domain of finance throughout the twentieth century.

4.3.3 Household indebtedness

Today, perhaps the most notable example of financial innovations affecting the macro-economic environment is household credit. For instance, Palley (2007, p. 24) suggests that:

Borrowing is also supported by steady financial innovation that ensures a flow of new financial products allowing increased leverage and widening the range of assets that can be

Source: Estimations based on Jovanovic and Rousseau (2005).

Figure 7 Patents on inventions and trademarks in finance as a share of all patents registered in the US (1900–1996)

collateralized. Additionally, credit standards have been lowered in recent years, which has made credit even more easily available to households, firms, and financial investors.

Figure 8 depicts the fluctuations in household debt as a percentage of income throughout the twentieth century. Household debt peaked at almost 60 percent of GDP in the early 1930s (the first period of financialization), a record that was not surpassed until the mid 1980s. Later on, the accumulation of secured debt progressed sharply and reached a peak at the origins of the subprime crisis, when mortgage borrowing collapsed along with real-estate prices. Interestingly, the level of household indebtedness comoves largely with inequality, another outcome of financialization.¹² From a demand viewpoint and in a context of stagnant real wages, this result might either be because households tend to preserve demand at stable levels (see Iacoviello 2008; Krueger and Perri 2006), or because low- and middle-class households get indebted to imitate the consumption norms of the upper classes¹³ (see Christen and Morgan 2005; van Treeck 2014). A similar conclusion is reached by Kapeller and Schütz (2014), according to whom the need of lower-income households to preserve

Source: Estimations based on Philippon (2015) and The World Top Income Database.

Figure 8 Household debt to GDP and income inequality for the US economy (1912–2012)

12. For a discussion on the links between financialization and inequality, see for example Lin and Tomaskovic-Devey (2013).

13. Nevertheless, it has been pointed out that the association between income inequality and household debt is not necessarily symmetric in the case of the twentieth-century US (Fasianos et al. 2017).

consumption at subsistence level induces their level of indebtedness. In this sense, income inequality ultimately leads to financial fragility.

It was the early 1900s that gave birth to what is known today as modern ‘consumer credit.’ As reported by Feretti (2008, p. 17), two innovations in consumer credit, identified during the 1920s, were the following: ‘a peculiar method for credit based on the instalment plan, where money is lent or a good is sold on the condition that the borrower or purchaser repays the loan with fixed payments to be made at regular times over a specified period’ and ‘an array of particular sources of credit other than the traditional historic pawnbrokers and/or illegal money lenders.’

The levels of household credit in the economy were also noteworthy in the early 1930s. As Calder (1999, p. 18) indicates:

American household finance was remade after 1915 [leading to] rising level[s] of consumer debt [P]ersonal debt increased at rates well ahead of the rate of population growth From 1920 to 1929, the volume of consumer debt soared upward 131 percent, from \$3.3 billion to \$7.6 billion outstanding. The Depression interrupted this rising curve, but by 1937 consumer debt reached its pre-Depression levels and continued rising upwards, until it was halted by credit controls during World War II.

However, in contrast to today’s consumer borrowing, debt was hardly used for consumption of non-essential things or goods of minimum value. Instead, it was primarily used for purchases of assets with increasing value or with productive purposes (Feretti 2008).

Possibly the most notable innovation boosting household credit is the promotion of risk management techniques. Asymmetric information (moral hazard and adverse selection) in the credit market reduces lenders’ ability to estimate the capacity of borrowers to service their debts. Indeed, the primary aim of risk management is to handle this risk of default (Langley 2008). As such, risk management allows for greater credit expansion with supposedly minimal risk to the resilience of the financial system.

Until the third period under examination, the risks involved in the process of collateralized and consumer borrowing were monitored primarily through relational and ‘face-to-face practices’ (Leyshon and Thrift 1999). Contemporary techniques in risk management (for example, credit reporting and scoring) removed the physical proximity hitherto required for managing such uncertainties (Guseva and Rona-Tas 2001; Marron 2007). A typical example of higher sophistication in the credit market is the launch of risk-based pricing, in other words, the tailoring of the loan’s price to a borrower’s probability of default, with the borrower’s probability being estimated upon their past credit records. Lastly, advancements in marketing techniques for advertising financial products increased the customer base of banks and other financial institutions (Bertrand et al. 2010).

Indeed, financial liberalization played a large role in unlocking the landscape so that financial innovations could come into play. A direct effect of financial liberalization was the large-scale removal of credit constraints for a big portion of households. The process of removing credit constraints was termed the ‘democratization of credit’ by former Federal Reserve Governor Lawrence Lindsey in 1997, as it reflects the increasingly wider access to credit by middle- and lower-income households. While the extent to which credit constraints are binding varies over time, across countries, and across financial institutions within each country, their presence has a considerable effect on the composition and magnitude of debt holdings on balance sheets of households (Kent et al. 2007).

4.4 Leverage structures and financial crises

Before taking a final step in the assessment of the financialization process, we examine a last condition for the aggregate economy, related to the leverage structures of banks and corporations. In particular, we follow the notion provided by the two most distinguished authors of the Old Institutional School, namely Veblen (1904) and Minsky (1986), who both highlighted the inner tendency of the macrofinancial system towards financial fragility, due to the imposition of increasing leverage, which renders the economic system prone to financial collapse (Argitis 2013).

Figures 9a and 9b present the leverage ratios of the non-financial corporations and the banking sector. It is evident that both sectors follow a similar pattern in terms of building leverage structures: enormous debt in the first period, equally massive deleveraging in the second, upwards tendency of leverage in the third that continues in the last period, reaching unprecedented levels and thus dramatically increasing financial fragility.

Figure 10 presents the frequency of financial crises between 1870 and 2012. Although it refers to financial crises on a global scale, the importance of the US financial sector in the global economy during the twentieth century is such that most of the important financial episodes were domestic. In particular, the most severe financial crises (those of 1906–1907, 1929, and 2007–2008) occurred in the US. No crises were reported in the third period under examination (1945–1973), as the liquidity levels were sufficient and the leverage was low. Indeed the low-leverage period, evident in Figures 9a and 9b, coincides with financial tranquility, and is located mainly in the Golden Age, thus providing evidence for Veblen's and Minsky's analyses. Nevertheless, in the period of early financialization and the period of re-financialization, banks and NFCs increased their leverage, and crises are much more frequent.

Note: We estimate the non-financial corporations' leverage ratio as NFCs' short- and long-term debt over capital stock, with all variables expressed in real terms.

Source: Estimations based on Schularick and Taylor (2012).

Figure 9a Leverage ratio of US non-financial corporations (1926–1996)

Note: To measure the leverage ratio of the US banking sector, we follow Schularick and Taylor (2012) using the ratio of bank loans over money. Bank loans are defined as the end-of-year amount of outstanding domestic currency lending by domestic banks to domestic households and non-financial corporations. Money is defined as broad money.

Source: Estimations based on Schularick and Taylor (2012).

Figure 9b Leverage ratio of the US banking sector (1900–2010)

Source: Estimations based on Bordo et al. (2001) and Schularick and Taylor (2012).

Figure 10 Frequency of global financial crises (1878–2012)

5 ASSESSING THE FINANCIALIZATION PROCESS IN THE US ECONOMY DURING THE TWENTIETH CENTURY

In this section, we evaluate the preceding analysis to formulate an argument in favor of or against the existence of financialization in the periods under consideration. Table 4 presents our findings. Each row denotes a characteristic of financialization and each column the corresponding period. Note that the bar in the cells indicates that the examination of data and characteristics could not provide conclusive results.

It is straightforward from the table that during the first period under consideration key features of financialization (such as the dominance of the financial sector over the economic activity, financial deregulation, shareholder value orientation, and household indebtedness with distributional effects) were already in place, thus justifying the notion of a period of early financialization. Economic policy orientation also appeared to stimulate the process of financialization, even though the results for monetary policy are only suggestive and not conclusive.

In the third period, the conditions are clearly reversed, with most features highlighting the ongoing process of de-financialization. The end of the Golden Age initiated a second wave of financialization in the final period under consideration, in a more concrete form, as is evidenced in the last column of Table 4.

6 CONCLUDING REMARKS

This paper explored the process of financialization throughout the last century and provided evidence of its deep roots at the beginning of the twentieth century. In order to carry out our analysis, we divided our sample period into four distinct phases: the first period ends with the initiation of the New Deal in 1933, the second covers the remainder of the 1930s until the outbreak of World War II, the third is the Golden Age (1945–1973), and the fourth refers to the neoliberal phase of capitalism, following the oil crisis of 1973 and the beginning of financial deregulation in the US.

Table 4 Evidence for financialization

	1st period (1900–33)	2nd period (1934–40)	3rd period (1945–73)	4th period (1974–2010)
Dominance of financial sector	Yes	No	No	Yes
Income share/size of the financial sector	Moderate high	Moderate low	Moderate low	High
Financial regulation	No	Yes	Yes	No
Shareholder value orientation	Yes	–	No	Yes
Intensity of financial innovation	Moderate	Moderate	High	High
Household indebtedness	Moderate high	Low	Moderate	High
Income inequality	High	Low	Low	High
Commitment to full employment	No	Yes	Yes	No
Low inflation targeting	–	–	No	Yes
Free capital mobility	Yes	No	No	Yes
Leverage structures/inclination to financial crises	High	Low	Low	High

The resemblance in the conditions between the first and the fourth period is remarkable. In spite of institutional and formal differences, the presence of primary indicators of financialization, as discussed in this paper, satisfy our main hypothesis, which is that the first period under consideration indeed constitutes an early form of financialization. The second period can be viewed as a transitional phase to de-financialization, which occurred in the third period under our consideration.

We have shown that the income share of the financial sector rises considerably in the first and the last period, while being significantly lower in the second and third periods. Therefore, it is not an exaggeration to conclude that the period starting from 1973 till the global financial crisis of 2008 could be termed as a period of 're-financialization,' considering the large resemblance to the 1920s in terms of the importance of finance in the economy.

Pressure on managers to attain short-term profits, contrary to the firms' long-run growth, was evident both at the beginning of the twentieth century and in the modern period. This condition has a severe impact on the financial stability of the economic system, since it reduces fixed capital formation or pushes the leverage ratios upwards, inducing financial fragility.

It seems also that financial innovations, which historically constitute a means for the financial system to avoid regulation and thus a significant feature of financialization, do not work in a vacuum. We showed that the rate of growth of financial patents and innovations grew at a steady pace throughout the twentieth century. Of the utmost importance, however, is whether the implemented regulatory framework allows financial intermediaries to apply new technologies in order to skirt regulation. In line with Minsky (1986), we suggest that the adoption of new technologies in finance ought to be backed by an institutional regulatory framework, and properly addressed by promoting regulation as a dynamic process. The empirical investigation of this relationship serves as a topic for further research.

There are also significant discrepancies in terms of economic policy between the four periods under examination. For example, the full employment goal was a key priority for policymakers in the second and third periods. Additionally, the dominance of the productive sector and the strengthening of unions are also key features of the third period of de-financialization. In advance, monetary policy conducted under a financialized regime, as is the case in the fourth period, emphasizes the interests of the financial sector, while neglecting those of the productive sector and the working class. In full contrast, monetary policy in the second and the third period aimed to support fiscal stimulus, and therefore enhanced aggregate demand.

Lastly, the first and especially the last period of financialization shows tremendous rises in the levels of household credit, while in the second and third periods the levels are moderate. Apart from the purely economic outcomes, such as households ending up indebted and financially fragile, this issue becomes critical when considered as an infringement on the cultural setting of the society, with households being bound to the interests of the financial sector. Further, more vast accumulation of household debt leads to financial booms and busts, such as the ones the US witnessed in 2007. Therefore, the need for regulation is evident in this domain as well.

This paper shows that financialization is not a modern facet of neoliberal capitalism, but a multi-dimensional process present throughout the twentieth century. Considering the large resemblances with the 1920s in terms of the importance of finance in the economy, it is not an exaggeration to conclude that the period running from 1973 until the global financial crisis of 2008 could be termed as a period of 're-financialization.' Economic history teaches us that the destabilizing consequences of the financialization process can only be moderated by appropriate policies and institutional changes, possibly similar to those implemented during the Golden Age of Capitalism.

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